Standing Committee of Officials of the

Ministerial Council on Energy

2006 Comprehensive Legislative Package

Regulatory Impact Statements on the Form of Regulation, Pricing Principles, Information Disclosure and Regulatory Decision-making

November 2006

Glossary

ACCC	Australian Competition and Consumer Commission
ACT	Australian Competition Tribunal
AEMA	Australian Energy Market Agreement - the intergovernmental agreement between the Commonwealth and all of the States and Territories first made in 2004 and amended in 2006
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
COAG	Council of Australian Governments
Expert Panel	Panel established by MCE in December 2005 to advise on a model to achieve a common approach to transmission and distribution revenue and network pricing across electricity and gas (Final Report delivered April 2006)
GPAL	Gas Pipelines Access Law – Schedules 1 and 2 to the *Gas Pipelines Access (South Australia) Act 1997*, including "Third party access to natural gas pipelines" (Schedule 1) and the National Third Party Access Code for Natural Gas Pipeline Systems (the Gas Code – Schedule 2)
MCE	Ministerial Council on Energy
NCC	National Competition Council
NEL	National Electricity Law, Schedule to the *National Electricity (South Australia) Act 1996*
NER	National Electricity Rules – Statutory Rules made under Part 7 of the NEL
NGL	National Gas Law, Schedule to the new *National Gas (South Australia) Act 2007*
NGR	National Gas Rules – Statutory Rules made under Chapter 7 of the NGL
NSP	Network Service Provider
SCO	Standing Committee of Officials reporting to MCE

Relevant MCE Publications

Energy Market Reform Bulletin No. 69 - Revised Timeline for 2006 Legislative Package
http://www.mce.gov.au/assets/documents/mceinternet/Bulletin6920060823084307%2Epdf

MCE Statement of Scope September 2006
http://www.mce.gov.au/assets/documents/mceinternet/Statement%5Fof%5FScopeJuly0620060731114609%2Epdf

MCE Statement of Approach – A New Legislative Framework for Gas, September 2005 (Statement of Approach)
http://www.mce.gov.au/index.cfm?event=object.showContent&objectID=51EB99E6-FE2A-8D19-FF72A7C97121A7AD

MCE "Response to Key Issues Raised in Submissions to the Statement of Approach to the Development of the New National Gas Laws and Rules"
http://www.mce.gov.au/index.cfm?event=object.showContent&objectID=409F0422-D257-A8DF-34E3098CCCE679B4

Productivity Commission Review of the Gas Access Regime, June 2004
http://www.pc.gov.au/inquiry/gas/finalreport/index.html

MCE Response to the Productivity Review of the Gas Access Regime, May 2006 (PC Response)
http://www.mce.gov.au/index.cfm?event=object.showContent&objectID=1657B707-AD38-B43A-5CE8B8C11AFBE8E2

MCE Decision on Review of Decision-Making in the Gas and Electricity Regulatory Frameworks, June 2006
http://www.mce.gov.au/index.cfm?event=object.showContent&objectID=839F2DC1-AE13-142E-8425FEF5F2E8C822

Final Report of the MCE Expert Panel on Energy Access Pricing, April 2006
http://www.mce.gov.au/index.cfm?event=object.showContent&objectID=B0F3AD4C-A1C6-28DB-CB9CC594D2B88090

MCE Arrangements for Consumer Advocacy in the Energy Sector, December 2005
http://www.mce.gov.au/index.cfm?event=object.showContent&objectID=2CB6A5A9-EDA6-E716-FD118AA822DD7665

Energy Market Reform Bulletin No 68 – Release of MCE Statement of Scope – A National Legislative Framework for Gas and Electricity
http://www.mce.gov.au/index.cfm?event=object.showContent&objectID=C1CF57E4-D8A3-3039-E47E5E40C3F58B8A

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Introduction to this Regulatory Impact Statement Package

Overview

This regulatory impact statement package considers the regulatory impacts of the legislative changes to the existing gas and electricity access regimes proposed by the Ministerial Council on Energy (MCE). The Australian Energy Market Agreement (AEMA) commits Australian governments to implement a series of reforms to deliver fairer and more effective access regimes for both gas and electricity, achieving commonality where appropriate and focusing on economically-efficient outcomes that are in the long-term interests of consumers.

This reform process will involve two key stages: the "2006 legislative package" with a primary focus on the economic regulation of network access, and the "2007 legislative package" focusing on non-price distribution and retail regulation.

The current stage of the reform program has seen the development of the 2006 legislative package to achieve the following objectives:

- Transfer the governance and institutional arrangements for the gas regime to the national framework, with the Australian Energy Regulator (AER) as the independent industry regulator and Australian Energy Market Commission (AEMC) as the rule-maker and market development body;
- Transfer of electricity distribution economic regulation to the national framework;
- Implement policy changes to the gas regime developed from the Productivity Commission's Review of the Gas Access Regime;
- Implement a common framework for revenue and network pricing building on the advice of an MCE-established Expert Panel;
- Implement an effective merits review mechanism for economic regulatory decisions in the gas and electricity regimes; and
- Strengthen consumer advocacy arrangements for both gas and electricity, including a long term funding model to facilitate consumer engagement with industry.

The MCE intends to achieve these goals within the framework of gas and electricity access regimes, which are intended to be certified under the Trade Practices Act 1974 and with the aim of implementing the revised legislative framework by 1July 2007.

Purpose of a Regulatory Impact Statement

It is mandatory for Australian Government departments, agencies, statutory authorities and boards to prepare a Regulatory Impact Statement (RIS) for all reviews of existing regulation, proposed new or amended regulation, quasi-regulation and proposed treaties involving regulation, which will directly or indirectly affect business, or restrict competition.

In April 1995, the Council of Australian Governments (COAG) endorsed a set of guidelines - which were amended in November 1997 and June 2004 - to promote good regulatory practice, including the use of RISs by Ministerial Councils and national standard-setting bodies. These principles and guidelines apply to agreements or decisions to be given effect through principal and delegated legislation, administrative directions or other measures which, when implemented, would encourage or force businesses or individuals to pursue their interests in ways they would not otherwise have done. In 2004 COAG made several changes to the principles and guidelines to ensure greater clarification about the operation of RISs involving Australia and New Zealand regulators.

The primary role of the RIS is to improve government decision-making processes by ensuring that all relevant information is presented to the decision maker when a decision is being made. In that context this RIS package aims to provide a consistent, systematic and transparent process for assessing alternative policy approaches to problems being addressed. It includes an assessment of the impacts of the proposed regulation, and alternatives, on different groups and the community as a whole.

Further information on RIS's are available from the Productivity Commission website www.pc.gov.au

RIS Package Components

This package comprises four stand-alone Regulatory Impact Statements designed to supplement industry consultation processes for both the new National Gas Law and amended National Electricity Law, and ultimately contribute to the final policy decisions made by the Ministerial Council on Energy (MCE) on these issues.

The four statements comprise

- ***The Form of Regulation for Gas and Electricity Networks*** – which addresses the approach taken by the MCE in determining the forms of regulation available to the Australian Energy Regulator (AER) in regulating electricity and gas network service providers.
- ***Pricing Principles*** – concerning development of a set of pricing principles that allow the AEMC (in developing the rules governing the economic regulation of networks) and the AER (in its regulatory determinations) to regulate in accordance with the rules.
- ***Information Disclosure*** – which examines the costs and benefits of the various options concerning the regulators powers to require production of information from gas pipeline owners and electricity networks.
- **Regulatory Decision-making Covering Regulated Network Entities** – concerning the discretion given to the Australian Energy Regulator (AER) when making revenue and pricing determinations for transmission and distribution networks/pipelines.

The Form of Regulation for Gas and Electricity Networks Regulatory Impact Statement

This draft Regulatory Impact Statement (RIS) addresses the approach taken by the Ministerial Council on Energy (MCE) in determining the forms of regulation available to the Australian Energy Regulator in regulating electricity and gas network service providers. Different "forms of regulation" affect the extent to which the regulator can determine terms and conditions of access to network services, and therefore are differentially onerous on network service providers.

This draft RIS will undergo consultation with industry as part of a broader consultation process for exposure drafts of the National Electricity Law and Rules, and the National Gas Law and Rules.

This RIS should be read in conjunction with the Regulatory Impact Statements on:

- **Information Disclosure** – which examines the costs and benefits of the various options concerning the regulators powers to require production of information from gas pipeline owners and electricity networks
- **Regulatory Decision-making Covering Regulated Network Entities** – concerning the discretion given to the Australian Energy Regulator (AER) when making revenue and pricing determinations for transmission and for distribution network/pipelines.
- **Pricing Principles** – concerning development of a set of pricing principles that allow the AEMC (in developing the rules governing the economic regulation of networks) and the AER (in its regulatory determinations) to regulate in accordance with the rules.

Background

Efficient and effective regulation of energy network services is critical to both the economic development of Australia and consumer protection. Energy networks, transporting electricity and gas, provide essential services to Australian households and businesses and have major economic and security implications for Australia's development.

Further, energy networks possess natural monopolies characteristics. This means that, due to economies of scale, scope, and significant sunk costs it is not cost effective or efficient to duplicate such significant network and pipeline infrastructure. The industry, therefore, generally has limited suppliers of network infrastructure servicing geographic regions or areas.

Australia currently has approximately 40 regulated network/pipeline businesses across the gas and electricity sectors (including both transmission and distribution). These businesses have annual turnover of around $7.3 billion in revenues for electricity (approximately $35 billion over a regulatory period) and $1.6 billion for gas (approximately $8 billion over a regulatory period). There are also a number of businesses which operate across the electricity and gas industry and within the transmission and distribution sectors.

The network/pipeline infrastructure across gas and electricity amounts to approximately $44 billion (that is the regulatory value of the network's asset base). In addition, the network segment of the gas and electricity industry is highly capital intensive in nature with approximately $20 billion in capital expenditure over a 5 year regulatory cycle and approximately $13 billion in operating and maintenance costs over a 5 year regulatory cycle. Overall, energy network charges consist of approximately 50-60% of final consumer energy prices. Therefore, regulating the revenue of natural monopoly network businesses has substantial economic impacts.

Revenue determinations within the existing gas and electricity access regimes take place every five years. These determinations are resource intensive requiring significant staff costs and expert advice for both service providers and regulators. Regulatory costs of obtaining approval of an application, according to an Envestra submission to the Productivity Commission in 2004, could range in its experience from $0.25-$2m, depending on the size of the network[1]. These regulatory costs are significant but remain less than 1% of total revenue across the industry. More importantly, as most energy network investments have a payback period of 20-50 years, regulatory uncertainty can lead to reduced investment in critical infrastructure. A clear regulatory regime based on sound economic principles is required to both enhance business certainty and protect consumer interests.

Recognising this, governments around Australia established a National Competition Policy agenda in the early 1990s that included significant reforms to the energy industry to enhance economic growth and productivity. As part of this process, various Australian jurisdictions committed to establish cooperative legislative regimes for regulating access to electricity and gas networks. Access regimes were legislatively established by the *National Electricity (South Australia) Act 1996* (for electricity) and the *Gas Pipelines Access (South Australia) Act 1997* (for gas).

Over time, the initial access regimes for electricity and gas have diverged in many respects, including institutional and governance arrangements, forms of regulation applied to network service providers, and the revenue and pricing principles used by regulators. Further, differences have emerged between transmission and distribution, particularly within the electricity regime. This divergence has implications for business certainty, the economic costs of regulation, and the efficiency and effectiveness of regulatory determinations. As indicated above, the costs of imposing regulation, where done appropriately and based on sound economic principles, are substantially out-weighed by the benefits of this regulation, particularly where network service providers possess monopoly power.

In June 2001, the Council of Australian Governments (COAG) commissioned a review examining new opportunities for reform of energy markets in Australia. In November 2002, COAG received for consideration a comprehensive Energy Market Review, which recommended further energy reforms, including of governance and regulatory arrangements. More targeted reviews followed the Energy Market Review, including the Productivity Commission (PC) *Review of the Gas Access Regime* and a Ministerial Council on Energy (MCE) appointed Expert Panel on Energy Access Pricing, which advised on a model to achieve a common approach to revenue pricing for electricity and gas transmission and distribution networks.

Based on these reviews, MCE is now developing a new National Gas Law (NGL) and National Gas Rules (NGR) to enhance certainty and effectiveness for the regulation of access to gas pipelines. Similarly, the MCE is amending the National Electricity Law

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[1] Productivity Commission Inquiry Report No. 31, 11 June 2004 *Review of the Gas Access Regime* p145.

(NEL) and creating a national framework for the economic regulation of distribution through the National Electricity Rules (NER).

This Regulatory Impact Statement (RIS) and other related RIS are designed to supplement industry consultation processes for both the new NGL and amended NEL, and ultimately contribute to the final policy decisions made by the MCE on these issues.

Problem

There are generally three problems with the current regulatory framework.

Firstly, there is a lack of diversity in the forms of regulation available to regulate access to gas pipelines. Only two forms of regulation are available in the current gas access regime:

- direct price or revenue control (the control form of regulation); and
- no regulation.

These two forms of regulation are appropriate where network service providers possess either substantial or very low market power respectively, but are not appropriate for intermediate circumstances where service providers are exposed to some competition. This has created the potential for regulators to apply forms of regulation that are not commensurate with the extent of market power exercised by a particular gas network service provider.

Having only two forms of regulation available in the current gas regime can cause sub-optimal outcomes in two ways. The control form of regulation may be adopted in situations where the degree of market power warrants a lighter handed form of regulation, or conversely a pipeline may be unregulated where adopting a light-handed form of regulation would have delivered a better economic outcome.

The Productivity Commission Review of the Gas Access Regime found that the current gas regulatory regime imposes substantial costs, creates a high potential for regulatory error, and may distort or deter pipeline investment.

Secondly, there is a lack of regulatory consistency across electricity and gas, with differing forms of regulation available within each of these industries. The existing electricity regime broadly consists of three forms of regulation: direct price control, negotiate/arbitrate, and no regulation; whereas the gas regime only offers the direct price control and no regulation forms of regulation. This can hinder competition and distort investment decisions between the gas and electricity as alternative energy sources.

Thirdly, there is a lack of clear guidance on how the available forms of regulation will be applied in the current National Electricity Law (NEL) and the National Electricity Rules (NER). The application of existing forms of regulation in the NEL and NER can potentially be clarified, without introducing new forms of regulation for electricity, to improve regulatory certainty, reduce costs for the regulator, and reduce the potential for investments to be distorted between sectors or deterred altogether.

From a community perspective any cost incurred by industry in the form of regulatory uncertainly, compliance costs, distorted or deterred investment will be passed onto end consumers. As noted as network charges are 50-60% of final energy costs, the impact on end consumer is significant.

Objective

The objective is to reduce the cost of regulation while maintaining its effectiveness, thereby achieving an improvement in economic efficiency within the electricity and gas markets for the benefit of the community as a whole.

In achieving this, it is important to ensure that the regulatory framework developed contributes toward achieving the objective in the NEL/NGL i.e. to promote efficient investment in, and efficient use of electricity and gas services for the long term interests of consumers.

Where regulation is applied, its form, scale and costs should be commensurate with the degree of market power present to ensure an economically efficient outcome. Consistency and harmonisation between the electricity and gas access regimes, to the extent it is appropriate given the inherent differences in the two industries, will also ensure that investment in the energy sector is efficient and not distorted by differing regulatory regimes.

Options

	Option 1	Option 2	Option 3
Option	**Status Quo**	**Adopt the Expert Panel Report recommendations - introduce four common forms of regulation across electricity and gas**	**Adopt the Expert Panel Report recommendations – but without price monitoring**
Relevant instruments	- National Electricity Law - Gas Pipelines Access Law - Gas Code		- National Electricity Law (amended) - National Gas Law
Regulators	Current arrangement include: - AER (electricity transmission) - ACCC (some gas transmission pipelines and on request from jurisdictional regulators) - Jurisdictional Regulators (electricity distribution, and gas transmission and distribution) However, it should be noted that CoAG has agreed to transfer these function to a single energy regulator - AER	AER	AER
Forms of regulation available	Divergent forms of regulation *Electricity Transmission* - control - negotiate/arbitrate - light or no regulation *Electricity Distribution* - control - "lighter" form of regulation to be determined by jurisdictional regulator - no regulation		Three common forms of regulation *Electricity and gas (transmission and distribution)* - control - negotiate/arbitrate - no regulation

	Gas Transmission and Distribution - control - no regulation		
Criteria to determine of form of regulation		Common criteria (the form of regulation factors)	Common criteria (the form of regulation factors)
Process to determine form of regulation	Divergent processes and decisions makers between electricity transmission, electricity distribution, and gas (both transmission and distribution)		Greater consistency and clarity in the application of criteria and treatment of services. Increased commonality in decision makers.

Impact Analysis

Option 1: Status quo

Maintaining the status quo would continue:

- differences in the forms of regulation available in gas and electricity regulatory regimes;
- differences in the criteria governing the form of regulation; and
- the present unclear process by which the form of regulation to apply is determined.

The forms of regulation available within the existing electricity and gas regulatory regimes are outlined below.

Form of regulation framework

Electricity

There are broadly three forms of regulation available within the current electricity regime established by the NEL and NER. These are:

Direct price or revenue control (control);
Negotiate/arbitrate; and
No regulation.

Control - The control form of regulation is currently applied to "prescribed transmission services" and "prescribed distribution services". This involves setting a revenue cap (sets a maximum allowed revenue that can be earned by the service provider over a set period) or a price cap (sets the maximum price that a network provider can charge over a set period). These caps are usually calculated using a building block approach (i.e. calculating the efficient costs of a service provider over a period of time and then allowing the recovery of those costs, including a return on capital).

This form of regulation is most appropriate for network services where the service provider possesses a substantial degree of market power, and access seekers have very limited power to negotiate charges, terms and conditions of access.

Negotiate/Arbitrate

For electricity transmission, "excluded non-contestable services" are not regulated under a revenue cap, but prices and conditions of supply are determined through negotiation, subject to the availability of a dispute arbitration process. This form of regulation is known as "negotiate/arbitrate".

In the case of electricity distribution, section 6.10.4 (b) of the current National Electricity Rules provide that "excluded distribution services" may be subject to a regulatory approach which is more "light-handed"' than a revenue cap. The form of regulation in these cases can be determined by the relevant jurisdictional regulator, but in practice could involve a negotiate/arbitrate approach or no regulation at all (see below).

This form of regulation is appropriate for network services where the service provider possesses market power but is exposed to some competition and access seekers possess a comparable level of countervailing power. Under such circumstances, access seekers have some power to negotiate charges, terms and conditions of access.

No Regulation

For electricity transmission, "contestable services" may be subject to a less intrusive form of regulation at the discretion of the regulator or not regulated at all.

Similarly, "excluded distribution services" may be subject to a more "light-handed" regulatory approach, or not regulated at all (see above).

This form of regulation is appropriate for network services where the service provider is exposed to significant competition, or where access seekers possess a substantial degree of countervailing power. Under such circumstances, access seekers can reasonably negotiate charges, terms and conditions of access without regulatory intervention.

Gas

There are, in effect, only two forms of regulation available to regulators to apply under the current gas access regime (the Gas Pipelines Access Law, and National Third Party Access Code for Access to Natural Gas Pipelines). These are:

- Control; and
- No regulation.

Within the existing gas regulatory framework, the National Competition Council (NCC) conducts a formal process to determine whether a gas pipeline should be covered, i.e. subject to regulation. Covered pipelines are essentially subject to a price control form of regulation, with a minor caveat, as outlined below.

Covered pipelines must submit an access arrangement to the relevant regulator. Access arrangements must include reference tariffs for services that are likely to be sought by a significant part of the market. These services are then regulated according to price controls to achieve an overall regulated revenue outcome.

When a pipeline is subject to an access arrangement, prospective users are free to seek access on terms and conditions other than those prescribed in the access arrangement, and pay tariffs other than the determined reference tariffs. However, where agreement cannot be reached between the service provider and the access seeker, binding arbitration is available by the relevant regulator. Where reference tariffs are determined in an access arrangement, the regulator must determine the conditions of access to be those in the access arrangement in this case, making this form of regulation essentially equivalent to a price control.

However, the current framework does provide the regulator with discretion in any access dispute to refuse to make an access arrangement determination, if, among other things, it considers that there is substantial competition in the relevant market. Therefore, a no regulation form of regulation can be applied at the discretion of the regulator. However, given the pipeline in question was determined to be a covered pipeline, it is unlikely that the regulator would consider the required level of competition to exist for this to occur.

Clearly, uncovered pipelines (i.e. pipelines that are not determined to be covered by the relevant Minister on the recommendation of the National Competition Council) are not subject to regulation.

Therefore, in practice, the current gas access regime essentially provides for two forms of regulation: control, and no regulation. No lighter form of regulation is available for covered pipelines.

Criteria used to determine the form of regulation to apply

Not only are the forms of regulation different between electricity transmission, electricity distribution, and gas transmission and distribution, but the criteria used to determine the form of regulation to apply also vary. These criteria are described below.

Although all the criteria rely heavily on competition based assessments, the three sectors diverge in both scope and application.

Electricity Transmission	**Electricity Distribution**	**Gas (Transmission and Distribution)**
NER 6.2.3(c) Determine whether "sufficient competition exists to warrant the application of a regulatory approach which is more "light-handed" than revenue capping", with regard to: • cost effectiveness and efficiency; • the need to ensure fair and reasonable returns to service providers for efficient investments; • risk; • pre-existing Government policies; • competition in upstream and downstream markets; • regulatory accountability, certainty and consistency; • the possibility of other technical solutions (such as generation and demand side management) to substitute for transmission services;	NER 6.10.4 Determine whether the distribution service should be deemed to be a "prescribed distribution service" (and therefore subject to economic regulation) by having regard to four competition related factors: • the principles for regulation of prices that are applied to prescribed distributions services; • the extent of effective competition in the supply of the particular distribution service; • whether competition is sufficient to warrant a "light-handed" form of regulation; and • the form and effectiveness of a light-handed form or regulation.	NCC makes a recommendation to the relevant Minister A pipeline should be covered (control form of regulation) if the four factors below are all satisfied: • that access (or increased access) to services provided by means of the pipeline would promote competition in at least one market other than the market for the services provided by the pipeline itself; • that it would be uneconomic for anyone to develop another pipeline to provide the services provide by means of the pipeline; • that access (or increased access) to the services provided by means of the pipeline can be provided without undue risk to human health or safety; and • that access (or increased access) to the services

• other factors.	provided by means of the pipeline would not be contrary to the public interest.

Process used to determine the form of regulation to apply

The process by which the form of regulation to apply to electricity transmission and distribution network service providers is not prescribed in detail in the current National Electricity Rules.

Regulators are simply required to determine what category of service (prescribed or otherwise) a service provider should fall into according to the criteria outlined above. The process regulators follow in making such determinations is not outlined in detail, and regulators are afforded substantial discretion in determining the form of regulation. The processes vary between transmission and distribution, and are outlined in the table below.

In contrast to the electricity regime, the gas access regime outlines a quite specific process by which the relevant Minister, acting on the advice of the NCC, must determine whether or not to cover a pipeline, and therefore apply the control form of regulation. This process is outlined below.

Electricity Transmission	**Electricity Distribution**	**Gas (Transmission and Distribution)**
1) The AER determines whether level of competition for a service is sufficient to warrant a form of regulation that is more "light handed" than revenue capping (with regard to the factors at 6.2.2). 2) If the level of competition does warrant light handed regulation, the AER determines form of that regulation. 3) If not, the service is a prescribed transmission service, and the AER applies a revenue cap.	1) The Jurisdictional Regulator determines whether a service is a prescribed distribution service through regard to the criteria in 6.10.4. 2) If it is a prescribed distribution service, the Jurisdictional Regulator applies a revenue cap. 3) If not a prescribed distribution service, the service is an excluded distribution service and subjected to a more "light-handed" form of regulation. 4) The Jurisdictional Regulation must then determine the form of regulation to apply.	1) An application for coverage may be made by any person to NCC. 2) The NCC may reject trivial or vexatious applications. 3) The NCC requests submissions on the application. 4) The NCC makes a draft recommendation. 5) The NCC considers any submissions provided. 6) The NCC makes a final recommendation to the relevant Minister. 7) The Minister makes a coverage decision.

Benefits and Costs

Benefits	
No Transition Costs	• A continuation of the current regulatory framework for gas and electricity would avoid any changes and disruptions to the existing legislative, regulatory and commercial arrangements developed under this framework. No transitional costs would be incurred by various parties, including regulators, service providers, and access seekers, if the current framework is maintained.
Costs	

	• Maintaining the status quo incurs economic costs in the form of efficiency benefits foregone. The currently available forms of regulation in the gas regime can create situations where an appropriate form of regulation is not applied, based on the level of market power that the service provider may possess. • This can occur in two ways. Some gas pipelines may be subject to control regulation where the level of market power possessed by the service provider does not justify this form of regulation. Conversely, a pipeline that may warrant some regulation may be left unregulated because the high costs of control regulation do not outweigh the benefits. In both of these situations, employing a more light-handed form of regulation may provide efficiency benefits. These benefits are foregone through maintaining the status quo.
	• The forms of regulation available to regulators within the current gas and electricity regimes are not consistent. Maintaining the status quo would involve maintaining differences in the approaches taken to regulating electricity and gas, resulting in reduced clarity and certainty for all parties, and potentially distorting investment between the two industries. Divergent regulatory regimes may also impose additional and unnecessary costs on users and network owners who operate across in industries.
Regulatory uncertainty	• The current electricity regime provides service providers and access seekers with limited guidance and clarity on the forms of regulation available to regulators to apply, and on the process by which regulators determine which form of regulation should apply. Whilst the diversity of forms of regulation in electricity provides regulators with flexibility to tailor their regulatory approach to the degree of market power possessed by a particular service provider, the current regime creates uncertainty that may affect investment by service providers.

Impact on stakeholders

Major stakeholders that are likely to be affected by the following options include: electricity and gas network owners, upstream and downstream energy participants (including retailers and major end users that contract directly with network owners), consumers, and regulators. The particular impact of each option on each of these stakeholder groups is outlined in the discussion of each option.

Network owners	• Network owners will benefit from the absence of transitional costs under this Option. However, the maintenance of the status quo will disadvantage network owners by continuing the possibility of economically inefficient regulation (particularly in for gas network owners), regulator uncertainty and (for those network owners operating across both gas and electricity) increased consistency between the two regimes.
Upstream and downstream participants	• Upstream and downstream participants are particularly disadvantaged by the current gas access regime, where economically inefficient forms of regulation can result in difficulties in gaining access to pipelines. Upstream and downstream participants are also disadvantaged by inconsistency in the regulatory regimes between sectors, such that the complexity of gaining access to both gas and electricity services is increased. • Upstream and downstream participants would benefit from the absence of transitional costs under this option.
Consumers	• Consumers are not directly benefited by the absence of transitional costs under Option 1. Further, the costs created by economically inefficient regulatory outcomes, regulatory uncertainty and inconsistency across sectors are passed onto end consumers, resulting in a higher average end cost of energy under this Option than is necessary.
Regulators	• Regulators are benefited directly by the absence of transitional costs under this option, but are directly affected by the lack of diversity in the available forms of regulation in the gas regime. This requires regulators to choose between over-regulating or under-regulating pipelines under certain market conditions, producing economically inefficient outcomes. A lack of clarity and certainty in the process to follow when determining the form of

regulation to apply in the electricity sector creates complexity and costs for regulators, as does the inconsistency in regulatory forms and processes between the gas and electricity sectors.

Option 2: Introduce Four Common Forms of Regulation across Electricity and Gas (Expert Panel Report Recommendations)

In promoting economic efficiency within the energy market, the States and Territories and the Commonwealth, through the Australian Energy Market Agreement, have confirmed their commitment to a national approach to energy access whereby, to the extent feasible and where effective regulation is not impeded, there should be consistency and harmonisation between electricity and gas access regimes such that investment in, and use of, energy is not distorted by differing regulatory regimes.

This option proposes the adoption of the Expert Panel recommendations on the forms of regulation to apply in the context of the electricity and gas framework. In particular, harmonisation and consistency across electricity and gas, where appropriate, is proposed in the following areas:

- The available forms of regulation
- The decision making criteria used to determine the form of regulation
- The decision making process used to determine the form of regulation

In its final report, the Expert Panel recommended that the NEL and the NGL would contain common provisions that require the Australian Energy Market Commission (AEMC) to make Rules for the regulation of access pricing for transmission and distribution facilitates by any one or a combination of measures.

Form of regulation framework

The Expert Panel recommended that national electricity and gas regimes adopt three forms of regulation in common. These forms of regulation are:

- *Control* – this would involve the regulator directly controlling a service provider's revenue or prices for a service through a network pricing determination.

- *Negotiate/arbitrate* – this would generally involve a two stage process:
    - 1) seekers of a service and service providers are encouraged to negotiate commercial agreements on price and related terms and conditions for the service in the majority of transactions; and
    - 2) should commercial negotiations fail, seekers of the service may choose to resolve the dispute through private arbitration and/or seek a binding arbitration determination from the regulator.

- *Price monitoring* – the monitoring of prices charged by network service providers for to improve transparency and reduce information asymmetry, therefore assisting access seekers to effectively negotiate access.

The Expert Panel recommended that these three forms of regulation apply only to "regulated transmission service operators", and therefore that "market network services providers" would be unregulated. Clearly, this indicates that a fourth form of regulation exists in this framework – no regulation. Similarly in electricity distribution, and in gas transmission and distribution, service providers considered by the regulator to face competition may be left unregulated.

The net effect of this option is to introduce a price monitoring option into both the electricity and gas regulatory regimes, and to bring the two regimes into line by introducing the negotiate/arbitrate form of regulation into the gas regime.

Criteria used to determine the form of regulation

As an improvement to the status quo, the Expert Panel recommended that the electricity and gas regimes contain common provisions that require the form of regulation to be determined with regard to the presence and extent of market power, and the likelihood of its misuse, by a service provider. Rules that determine the form of regulation to apply should address:

- Barriers to entry into the market;
- Network externalities, or interdependencies between competing network services;
- Countervailing market power (i.e. market power possessed by users of network services);
- Substitution possibilities (including demand elasticity);
- Information asymmetry; and
- Any other factors considered relevant.

Process used to determine the form of regulation

The criteria outlined above constitute a "market power test" that can be applied when determining the form of regulation to apply to a network service provider. The market power test criteria would be prescribed in the NEL and NGL, so that they are not subject to amendment through a Rule change process.

This option applies the recommendations of the Expert Panel such that the NEL and NGL direct the AEMC to have regard to the market power test when making Rules about the form of regulation to be applied in each instance.

The Expert Panel also recommended that Rules made by the AEMC may specify the form of regulation to apply to particular categories of service according to the market power inherent in each category of service, or allow the form of regulation to be made on a case by case basis.

This option adopts the recommendations of the Expert Panel in this regard, such that the process for determining the form of regulation to apply does not simply involve an application of the market power to each network service provider on a case by case basis, but may involve the categorisation of services to determine the appropriate form of regulation to apply. This approach may see divergence between the gas and electricity sectors with respect the process for determining the form of regulation to apply.

Achieving consistency in the available forms of regulation across the gas and electricity regime is the over-riding priority in considering the form of regulation framework. Achieving clarity in the process for determining the form of regulation to apply is secondary, whilst achieving consistency in the process for determining the form of regulation across the gas and electricity regimes is not a stated aim of the reform process.

In the gas sector, for both transmission and distribution pipelines, capacity rights can be allocated and contracted according to usage. Therefore market power varies according to the competition faced by particular pipeline owners, rather than according to the specific role of a pipeline within the gas network. Accordingly, the form of regulation for gas pipelines can be determined on a case by case basis according to an analysis of the pipeline's market power, with reference to the national gas objective and other matters as considered necessary.

By contrast, the Expert Panel argued that the market power inherent in particular categories of network services in electricity transmission and distribution are unlikely to change significantly in the short or medium term. Therefore, the determination of the market power of, and the form of regulation to apply to, electricity network service providers can, where appropriate, be handled through categorisation of services and attributing an appropriate form of regulation for each.

The Expert Panel also argued that the change in the market power of these categories of service is sufficiently slow that this process can be handled through the Rule change process, with the added proviso that the Rules can provide for individual services to have their form of regulation determined on a case by case basis as necessary. Determining the form of regulation to apply to an electricity network service provider in this manner can improve consistency and clarity of regulation across the sector.

Benefits and Costs

Benefits	
Economic efficiency	• Introducing the lower cost and more flexible negotiate/arbitrate form of regulation into the gas regime improves the likelihood that, where regulation is applied, it is applied efficiently. This requires regulation to be applied such that its form, scale and cost are appropriate to the degree of market power present, and thereby achieves an improvement in economic efficiency within the gas market. • This option is consistent with the Expert Panel's recommendation to ensure that more costly forms of regulation are only adopted where there is the potential for significant inefficiencies to arise from the exploitation of market power.
Common forms of regulation across sectors	• Inserting a negotiate/arbitrate form of regulation into the gas regime, and retaining this form of regulation within the electricity regime will achieve consistency between the two regimes. This consistency can reduce the potential for investments to be distorted between the electricity and gas sectors due to different regulatory regimes, improve regulatory certainty and reduce costs for the regulator.
Lower regulatory and administrative costs	• Where a light-handed form of regulation is applied, service providers and regulators are likely to benefit by avoiding the cost involved in establishing an access arrangement or regulatory determinations. This will result in a reduction in administrative costs and regulatory costs to the market more broadly. Further, given the prospect of binding arbitrations and the costs and uncertainty associated with the process, it is likely that parties will be encouraged to negotiate in good faith and employ best endeavours to reach commercially negotiated outcomes in the first instance.
Price transparency	• As noted by the Expert Panel, introducing a price-monitoring form of regulation uses information transparency, accompanied by the threat of more intrusive regulation, to facilitate more informed and effective negotiations by access seekers in a competitive environment. The PC noted that, for this reason, the inclusion of a formal price monitoring option enables, in certain circumstances, the benefits of the existing regime to be achieved, but at a lower cost to the economy.
Enhanced regulatory certainty	• Implementing a common market power test to underpin the determination of the form or regulation to apply to network service providers, or categories of network services, across both the electricity and gas sectors should lower the complexity of regulation facing investors and enhance regulatory certainty. This in turn should lower cost for industry, improve investment incentives and reduce the likelihood of investment being distorted between electricity and gas. • Where appropriate, determining the form of regulation to apply to electricity network services through reference to clearly defined categories of service,

	rather than on a case by case basis according to the market power of a particular service provider, should enhance regulatory certainty and consistency. This should in turn lower costs for industry and increase investment in the electricity sector.
Consistency with AEMA	• This option is consistent with the Australian Energy Market Agreement (AEMA) objective of streamlining and improving the "quality of economic regulation across energy markets to lower the cost and complexity of regulation facing investors, enhance regulatory certainty, and lower barriers to competition".
Costs	
Transitional costs	• With the addition of a new regulatory option in the electricity regime, and two new regulatory options in the gas regime, and the development of a revised regulatory framework, industry participants and regulators will incur transitional costs. There may be a transitional period in which there is some uncertainty as regulatory bodies come to interpret and apply the amended regulatory framework.
Regulatory complexity	• The addition of regulatory options as above will introduce additional processes, with increased complexity and cost in making regulatory decisions. This may increase the time and associated costs involved in receiving a regulatory determination for industry participants.
Negotiating costs	• Where a light-handed form of regulation is adopted, upstream producers and users may incur additional costs and a greater degree of uncertainty in negotiating contracts with service providers.
Process divergence across sectors	• This option may see divergence emerge in the process by which the form of regulation to apply is determined between the electricity and gas regimes. This may increase regulatory uncertainty and costs for network service providers operating across both sectors, but the effect is likely to be minimal.

Impact on stakeholders

Network owners	• Providing more light-handed regulatory options, especially within the gas regime, can reduce regulatory compliance costs for businesses, particularly in preparing and seeking approval of regulatory determinations. A negotiate/arbitrate regulatory option provides incentives for network service providers to negotiate with access seekers to achieve satisfactory commercial outcomes. These benefits should lower costs for gas network service providers in particular, encouraging investment and improving the availability of network services. • Applying four common forms of regulation across the energy sector should assist network service providers who operate across the gas and electricity sectors, by improving business understanding of the regulatory environment, and lowering costs in complying with the two regulatory regimes. • Introducing a market power test provides network owners with more clarity and guidance on how the various forms of regulation available to regulators will be applied. • Assessing market power by classifying services according to their market and technical characteristics, where appropriate, should increase certainty and reduce complexity for network owners. In some sectors, such as in gas, it may still be more appropriate to assess market power on a case by case basis. • Some divergence in the process determining the form of regulation to apply between the electricity and gas regimes may increase regulatory uncertainty and costs for network service providers operating across both sectors, but the effect is likely to be minimal. • The revised regulatory regime may incur transitional costs on network owners as they come to understand and interpret the amended regulatory framework. In addition, under a negotiate/arbitrate regulatory framework, additional costs may be incurred in negotiating contracts with market participants. • A monitoring regime may introduce regulatory costs on pipelines that are

	currently uncovered without any demonstrated market benefit.
Upstream and downstream participants	• Introducing light-handed forms of regulation into the gas regime in particular could result in previously uncovered pipelines being subject to a negotiate/arbitrate or monitoring form of regulation. Costs of regulation are part of the public benefits test for coverage. Therefore, currently some small pipelines remain uncovered because while light hand regulation could be appropriate, control regulation is prohibitively costly. Negotiate/arbitrate or monitoring on these pipelines could increase certainty for both upstream and downstream participants, and assist them to negotiate efficient commercial outcomes. • Conversely, where control regulation is replaced with a more light-handed form of regulation, market participants may incur additional costs and uncertainty in negotiating contracts with service providers. This uncertainty may impact investment and the operation of participants in the upstream markets. • Improving regulatory certainty and reducing costs for network service providers, leading to increased network investment, will create a more secure energy market, allowing upstream producers to supply, and downstream participants to access, energy in the longer term. • The revised regulatory regime may incur transitional costs on upstream and downstream participants as they come to understand and interpret the amended regulatory framework.
Consumers	• Providing appropriate forms of regulation that can be applied according to the market power of a network service provider should ensure that, where possible, economically efficient arrangements to supply energy to end users can be achieved through commercial negotiations. This should lead to a more reliable and secure energy market, with lower prices, for consumers in the longer term. • Improving regulatory certainty and reducing costs for network service providers, leading to increased network investment should lead to more reliable and secure energy market, with lower prices, for energy users and consumers in the longer term. • Potentially, where a more light-handed form of regulation is adopted, retailers may incur additional costs and uncertainty in negotiating contracts with service providers, which could result in an increase in the average cost of energy faced by consumers. However, this circumstance would only arise under a specific set of conditions, and is outweighed by overall benefits to the consumer.
Regulator	• In the present gas regime, regulators can face the difficulty of choosing whether to over-regulate a pipeline through applying the control form of regulation where its market power may not warrant this, or alternatively under-regulate the pipeline by leaving it unregulated. This option reduces this potential for over or under regulation. Further, the implementation of a light-handed form of regulation may reduce the administrative costs associated with establishing an access arrangement/regulatory determination. • Achieving greater consistency between the gas and electricity regimes will improve certainty and reduce costs for regulators, as the interpretation of common provisions and principles across the two sectors will create greater knowledge and legal certainty. • Providing an appropriate level of clear guidance in the legislation and the Rules on the available forms of regulation and the criteria for the application of those forms of regulation will provide more clarity to the regulator and certainty to market participants in the regulator's implementation and interpretation of the provisions. • Assessing market power by classifying services according to their market and technical characteristics, where appropriate, will reduce the complexity of the regulators task in many instances. However, the potential for divergence in the process determining the form of regulation to apply between the electricity and gas regimes may increase regulatory complexity and costs, but the effect is likely to be minimal. • The revised regulatory regime may incur transitional costs on the regulator as they come to implement and interpret the amended regulatory framework.

Option 3 – Adopt the Expert Panel Report Recommendations (But Without the Price Monitoring Lighter Handed Form of Regulation)

Form of regulation framework

The Expert Panel recommended that three forms of regulation be adopted, which, when combined with the possibility of leaving services subject to competition unregulated, provides the regulator with four forms of regulation to apply (control, negotiate/arbitrate, price monitoring, and no regulation).

The Expert Panel noted, however, that in the absence of a requirement for negotiation and enforceable arbitration, a service subject only to the price monitoring form of regulation would be unlikely to be capable of certification as an effective access regime under the *Trade Practices Act 1974*. Such services would then be open for declaration under the TPA, which was not an outcome sought in establishing the new energy regulatory regimes.

A price monitoring form of regulation, then, cannot substitute for a negotiate/arbitrate form of regulation, but can only supplement it. Further, the negotiate/arbitrate form of regulation can take on price monitoring features, either robustly with information gathering powers in legislation, or in a less intrusive manner using publicly available information.

The choice about whether to retain a price monitoring form of regulation as a stand alone form of regulation requires two key factors to be weighed up:

- Whether the price transparency benefits of price monitoring can be achieved by incorporating price monitoring features in the negotiate/arbitrate form of regulation; and
- The extent to which direct compliance costs, and indirect costs in terms of regulatory uncertainty, are imposed by retaining a stand alone price monitoring form of regulation.

The price transparency benefits of price monitoring rely upon information gathering powers. Within any negotiate/arbitrate regime, a regulator will have statutory information gathering powers in relation to network service providers (NSPs) subject to this form of regulation. These powers will not apply to unregulated NSPs, but the regulator will still have the capacity to produce and publish service provider reports for these NSPs using publicly available information.

Therefore, the price transparency benefits of a price monitoring regime are available as required with regard to NSPs subject to the negotiate/arbitrate form of regulation. As noted by the Expert Panel, there are likely to be benefits in "combining the application of a negotiate/arbitrate regime with price monitoring, so as to better inform the negotiation process".

The question remains as to whether it is appropriate to create a stand alone price monitoring form of regulation, and thereby a separate category of regulated NSPs that are subject only to price monitoring ("monitored NSPs"). Such a regime would be no different in effect from a no regulation form of regulation unless specific ongoing reporting requirements are legislated for monitored NSPs, which in turn would impose compliance costs (see below).

A stand alone price monitoring form of regulation must include statutory information gathering powers. Assuming this, such a regime could be structured in two ways:

- The period of time for which monitored NSPs are subject to price monitoring is fixed, i.e. there is some certainty that they will be monitored for a fixed period, and following that period their status as a monitored NSP can be reviewed; or
- The regulatory status of a monitored NSP can be reviewed at any time, i.e. more intrusive regulation can be imposed at any time.

The first option above benefits the monitored NSP through giving certainty of their regulatory status for a fixed period, but in fact removes the "threat of more direct regulation should market power be misused", which was noted by the Expert Panel as a key element of any price monitoring or negotiate/arbitrate form of regulation. Therefore, a price monitoring regime of this form would be likely to lessen, rather than increase, negotiating power for access seekers. This option can therefore be ruled out.

Alternatively, in the second option above, a monitored NSP would be subject an application to change is regulatory status at any time, such that it may become subject to negotiate/arbitrate or control regulation.

An access seeker would logically prefer that a NSP be monitored rather than unregulated, so that it can access information provided by the regulator using legislated information gathering powers. Naturally, the monitored NSP would prefer to be unregulated, to avoid the compliance costs involved, and the costs involved in the process of becoming determined to be a monitored NSP.

However, access seekers would experience a greater benefit were the monitored NSP to be subject to binding negotiation in the event of an access dispute. As a monitored NSP's status can be changed at any time, the natural outcome of an access dispute emerging would be the disgruntled access seeker applying to change the form of regulation of the monitored NSP to a negotiate/arbitrate regime. In other words, the benefit accrues to the access seeker through the negotiate/arbitrate element of the regime, not through the price monitoring element. From the perspective of the regulated NSP, the existence of a stand alone price monitoring form of regulation simply adds to the number of processes involved in firstly determining its regulatory status, and secondly resolving any access dispute that may arise.

In summary, a stand alone price monitoring regime achieves no benefits for access seekers that are not present under a negotiate/arbitrate regime that includes statutory information gathering powers. Further, a stand alone price monitoring regime incurs costs for monitored NSPs, access seekers and regulators in terms of the number of processes involved in managing a fourth form of regulation that is ineffective in isolation.

For these reasons, Option 3 does not employ the price monitoring form or regulation. Option 3 has three available forms of regulation:

- control;
- negotiate/arbitrate; and
- no regulation.

The decision making criteria to be used to determine the form of regulation

As in Option 2, this option sees the National Electricity Law and National Gas Law directly adopt the market power criteria recommended by the Expert Panel as the criteria by which the form of regulation should be determined. The AEMC, in making Rules under the NEL and NGL to clarify the application of these decision making criteria, should make Rules that address:

- Barriers to entry into the market;
- Network externalities, or interdependencies between competing network services;
- Countervailing market power (i.e. market power possessed by users of network services);
- Substitution possibilities (including demand elasticity);
- Information asymmetry; and
- Any other factors considered relevant.

The decision making process for determining the form of regulation to apply

As in Option 2, this option allows divergence between the electricity and gas regime to emerge with respect to determining the form of regulation to apply to particular network services, or categories of network services.

In this option the electricity and gas regimes retain the common market power test above, but in addition to referring to the market power test, services may be categorised and attributed a form of regulation appropriate to the market power of services in that category.

Rules made by the AEMC may specify the form of regulation to apply to particular categories of service according to the market power inherent in each category of service, or allow the form of regulation to be made on a case by case basis.

The Expert Panel identified that the determination of the market power of, and therefore the form of regulation to apply to, electricity network service providers can be largely handled through categorisation of services and attributing an appropriate form of regulation for each. By contrast, the market power of particular gas network service providers can vary greatly and is best determined on a case by case basis.

This option achieves clarity in the process for determining the form of regulation to apply in the electricity regime as well as the gas regime. Achieving consistency in the process for determining the form of regulation across the gas and electricity regimes is not a key objective of this regulatory reform process.

Benefits and Costs

Overall, Option 3 achieves improved economic efficiency and consistency of regulation across the electricity and gas sectors in comparison to Option 1. Option 3 achieves most of the benefits realised in Option 2, namely:

- Economic efficiency;
- Common forms of regulation across sectors
- Lower regulatory and administrative costs;
- Price transparency;
- Enhanced regulatory certainty; and
- Consistency with the AEMA.

Option 3 also incurs some of the costs of Option 2, namely:

- Transitional costs;
- Negotiating costs; and
- Process divergence across sectors.

However, Option 3 achieves the key benefits of Option 2 at lower cost.

As discussed above, Option 3 achieves the price transparency benefits of a stand alone price monitoring form of regulation (as achieved by Option 2), by incorporating price monitoring elements within a negotiate/arbitrate form of regulation, but does so with lower costs to network service providers, access seekers and regulators than in Option 2.

Option 2 employs a fourth form of regulation (price monitoring) that is ineffective in isolation and which relies upon changing the regulatory status of NSPs to become subject to more intrusive regulation in order to achieve an economically efficient outcome. Introducing a stand alone price monitoring form of regulation thereby causes uncertainty and imposes compliance costs on network service providers, access seekers and regulators, with no material benefit. Reducing the available forms of regulation to three under Option 3 reduces complexity and uncertainty without limiting the effectiveness of the regulatory regime.

Benefits	
Economic efficiency	• Same as Option 2
Common forms of regulation across sectors	• Same as Option 2
Lower regulatory and administrative costs	• Same as Option 2
Price transparency	• Same as Option 2
Enhanced regulatory certainty	• Same as Option 2
Consistency with AEMA	• Same as Option 2
Costs	
Transitional costs	• Same as Option 2
Regulatory complexity	• Option 3 uses only three available forms of regulation (in comparison to Option 2, which uses four), reducing complexity and uncertainty without limiting the effectiveness of the regulatory regime. Option 2 employs a fourth form of regulation (price monitoring) that is ineffective in isolation and which relies upon changing the regulatory status of NSPs to become subject to more intrusive regulation in order to achieve a net benefit, thereby causing uncertainty imposing and compliance costs on network service providers, access seekers and regulators, with no material benefit.
Negotiating costs	• Same as Option 2
Process divergence across sectors	• Same as Option 2

Impact on stakeholders

Network owners	• Option 3 has a similar impact on network owners as Option 2, in that it should reduce compliance costs for business, increase certainty and reduce complexity for regulated businesses. Network owners may also incur transitional costs as they come to understand the new regulatory framework. • With respect to Option 2, Option 3 benefits network owners in that regulatory complexity and uncertainty is reduced by limiting the available forms of regulation to three (instead of four in Option 2).
Upstream and downstream participants	• Option 3 has a similar impact on network owners as Option 2, in that introducing light-handed forms of regulation into the gas regime in particular could result in previously uncovered pipelines being subject to a negotiate/arbitrate form of regulation. Costs of regulation are part of the public benefits test for coverage. Therefore, currently some small pipelines remain uncovered because while light hand regulation could be appropriate, control regulation is prohibitively costly. Negotiate/arbitrate on these pipelines could increase certainty for both upstream and

	downstream participants, and assist them to negotiate efficient commercial outcomes. • As with Option 2, upstream and downstream participants should benefit from increased certainty and investment by network service providers. They will also face transitional costs.
Consumers	• As with Option 2, Option 3 should benefit consumers through increased economic efficiency, improved energy security and lower prices. • However, the introduction of a negotiate/arbitrate form of regulation could, in certain circumstances, lead to additional costs for energy retailers, which would then be passed on to consumers. • This potential cost is small in comparison to the overall benefits.
Regulator	• As with Option 2, Option 3 benefits regulators by offering a more appropriate range of regulator options in the gas regime (with reduced overall administrative costs), greater consistency between the electricity and gas regimes, greater clarity on the process to use when determining the form of regulation to apply, and overall reduced complexity. • Similarly, the regulator incurs similar costs as in Option 2, including a potential divergence in the processes used in the electricity and gas regimes for determining the form of regulation to apply, and transitional costs in implementing and interpreting the new regimes. • In comparison to Option 2, Option 3 reduces regulatory complexity by reducing the forms of regulation available from four to three.

Comparison of Options

Item	Options		
	1	2	3
No transitional costs	●		
Increased economic efficiency		●	●
Common forms of regulation across electricity and gas sectors		●	●
Lower regulatory and administrative costs		●	●
Regulatory flexibility		●	●
Common process between electricity and gas sectors for determining form of regulation			
Enhanced regulatory certainty		○	●
Consistency with AEMA		●	●
Low regulatory complexity		○	●

Key to Table: ●=substantially contributes, ○=partially contributes

Consultation

Consultation to Date

In proposing changes to the national energy regime, the Expert Panel took into account the substantial number of reviews and reports that had previously been carried out on energy market regulation and reform. These included the Productivity Commission's reviews of the National Access Regime and the Gas Access Regime (June 2004), the Exports and Infrastructure Taskforce report on Australia's Export Infrastructure (May 2005), and the ongoing review of electricity transmission revenue and pricing rules by the AEMC.

The Expert Panel also encouraged stakeholder participation in its review. To this end, the opportunity was provided for stakeholders to make written submissions on matters arising from the Panel's terms of reference, and an opportunity to make written submissions on the Panel's Draft Report, as well as an opportunity for stakeholders to meet individually with the Panel after the second round of submissions had been considered by the Expert Panel. Stakeholders who participated in this consultative process included participants from all levels of the energy market, including energy generators and producers, transmitters and users. The MCE has also considered the recommendations of the Panel in the context of their own jurisdictions and the broader National Energy Market reform agenda.

Exposure drafts of the National Electricity Law, National Electricity Rules, National Gas Law and National Gas Rules will be released for industry consultation over a six week period in late 2006/early 2007 (depending on the part of the regulatory package involved). This consultation will assist in determining the shape of the final legislative package.

Submissions Now Sought

Comment is now sought on this RIS from affected stakeholders and interested parties. In particular, the submissions addressing the following are sought

1. The potential of net cost or net saving (and associated costing and assumptions) that may arise from the proposed option (Option 3) relative to the other options canvassed in the RIS.
2. The extent to which investment has been distorted or deterred due to current regulatory arrangements (Option 1) and the degree to which investment certainty might be enhanced by Options 2 or 3.

Implementation and Review

The MCE will be amending the NEL/NER, and introducing the NGL/NGR, in 2007 to implement commitments in the Australian Energy Market Agreement relating to the transfer of economic regulation of electricity distribution, and gas transmission and distribution, to the national framework. This process provides an opportunity to implement and ensure that the regulatory framework and available forms of regulation are consistent across the gas and electricity sectors.

It is expected that the NEL will be amended in South Australian Parliament in early 2007. Similarly, it is expected that the lead legislation establishing the NGL will introduced to South Australian Parliament (with mirror legislation being introduced in Western Australia) in early 2007. Application Acts applying the NGL established in South Australian law will be introduced into the legislatures of other States and Territories, and Commonwealth Parliament. The NGL and NEL will come into force in all jurisdictions by 30 June 2007.

Further, within the new gas and electricity legislative framework, the MCE will be able to direct the AEMC to conduct reviews in accordance with its rule-making and market development function. Such a review could further assess the appropriateness of the available forms of regulation in the new NGL and the NEL, or the viability of subsequently introducing a stand-alone price monitoring option.

Conclusion

Maintaining the status quo would see the continuation of different forms of regulation across the gas and electricity sectors. This does not align with MCE's aim of ensuring a consistent approach, where appropriate, to the economic regulation of gas and electricity network services. The Australian Energy Market Agreement endorses the commitment to ensure harmonisation, where appropriate, across the gas and electricity sectors.

The status quo limits certainty for market participants, maintains unclear and complex regulatory arrangements, and unnecessarily increases regulatory costs to market participants, particularly those that operate across the gas and electricity sectors.

Considering the costs and benefits outlined above, it is recommended that Option 3 be adopted.

Both Options 2 and 3 achieve substantial economic efficiency benefits in comparison with Option 1. As indicated above, the benefits of enhancing investment by network service providers by lowering regulatory uncertainty, and ensuring access to network services that exhibit natural monopoly characteristics, far outweigh the compliance costs of regulation overall.

Option 3 is recommended as it achieves these benefits at lower cost (including both indirect costs on network service providers from regulatory uncertainty and direct compliance costs for network service providers, access seekers and regulators) than Option 2. Option 2 introduces a stand alone price monitoring form of regulation that is ineffective in isolation and creates uncertainty for all parties, as well as imposing direct compliance costs.

Option 3 adopts the Expert Panel’s recommendations with some minor alterations. Primarily, this option introduces a light-handed negotiate/arbitrate form of regulation (with price monitoring features) to the gas regime, to increase the likelihood that, where regulation is applied, it is applied such that the form, scale and cost of regulation are appropriate to the degree of market power present.

Option 3 creates consistency in the forms of regulation applied to both the gas and electricity sectors. This consistency minimises the regulatory costs in operating across different regulatory regimes in the gas and electricity industries. Therefore this option should reduce regulatory costs, and increase investment and efficiency in the provision of electricity and gas network services, thereby increasing energy security for downstream users and market access for upstream producers.

Option 3 also clarifies how the appropriate form of regulation should be determined for particular services. Although the processes determining the form of regulation are not necessarily consistent between electricity and gas, certainty is achieved where appropriate by linking these decisions to considerations of the market power inherent in particular types of services. Where a case by case approach is taken to determining the market power of a network service provider, a common market power test will be available to be applied in both the gas and electricity regimes.

Table 6 below demonstrates that Option 3 fulfils the objectives outlined in this Regulatory Impact Statement to a greater extent that Option 1 or Option 2.

Assessment of Options against RIS Objectives.

Objectives	Options		
	1		
Reduce the cost of regulation while maintaining its effectiveness, thereby achieving an improvement in economic efficiency within the electricity and gas markets for the benefit of the community as a whole.		○	●
Form, scale and costs of regulation should be commensurate with the degree of market power present to ensure an economically efficient outcome.		●	●
Consistency and harmonisation between the electricity and gas access regimes, to the extent it is appropriate given the inherent differences in the two industries, will also ensure that investment in the energy sector is efficient and not distorted by differing regulatory regimes.		●	●

Key to Table: ●=substantially meets objective, ○=partially meets objective.

Accordingly Option 3 is considered to be the most effective option in meeting the objectives of this regulator impact statement.

Pricing Principles Regulatory Impact Statement

This Regulatory Impact Statement (RIS) sets out the options and assesses their regulatory impact on the Pricing Principles to be included in the amended National Electricity Law (NEL) and new National Gas Law (NGL).

The Pricing Principles inserted in the legislation aims to guide the Australian Energy Regulator (AER) in establishing the revenue and price determinations of network businesses operating in the gas and electricity industries.

The regulatory determinations approved by the regulator impact on prices paid by energy consumers and affects network access by businesses operating in upstream and downstream markets. These AER regulatory determinations are usually set over a 5 year period, and are reset/reviewed when the previous determination/access arrangement expires.

This RIS and other related RIS's are designed to supplement industry consultation processes for both the new NGL and amended NEL, and ultimately contribute to the final policy decisions made by the MCE on these issues. This RIS should be read in conjunction with the Regulatory Impact Statements on:

- **The Form of Regulation for Gas and Electricity Networks** – which addresses the approach taken by the Ministerial Council on Energy (MCE) in determining the forms of regulation available to the Australian Energy Regulator in regulating electricity and gas network service providers.
- **Information Disclosure** – which examines the costs and benefits of the various options concerning the regulators powers to require production of information from gas pipeline owners and electricity networks
- **Regulatory Decision-making Covering Regulated Network Entities** – concerning the discretion given to the Australian Energy Regulator (AER) when making revenue and pricing determinations for transmission and distribution networks/pipelines.

Background

Efficient and effective regulation of energy network services is critical to both the economic development of Australia and consumer protection. Energy networks, transporting electricity and gas, provide essential services to Australian households and businesses and have major economic and security implications for Australia's development.

Further, energy networks possess natural monopolies characteristics. This means that, due to economies of scale, scope, and significant sunk costs it is not cost effective or efficient to duplicate such significant network and pipeline infrastructure. The industry, therefore, generally has limited suppliers of network infrastructure servicing geographic regions or areas.

Australia currently has approximately 40 regulated network/pipeline businesses across the gas and electricity sectors (including both transmission and distribution). These businesses have annual turnover of around $7.3 billion in revenues for electricity (approximately $35 billion over a regulatory period) and $ 1.6 billion for gas (approximately $8 billion over a regulatory period). There are also a number of businesses which operate across the electricity and gas industry and within the transmission and distribution sectors.

The network/pipeline infrastructure across gas and electricity amounts to approximately $44 billion (that is the regulatory value of the network's asset base). In addition, the network segment of the gas and electricity industry is highly capital intensive in nature with approximately $20 billion in capital expenditure over a 5 year regulatory cycle and approximately $13 billion in operating and maintenance costs over a 5 year regulatory cycle. Overall, energy network charges consist of approximately 50-60% of final consumer energy prices. Therefore, regulating the revenue of natural monopoly network businesses has substantial economic impacts.

Revenue determinations within the existing gas and electricity access regimes take place every five years. These determinations are resource intensive requiring significant staff costs and expert advice for both service providers and regulators. Regulatory costs of obtaining approval of an application, according to an Envestra submission to the Productivity Commission in 2004, could range in its experience from $0.25-$2m, depending on the size of the network[2]. These regulatory costs are significant but remain less than 1% of total revenue across the industry. More importantly, as most energy network investments have a payback period of 20-50 years, regulatory uncertainty can lead to reduced investment in critical infrastructure. A clear regulatory regime based on sound economic principles is required to both enhance business certainty and protect consumer interests

Recognising this, governments around Australia established a National Competition Policy agenda in the early 1990s that included significant reforms to the energy industry to enhance economic growth and productivity. As part of this process, various Australian jurisdictions committed to establish cooperative legislative regimes for regulating access to electricity and gas networks. Access regimes were legislatively established by the National Electricity (South Australia) Act 1996 (for electricity) and the Gas Pipelines Access (South Australia) Act 1997 (for gas).

Over time, the initial access regimes for electricity and gas have diverged in many respects, including institutional and governance arrangements, forms of regulation applied to network service providers, and the revenue and pricing principles used by regulators. Further, differences have emerged between transmission and distribution, particularly within the electricity regime. This divergence has implications for business certainty, the economic costs of regulation, and the efficiency and effectiveness of regulatory determinations. As indicated above, the costs of imposing regulation, where done appropriately and based on sound economic principles, are substantially out-weighed by the benefits of this regulation, particularly where network service providers possess monopoly power.

In June 2001, the Council of Australian Governments (COAG) commissioned a review examining new opportunities for reform of energy markets in Australia. In November 2002, COAG received for consideration a comprehensive Energy Market Review, which recommended further energy reforms, including of governance and regulatory arrangements. More targeted reviews followed the Energy Market Review, including the Productivity Commission (PC) Review of the Gas Access Regime and a Ministerial Council on Energy (MCE) appointed Expert Panel, which advised on a model to achieve a common approach to revenue pricing for electricity and gas transmission and distribution networks.

[2] Productivity Commission Inquiry Report No. 31, 11 June 2004 *Review of the Gas Access Regime* p145.

Based on these reviews, MCE is now developing a new NGL and National Gas Rules (NGR) to enhance certainty and effectiveness for the regulation of access to gas pipelines. Similarly, the MCE is amending the NEL and creating a national framework for the economic regulation of distribution through the National Electricity Rules (NER).

One of the functions of the new legal framework for the energy sector, is to establish principles by which gas and electricity will be priced. Because of the natural monopoly characteristics of gas and electricity networks, they lend themselves to the exercise of market power by network service providers (NSP's) at the expense of energy producers, retailers and consumers. As such, relationships between network owners and their customers, including the prices that can be charged, are regulated by the AER.

When it receives a pricing proposal from a NSP, the AER refers to rules that are developed by the Australian Energy Market Commission (AEMC). These rules are developed in accordance with the NEL and NGL objective. The rules governing the regulation of electricity and gas networks/pipelines are also developed with reference to the Pricing Principles. To assist with determinations, the AER may also develop process matters for specific industries. Pricing proposals are subject to a review process during which submissions from interested parties are sought, before the pricing determination is made. The outcome sought from Pricing Principles, is to achieve a balance between reasonable prices for consumers and appropriate incentives for businesses to invest in distribution and transmission infrastructure.

Under current arrangements, the pricing principles governing the regulation of gas and electricity networks differ and also are set out in different legislative instruments. For electricity, the AER is guided by the pricing principles in section 16 of the NEL (section 35 places obligations on the AEMC in rule making which largely replicate requirements set in s16). On the other hand, for gas, the regulator is guided by section 8.1 of the Gas Code. The aim is to replace both sets of principles with a harmonised set of pricing principles in the new NGL and amended NEL.

Problem

As noted above, the current version of the NEL and the Gas Code outline different sets of principles to govern the regulation of gas and electricity transmission and distribution networks/pipelines.

The Australian Energy Market Agreement (AEMA), an agreement between the Commonwealth, States and Territories, agreed to create a national and consistent access regime, where appropriate, between gas and electricity. In particular, the AEMA stated at paragraph 13.2 that:

> The Parties confirm their commitment to a national approach to energy access whereby:
>
> - there is national consistency within the gas access regime and within the NEM access regime, in accordance with this agreement; and
> - to the extent feasible and where effective regulation is not impeded, there should be consistency and harmonisation between electricity and gas access regimes such that investment in, and use of, energy is not distorted by differing regulatory regimes.

That therefore raises the issue of whether, consistent with the objectives stated in the AEMA, it would be preferable for both the gas and electricity access regimes to be governed by the same set of pricing principles.

Prior to the insertion of section 35 into the NEL, the regulator was guided by the principles contained in Chapter 6 of the National Electricity Rules (prior to 1 July 2005, known as the National Electricity Code). The principles are contained in clauses 6.2.2 and 6.2.3 for transmission regulation, and clauses 6.10.2 and 6.10.3 of the rules for distribution regulation. The principles covered include:

- an efficient and cost-effective regulatory environment
- an incentive based regulatory regime which provides an equitable allocation between network businesses and network users, and provides, on a prospective basis, a sustainable commercial revenue stream which includes a fair and reasonable rate of return to efficient investment
- prevention of monopoly rent extraction
- an environment which fosters an efficient level of investment in the networks, and upstream and downstream of the networks
- an environment which fosters efficient operating practices, and use of existing infrastructure
- reasonable regulatory accountability through transparency and public disclosure of regulatory processes
- reasonable certainty and consistency over time

The principles in the rules were criticised by a number of stakeholders who commented that the principles provided significant regulatory discretion to the regulator and the principles were conflicting. Some stakeholders also commented that under the revised institutional and governance framework, the electricity rules that govern the regulation of networks needed to set out minimum constraints in the NEL to guide the regulator and rule maker, and provide certainty to network businesses. Stakeholder also noted that the principles needed to be looked at in light of streamlining the NEL objective.

It should be noted that the principles contained in sections 16 and 35 of the NEL currently only cover the regulation of transmission networks as this was transferred to the national framework on 1 July 2005. The principles do not cover the regulation of distribution networks, as these functions have yet to transfer to the national framework. The MCE has agreed to transfer these function by 1 July 2007.

As part of the Productivity Commission's review of gas access regime, the PC reviewed the pricing principles contained in section 8.1 of the Gas Code. The PC recommended that section 8.1 be amended to provide more specific guidance on setting reference tariffs under the regime, and to ensure that it is consistent with the national access regime under the Trade Practices Act 1974. The PC was particularly concerned that the objective of section 8.1(b) – "replicating the outcome of a competitive market" – was not achievable. In particular noting that:

- it is impossible to determine what the pricing outcome would have been in the presence of a competitive market, and

- there is a range of interpretations of a "competitive market", including workable or perfect competitive , and so it is impossible to apply the principle effectively.

The COAG agreed at its meeting of 10 February 2006, to amend the Competition Principle Agreement to include a set of regulatory principles in all third party access regimes. The principles, as outlined in clause 2.4 pf the agreement, are similar to the proposed Productivity Commission formulation.

The form of the pricing principles was also considered by the Expert Panel as part of its report on Energy Access Pricing. The Expert Panel commented that:

> "[It] sees no logical reason for there to be differences in the criteria for determining the control setting method to apply as between electricity and gas, distribution and transmission services. The application of the criteria may justify the use of different control setting methods, over either the medium or long term. However, this should be reflected in the specification and/or application of the relevant Rules, rather than in the overarching guidance contained in the laws."

In developing the pricing principles, the Expert Panel reviewed and considered the current criteria in section 35 of the NEL, section 8.1 of the Gas Code, the PC's proposed amendments to section 8.1, and the COAG Competition and Infrastructure Reform Agreement. Specifically with respect to gas, the Expert Panel raised the following problems with maintaining the current Gas Code Pricing Principles:

- the relationship between the principles and the overarching objective of the Gas Code are unclear;
- the principle that they should attempt to replicate a competitive market is unrealistic and the definition of competitive market is ambiguous;
- the principles fail to provide adequate guidance and certainty for the recovery of capital costs;
- their ability to incorporate improved price control setting methodologies is limited. This excludes the possibility of introducing pricing approaches such as Total Factor Productivity (TFP), which the Panel identified as having potential advantages over the existing "Building Block" approach to price setting.
- in situations where principles appear to conflict, the level of discretion given to the AER creates uncertainty regarding pricing outcomes; and
- it does not adequately distinguish or provide guidance on the need to provide incentives to promote allocative, dynamic or productive efficiency.

In response to the Expert Panel draft report, a number of submissions supported the approach proposed by the Expert Panel, in particular creating a consistent set of pricing principles which would operate across the gas and electricity industry. A number of submissions also supported the principles to cover the regulation of gas and electricity pipelines/networks, in particular the explicit reference to the need to consider over and under investment and utilisation of the network and the recognition of network regulatory obligations.

A consistent set of pricing principles to be applied to gas and electricity is desirable. In particular given:

- gas and electricity are substitutable and compete for certain tasks, such as household and water heating, cooking and certain industrial processes. Different pricing principles create the risk of compromising competitive neutrality, by giving one energy source an artificial cost advantage over another. This may generate a situation where gas and electricity may not be competing on a "level playing field", which is a precondition for energy market efficiency.
- This situation is complicated by the fact that only electricity transmission, not distribution, is explicitly dealt with under the current NEL pricing principles. This is because distribution regulation has yet to transfer to the national framework. With the Commonwealth and States agreeing through the Ministerial Council on

Energy (MCE) that a move to national regulation by the AER would enhance the functioning of the NEM, the current arrangements require review.

- the current NEL pricing principles do not explicitly consider future demand for network services. Although the AER can and does use their regulatory discretion to consider this in setting a regulatory determination. However, the lack of an explicit requirement introduces a degree of unnecessary regulatory risk to investors, and may also result in inconsistent pricing outcomes which may result in over and under investment in network services. The potential consequence of this is a future shortage of network services or a future glut in the supply of network services. This affects energy security and network prices.

- the issues with the current Gas Code principles, as noted above.

Objective

The objective of the current legislative program is to develop a set of pricing principles that allow the AEMC (in developing the rules governing the economic regulation of networks) and the AER (in its regulatory determinations) to regulate in a way that:

- is conducive to competitive neutrality between gas and electricity and consistent with the market objectives outlined in the legislation;

- accommodates a nationally consistent regulation framework;

- provides incentives to meet future demand, addressing the risk of an over or under supply of infrastructure;

- incentives for efficient use of assets and efficient cost recovery; and

- incentives to promote allocative, dynamic and productive efficiency.

Options

Summary

The table below outlines the policy options for pricing principles, for incorporation into the amended NEL and NGL. The options are:

- Option 1 – status quo. This option involves the retention of divergent pricing principles contained in section 8.1 of the Gas Code and section 35 of the NEL.

- Option 2 – adopt the Expert Panel pricing principles. This option involves the adopted of the pricing principles recommended by the Expert Panel, which would involve a harmonised energy specific set of pricing principles to be inserted into the NEL and NGL.

- Option 3 – adopted the CoAG pricing principles, which are consistent with those recommended by the PC review of the gas access regime. This option involves harmonising the NEL and the NGL using the COAG pricing principles for access pricing for infrastructure, which is similar to the changes to gas regulation recommended by the Productivity Commission.

The form of these options are summarised in the table below.

In considering these options, it should be noted that the MCE[3] accepted the Expert Panel recommendation that the AEMC be directed to undertake a review of Total Factor Productivity (TFP). The Expert Panel recommended that the NEL and NGL include provisions that enable the AEMC to make rules in relation to a TFP-based price setting methodology. The MCE however was of the view that before amending the mechanisms and methodologies for the derivation of maximum allowable revenue and prices to specifically recognise TFP, the MCE considered it prudent to first consider the AEMC review report before committing that the NEL and NGL will include provisions that enable the AEMC to make rules in relation to TFP based methodology. The rules will however allow the AER to use TFP as a "regulatory tool" to the building block approach.

Option 1 **Status Quo**		**Option 2** **Expert Panel Pricing Principles** **(Preferred Option)**	**Option 3** **Harmonise according to the COAG access pricing principles**
Current Gas Code (Section 8.1)	Current NEL (Section 35)	Amended NEL & New NGL	Amended NEL & New NGL
RELEVANT INSTRUMENTS			
Gas Code	NEL	NEL and NGL	NEL and NGL
NETWORKS COVERED			
Transmission and distribution	Transmission	Transmission and distribution	Transmission and distribution
REGUALTORY BODY PRINCIPLES APPLY TO			
AER	AER and AEMC	AER and AEMC	AER and AEMC
THE PRICING PRINCIPLES:			
(a) provide the Service Provider with the opportunity to earn a stream of revenue that recovers the efficient costs of delivering the Reference Service over the expected life of the assets used in delivering that Service;		(a) provide a reasonable opportunity for a network operator to recover **at least** the efficient costs of providing services that are the subject of the network pricing determination and complying with a regulatory obligation; and	(a) Regulated access prices should be set so as to generate expected revenue for a regulated service or services that is at least sufficient to meet the efficient costs of providing access to the regulated service or services
(b) replicate the outcome of a competitive market;	(b) provide effective incentives to a regulated transmission system operator to promote economic efficiency in the provision by it of services that are the subject of a transmission determination, including- (i) the making of efficient investments in the transmission system owned, controlled or operated by it and used to provide services that are the subject of a transmission determination; and	(b) provide effective incentives to **a network operator** to promote economic efficiency in the provision by it of services that are the subject of a **network pricing determination**, including: (i) the making of efficient investments in **the network owned, controlled or operated by it** and used to provide services that are the subject of a network pricing determination; (ii) the efficient provision by it of services that are the	b. Regulated access prices should be set so as to: (i) allow multi-part pricing and price discrimination when it aids efficiency; (ii) not allow a vertically integrated access provider to set terms and conditions that discriminate in favour of its downstream operations, except to the extent that the cost of providing access to other operators is higher; and (iii). provide incentives to reduce costs or otherwise

[3] MCE Standing Committee of Officials, *2006 Comprehensive Legislative Package: Overview and response to Expert Panel on Energy Access Pricing*, November 2006

	(ii) the efficient provision by it of services that are the subject of a transmission determination; and	subject of a network pricing determination; and (iii**) the making of efficient use of existing assets and proposed new assets that are, or are to be, used to provide services that are the subject of a network pricing determination;**	improve productivity.
(c) ensuring the safe and reliable operation of the Pipeline;	(c) require the AER, in making a transmission determination, to make allowance for the value of assets forming part of a transmission system owned, controlled or operated by a regulated transmission system operator, and the value of proposed new assets to form part of that transmission system, that are, or are to be, used to provide services that are the subject of a transmission determination; and	(c) make allowance for the value of assets forming part of a network owned, controlled or operated by a **network operator**, and the value of proposed new assets to form part of that network, that are, or are to be, used to provide services that are the subject of a **network pricing determination;**	(c) Regulated access prices should be set so as to include a return on investment commensurate with the regulatory and commercial risks involved .
(d) not distort investment decisions in Pipeline transportation systems or in upstream and downstream industries;	(d) require the AER to have regard to any valuation of assets forming part of a transmission system owned, controlled or operated by a regulated transmission system operator applied in any relevant determination or decision.	(d) have regard to any valuation of assets forming part of **a transmission or distribution system** owned, controlled or operated by a network operator applied in any relevant determination or decision; and	As per (c) above
(e) efficiency in the level and structure of the Reference Tariff; and	No equivalent provision	(**e) have regard to the economic costs and risks of:** **(i) the potential for under- investment and over- investment in assets by the network operator; and** **(ii) the potential for under-utilisation and over-utilisation of the capacity of assets forming part of a distribution or transmission system, and the capacity of proposed new assets**.	As per (c) above
(f) providing an incentive to the Service Provider to reduce costs and to develop the market for Reference and other Services.	No equivalent provision	No equivalent provision	No equivalent provision
KEY ASPECTS/POINTS TO NOTE			
• The principles cover recovery of efficient costs, replicating outcomes of a	• Cover transmission • Principles cover efficient costs recognising regulatory	• Option 2 is largely based on the current electricity pricing principles but extend to	• The principles cover the efficient use of and investment in infrastructure,

competitive market, not distorting outcomes in up and downstream markets, provides incentives for business to reduce their costs.	obligations, incentives for efficient investment and utilisation of existing assets, and have regard to previous asset valuations.	cover gas and electricity distribution. • The key differences between the current NEL and those proposed in this option are in bold. The key additions include – explicit recognition of the potential for over and under investment/utilisation, and efficient use of existing assets.	promoting upstream and downstream markets, and guidance on form of regulated access price. • Cover merits review, which is limited to information submitted to the regulator.

Note: Key differences from current NEL are in **bold**

Impact Analysis

Option 1 – Status Quo

As noted above, the key features of this option include the following:

- Pricing principles governing gas:
  - Under this option, the pricing principles for the regulation of gas networks/pipelines (for both distribution and transmission) would be retained in section 8.1 of the Gas Code.
  - The pricing principles would be applied by the AER in setting and reviewing the service provider's access arrangement. The pricing principles will not be applied by the AEMC in making rules relating to the economic regulation of gas pipelines.
- Pricing principles governing electricity:
  - The regulation of transmission network would be subject to section 35 of the NEL. These pricing principles will be applied by the AER (in setting regulatory determinations for transmission networks) and by the AEMC (in making rules on the regulation of transmission networks).
  - These principles will not cover the regulation of distribution networks. These principles are contained in Chapter 6 of the current NER.

Benefits and Costs

Benefits
• A continuation of the current pricing arrangements means that no transitional costs would be incurred by the various stakeholders. • This option avoids changes and disruptions to existing legislative, regulatory and commercial arrangements. • Existing requirements are understood by current NSPs.
Costs
• Maintaining the existing arrangement would entail different pricing principles being applied to the regulation of gas and electricity networks/pipelines and also different pricing principles being applied within the electricity industry. This is because the current NEL pricing principles only apply to transmission. As a consequence there would be additional administrative costs to network service providers who operate in both the gas and electricity industries with different regulatory regimes for

distribution and transmission.

- There will be a risk of inefficiency, due to a lack of competitive neutrality between gas and electricity networks. This may generate a situation where gas and electricity may not be competing on a "level playing field", which is a precondition for energy market efficiency.
- This option does not improve the regulator's ability to make more efficient and consistent decisions across the energy sector. There is continued risk to consumers of being subject to inappropriate prices. Small errors can led to large impacts affecting 50-60% of overall energy prices.
- This options poses a risk of under/over investment. This is due to lack of an explicit principle by which the AER is to consider future demand with prices being inadvertently set at levels that may either promote too little or too great a level of investment in network services. The potential economic consequences of this are a future shortage of network services, leading to higher prices and risks to energy security; or a future glut in the supply of network services, with the unused capacity constituting waste and risking the financial position of the NSP's.
- Under this options the AER would be applying different pricing principles across the sector, not only in approving regulatory determinations and access arrangements, but also in its role as arbitrator under the negotiate/arbitrate framework (see RIS on form of regulation). This may potentially lead to different regulatory outcomes and create uncertainty for the energy sector given the divergent principles to be applied.
- This option may create inconsistency between the principles adopted for the specific energy access regime and that in the national access regime for Part IIIA of the Trade Practices Act 1974.
- This option retains the problems and flaws identified by the PC and Expert Panel reviews with respect to the Gas Code principles outlined in section 8.1, including:
  - The loose relationship between pricing principles and objectives in the Gas Code;
  - The lack of realism of the principle of attempting to replicate a competitive market;
  - Failure to provide guidance and certainty on cost recovery;
  - Inability to incorporate new price setting methods, impacting the ability of the regulatory regime to evolve as new approaches to regulating networks are developed;
  - The failure to encourage efficiency with incentives; and
  - The undue level of discretion given to the AER;
  - The risk of an incorrect price for gas network services being set, due to the ambiguity, inflexibility (with respect to including new pricing principles) and incompleteness of the principles. A price level set too high will means consumers are paying too much for their services, while one set too low will discourage investment in gas networks.
  - Uncertainty created by the ambiguity of the principles, creates a risk with respect to pricing decisions that is likely to act as a disincentive for investment in gas networks.
  - The lack of guidance on providing incentives for increased efficiency creates the risk that pricing decisions will not encourage firms to seek efficiencies that improve prices and service to consumers.
- It has been argued that the current electricity principles may provide an obstacle to the development of TFP-based control setting method given it may not comply with the requirement in section 35 of the NEL which requires "the need to provide a reasonable opportunity for a transmission operator to recover the efficient costs of providing services". However, as noted by the Expert Panel, this issue can be dealt with through other mechanisms in the Law, in particular the provisions relating to the methodologies and mechanisms for the derivation of maximum allowable revenue or price.

Effect on Stakeholders

Option 1 has the following effects on stakeholders.

Gas and electricity producers	• Within the energy industry the provision of network services impacts on the ability of gas and electricity producers to access the energy market. Accordingly network investment decisions will affect investment in, and location of generator plant. In some cases network investment may compete with generation investment. • With Option 1, a lack of explicit consideration of potential under/over investment in networks when setting prices may affect investment in networks/pipelines. This may result in either an oversupply of network capacity or network capacity shortages. An oversupply of network capacity could crowd-out generation investment. A shortage in capacity affects the

	ability of generation to service the market. • There is a possibility of incorrect pricing outcomes for gas and electricity NSP's affecting gas and electricity producers. Lower than efficient prices are likely to affect investment in gas and electricity networks, and therefore the quality and quantity of service received by producers.
Network service providers	• The retention of the existing pricing principles would allow NSP's to avoid the transitional costs associated with moving to new pricing principles. However, the ongoing costs associated with operating across differing regimes would remain. • The potential lack of competitive neutrality between gas and electricity NSP's would favour NSP's of that energy source receiving the more favourable pricing treatment, while disadvantaging the other. • The lack of a specific clause considering the economic costs of potential under/over investment, creates the risk that service providers will be paid too much or too little, skewing future investment decisions. This would affect the reliability of network and service quality. • For Gas NSP's, incorrect pricing due to inadequate pricing principles in the Gas Code, could either favour or disadvantage the NSP depending on whether the price was set too high or to low. The ambiguity of the Gas Code NSP's is likely to compromise consideration of new/further investment in gas networks.
The Commonwealth and state governments	• This approach may avoid transitional costs to the Commonwealth and State Governments, associated with moving to new pricing principles regime. • However, this would be inconsistent with the AEM Agreement, in which the aim was to create harmonisation across the energy sector, where appropriate. • The status quo option maintains a set of differing 'high level; pricing principles across the energy sector. There is a risk this could lead the regulator or the courts to inadvertently divert the energy regulatory arrangements from the intended purpose during a either a regulatory reset or merit review process. Such an outcome would be inconsistent with the aims of energy market reform and streamlining the energy regulatory regime.
Energy retailers	• As noted above, network services impact the ability of gas and electricity producers to access the network and operate effectively within the energy market. With respect to electricity, network investment affects generation dispatch and possible contracting with retailers to hedge risk.
Consumers (major energy users and end users)	• Option1 poses a risk that the existing variety of pricing principles will compromise competitive neutrality with the effect that decisions on gas and electricity usage may be distorted away from the overall preferred outcome of consumers. • Specifically, a lack of explicit recognition for prices to counter potential under/over investment in networks could either favour consumers with lower prices or harm them with higher prices. • The possibility of incorrect pricing outcomes due to the inadequacy of the current Gas Code, could mean that gas users gain from lower than efficient prices in the short run, or loose due to higher than efficient prices. Lower than efficient prices are likely to affect investment in gas and electricity networks, and therefore the quality and quantity of service received by consumers.
Regulator	• The AER would be applying different pricing principles across the sector – not only in approving regulatory determinations and access arrangements but also in its role as arbitrator under the negotiate/arbitrate framework (see RIS on form of regulation).

- This may result in different regulatory outcomes and create uncertainty for the energy sector given the divergent principles to be applied.

Option 2: Harmonise the Pricing Principles between Gas and Electricity Markets according to the Expert Panel's advice (Preferred Option).

As noted above, the key elements of this option include the following:

- adopting the pricing principles recommended by the Expert Panel;
- incorporating these principles into the NEL and NGL and apply them to distribution and transmission networks/pipelines operating in the gas and electricity sectors; and
- pricing principles will be applied by the AER, in its regulatory determinations and approval of access arrangements, and the AEMC in developing the rules governing the regulation of gas and electricity transmission and distribution network/pipelines.

Benefits and Costs

In considering benefits and costs, it is important to note that these benefits are difficult to quantify given the pricing principles will be applied by the AER in making regulatory determinations/access arrangements and by the AEMC in making revenue/pricing rules for gas and electricity. The significance of these benefits will largely depend on whether these principles materially alter the regulatory framework.

Benefits
• Harmonisation of the pricing principles between the amended NEL and the new NGL, in accordance with the Panel's recommendations, would:
• Establish sound basis for competitively neutral pricing outcomes between gas and electricity networks, leading to improved economic efficiency.
• Mitigation of risk of under/over investment due to lack of an explicit principle by which the AER could consider future demand potential
• Create an overarching consistent regime, but allow for differences to occur between transmission and distribution, and between gas and electricity where appropriate to do so.
• Mitigates compliance costs and confusion about regulatory arrangements that is currently associated with distribution and transmission rules being operated under different instruments. In turn this would reduce costs to those businesses which operate across the gas and electricity industry, and also across transmission and distribution sectors.
• Decrease risk of incorrect gas pricing outcome stemming from the ambiguous and inflexible Pricing Principles of the current gas code, which is detrimental to gas consumers or network operators.
• Increase efficiency gains and incentives to invest in gas networks by o removing the uncertainty created by the ambiguous nature of the current Gas Code Pricing Principles. This effects and encourages investment in upstream and downstream segments of the market o by explicitly encouraging the use of incentives.
• There are similarities between the pricing principles contained in option 2 and those in the TPA (especially given the MCE decision to adopt limited merits review), but option 2 sets out more explicit reference to matters to be considered by the regulator. The additional principles contained in option 2 falls within considerations of the TPA provisions, and therefore there is not inconsistency between the TPA principles and the principles in Option 2. However, it could also be argued that this option may create inconsistency between the principles adopted for the specific energy access regime and that in the national access regime for Part IIIA of the Trade Practices

Act 1974.

- This option addresses the unique sensitivity to balanced forward investment inherent in the gas and electricity market and the importance of appropriate gas and electricity infrastructure to the economy. Under investment by NSP's can lead to insufficient network capacity. In adverse circumstances such as excess demand this will result in black-outs with immediate loss of critical national energy services. As an example, health consumers can be placed in life threatening situations where they loose use of electricity dependent support facilities. Similarly there can be loss of critical communications essential to the financial sectors of the economy. Alternatively over-supply of network capacity can drive up energy supply costs with long-term adverse consequences for the competitiveness of the Australian economy. Whilst other infrastructure industries such as water, rail, ports and roads are also significant to the economy, the consequences of under or over investment are more manageable as their effects occur (and can be managed) over time. For this reason the application of COAG access pricing principles to the energy sector need special treatment as provided for by this option.

Costs

- A change in pricing arrangements, mean that transitional costs to establish new arrangements may be incurred by the various stakeholders, including governments and network service providers. May also lead to also disruptions to existing legislative, regulatory and commercial arrangements.
- Under a TFP approach, a service provider may or may not have the opportunity to recover its costs given that a price determination would be based on a industry average. It has been noted that the Option 2 principles may not cover the Total Factor Productivity (TFP) approach in light of the requirement to "provide a reasonable opportunity for a network operator to recover **at least** the efficient costs of providing services that are the subject of the network pricing determination and complying with a regulatory obligation". However, as noted by the Expert Panel, this issue can be dealt with through other mechanisms in the Law, in particular the provisions relating to the methodologies and mechanisms for the derivation of maximum allowable revenue or price.
- Requires minor amendment to NGL, NEL and the rules in order to implement this option.

Effect on Stakeholders

Gas and Electricity producers	• Option 2 alleviates the risk that the existing variety of pricing principles compromising competitive neutrality. This means that producers of both energy types will be provided with higher levels of certainty that gas and electricity pricing decisions will not unjustifiably favour producers of one energy source over another. • The explicit consideration given to the potential costs of under/over investment in networks when setting network prices, will provide producers with increased certainty of the prices and quality of service that they are likely receive from NSP's in the future. • The possibility of incorrect pricing and investment outcomes for gas and electricity NSP's harming gas/electricity producers, is reduced in Option 2 because of the replacement of the Gas Code pricing principles with the common NGL/NEL principles.
Network Service Providers	• The introduction of the new pricing principles may impose some transitional costs on NSP's. However, the ongoing costs associated with operating across differing regimes would be removed. • The improved prospects for competitive neutrality between gas and electricity networks would increase the certainty of providers of both types of networks that they will not be unjustifiably disadvantaged, compared to providers the other energy type. • The new specific clause considering the economic costs of potential under/over investment will create greater certainty for service providers in making their future investment decisions. • For Gas NSP's, there is likely to be a reduction in uncertainty with respect to pricing outcomes, due to improved pricing principles. The specific reference to incentives for investment in pricing determinations is likely to encourage in Gas NSP's who to undertake new/further investment where appropriate opportunities exist.

	• Reduced compliance costs for those network businesses operating across the electricity and gas industries and transmission and distribution segments.
The Commonwealth and state governments	• This approach may involve transitional costs to the Commonwealth and State Governments in implementing changes to the NGL and NEL. • Achieves the AEMA's aim of ensuring consistency, where appropriate between the energy access regimes.
Energy retailers	• As noted above, network services impact the ability of gas and electricity producers to access the network and operate effectively within the energy market. With respect to electricity, network investment affects generation dispatch and possible contracting with retailers to hedge risk.
Consumers (major energy users and end users)	• Gas and electricity usage is more likely to reflect the overall preferred outcome of consumers with the removal of the competitive neutrality risks associated with the existing variety of pricing principles in the gas and electricity market.. • The new specific clause considering the economic costs of potential under/over investment will create greater certainty amongst consumers that the prices they receive will be appropriate. • Also, the reduction in the possibility of incorrect pricing outcomes would provide a degree certainty to gas users with respect to the network services proportion of their gas price. • The introduction of incentives to gas and electricity NSP's to invest and to be efficient, is likely to translate into reliability of energy supply for consumers.
Regulator	• The AER would be applying consistent pricing principles across the sector – not only in approving regulatory determinations and access arrangements but also in its role as arbitrator under the negotiate/arbitrate framework (see RIS on form of regulation). • This will result in a consistent approach to regulation, where appropriate, in regulatory outcomes and decrease uncertainty for the energy sector in the principles application.
Rule maker	• The AEMC would be applying consistent pricing principles in both gas and electricity when making rules on the economic regulation of services. • This will result in a consistent approach to regulation.

Option 3: Harmonise the Pricing Principles between Gas and Electricity Markets according to COAG principles.

As noted above, the key elements of this option include:

- This option entails adopting the COAG pricing principles.
- These principles would be contained in the NEL and NGL and apply to distribution and transmission networks/pipelines operating in the gas and electricity sectors.
- The pricing principles will be applied by the AER, in its regulatory determinations and approval of access arrangements, and the AEMC in developing the rules governing the regulation of gas and electricity transmission and distribution network/pipelines.

Benefits and Costs

In considering benefits and costs, it is important to note that these benefits are difficult to quantify given the pricing principles will be applied by the AER in making regulatory determinations/access arrangements and by the AEMC in making revenue/pricing rules for gas and electricity. The significance of these benefits will largely depend on whether these principles materially alter the regulatory framework.

Benefits
• Harmonisation of the Pricing Principles between the amended NEL and the new NGL, in accordance with the COAG recommendations, would:
• Establish sound basis for competitively neutral pricing outcomes between gas and electricity networks, leading to improved economic efficiency.
• Remove the costs and confusion to network providers, associated with distribution and transmission rules being operated under different instruments. This would in particular reduce costs to those businesses which operate across the gas and electricity industry, and also across transmission and distribution sectors.
• Create an overarching consistent regime, but allow for differences to occur between transmission and distribution, and between gas and electricity where appropriate to do so.
• Decrease risk of incorrect gas pricing outcome stemming from the ambiguous and inflexible Pricing Principles of the current gas code, which is detrimental to gas consumers or network operators.
• Increase efficiency gains and incentives to invest in gas networks by • removing the uncertainty created by the ambiguous nature of the current Gas Code Pricing Principles. This effects and encourages investment in upstream and downstream segments of the market. • by explicitly encouraging the use of incentives.
• Allows for the adoption of a range of regulatory methodology.
Costs
• A change in pricing arrangements, mean that transitional costs to establish new arrangements may be incurred by the various stakeholders, including governments and network service providers. May also lead to also disruptions to existing legislative, regulatory and commercial arrangements.
• Requires minor amendment to NGL, NEL and the rules in order to implement this option.
• Risk of incorrect valuation of assets resulting in the setting prices too low or too high. The Expert Panel raised this concern as a result that the concept of "investment" was not clearly defined to reflect the regulatory value of assets, as distinct to the price that may be paid for assets in capital markets.
• The emphasis on reducing costs indicates a focus on productive efficiency, apparently at the expense of allocative and dynamic efficiency. This has implications for the productivity of NSP's, the quality of their service and their ability to adapt to changing economic conditions.
• The principles are not explicit about the provision of certainty regarding the recovery of capital costs. This may increase the perceived risk to potential investors in energy networks, with implications for achieving adequate investment to meet future demand.
• This option does not address the unique sensitivity to balanced forward investment inherent in the gas and electricity market and the need for specific treatment in the application of COAG access pricing principles to the energy sector. This is further discussed under option 2 above.

Effect on stakeholders

Gas and Electricity producers	• Option 3 alleviates the risk that the existing variety of pricing principles compromising competitive neutrality. This means that producers of both energy types will be provided with higher levels of certainty that gas and electricity pricing decisions will not unjustifiably favour producers of one energy source over another. • However, the focus on productive efficiency at the expense of allocative and dynamic efficiency creates the risk that pricing determinations will result in undue emphasis on the reduction of costs. This has implications for producers, in terms of the quality and modernity of service that their customers receive from NSP's impacting on their profitability.
Network Service Providers	• The introduction of the new pricing principles may impose some

	transitional costs on NSP's. However, the ongoing costs associated with operating across differing regimes would be removed. • The improved prospects for competitive neutrality between gas and electricity networks would increase the certainty of providers of both types of networks that they will not be unjustifiably disadvantaged, compared to providers the other energy type. • For Gas NSP's, there is likely to be a reduction in uncertainty with respect to pricing outcomes, due to improved pricing principles. The specific reference to incentives for investment in pricing determinations is likely to encourage Gas NSP's to undertake new/further investment where appropriate opportunities exist. • However, the principles fail to: • a. make sufficiently clear that "investment" should reflect the regulatory value of assets instead of the price that might be paid on those assets in capital markets, which creates the risk that NSP's will be under or overpaid because of changes in the value of assets in capital markets. • b. consider allocative and dynamic efficiency which creates the risk of pricing principles that encourage cost-cutting, without due regard to the impact of quality on productivity and the ability of the service to adapt to future challenges. This may ultimately impact on the NSP's profitability. • c. make certain the recovery of capital costs, which increases the risk perceived by NSP's in considering new investments. • Reduced compliance costs for those network businesses operating across the electricity and gas industries and transmission and distribution segments.
The Commonwealth and state governments	• This approach may involve transitional costs to the Commonwealth and State Governments in implementing changes to the NGL and NEL. • Achieves the AEMA's aim of ensuring consistency, where appropriate between the energy access regimes.
Energy retailers	• As noted above, network services impact the ability of gas and electricity producers to access the network and operate effectively within the energy market. With respect to electricity, network investment affects generation dispatch and possible contracting with retailers to hedge risk. • The focus on productive efficiency at the expense of allocative and dynamic efficiency creates the risk that pricing determinations may result in undue emphasis on the reduction of costs. This has implications for retailers, in terms of the quality and modernity of service that their customers receive from NSP's.
Consumers (major energy users and end users)	• Gas and electricity usage is more likely to reflect the overall preferred outcome of consumers with the removal of the competitive neutrality risks associated with the existing variety of pricing principles in the gas and electricity market. • Greater certainty will be provided to gas users in relation to the network services proportion of their gas price because of the reduction in the possibility of incorrect pricing outcomes. • However, the focus on productive efficiency at the expense of allocative and dynamic efficiency creates the risk that pricing determinations will result in undue emphasis on the reduction of costs. This has implications for customers in terms of the quality and modernity of service that they receive from NSP's.
Regulator	• The AER would be applying consistent pricing principles across the sector – not only in approving regulatory determinations and access arrangements but also in its role as arbitrator under the negotiate/arbitrate framework (see RIS on form of

	regulation). • This will result in a consistent approach to regulation, and where appropriate, in regulatory outcomes and decreased uncertainty for the energy sector in the application of principles. • Given the focus on productive efficiency at the expense of allocative and dynamic efficiency, this may result in undue emphasis on the reduction of costs and thus creating regulatory risk and error.
Rule maker	• The AEMC would be applying consistent pricing principles in both gas and electricity when making rules on the economic regulation of services. • This will result in a consistent approach to regulation.

Summary of Option Benefits (from Impact Analysis)

Issues	Options		
	1	2	3
Benefits include a lack of transitional costs incurred by the various stakeholders; avoidance of any changes and disruptions to existing legislative, regulatory and commercial arrangements; and that existing requirements are understood by current NSPs	●		
Creates a sound basis for competitively neutral pricing outcomes between gas and electricity networks, leading to improved economic efficiency.		●	●
Addresses the risk of under/over investment with an explicit principle by which the AER can consider future demand.		●	
Create an overarching consistent regime, but allows for differences to occur between transmission and distribution, and between gas and electricity where appropriate to do so.		●	●
Remove the costs and confusion to network service providers, associated with distribution and transmission rules being operated under different instruments.		●	●
Decreased risk of detrimental effects to gas consumers and/or network operators being subject incorrect pricing outcomes as a result the ambiguous and inflexible Pricing Principles of the current gas code.		●	●
Increases the incentives to invest in gas networks by removing the uncertainty created by the ambiguous nature of the current Gas Code Pricing Principles. This effects and encourages investment in upstream and downstream segments of the market.		●	●
Increase efficiency gains and incentive to invest in gas networks, by explicitly encouraging the use of incentives.		●	●
Achieves appropriate valuation of assets resulting in the more efficient price setting.		●	

Key to Table: ●=substantially contributes, ○=partially contributes

Consultation

In proposing changes to the national energy regime, the Expert Panel took into account the substantial number of reviews and reports that had previously been carried out on energy market regulation and reform. These included the Productivity Commission's reviews of the National Access Regime and the Gas Access Regime (June 2004), the Exports and Infrastructure Taskforce report on Australia's Export Infrastructure (May 2005), and the ongoing review of electricity transmission revenue and pricing rules by the AEMC.

The Expert Panel also encouraged stakeholder participation in its review. To this end, the opportunity was provided for stakeholders to make written submissions on matters arising from the Panel's terms of reference, and an opportunity to make written submissions on the Panel's Draft Report, as well as an opportunity for stakeholders to meet individually with the Panel after the second round of submissions had been considered by the Expert Panel. Stakeholders who participated in this consultative process included participants from all levels of the energy market, including energy generators and producers, transmitters and users. The MCE has also considered the recommendations of the Panel in the context of their own jurisdictions and the broader

Implementation and Review

The MCE will be amending the NEL and NER, and introducing the NGL and NGR, in 2007 to implement commitments relating to the transfer of economic regulation of electricity distribution, and gas transmission and distribution to the national framework. This process provides an opportunity to implement and ensure that the regulatory framework and available forms of regulation are consistent across the gas and electricity sectors.

It is expected that the NEL will be amended in South Australian Parliament in early 2007. Similarly, it is expected that the lead legislation establishing the NGL will introduced to South Australian Parliament (with mirror legislation being introduced in Western Australia) in early 2007. Application Acts applying the NGL established in South Australian law will be introduced into the legislatures of other States and Territories, and Commonwealth Parliament. The NGL and NEL will come into force in all jurisdictions by 30 June 2007.

Further, within the new gas and electricity legislative framework, the MCE will be able to direct the AEMC to conduct reviews in accordance with its rule-making and market development function. Such a review could further assess the appropriateness of the available forms of regulation in the new NGL and the NEL, or the viability of subsequently introducing a stand-alone price monitoring option.

Conclusion

As noted above, a number of reviews, including the Expert Panel review on Energy Access Pricing, the PC review of the Gas Code, and Exports and Infrastructure Taskforce report on Australia's Export Infrastructure recommended amendments to the current pricing principles applied to energy networks. This included consideration of the unique sensitivity to balanced forward investment inherent in the gas and electricity market and the need for specific treatment in the application of COAG access pricing principles to the energy sector.

The synopsis above demonstrates that on balance option 2 appears to provide a balanced decision making framework which allows for more efficient and appropriate regulatory decision making by the AER. This option would involve harmonising pricing principles for both gas and electricity transmission and distribution services and providing explicit recognition of the need to consider the economic costs of under/over investment in gas and electricity, was recommended by the Panel and is the preferred option.

There may be transitional administrative costs involved in moving to a single set of pricing principles in the NEL and NGL, to be applied by the AEMC and AER. However, improvements in economic efficiency and incentive to invest in energy networks, associated with improved, harmonised pricing principles will be ongoing. Ongoing gains to service providers and governments due to reduced administrative costs will also be realised.

In summary, in considering all these factors against the objectives of this RIS, each option has been assessed as meeting the RIS objectives as follows:

Assessment of Options against RIS Objectives.

Elements	Options		
	1	2	3
The objective of the current legislative program is to develop a set of pricing principles that allow the AEMC (in developing the rules governing the economic regulation of networks) and the AER (in its regulatory determinations) to regulate in a way that:			
• is conducive to competitive neutrality between gas and electricity and consistent with the market objectives outlined in the legislation;		●	●
• accommodates a nationally consistent regulation framework;		●	●
• provides incentives to meet future demand, addressing the risk of an over or under supply of infrastructure;		●	●
• incentives for efficient use of assets and efficient cost recovery; and		●	○
• incentives to promote allocative, dynamic and productive efficiency.		●	

Key to Table: ●=substantially meets objective, ○=partially meets objective.

Accordingly Option 2 is considered to be the most effective option in meeting the objectives of this regulator impact statement.

Information Disclosure Regulatory Impact Statement

This Regulatory Impact Statement examines the costs and benefits of the various options concerning the regulator's powers to require production of information from gas pipeline owners and electricity networks.

This RIS and other related RIS are designed to supplement industry consultation processes for both the new NGL and amended NEL, and ultimately contribute to the final policy decisions made by the MCE on these issues. This RIS should be read in conjunction with the Regulatory Impact Statements on:

- **The Form of Regulation for Gas and Electricity Networks** – which addresses the approach taken by the Ministerial Council on Energy (MCE) in determining the forms of regulation available to the Australian Energy Regulator in regulating electricity and gas network service providers.
- **Pricing Principles** – concerning development of a set of pricing principles that allow the AEMC (in developing the rules governing the economic regulation of networks) and the AER (in its regulatory determinations) to regulate in accordance with the rules.
- **Regulatory Decision-making Covering Regulated Network Entities** – concerning the discretion given to the Australian Energy Regulator (AER) when making revenue and pricing determinations for transmission and distribution networks/pipelines.

Background

Efficient and effective regulation of energy network services is critical to both the economic development of Australia and consumer protection. Energy networks, transporting electricity and gas, provide essential services to Australian households and businesses and have major economic and security implications for Australia's development.

Further, energy networks possess natural monopolies characteristics. This means that, due to economies of scale, scope, and significant sunk costs it is not cost effective or efficient to duplicate such significant network and pipeline infrastructure. The industry, therefore, generally has limited suppliers of network infrastructure servicing geographic regions or areas.

Australia currently has approximately 40 regulated network/pipeline businesses across the gas and electricity sectors (including both transmission and distribution). These businesses have annual turnover of around $7.3 billion in revenues for electricity (approximately $35 billion over a regulatory period) and $1.6 billion for gas (approximately $8 billion over a regulatory period). There are also a number of businesses which operate across the electricity and gas industry and within the transmission and distribution sectors.

The network/pipeline infrastructure across gas and electricity amounts to approximately $44 billion (that is the regulatory value of the network's asset base). In addition, the network segment of the gas and electricity industry is highly capital intensive in nature with approximately $20 billion in capital expenditure over a 5 year regulatory cycle and approximately $13 billion in operating and maintenance costs over a 5 year regulatory cycle. Overall, energy network charges consist of approximately 50-60% of final consumer energy prices. Therefore, regulating the revenue of natural monopoly network businesses has substantial economic impacts.

Revenue determinations within the existing gas and electricity access regimes take place every five years. These determinations are resource intensive requiring significant staff costs and expert advice for both service providers and regulators. Regulatory costs of obtaining approval of an application, according to an Envestra submission to the Productivity Commission in 2004, could range in its experience from $0.25-$2m, depending on the size of the network[4]. These regulatory costs are significant but remain less than 1% of total revenue across the industry. More importantly, as most energy network investments have a payback period of 20-50 years, regulatory uncertainty can lead to reduced investment in critical infrastructure. A clear regulatory regime based on sound economic principles is required to both enhance business certainty and protect consumer interests

Recognising this, governments around Australia established a National Competition Policy agenda in the early 1990s that included significant reforms to the energy industry to enhance economic growth and productivity. As part of this process, various Australian jurisdictions committed to establish cooperative legislative regimes for regulating access to electricity and gas networks. Access regimes were legislatively established by the National Electricity (South Australia) Act 1996 (for electricity) and the Gas Pipelines Access (South Australia) Act 1997 (for gas).

Over time, the initial access regimes for electricity and gas have diverged in many respects, including institutional and governance arrangements, forms of regulation applied to network service providers, and the revenue and pricing principles used by regulators. Further, differences have emerged between transmission and distribution, particularly within the electricity regime. This divergence has implications for business certainty, the economic costs of regulation, and the efficiency and effectiveness of regulatory determinations. As indicated above, the costs of imposing regulation, where done appropriately and based on sound economic principles, are substantially out-weighed by the benefits of this regulation, particularly where network service providers possess monopoly power.

In June 2001, the Council of Australian Governments (COAG) commissioned a review examining new opportunities for reform of energy markets in Australia. In November 2002, COAG received for consideration a comprehensive Energy Market Review, which recommended further energy reforms, including of governance and regulatory arrangements. More targeted reviews followed the Energy Market Review, including the Productivity Commission (PC) Review of the Gas Access Regime and a Ministerial Council on Energy (MCE) appointed Expert Panel.

The Productivity Commission Review of the Gas Access Regime identified the need to strengthen information provision in the gas access regime. They made the following recommendations:

10.3	To ensure regulators can adequately assess the costs of an associated business that undertakes activities under service agreements and contractual arrangements with a service provider in relation to a covered pipeline, the following subsections should be added to s.4.1 of the Gas Code: s.4.1B An Associate of a Service Provider of a Covered Pipeline that undertakes activities under service agreements and contractual arrangements with a Service Provider in relation to the Covered Pipeline must (if requested by the Relevant Regulator):

[4] Productivity Commission Inquiry Report No. 31, 11 June 2004 *Review of the Gas Access Regime* p145.

(a) establish and maintain a separate set of accounts in respect of the Services provided to the Covered Pipeline

(b) allocate any costs that are shared between an activity that is covered by a set of accounts described in s.4.1B(a) and any other activity according to a methodology for allocating costs that is transparent.

s.4.1C A Service Provider when entering service agreements and contractual arrangements with an Associate for activities undertaken in relation to a covered pipeline, must ensure that the terms and conditions of the contract will allow s.4.1B to be implemented.

10.4 To ensure regulators can adequately assess the costs of an associated business that undertakes activities under service agreements and contractual arrangements with a service provider in relation to the covered pipeline, the following subsection should be added to s.4.2 of the Gas Code:

s.4.2A In complying with ss4.1B(a) and (b) an Associate of a Service Provider must:

(a) if the Relevant Regulator has published general accounting guidelines for Associates which apply to the accounts being prepared, comply with those guidelines; or

(b) if the Relevant Regulator has not published such guidelines, comply with guidelines prepared by the Associate and approved by the Relevant Regulator or, if there are no such guidelines, comply with such guidelines (if any) as the Relevant Regulator advises the Associate apply to that Associate from time to time.

Such guidelines may, amongst other things, require the accounts to contain sufficient information, and to be presented in such a manner, as would enable the assessment (and benchmarking) by the Relevant Regulator of the costs of the activities undertaken in relation to the Covered Pipeline by an Associate under service agreements and contractual arrangements with a Service Provider.

The MCE agreed with the concepts in these recommendations in their response to the Productivity Commission review but noted that further investigation was being carried out by the Expert Panel. The Expert Panel endorsed the thrust of the Productivity Commission's recommendations and recommended the following at Part 7.5 of their report:

The Panel recommends that the framework for information gathering powers should be common across the energy sector. It should comprise:

(a) statutory powers for the AER to obtain information that is relevant to the performance of its economic regulatory functions from any person;

(b) statutory guidance to the AEMC concerning the scope and content of Rules prescribing regular regulatory reporting requirements;

(c) Rules promulgated by the AEMC specifying the scope and content of regular reporting requirements;

(d) Guidelines issued by the AER, in accordance with the Rules, specifying the format requirements and timelines for regular reports.

The Panel concludes that there is no need for information gathering powers to be given to the AEMC at this stage.

The Panel recommends that the AER's statutory powers be modelled on section 28 of the NEL.

The Panel recommends that the statutory guidance to the AEMC for the development of Rules dealing with the AER's information gathering powers specify that the Rules may:

(a) provide for annual reports of regulatory accounting information relevant to the economic regulatory functions of the AER;

(b) provide for periodic reports of non financial information relevant to the AER's economic regulatory functions;

(c) provide for the manner in which such information is to be attested by the service provider and be independently audited;

(d) provide for the provision of equivalent information by contractors to the service provider where such information is relevant to the AER's economic regulatory functions;

(e) provide for the disclosure (and protection) of such information, subject to its presentation in a manner that is not materially detrimental to the business or financial interests of the service provider;

(f) require the AER to have regard to the relevance of the information it requires to be reported, and to the costs incurred by the information provider, and the efficiency and effectiveness of the regulatory process and its objectives.

The Panel recommends that the NEL be amended to include equivalent provisions.

Based on these reviews, MCE is now developing a new National Gas Law (NGL) and National Gas Rules (NGR) to enhance certainty and effectiveness for the regulation of access to gas pipelines. Similarly, the MCE is amending the National Electricity Law (NEL) and creating a national framework for the economic regulation of distribution through the National Electricity Rules (NER).

This Regulatory Impact Statement (RIS) and other related RIS are designed to supplement industry consultation processes for both the new NGL and amended NEL, and ultimately contribute to the final policy decisions made by the MCE on these issues.

Problem

To determine efficient prices for energy the regulator needs access to information about energy companies' costs. The Expert Panel reported it was unclear if the regulators powers were sufficient to allow them to obtain enough information to make efficient decisions. This is a material problem because with $35 billion in regulated revenue, even proportionally small errors on the part of the regulator due to lack of information or inaccurate information can have large consequences for both the businesses and consumers. This problem is amplified because regulators have different powers under the National Electricity Law and the Gas Code which limits the development of a truly national market for energy.

The two commonly used regulatory methods for determining price are (a) the building block method – which uses information about a service providers costs to determine what price they will have to charge to cover their costs; (b) the total factor productivity method – which compares the costs and prices charged by similar service providers to determine an efficient price.

Both of these approaches rely on the regulator having access to high quality, accurate and verifiable cost information about the industry's costs, without which regulators will be hindered in their ability to set efficient prices to the detriment of the efficiency and effectiveness of any regulatory regime. While regulators need cost information to establish efficient prices, business is frequently reluctant to provide this information because of the administrative and cost burden of collecting, configuring and submitting cost and service performance information in a form that will satisfy regulators' requirements. There may also be concerns information is commercially sensitive.

A further key issue identified by the Productivity Commission in the information provision regimes has been the increasing prevalence of outsourcing and asset management arrangements in the provision of network business services. When some of the key costs of a network business are not actually controlled by the network service provider, the regulator is often advised that the network provider is unable to provide the confidential cost information of its contractor. Asset managers also argue that they are only managing assets and not an owner, controller or operator of a network. The Productivity Commission considered this matter via a case study of

'Agility', a wholly owned subsidiary of AGL, as an example of an asset management company.[5]

The Productivity Commission was "concerned that the information collection powers of regulators are not sufficient to address adequately the potential transfer pricing problem." [6] In effect corporate structures have been developed which provide opportunities to escape associate or related party definitions and avoid some aspects of the regulatory regime and the information disclosure provisions. As a result there is often the perception that many of the arrangements in the industry may not be truly at arms length.

The Expert Panel identified that there is a trade-off between ensuring regulators having access to sufficient information to set appropriate prices and the administrative burden on the firms who must provide that information. The Expert Panel identified four elements to be considered when deciding how to balance the regulators need for information while minimising the regulatory burden placed on service providers:

- the development of clear information gathering and reporting requirements, to improve certainty for service providers;
- clarifying regulator's powers to obtain information from relevant related parties including third parties who provide significant services to network businesses;
- minimising the cost to service providers in gathering and providing relevant information; and
- the development of a consistent, streamlined information gathering framework across gas and electricity, transmission and distribution regulation.

Competition in the market-place can also be improved by access to market information which is provided in a transparent and accurate manner. Provision of this information, particularly in natural monopoly situations of transmission and distribution is essential to enabling access by new participants to enter the energy market. At the same time, this needs to be balanced against the need to protect legitimate commercially privileged information.

Objective

To create a regulatory scheme, consistent with the views of the Expert Panel, which both

- enables the AER to obtain adequate information from industry to set efficient prices for energy services without placing an unnecessarily administrative heavy burden on industry, and
- supports competition in the energy market place, whilst protecting legitimate commercially privileged information.

Options

The different options available to address these issues of information disclosure are set out below.

[5] Productivity Commission Inquiry Report No. 31, 11 June 2004 Review of the Gas Access Regime p458
[6]Productivity Commission Inquiry Report No. 31, 11 June 2004 *Review of the Gas Access Regime* p461

Option 1 **Status Quo**	Option 2 **Limited additional information model**	Option 3 **Information powers focused on networks and their associates**	Option 4 **Broad Powers to require information from any relevant party**
Retain separate gas and electricity information systems	Create a single system for collecting information for electricity and gas	Create a single system for collecting information for electricity and gas	Create a single system for collecting information for electricity and gas
Existing general powers for both Gas and Electricity to obtain existing information for enforcement and regulatory purposes s.28 of the NEL; s.41 Gas Pipeline Access Law	A new general power to obtain existing information similar in scope to current enforcement and regulatory purposes s.28 of the NEL; equivalent of s28 to be introduced to the NGL	A new general power to obtain existing information similar in scope to current enforcement and regulatory purposes s.28 of the NEL; equivalent of s28 to be introduced to the NGL	A new general power to obtain existing information similar in scope to current enforcement and regulatory purposes s.28 of the NEL; equivalent of s28 to be introduced to the NGL
Does not generally allow the regulator to require related party information to be kept and produced in particular forms	Limited additional requirements in the Rules for the AER to obtain some specific account information to be kept or generated but AER can not require additional information to that specified in the Rules. Information would be required at (a) revenue reset 5 yearly points, and (b) annual account reporting points.		Allow the AER to require information to be kept and produced in particular forms
		AER can require information from defined Associates	Allow AER to require this information from any party including associates, allied non-NSP entities, and contractors.

Impact Analysis

Option 1: Status Quo

Information gathering powers are currently conferred on regulators under the Section 8 NEL and section 41 of the Gas Pipelines Access Law (GPAL) National Electricity Rules (NER) (see 6.2.6), Gas Code (See ring-fencing account requirements in 4.1 and 4.2 noting also information required by Attachment A). Additional powers in establishment legislation of jurisdictional regulators for distribution.

Under both the NEL and the GPAL regulators have limited general powers to obtain information held by service providers and third parties, but these powers cannot be used to compel a person to compile a new document or to collect the information in the first place. The national regimes for electricity and gas also confer confidentiality obligations on the regulator as does the Trade Practices Act 1974. There is ambiguity about the extent to which the Gas Code accounting obligations as part of ring-fencing (s. 4.1 and 4.2 of the Gas Code) can adequately require the type of information regulators would like to see to monitor costs.

The Expert Panel identified considerable debate about the effectiveness of the current arrangements for information disclosure. Issues included access to existing contract information, requiring compilation of information inconsistency between the gas and electricity regimes risk of service providers maximising their reported level of costs – which could led to an increase in the price the regulator will set.

Benefits and Costs

Benefits
• No additional compliance costs for service providers.
• Does not require the extent of amending legislation, although some amendments are still necessary to transfer distribution regulation to the AER.
• Existing requirements are understood by NSP's.
Costs
• This option does not improve regulator ability to make more efficient decisions. There is continued risk to consumers of being subject to inappropriate prices. Small errors can led to large impacts affecting 50-60% of the overall consumer energy price.
• This option may not provide sufficient information for the regulator to accurately assess service provider's costs and therefore leads to increased regulatory risk - with a an associated risk to businesses of receiving insufficient revenue. Small errors have large impacts when dealing with industry revenue of $35 billion.
• Increased risk of inflated prices due to hidden costs in outsourcing arrangements. Increases opportunities for business to utilise complex "cost shelter" structures.
• Limits transparency in network costs. Can negatively influence generation decisions through ineffective competition between network and generation/supply solutions, which could increase overall costs in the market.
• Does not implement a clearly defined information provision framework that is consistent across jurisdictions. Accordingly does not reduce compliance complexity (and associated costs) for all parties.
• Does not redress inconsistencies between gas and electricity regulation which limits the development of a national market for energy.

Effects on Stakeholders

Network Service Providers	• **No change from existing arrangements.**
Allied Entities, Associates and Contractors.	• No change from existing arrangements.
Energy Users and Consumers	• No change from existing arrangements.
Regulator	• No change from existing arrangements.

Option 2: Limited Additional Information Model

An equivalent of s. 28 of the National Electricity Law could remain for both gas and electricity allowing existing information to be obtained where reasonably necessary for the AER's functions and powers.

Very limited powers would be included in the Rules relating to the account keeping of network service providers. No other parties could be required to keep information.

Benefits and Costs

Benefits
• Provides a consistent national framework for information reporting for electricity and gas across all states. This reduces compliance costs for businesses operating in multiple regions and sectors.
• Limited increase in information from network service providers to assist AER to make more efficient pricing decisions.
• Addresses inconsistencies between gas and electricity regulation which will facilitate the development

of a national market for energy.
Costs
• Does not substantially improve regulator ability to make more efficient decisions - continued risks to consumers of being subject to inappropriate prices . Small errors can led to large impacts affecting 50-60% of consumer energy prices.
• This option may not provide sufficient information for the regulator to accurately assess service provider's costs and therefore leads to increased regulatory risk - with a an associated increased risk to businesses of receiving insufficient revenue. Small errors have large impacts when dealing with industry revenue of $35 billion.
• Increased risk of inflated prices due to hidden costs in outsourcing arrangements. Increases opportunities for business to utilise complex "cost shelter" structures.
• Limits transparency in network costs. Can negatively influence generation decisions through ineffective competition between network and generation/supply solutions, which could increase overall costs in the market.
• Small increase in compliance costs for service providers in the short term. However, costs remain a small proportion of overall revenue involved (generally <1%)
• Requires minor amendment to Rules for the AER to obtain some specific account information.

Effects on Stakeholders

Network Service Providers	• Minor change. • Standardisation in the type of information required by the AER thereby potentially reducing complexity of reporting.
Allied Entities, Associates and Contractors	• No change
Energy Users and Consumers	• Potentially some improved capability of AER to set more efficient pricing
Regulator	• Potentially some improved capability of AER to set more efficient pricing.

Option 3: Information powers focused on networks and their associates

This option would build on the key concerns of the Expert Panel and establish uniform regulation for information disclosure in gas and electricity. It would increase the regulators powers to obtain information from related parties only, and allow the regulator to require these NSP's and their associates to compile information specifically for the regulator.

An equivalent of s. 28 of the National Electricity Law would remain for both gas and electricity allowing existing information to be obtained where reasonably necessary for the AER's functions and powers.

However, the regulator will be able to issue general regulatory information instruments to a network business or a related party / associate which may, consistent with the Law and any Rules:

(a) provide for annual reports of regulatory accounting information relevant to the economic regulatory functions of the AER;
(b) provide for periodic reports of non financial information relevant to the AER’s economic regulatory functions;
(c) provide for the manner in which such information is to be attested by the service provider and be independently audited;

(d) provide for the provision of equivalent information by related contractors to the service provider where such information is relevant to the AER's economic regulatory functions;
(e) provide for the disclosure (and protection) of such information, subject to its presentation in a manner that is not materially detrimental to the business or financial interests of the service provider;
(f) require the AER to have regard to the relevance of the information it requires to be reported, and to the costs incurred by the information provider, and the efficiency and effectiveness of the regulatory process and its objectives.

The increased access to more better and more consistent information would enable the regulator to improve its ability to make efficient price decisions. This option should enable the AER to:

- set efficient prices for energy services
- establish a transparent understanding of the energy market in order to support competition in the energy market place, whilst protecting legitimate commercially privileged information in accordance with Law and Rules.

This model is broadly consistent with the requirements in telecommunications under Division 6 of Part XIB of the Trade Practices Act 1974 which allows the ACCC to make rules concerning record keeping and reporting. It is also consistent with account keeping requirements in overseas jurisdictions, such as the regulatory accounting arrangements of the Federal Energy Regulatory Commission in the United States.

The Productivity Commission recommended that an approach similar to option 3 be adopted. They noted that this approach "will increase the costs of the Gas Access Regime" but felt that "in some circumstances the potential costs of transfer pricing could be greater" than the increased costs of regulation.[7] The increased costs of regulation are a relatively modest cost for an industry which in 2004 had revenues of approximately $6.5 billion in the case of gas and $20 billion for electricity.

Benefits and Costs

Benefits
• Improved regulator ability to make efficient decisions with decreased risks to consumers of unjustified prices. Small errors have large impacts as it affects 50-60% of consumer energy prices.
• This options increases regulator knowledge of service provider's costs leading to reduced regulatory risk - with a decreased risk to businesses of receiving insufficient revenue. Small errors have large impacts when dealing with industry revenue of $35 billion
• Reduced risk of inflated prices due to hidden costs in outsourcing arrangements. Reduces the business incentive to engage in complex "cost shelter" structures.
• Improved transparency in network costs. Can positively influence generation decisions through effective competition between network and generation/supply solutions, which can reduce overall costs in the market.
• Provides a consistent national framework for information reporting for electricity and gas across all states. This reduces compliance costs for businesses operating in multiple regions and sectors. It is also important for users who are seeking comparative analysis of electricity and gas energy options.
• Limits regulatory risk to non-NSP businesses of being caught within the AER information gathering requirements. By defining which associated businesses are affected increases market certainty.
• Addresses inconsistencies between gas and electricity regulation which will facilitate the development of a national market for energy.

[7]Productivity Commission Inquiry Report No. 31, 11 June 2004 Review of the Gas Access Regime p462

Costs
• Increased compliance costs for service providers in the short term (particularly transitional set up costs). However, costs remain a small proportion of overall revenue involved (generally <1%)
• Possibility of inefficient compliance costs from regulators overestimating the amount of information that they require.
• Requires legislative amendment.

Effects on Stakeholders

Network Service Providers	• Minor change in arrangements. • Some standardisation in the type of information required by the AER thereby potentially reducing complexity of reporting between jurisdictions. • Potentially improved capability of AER to set more efficient pricing.
Allied Entities, Associates and Contractors	• Limited increased requirements for NSP Associates to provide information but does not require information to be kept and produced in particular forms by unrelated parties.
Energy Users and Consumers	• Potentially some improved capability of AER to acquire information to set more efficient pricing.
Regulator	• Potentially some improved capability of AER to acquire information to set more efficient pricing.

Option 4: Broad powers to require information from any relevant party

The general power to require existing information (like s. 28 of the NEL) will remain under this model.

However, the regulator will be able to issue general regulatory information instruments to any person which may, consistent with the Law and any Rules:

(g) provide for annual reports of regulatory accounting information relevant to the economic regulatory functions of the AER;

(h) provide for periodic reports of non financial information relevant to the AER's economic regulatory functions;

(i) provide for the manner in which such information is to be attested by the service provider and be independently audited;

(j) provide for the provision of equivalent information by contractors to the service provider where such information is relevant to the AER's economic regulatory functions;

(k) provide for the disclosure (and protection) of such information, subject to its presentation in a manner that is not materially detrimental to the business or financial interests of the service provider;

(l) require the AER to have regard to the relevance of the information it requires to be reported, and to the costs incurred by the information provider, and the efficiency and effectiveness of the regulatory process and its objectives.

The would be similar to option 2, but allow the regulators record keeping and production powers to be applied to any person where the information would be relevant to their economic regulatory functions and powers.

This model would be the most comprehensive attempt to capture all possible outsourcing and asset management arrangements which could avoid the legislative definitions required by 2.

Benefits and Costs

Benefits
• Improved regulator ability to make efficient decisions - decreased risks to consumers of unjustified prices. Small errors have large impacts as it affects 50-60% of consumer energy prices.
• Increased regulator knowledge of service provider's costs leads to reduced regulatory risk - with a decreased risk to businesses of receiving insufficient revenue. Small errors have large impacts when dealing with industry revenue of $35 billion.
• Reduced risk of inflated prices due to hidden costs in outsourcing arrangements. Reduces the business incentive to engage in complex "cost shelter" structures.
• Improved transparency in network costs. Can positively influence generation decisions through effective competition between network and generation/supply solutions, which can reduce overall costs in the market.
• Provides a consistent national framework for information reporting for electricity and gas across all states. This reduces compliance costs for businesses operating in multiple regions and sectors. It is also important for users who are seeking comparative analysis of electricity and gas energy options.
• Addresses inconsistencies between gas and electricity regulation which will facilitate the development of a national market for energy.
Costs
• Potential regulatory risk to non-NSP businesses of being caught within the AER information gathering requirements. Not defining which associated businesses are affect could increase market uncertainty.
• Increased compliance costs for service providers in the short term (particularly transitional set up costs). However, costs remain a small proportion of overall revenue involved (generally <1%)
• Requires legislative amendment.
• Possibility of inefficient compliance costs from regulators overestimating the amount of information that they require.

Effects on Stakeholders

Network Service Providers	• Accurate and sufficient prices are in the interest of NSP as they will provide incentives to remain in the industry and invest in infrastructure. If the regulator inadvertently sets prices too low because of lack of accurate and necessary information owners will be discouraged from investing and new entrants will be deterred from entering the market. • Whilst network owners will benefit from the regulator having adequate information to set efficient prices, they will have to bear the cost of increased reporting requirements.
Allied Entities, Associates and Contractors	• Increase compliance costs as they now have new information provision requirements. • May reduce incentives to establish transfer pricing arrangements to mask the true costs of a project. This may reduce the market for some outsourcing arrangements. • An energy market freed of artificial market distortions could assist in promoting greater operating transparency with effect of facilitating competition among NSP as the they seek lower cost of services. This could result in allied entities, associates and contractors entering the market place and increasing competition.
Energy Users and Consumers	• Increasing the regulators power to collect information from NSP's and related pipeline service providers should lead to more efficient prices. This will mean that energy users and consumers do not have to pay too high a price for energy. • It should mitigate the risk that the regulator will set too low a price resulting in under investment by NSP's and shortages for energy users and consumers.
Regulator	• Increasing the regulators power to collect information from related parties will assist the AER in establishing a full and accurate cost of services. The regulator will benefit from an increase in their power to require the disclosure of information from pipeline operators and

related parties, by improving their ability to make efficient price decisions and reducing the risk that they will under or over estimate NSP costs.

Summary of Impacts

Option Benefits (from Impact Analysis)

Issues	Options			
	1	2	3	4
Improved regulator ability to make efficient decisions - decreased risks to consumers of unjustified prices.		○	●	●
Increased regulator knowledge of service provider's costs leads to reduced regulatory risk.		○	●	●
Reduced risk of inflated prices due to hidden costs in outsourcing arrangements.		○	●	●
Improved transparency in network costs that can positively influence generation decisions through effective competition between network and generation/supply solutions.			●	●
Consistent national framework for information reporting for electricity and gas across all states		○	●	●
Minimisation of inconsistencies between gas and electricity regulation to facilitate the development of a national market for energy.		○	●	●
Limited risk to non-NSP businesses of being caught within the AER information gathering requirements on an ad-hoc basis.	●	●	●	
No increase in compliance costs for service providers	●	○		
No major legislative amendment requirements.	●	○		
Limited risk of regulators overestimating the amount of information that they require.	●	○		

Key to Table: ●=substantially contributes, ○=partially contributes

Assessment of Options against Expert Panel's Four Information Provision Elements

Elements	Options			
	1	2	3	4
The development of clear information gathering and reporting requirements, to improve certainty for service providers;			●	○
Clarifying regulator's powers to obtain information from relevant related parties including third parties who provide significant services to network businesses;		○	●	○
Minimising the cost to service providers in gathering and providing relevant information; and	●	○	●	○
The development of a consistent, streamlined information gathering framework across gas and electricity, transmission and distribution regulation.		○	●	●

Key to Table: ●=substantially contributes, ○=partially contributes

Consultation

Consultation to Date

In proposing changes to the national energy regime, the Expert Panel took into account the substantial number of reviews and reports that had previously been carried out on energy market regulation and reform. These included the Productivity Commission's reviews of the National Access Regime and the Gas Access Regime (June 2004), the Exports and Infrastructure Taskforce report on Australia's Export Infrastructure (May 2005), and the ongoing review of electricity transmission revenue and pricing rules by the Australian Energy Market Commission.

The Expert Panel also encouraged stakeholder participation in its review. To this end, the opportunity was provided for stakeholders to make written submissions on matters arising from the Panel's terms of reference, and an opportunity to make written submissions on the Panel's Draft Report, as well as an opportunity for stakeholders to meet individually with the Panel after the second round of submissions had been considered by the Expert Panel. Stakeholders who participated in this consultative process included participants from all levels of the energy market, from energy generators to producers, transmitters and users. The MCE has also considered the recommendations of the panel in the context of their own jurisdictions and the broader National Energy Market reform agenda.

Submissions Now Sought

Comment is now sought on this RIS from affected stakeholders and interested parties.

In particular, industry submissions would be welcomed on the potential financial costs and benefits (and associated costing and assumptions) that may arise from the RIS Options 2 and 3 relative to the Status Quo (Option 1).

Implementation and Review

The MCE will be amending the NEL/NER, and introducing the NGL/NGR, in 2007 to implement commitments in the Australian Energy Market Agreement relating to the transfer of economic regulation of electricity distribution, and gas transmission and distribution, to the national framework. This process provides an opportunity to implement and ensure that the regulatory framework and available forms of regulation are consistent across the gas and electricity sectors.

It is expected that the NEL will be amended in South Australian Parliament in early 2007. Similarly, it is expected that the lead legislation establishing the NGL will introduced to South Australian Parliament (with mirror legislation being introduced in Western Australia) in early 2007. Application Acts applying the NGL established in South Australian law will be introduced into the legislatures of other States and Territories, and Commonwealth Parliament. It is anticipated that the NGL and NEL will come into force in all jurisdictions by 30 June 2007.

Further, within the new gas and electricity legislative framework, the MCE will be able to direct the AEMC to conduct reviews in accordance with its rule-making and market development function. Such a review could further assess the appropriateness of the available forms of regulation in the new NGL and the NEL, or the viability of subsequently introducing a stand-alone price monitoring option.

Conclusion

The Expert Panel identified that the regulators current powers to require information disclosure are inadequate and that there would be substantial benefits from aligning the information disclosure powers under the gas legislation with those under the National Electricity Law.

The synopsis of options above, clearly demonstrates that Option 3 and 4 both enable more efficient regulatory decisions. These options best meet the Expert Panel's proposed four elements to be considered when deciding how to balance the regulators need for information while minimising the regulatory burden placed on service providers.

Further, they allow for comprehensive, firm-specific information on costs which allows the regulator to make efficient pricing decisions. Whilst these options places a heavier burden on network provider to collect information for the regulator, this is considered an appropriate burden in view of the potential costs of poor regulatory decisions based on inadequate information. In addition Option 3 supports competition in the energy market place, with the provision of arrangements to protect legitimate commercially privileged information.

Critically, while both options 3 and 4 capture the problem of information-protection outsourcing, Option 3 minimises the uncertainty to the market by defining which associate businesses are to be subject to broader AER information gathering powers.

In summary, in considering all these factors against the objectives of this RIS, each option has been assessed as meeting the RIS objectives as follows:

Assessment of Options against RIS Objectives.

Elements	**Options**			
	1	2	3	4
Enables the AER to obtain adequate information from industry to set efficient prices for energy services without placing an unnecessarily administrative heavy burden on industry.			●	○
Supports competition in the energy market place, whilst protecting legitimate commercially privileged information.		○	●	○

Key to Table: ●=substantially meets objective, ○=partially meets objective.

Accordingly Option 3 is considered to be the most effective option in meeting the objectives outlined in this regulatory impact statement.

Regulatory Decision-Making Covering Regulated Network Entities Regulatory Impact Statement

This Regulatory Impact Statement (RIS) sets out the options and assesses their regulatory impact on the form of the regulatory decision-making to be included in the amended National Electricity Law (NEL) and new National Gas Law (NGL).

The aim of the form of the regulatory decision-making framework is to guide the Australian Energy Regulator (AER) in establishing the revenue and price determinations of network businesses operating in the gas and electricity industries.

The regulatory determinations approved by the regulator impact on prices paid by energy consumers and affects network access by businesses operating in upstream and downstream markets. These AER regulatory determinations are usually set over a 5 year period, and are reset/reviewed when the previous determination/access arrangements expire.

This RIS and other related RIS are designed to supplement industry consultation processes for both the new NGL and amended NEL, and ultimately contribute to the final policy decisions made by the MCE on these issues. This RIS should be read in conjunction with the Regulatory Impact Statements on:

- **The Form of Regulation for Gas and Electricity Networks** – which addresses the approach taken by the Ministerial Council on Energy (MCE) in determining the forms of regulation available to the Australian Energy Regulator in regulating electricity and gas network service providers.
- **Information Disclosure** – which examines the costs and benefits of the various options concerning the regulators powers to require production of information from gas pipeline owners and electricity networks
- **Pricing Principles** – concerning development of a set of pricing principles that allow the AEMC (in developing the rules governing the economic regulation of networks) and the AER (in its regulatory determinations) to regulate in accordance with the rules.

Background

Efficient and effective regulation of energy network services is critical to both the economic development of Australia and consumer protection. Energy networks, transporting electricity and gas, provide essential services to Australian households and businesses and have major economic and security implications for Australia's development.

Further, energy networks possess natural monopolies characteristics. This means that, due to economies of scale, scope, and significant sunk costs it is not cost effective or efficient to duplicate such significant network and pipeline infrastructure. The industry, therefore, generally has limited suppliers of network infrastructure servicing geographic regions or areas.

Australia currently has approximately 40 regulated network/pipeline businesses across the gas and electricity sectors (including both transmission and distribution). These businesses have annual turnover of around $7.3 billion in revenues for electricity (approximately $35 billion over a regulatory period) and $1.6 billion for gas (approximately $8 billion over a regulatory period). There are also a number of businesses which operate across the electricity and gas industry and within the transmission and distribution sectors.

The network/pipeline infrastructure across gas and electricity amounts to approximately $44 billion (that is the regulatory value of the network's asset base). In addition, the network segment of the gas and electricity industry is highly capital intensive in nature with approximately $20 billion in capital expenditure over a 5 year regulatory cycle and approximately $13 billion in operating and maintenance costs over a 5 year regulatory cycle. Overall, energy network charges consist of approximately 50-60% of final consumer energy prices. Therefore, regulating the revenue of natural monopoly network businesses has substantial economic impacts.

Revenue determinations within the existing gas and electricity access regimes take place every five years. These determinations are resource intensive requiring significant staff costs and expert advice for both service providers and regulators. Regulatory costs of obtaining approval of an application, according to an Envestra submission to the Productivity Commission in 2004, could range in its experience from $0.25-$2m, depending on the size of the network[8]. These regulatory costs are significant but remain less than 1% of total revenue across the industry. More importantly, as most energy network investments have a payback period of 20-50 years, regulatory uncertainty can lead to reduced investment in critical infrastructure. A clear regulatory regime based on sound economic principles is required to both enhance business certainty and protect consumer interests.

Recognising this, governments around Australia established a National Competition Policy agenda in the early 1990s that included significant reforms to the energy industry to enhance economic growth and productivity. As part of this process, various Australian jurisdictions committed to establish cooperative legislative regimes for regulating access to electricity and gas networks. Access regimes were legislatively established by the National Electricity (South Australia) Act 1996 (for electricity) and the Gas Pipelines Access (South Australia) Act 1997 (for gas).

Over time, the initial access regimes for electricity and gas have diverged in many respects, including institutional and governance arrangements, forms of regulation applied to network service providers, and the revenue and pricing principles used by regulators. Further, differences have emerged between transmission and distribution, particularly within the electricity regime. This divergence has implications for business certainty, the economic costs of regulation, and the efficiency and effectiveness of regulatory determinations. As indicated above, the costs of imposing regulation, where done appropriately and based on sound economic principles, are substantially out-weighed by the benefits of this regulation, particularly where network service providers possess monopoly power.

In June 2001, the Council of Australian Governments (COAG) commissioned a review examining new opportunities for reform of energy markets in Australia. In November 2002, COAG received for consideration a comprehensive Energy Market Review, which recommended further energy reforms, including of governance and regulatory arrangements. More targeted reviews followed the Energy Market Review, including the Productivity Commission (PC) Review of the Gas Access Regime and a Ministerial Council on Energy (MCE) appointed Expert Panel on Energy Access Pricing, which

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[8] Productivity Commission Inquiry Report No. 31, 11 June 2004 *Review of the Gas Access Regime* p145.

advised on a model to achieve a common approach to revenue pricing for electricity and gas transmission and distribution networks.

Based on these reviews, MCE is now developing a new NGL and National Gas Rules (NGR) to enhance certainty and effectiveness for the regulation of access to gas pipelines. Similarly, the MCE is amending the NEL and creating a national framework for the economic regulation of distribution through the National Electricity Rules (NER).

The economic regulation of electricity transmission was transferred to the national framework on 1 July 2005. The MCE has agreed to the transfer of economic regulation of distribution to the national framework from 1 July 2007.

As part of the transfer of electricity transmission functions, the Australian Energy Market Commission (AEMC), under section 35 of the NEL, is reviewing the transmission revenue and pricing provisions in the Rules, which is expected to be finalised by 1 January 2007. Unlike the transmission Rules, the initial distribution Rules will be made by the South Australian Energy Minister, on the recommendation of the MCE. The MCE is currently developing the initial electricity distribution Rules.

Form of the decision making framework

It is important for the framework (i.e. the provisions of the law and rules) within which the AER will undertake its future economic regulation role to provide it with the obligations and incentive to make decisions that are economically efficient. Its powers need to be clear, its scope of discretion set out, the timeliness and transparency of its processes assured, and all of these related appropriately to the merit review mechanism provided.

A regulatory environment that is conducive to desirable investments being made in a timely way is important. This means not only appropriate returns in the short term but that potential investors can be confident that sound substantial long term investment decisions can be based on a well understood and predictable regulatory regime and not rendered loss-making by subsequent regulatory intervention. Equally important is the predictability of those decisions. That is, the development of an approach that gives energy users and investors in transmission and distribution infrastructure confidence that access and pricing outcomes will be guided by known principles that are applied in a consistent manner.

Currently, there are differences between the way in which the NEL and the associated NER and the GPAL and the associated Gas Code aim to reduce the risks and net social costs of regulatory error while maintaining the benefits of regulation. In particular, there are differences in procedural approaches, as well as the nature of the decision required by the regulator. This RIS focuses on the nature of the regulator's decision. These considerations are being considered by the MCE as it develops the NEL, NGL, and associated rules. As noted above, the AEMC, as part of its review of the transmission revenue and pricing rules, is also considering the nature of the regulator's decision making framework.

There are generally two types of models for the purposes of specifying the nature of the regulator's decision making framework. These include:

- receive –determine model: this model gives the regulator the power to decide the core terms and conditions of access for a service provider based on high level legal principles and after considering various proposals from the service provider about what terms and conditions should be applicable. This model has also been referred to as a 'consider-decide' or 'submit-determine' model.

- propose –respond model: this model involves the service provider developing all crucial elements of an access arrangement for that service provider, and the regulator is then asked to accept those proposed terms and conditions. The regulator must do so if they are within the bounds of a high level legal framework and are overall reasonable. If the service provider's proposed terms and conditions do not comply with the framework or are not reasonable, the regulator then and only then develops its own access arrangement to remedy the deficiencies.

Current treatment

The Gas Code contains extensive requirements regarding the procedures the regulator is required to follow, the rights of parties to make submissions and the transparency of the process. In addition, the Gas Code has also been interpreted, by the Australian Competition Tribunal (ACT), to be a "propose-respond" model, as follows:

- There is a legal right for the regulated entity to make a formal proposal to the regulator to commence the review.

- The regulator is required to assess the regulated entity's proposal against the relevant principles and factors that are set out in the Gas Code, and to decide whether to accept the proposal.

- The task of the regulator is to assess whether the proposal is within a range of reasonable outcomes, rather than to assess whether the proposal would lead to the best set of arrangements when evaluated against the Gas Code requirements.

The ACT has set out its view of the regulator's role when assessing a regulated entity's proposal under the Gas Code as follows:

> ...there is no single correct figure involved in determining the values of the parameters to be applied in developing an applicable Reference Tariff. The application of the Reference Tariff Principles involves issues of judgement and degree. Different minds, acting reasonably, can be expected to make different choices within a range of possible choices which nonetheless remain consistent with the Reference Tariff Principles. Where the Reference Tariff Principles produce tension, the Relevant Regulator has an overriding discretion to resolve the tension in a way which best reflects the statutory objectives of the Law. However, where there are no conflicts or tension in the application of the Reference Tariff Principles, and where the...[Access Arrangement]...proposed by the Service Provider falls within the range of choice reasonably open and consistent with the Reference Tariff Principles, it is beyond the power of the Relevant Regulator not to approve the proposed [Access Arrangement]...simply because it prefers a different [Access Arrangement]...which it believes would better achieve the Relevant Regulator's understanding of the statutory objectives of the Law. [9]

In contrast to the Gas Code, the National Electricity Rules does not include the formal 'propose-respond' model. In particular, there is no formal right for the regulated entities to make a proposal at the commencement of the process; there is no formal requirement on the regulator to first consider whether a proposal meets the relevant statutory guidance; and there are no provisions that qualify the task to be performed by the regulator – that is, the regulator is simply empowered to decide what it considers best. Further, the state specific regimes also contain minimum requirements. However, there is a form of merits review available in some jurisdictions.

Reviews of the decision making framework

The issue of the form of the regulator's decision making framework has been considered by a number of reviews, including the Productivity Commission's review do the Gas Access Regime, the Expert Panel report on Energy Access Pricing, and the Export Infrastructure Taskforce.

In its report on the gas access regime, the PC recommended that the presumption in favour of accepting the regulated entity's proposal should be more explicit and extended, also to extend the scope of matters over which the regulated entity rather than the regulator should have the choice. The PC noted the information asymmetries between regulated entities and regulators, with the regulated entity having a more comprehensive database and intimate understanding of the business' operation when compared to the regulator.

The PC recommended, in particular that:

> To ensure the guidance given to regulators is consistent with recommendation 7.1, s.8.6 of the Gas Code should be changed to the following:
>
> s.8.6 In view of the manner in which the Rate of Return, Capital Base, Depreciation Schedule and Non Capital Costs may be determined (in each case involving various discretions), a range of values may be attributed to the Total Revenue described in section 8.4. In order to assess whether a value proposed by a Service Provider is within this range the Relevant Regulator may have regard to any financial and operational performance indicators it considers relevant in order to determine whether the level of costs nominated by the Service Provider is within the range of plausible outcomes under section 8.4 that is consistent with the pricing principles contained in section 8.1. [10]

Subsequent to the release of the PC recommendations, the Export Infrastructure Taskforce adopted the PC recommendations. In particular it noted:

> Additionally, the regulator’s functions in pursuing that objective should be modified to ensure that regulators, rather than seeking an ‘optimal’ point, focus their task on assessing whether what has been proposed as the regulated terms and conditions of access is a reasonable commercial outcome. This would be consistent with the views of the Productivity Commission, which has suggested that regulators, in assessing terms and conditions, should be required to:
>
> - take as their starting point the terms and conditions proposed by the service provider;
> - in assessing those, take account of the fact that for many of these terms and conditions, there will be a reasonable range of values, rather than a single, ‘true’, value; and
> - on that basis, assess whether what has been proposed falls within that reasonable range. [11]

The Expert Panel in its Energy Access Pricing Report also commented on this issue, having regard to the above mentioned reviews and recommendation. The Expert Panel noted the following:

- Any global presumption in the NGL or a revisions to the Gas Code for a regulated entity's proposal to be accepted if the relevant elements are within a 'reasonable' or 'plausible' range raises difficult questions of principles and practicality.

- The propose-respond model with a presumption in favour of accepting the regulated entity's proposal was introduced through legal interpretation of the provision of the Gas Code and the rights and obligations it establishes, rather than a policy-based analysis of the most appropriate regulatory approach.

- A more complete response to the potential for regulatory error, and the possibility of asymmetric consequences, is to ensure that the objective for the regulator is appropriate, the guidance is clear and that the mechanisms in place for review of the regulator's decisions are appropriate.

- While acknowledging regulatory risk, the Expert Panel noted that: there is insufficient evidence to conclude that they are likely to exist in relation to all revenue and price decisions; and there are alternative means of dealing with these risks that are preferable to adopting a blanket provision in favour of a propose-respond model in the NGL, NEL or the relevant statutory rules to be developed by the MCE and AEMC.

The Expert Panel recommended a "fit for purpose" model. Under this model the law would not mandate the use of any particular decision-making framework i.e. a receive-determine or propose-respond model. Instead, the Rules draw on both the propose-respond and receive-determine models to set the degree of discretion to be exercised by the regulator for each element of its regulatory decisions. The Expert Panel noted:

> The complexity and differing characteristics of each element of the service provider's proposal are such that the Law cannot itself prescribe a single overriding test to be applied by the AER in assessing service provider proposals. These must be determined by the AEMC in the Rules developed for each of the alternative available forms of regulation. In some instances, this may involve relatively little discretion on the part of the AER, such as when parameters in the rate of return are prescribed in Rules or an objective methodology (by reference to observable market data, such as interest rates) for determining them is contained in the Rules. In other cases, such as in the estimation of forecast operating or capital expenditure, it may call for more discretion. 9

The AEMC, as part of its review into the rules governing the regulation of transmission networks, has also considered this matter. On 26 July 2006, the AEMC release a draft revenue rule in which it proposed prescriptive rules that define elements of a regulatory determination. The AEMC draft rule required the AER to accept a transmission network's proposed forecast operating and capital expenditure where it determines that the forecast is a reasonable estimate of its expenditure requirements having regard to a number of specified criteria. The draft rules also lock in elements of the weighted average cost of capital. It should be noted that the AEMC final revenue and pricing rules are to be finalised by 31 December 2006.

Views presented in submission to all four processes on whether it was appropriate to have a formal presumption in favour of accepting a regulated entities proposal tended to be divided between the different classes of stakeholders. Regulated entities support the concept of a 'propose-respond' model. In contrast, energy users and the regulators raised issues with the concept of a 'propose-respond' model.

It is the MCE's objective to implement legislation and rules that promote efficient investment in, and efficient operation and use of, natural gas and electricity services for the long term interests of consumers of energy with respect to price, quality, safety, reliability and security of supply.

In promoting economic efficiency within the energy market, the States and Territories and the Commonwealth, through the Australian Energy Market Agreement, have confirmed their commitment to a national approach to energy access whereby to the extent feasible and where effective regulation is not impeded, there should be consistency and harmonisation between electricity and gas access regimes such that investment in, and use of, energy is not distorted by differing regulatory regimes.

[9] MCE Expert Panel on Energy Access Pricing, Final Report, 2006, p 90.

Problem

Energy networks are natural monopolies with significant market power and associated information asymmetries. Therefore, the long term interests of consumers involves some level of regulatory oversight. To create an efficient energy market which balances long term interests of consumers and effective investment, the regulator (Australian Energy Regulator, AER) requires an appropriate and clear framework for regulatory decision-making on network earnings.

This regulatory framework should ensure that the regulatory regime produces efficient outcomes and reduces the ability of the network business to extract monopoly rent, while mitigating regulatory risk, providing certainty for service providers and balancing the interests of the service provider and user.

Within this framework, the problem can be segmented into the following key elements, in no particular order:

- *Risk of monopoly rents extracted from consumers* – As noted above, network service providers possess natural monopoly characteristics. Like any business, they have a fiduciary duty to shareholders to maximise profit. However, unlike most other industries economies of scale and scope mean a network business is usually the sole network provider servicing its geographic area. There are no competitive forces in the market that drive or influence its behaviour. Given its business incentives, a network service provider will have the incentive to extract and maximise its monopoly rent. The role of regulation is to minimise the ability of the regulated entity to extract such rents.

- *Regulatory risk* – given asymmetric information and the uncertain environment in which decisions are made about possible future network/pipeline requirements, the issue of regulatory risk and error arises. Regulatory error may occur given the fact that decisions are made in an uncertain environment, where one party (the regulator) has much less information than the other (the regulated business). This environment of information asymmetry is complicated by the fact that a regulated entity has an incentive to "talk-up" its expenditure requirements, while on the other hand, a regulator may also be inclined to be "too tough" in approaching its task, subject to the various constraints imposed upon it.

- *Balance interest of consumers and network service provider* – the regulatory framework should ensure balanced regulatory decisions are made that take into account the financial and regulatory requirements of a network service provider (appropriate return on their investment, have regard to their obligations etc) and the interests of consumers and users (access to the network, minimise extraction of monopoly rent, reliable and safe supply of energy etc).

- *Certainty for network service provider* – network/pipeline investment decisions are long lived (i.e. up to 30-40 year investments). Therefore, the regulatory environment and regulatory framework influences investment decisions by network businesses.

- *Consistency between the gas and electricity regime* – In the Australian Energy Market Agreement (AEMA), it was agreed that harmonisation, where appropriate, should be provided between the gas and electricity framework. Harmonisation of the nature of the decision making framework between gas and electricity would create a sound basis for competitively neutral pricing outcomes between gas and electricity networks, leading to improved economic efficiency, and reduce administrative costs for those businesses operating across the gas and electricity industry.

- *Inconsistency in methodology and approach* – Consistency in approach from the regulator increase predictability and therefore business certainty, as well as transparency and perceived equity across the industry.

- *Ensure flexibility to accommodate different service provider circumstance* – consistency in the regulatory regime that applies to gas and electricity (transmission and distribution) is important for energy competition. However the regulatory regime needs to also be able to accommodate the different characteristics between service providers – i.e. different operating environment, risks, and regulatory obligations. A flexible regulatory decision-making framework that can be adapted to accommodate the different characteristics of transmission and distribution networks in both electricity and gas is also important. In particular, a framework that can be adapted according to the degree of regulatory risk or regulatory certainty is desirable.

- *Balance varied risk between different elements of a determination* – different elements of a regulatory determination possess different degrees of regulatory risk. For example capital expenditure, WACC parameters, service incentives, etc can have widely varied regulatory risk profiles. The regulatory regime needs to be able to take into consideration the significant or key elements of a regulatory determination and the potential for regulatory risk given uncertainty regarding future expenditure requirements, and information asymmetries between the regulator and regulated business.

- *Adaptive to different regulatory risk over time* – A consistent regulatory regime which sets out detailed requirement may guide the regulator in its task and create certainty to the service provider about its requirements, however regulatory risk and the regulatory environment changes over time. Therefore, the regulatory framework needs to be able to be adaptive to these changes.

Importantly the regulatory decision-making framework is not the only component of the regulatory framework to influence service provider certainty, incentives and regulatory risk. A range of other mechanisms are specifically designed to address these issues, including:

- the NEL and NGL objective that requires the AER, as the regulator, and AEMC as the rule maker, to promote efficient investment in, and efficient use of energy services for the long term interests of consumers with respect to price, quality, safety, reliability and security of supply.

- the pricing principles that require the AER and AEMC to:

    - provide a reasonable opportunity for a network operator to recover at least the efficient costs of providing services that are the subject of the network pricing determination and complying with a regulatory obligation;
    - provide effective incentives to a network operator to promote economic efficiency in the provision by it of services that are subject to a network pricing determination;

   - make allowance for the value of assets forming part of the network and have regard to previous regulatory valuations;
   - have regard to the economic costs and risks of:
     - the potential for under-investment and over-investment in assets by the network operator; and
     - the potential for under-utilisation and over-utilisation of the capacity of assets forming part of a distribution or transmission system, and the capacity of proposed new assets.

- the availability of a limited merits review mechanism. This allows affected parties to challenge the AERs regulatory determinations, increasing the accountability of the regulator and managing risks of regulatory error.

Objective

The regulatory decision-making framework in gas and electricity should:

- encourage certainty for networks and provide incentives for investment;

- provide fair access prices to users; and

- ensure a balance in the provision of services to avoid over-provision or under-provision of network infrastructure and services – over-provision can distort market dynamics, while under-provision can lead to congestion and problems with system reliability.

A regulatory decision-making framework should be flexible enough to be adapted according to the degree of regulatory risk/certainty in the market. The objective is therefore to balance the matters outlined in the problem section.

Options

The table below provides a summary of the options being considered for regulatory decision making.

Options

OPTION 1 Status quo		OPTION 2 Propose-respond model	OPTION 3 Receive-determine model	OPTION 4 "Fit for purpose"
RELEVANT INSTRUMENTS				
Gas – Gas Code/Rules Electricity – Electricity Rules		Gas and Electricity – Law and Rules	Gas and Electricity – Law and Rules	Gas and Electricity – Law and Rules
MAIN CHARACTERISTICS				
Gas	Electricity	Gas and electricity	Gas and electricity	Gas and electricity
				The regulated entity **must** submit a proposal/application
If the proposal meets defined criteria and is reasonable, the regulator **must accept** the proposal.		If the proposal meets a defined test the regulator **must accept** the proposal.		**For some elements**, the regulator must accept the proposal if it meets a defined test in the Rules.
	Regulator decides the core terms and conditions based on a wide range of varied and conflicting principles.		Regulator decides the core terms and conditions, following defined principles.	**For some elements**, the regulator may decide on the terms and conditions, following defined principles
				For some elements, the terms and conditions are mandated in the Rule.
Ministers can change discretion under the law within the Act	The **AEMC can review** Rules.	The law limits the regulator within the bounds of a defined test.	The law gives the regulator full discretion.	As risk factors change over time, the **AEMC can review** Rules to change the level of regulatory discretion on different elements.

Impact Analysis

This section outlines the benefits and costs and provides a stakeholder analysis.

Option 1: Status Quo

As noted above, this option involves continuing to have divergence between the gas and electricity regulatory decision making framework. That is, the Gas Code has been interpreted as a "propose-respond" model, and the electricity framework is a "receive-determine" model.

The main characteristics of this option are outlined in the table above.

Benefits and costs

Benefits
• The receive-determine model is well-established in electricity, as is propose-respond in gas. Both network service providers and regulators are familiar with the operation of these models in their respective sectors.
• Under the electricity framework, there is a transparent process as the AER must disclose reasons for its decisions. The regulator must be able to demonstrate that its assessment is balanced.
• The electricity framework allows for a balanced assessment – i.e. balances the interests of service providers and users. For instance, in electricity transmission and distribution decisions, regulators generally aim at the central point in the range when determining regulated revenue.
• The gas model gives the service provider the opportunity to put forward its proposed access arrangement. As the party most directly affected, network service providers are the most informed about their financial and commercial matters.
• With the opportunity to submit a proposed access arrangement in the gas model, the service provider would have greater discretion and flexibility within the parameters set out in the Law and Rules.
• It has been argued that the gas model may reduce incidences of regulatory error.
Costs
• Maintaining the existing arrangement would mean that different decision making framework would be in place for gas and electricity. This would result in administrative costs to network service providers who operate in both the gas and electricity industry – costs of comply with different regulatory regimes for gas and electricity.
• Maintaining existing arrangement is not consistent with the MCE objective of establishing a consistent regulatory framework, where appropriate. Therefore, the energy framework in general, does not balance the interest of users and the service provider in a consistent or appropriate manner.
• The risk of inefficiency, due to a lack of competitive neutrality between gas and electricity networks. This may generate a situation where gas and electricity may not be competing on a "level playing field", which is a precondition for energy market efficiency.
• Maintaining the existing electricity model could lead to more instances of "regulatory error" when compared to other options – i.e. limited guidance from the law and Rules provides the regulator wide discretion which could lead to more instances of errors in regulatory decisions.
• Maintaining the existing electricity model could mean that the regulator must carry out extensive research about the company's financial details, imposing an information-gathering cost that may be higher than under other approaches. However, it can be argued that this issue is also evident in other models.
• There are different degrees of certainty for the network service provider under the gas and electricity framework, i.e. the regulator has more discretion under the electricity framework.
• As noted above, under this option there are differences between the gas and electricity regimes which means that there are differences in the way the regulatory regime balances regulatory risk for different elements of a determination, the degree of flexibility to accommodate service provider circumstances, and differences in methodology and approach more generally.
• The gas model would not mitigate the inherent uncertainty associated with forecasting expenditure

allowances. The range would provide service providers with an incentive to over-estimate their forecasts, leading to inflated expenditure allowances. This could lead to higher prices for consumers.

- The gas model would mean a presumption in favour of the service provider's proposal, means that forecasts are more likely to be accepted even where there may be a better estimate. This provides even more incentive to claim higher allowances, leading to a systematic 'upward bias' in claims. As a monopoly service provider, the legal bias in favour of the provider can hinder access to users or lead them to extract monopoly rents.
- This presumption and the resulting upward bias would increase costs to end-users. The opportunity to submit a revised proposal, which is more likely to be accepted by the regulator, provides an opportunity for regulatory gaming.
- The potential upward bias would be particularly problematic given that network costs account for around 50 - 60% of an end-use customer's bill.

- As noted by the Expert Panel "reasonable range" is an ambiguous terms, and difficult to define, particularly because, 'they are not defined terms in case law or regulatory practice, nor is there any readily available and uncontroversial statistical basis for establishing them'.
- The ambiguity associated with the term 'reasonable range' leaves the terms open to regulatory discretion, and can lead to inconsistency in determinations.
- The ambiguity associated with the term can lead to litigation and is likely to add to the complexity of the determination process, increasing costs to service providers and users.

- The gas model approach could lead to a two-step approach to decision-making. The regulator first decides whether to accept the service provider's proposal. If it is not accepted, the regulator makes a determination. This can extend decision-making timetables significantly, making the two-stage model impractical. The fact that the regulator has to respond to the methodology proposed by the service provider, can also lead to increased complexity and costs in the regulatory process

- With the AER responding to the methodology proposed by the service provider, the gas model could lead to inconsistency in regulatory decision-making. Under the electricity model, inconsistencies could also arise due to regulatory discretion.

As this is the status quo (no change options) there will no new affects on stakeholders.

Option 2: propose-respond model

Under this model, the NGL and NEL would specifically presume a "propose – respond" model by explicit direction to the AEMC. .

As noted above this model requires a service provider's access proposal to be accepted if they comply with a test specified in the relevant law. If that test is not satisfied, the regulator can substitute its own view when finalising the terms and conditions of access.

Nonetheless, the key feature of this model is that the regulator cannot substitute a term, condition or figure that meets the requirements of the relevant law/rules simply because it prefers another term, condition or figure and thinks that term, condition or figure will better meet the objects of the relevant law/rules.

Benefits and costs

Benefits
• Harmonisation of the nature of the decision making framework between gas and electricity would: o Create a sound basis for competitively neutral pricing outcomes between gas and electricity networks, leading to improved economic efficiency. o Reduce administrative costs for those businesses operating across the gas and electricity industry.
• Creates an overarching consistent regime, but allow for differences to occur between the energy sectors where appropriate. The required differences would largely depend on what differences are put forward by the service provider rather than at the regulatory assessment phase.
• Addresses the risk of under/over investment given the AER is to approve/determine the

revenue/price cap or access arrangement with reference to the service provider's proposal and the criteria/principles in the law.

- Provides more guidance to the regulator in making its regulatory determinations, including the process under which it will assess the service provider's proposal, treatment of confidential information, and matters to consider in assessing aspects of the proposal. This may reduce incidences of regulatory risk and error and create more certainty for the service provider.
- Under this model the service provider is provided with an opportunity to put forward its proposed access arrangement. As the party most directly affected, network service providers are the most informed about their financial and commercial matters. Further, the business understands its business more than the regulator and therefore is in a better position to determine the needs of the business from a commercial and financial point of view.
- Network service providers have commented that the service provider is best placed to obtain and understand information required for the efficient and effective operation of their network. Furthermore, under a propose-respond framework, there may be incentives for network providers to propose a balanced and moderate estimate due to the underlying risk that the regulator may not accept the proposal as reasonable.
- There is unlikely to be a clear "best estimate" of a particular parameter value, but rather reasonable values that may be derived from different methodologies and assumptions. It may be difficult to determine the correct value because they are subject to forecasting error.
- It is important to note that these benefits are difficult to quantify given the detailed requirements will be applied by the AER in making regulatory determinations/access arrangements and by the AEMC in making revenue/pricing rules for gas and electricity. The significance of these benefits will largely depend on whether the implementation approach is altered and whether "regulatory error" can be identified and reduced.

Costs

- A change in the decision making framework means that transitional costs may be incurred by the various stakeholders, including governments and network service providers. May also lead to disruptions to existing legislative, regulatory and commercial arrangements.
- Requires minor amendment to NGL, NEL and the rules in order to implement this option.
- Under this approach, the regulator is unable to substitute a business' estimate with a better estimate that balances the consumer and businesses interests.
- May lead to inconsistency in methodology and approach to regulation.
- Under this option there may be a systematic upward bias on revenue and prices. Network monopoly businesses are profit maximising entities and under this model they would be expected to engage in a strategic game with the regulator to propose values that are as high as possible without transgressing the regulator's upper threshold on what might be considered reasonable. Thus the businesses' incentive is to propose a value on the outer limit of what might be acceptable rather than the expected value. The opportunity to submit a revised proposal, which is more likely to be accepted by the regulator is a further element of the strategic game.
- Further, this model may not mitigate the inherent uncertainty associated with forecasting expenditure allowances. The range would provide service providers with an incentive to over-estimate their forecasts, leading to inflated expenditure allowances.
- This presumption and the resulting upward bias would increase costs to end-users. The potential upward bias would be particularly problematic given that network costs account for around 50 - 60% of an end-use customer's bill
- The "reasonableness" component of this model may create uncertainty, inconsistency and increased complexity in the determination process.
- The terms "reasonable" and "reasonable range" are ambiguous terms, and are difficult to define. They are not defined terms in case law or regulatory practice, nor is there any readily available and uncontroversial statistical basis for establishing them.
- The ambiguity associated with the terms ‘reasonable’ and ‘reasonable range’ leaves the terms open to regulatory discretion, and can lead to inconsistency in determinations.
- The ambiguity associated with the term ‘reasonable’, and subsequent inconsistency in determinations, can lead to litigation.
- The ‘reasonable" provision is likely to add to the complexity of the determination process, increasing costs to service providers and users. This option leads to a two-step approach to decision-making. The regulator first decides whether to accept the service provider's proposal. If it is not accepted, the regulator makes a determination. The first decision is subject to arguments on merits and

judicial review, which involves extra time and effort, especially if there is a revised determination. This can extend decision-making timetables significantly, making the two-stage model impractical. The fact that the regulator has to respond to the methodology proposed by the service provider, can also lead to increased complexity and costs in the regulatory process.

- A requirement for a regulator to accept a reasonable proposal may not lead to symmetrical review rights. For instance, if a regulator errs of the side of the network and approves favourable terms and conditions, the merits review body would be very unlikely to find this exercise of discretion 'unreasonable'. However, a regulator's decision to reject a reasonable proposal may more easily be attacked by a service provider with the information and resources to challenge particular aspects of the decision or assumptions of future fact that are part of the decision.
- This option does not recognise varied regulatory risk between different elements of a regulatory determination and changing regulatory risk over time.
- It is important to note that these costs are difficult to quantify given that the detailed required will be applied by the AER in making regulatory determinations/access arrangements and by the AEMC in making revenue/pricing rules for gas and electricity. The significance of these costs will largely depend on whether the implementation approach is altered and whether "regulatory error" can be identified and reduced.

Impact on Stakeholders

Network service providers	• This option would allow service providers to submit their proposal in the first instance, while also proposing the methodology to be adopted by the regulator. In doing so, this option places the balance in favour of network service providers. • This approach creates more certainty to the service provider and may minimise regulatory risk/error.
Major energy users	• Due to the potential for upward bias and information asymmetry, service providers would have the opportunity to propose revenue forecasts that are at the higher end of the scale. An upward bias such as this could have a significant impact on users, due to an increase in the cost for energy.
Final consumers	• Like major energy users, the upward bias created by propose-respond would lead to higher costs for energy usage. Expenditure forecasts form a substantial proportion of distribution costs, which are a large part of an end-user's electricity bill. Therefore, an upward bias on expenditure forecasts would have a material impact on consumers. This is particular so in the case of distribution networks, as network costs form up to 50 - 60% of an end-user's bill.
Other market participants (generators and retailers)	• Generators may be affected especially in the context of the electricity industry, as network investment decisions, in particular transmission, can affect a generator's investment decision and operation in the market.
Regulators	• This option may impose transitional costs. • Could lead to inconsistency in methodology and approach in the regulatory framework. • More guidance to the regulator on the decision making framework.

Option 3 –receive-determine model

Under this model, the NGL and NEL would specifically presume a "receive - determine" model by explicit direction to the AEMC.

As noted previously, this model is one where the regulator’s discretion are constrained by the framework of the relevant law/rules, but the regulator retains the ability to determine an outcome that best meets the requirements of the law.

The key feature of this model is that the regulator is able to substitute a term, condition or figure that meets the requirements of the relevant law/Rules if it determines an outcome (i.e. another term, condition or figure and thinks that term, condition or figure) will better meet the objects of the relevant law/Rules.

Benefits and costs

Benefits
• Harmonisation of the nature of the decision making framework between gas and electricity would: • Create a sound basis for competitively neutral pricing outcomes between gas and electricity networks, leading to improved economic efficiency. • Reduce administrative costs for those businesses operating across the gas and electricity industry.
• Create an overarching consistent regime, but allow for differences to occur between the energy sectors where appropriate, via the service provider through its application or by the regulator at the regulatory assessment phase.
• Guided discretion is provided – with the regulator considering the most appropriate estimate having regard to specified criteria/matters, the NGL and NEL objective and the pricing principles. • Addresses the risk of under/over investment or the instances of "regulatory error" when considering this option along side other policy including merits review, pricing principles and the objective of the law.
• Under this model the service provider is provided with an opportunity to put forward its proposed access arrangement. As the party most directly affected and given asymmetric information (i.e. the business understands its business more than the regulator and therefore is in a better position to determine the needs of the business from a commercial and financial point of view), the service provider would initiate the regulatory review process with its proposal.
• Under this model, the regulator is able to assess whether the proposal is the optimal or better estimate compared to the service provider's proposal and gives the regulator the ability to substitute a better estimate when it is not satisfied with that proposed by a service provider. • This would reduce the incentive for the service provider to put forward inflated expenditure allowance. • This option moderates the potential of higher costs to consumers through reducing the incentive on service providers to put forward inflated expenditure allowances.
• This option recognises that the regulator requires sufficient discretion to balance the interests of service providers and consumers.
• This model ensures flexibility to accommodate for different service providers circumstances, but appropriate consistency in methodology and approach given a single regulator would be undertaking these regulatory reviews. Furthermore, this model allows for consistency to be adopted by the regulator at the regulatory assessment phase.
• The regulator has more discretion under this model compared to the other options. This allows the regulatory framework to adopt where required.
• The model would ensure a transparent process as the AER must disclose reasons for its decisions. The regulator must be able to demonstrate that its assessment is balanced. These reasons may be tested by a merits review body to ensure the most appropriate outcome has been reached, creating more symmetrical review rights.
• It is important to note that these benefits are difficult to quantify given the detailed requirements will be applied by the AER in making regulatory determinations/access arrangements and by the AEMC in making revenue/pricing rules for gas and electricity. The significance of these benefits will largely depend on whether the implementation approach is altered and whether "regulatory error" can be identified and reduced.
Costs
• A change in the decision making framework means that transitional costs may be incurred by the various stakeholders, including governments and network service providers. May also lead to also disruptions to existing legislative, regulatory and commercial arrangements.
• Requires minor amendment to NGL, NEL and the rules in order to implement this option.
• Under this approach, the regulator is able to substitute a business' estimate with a better estimate.

This may result in instances of "regulatory error" given asymmetric information.

- This option leaves guided discretion to the regulator to determine the better estimate. Such an approach could create uncertainty for business, affecting their investment decision, and affect the final outcome for end-users.
- There may be incentives under this regime, for the service provider to inflate its proposal and forecast requirement to overcome the risk that the regulator may reduce its revenue/price requirements.
- It is important to note that these costs are difficult to quantify given that the detailed required will be applied by the AER in making regulatory determinations/access arrangements and by the AEMC in making revenue/pricing rules for gas and electricity. The significance of these costs will largely depend on whether the implementation approach is altered and whether "regulatory error" can be identified and reduced.

Effect on stakeholders

Network service providers	• Under this option, network service providers would still have the opportunity to submit a proposal. However, the "reasonable estimate" test would be applied on a case-by-case basis by the regulator depending on the situation. This flexibility could lead to uncertainty for service providers, but all regulatory decisions will be legally subject to merits review.
Major energy users	• • This option reduces the potential of higher costs to consumers through reducing the incentive on service providers to put forward expenditure estimates at the higher end of the range. • May reduce the ability of the service provider to extract monopoly rent.
Final consumers	• This option reduces the potential of higher costs to consumers through reducing the incentive on service providers to put forward expenditure estimates at the higher end of the range • May reduce the ability of the service provider to extract monopoly rent. .
Other market participants (generators and retailers)	• Generators may be affected especially in the context of the electricity industry, as network investment decisions, in particular transmission, can affect a generator's investment decision and operation in the market. • The magnitude and materiality of the effect is difficult to quantify as the Rules will set out the detailed regulatory framework.
Regulators	• Under this option, the regulator is able to assess whether the service provider’s proposal is the optimal or better estimate and gives the regulator the ability to substitute a better estimate when it is not satisfied that a service provider’s proposal is the best estimate. • The regulator has more discretion under this option compared to the other options. This allows the regulatory framework to adapt where required.

Option 4 – "Fit–for-purpose"

Under this model the law would not mandate the use of any particular decision-making framework i.e. a receive-determine or propose-respond model. Instead, the Rules will allow the AEMC to draw on both the propose-respond and receive-determine models to set the degree of discretion to be exercised by the regulator for each element of the AER's regulatory decisions. In addition, where appropriate the decision making process can be removed all together by specifying/mandating detailed parameters in the Rule. This can increases clarity, predictability and certainty.

The key aspect of this option is that different elements of a revenue determination are subject to different degrees of risk/certainty and require different levels of flexibility/consistency between service providers. Therefore the need/risks of regulatory discretion vary.

Under this option the law will make clear that a propose-respond model is not presumed to be the outcome of the law and rules unless the Rules specify otherwise.

Benefits and costs

Benefits
• Harmonisation of the nature of the decision making framework between gas and electricity would: • Create a sound basis for competitively neutral pricing outcomes between gas and electricity networks, leading to improved economic efficiency. • Reduce administrative costs for those businesses operating across the gas and electricity industry.
• Creates an overarching consistent regime, but allow for differences to occur between the energy sectors where appropriate. The required differences could be dealt with in the rules or left to the discretion of the regulator as part of its regulatory assessment. This will depend on the circumstances at the time and the perceived risk of regulatory error.
• Addresses the risk of under/over investment or the instances of "regulatory error" when considering this option along side other policy including merits review, pricing principles and the objective of the law.
• Provides more guidance, where appropriate and as determined in the rules, to the regulator in making its regulatory determinations, including the process under which it will assess the service provider's proposal, treatment of confidential information, and matters to consider in assessing aspects of the proposal. This more appropriately deals with perceived regulatory risk and error and create certainty for the service provider.
• Under this option the service provider is provided with an opportunity to put forward its proposed access arrangement. As the party most directly affected, network service providers are the most informed about their financial and commercial matters. Further, the business understands its business more than the regulator and therefore is in a better position to determine the needs of the business from a commercial and financial point of view.
• Allows the rules to define appropriate regulatory discretion where considered appropriate. This allows the regulatory framework to adapt where required.
• Under this option, aspects of a regulatory determination can be "receive-determine" or "propose – respond", or locked into the rules, where appropriate. • The appropriate model can change as circumstances change and the nature of regulatory risk changes. • Any amendments to the framework would go through a public consultation process by the AEMC, where the views of the interested parties and affected parties would be considered and taken into account.
• The option would ensure a transparent process as the AER must disclose reasons for its decisions. The regulator must be able to demonstrate that its assessment is balanced.
• Ensures the right balance in the regulatory framework, to balance the interest of consumers and network service providers.
• This option recognises varied regulatory risk between different elements of a regulatory determination and changing regulatory risk over time. Changes would occur through the rule change process.
• It is important to note that these benefits are difficult to quantify given the detailed requirements will be applied by the AER in making regulatory determinations/access arrangements and by the AEMC in making revenue/pricing rules for gas and electricity. The significance of these benefits will largely depend on whether the implementation approach is altered and whether "regulatory error" can be identified and reduced.
Costs
• A change in the decision making framework means that transitional costs may be incurred by the

various stakeholders, including governments and network service providers. May also lead to also disruptions to existing legislative, regulatory and commercial arrangements.
• Requires minor amendment to NGL, NEL and the rules in order to implement this option.
• This option could lead to key elements being a "propose respond" framework, which could lead to an upward bias which would increase costs to end-users.
• Could lead to a situation in which the rules would be consistently changes, as affected parties are able to put forward rule change proposals. This may create uncertainty to the service provider, regulator, and users on regulatory framework, especially if it is subject to constant change.
• It is important to note that these costs are difficult to quantify given that the detailed required will be applied by the AER in making regulatory determinations/access arrangements and by the AEMC in making revenue/pricing rules for gas and electricity. The significance of these costs will largely depend on whether the implementation approach is altered and whether "regulatory error" can be identified and reduced.

Impact on Stakeholders

Network service providers	• This option would allow service providers to submit their proposal in the first instance, while also proposing the methodology to be adopted by the regulator. • This approach creates more certainty to the service provider and may minimise regulatory risk/error. • This option could lead to "receive-determine" or "propose-respond". However, consultation would be undertaken in which views can be put forward. Further, the nature of the framework can be changed through a rule change process.
Major energy users	• This option could lead to key elements being a "propose respond" framework, which could lead to an upward bias which would increase costs to end-users. However, consultation would be undertaken in which views can be put forward. Further, the nature of the framework can be changed through a rule change process.
Final consumers	• As above (major energy user).
Other market participants (generators and retailers)	• Generators may be affected especially in the context of the electricity industry, as network investment decisions, in particular transmission, can affect a generator's investment decision and operation in the market. • The magnitude and materiality of the effect is difficult to quantify as the Rules will set out the detailed regulatory framework.
Regulators	• This option may impose transitional costs. • More appropriate guidance to the regulator on the decision making framework.

Summary of Impacts

Assessment of Options against Expert Panels elements and objective

It should be noted that all options have been considered within the context of the NGL and NEL objective, the pricing principles and the limited merits review framework. These are other ways to deal with the reducing the instances of regulator error in decision making.

Elements	Options			
	1	2	3	4
Reduces risk monopoly rents extracted from consumers			●	●
Reduces regulatory risks		●	●	●
Reduces inconsistency in methodology			●	○

Flexible to different service providers circumstances		●	●	○
Reduces uncertainty for service providers		●		●
Reduces regulatory complexity		●		○
Balances varied regulatory risks between different elements of the determination				●
Adapts to changing regulatory risks over time				●
Balances interest of consumers and network service provider			○	●
Reduces inconsistency across electricity and gas industry to increase effective competition.		○	○	○

Key to Table: ●=substantially contributes, ○=partially contributes

Consultation

Consultation to Date

In proposing changes to the national energy regime, the Expert Panel took into account the substantial number of reviews and reports that had previously been carried out on energy market regulation and reform. These included the Productivity Commission's reviews of the National Access Regime and the Gas Access Regime (June 2004), the Exports and Infrastructure Taskforce report on Australia's Export Infrastructure (May 2005), and the ongoing review of electricity transmission revenue and pricing rules by the AEMC.

The Expert Panel also encouraged stakeholder participation in its review. To this end, the opportunity was provided for stakeholders to make written submissions on matters arising from the Panel's terms of reference, and an opportunity to make written submissions on the Panel's Draft Report, as well as an opportunity for stakeholders to meet individually with the Panel after the second round of submissions had been considered by the Expert Panel. Stakeholders who participated in this consultative process included participants from all levels of the energy market, including energy generators and producers, transmitters and users. The MCE has also considered the recommendations of the Panel in the context of their own jurisdictions and the broader National Energy Market reform agenda.

Implementation and Review

The MCE will be amending the NEL and NER, and introducing the NGL and NGR, in 2007 to implement commitments relating to the transfer of economic regulation of electricity distribution, and gas transmission and distribution to the national framework. This process provides an opportunity to implement and ensure that the regulatory framework and available forms of regulation are consistent across the gas and electricity sectors.

It is expected that the NEL will be amended in South Australian Parliament in early 2007. Similarly, it is expected that the lead legislation establishing the NGL will introduced to South Australian Parliament (with mirror legislation being introduced in Western Australia) in early 2007. Application Acts applying the NGL established in

South Australian law will be introduced into the legislatures of other States and Territories, and Commonwealth Parliament. The NGL and NEL will come into force in all jurisdictions by 30 June 2007.

Further, within the new gas and electricity legislative framework, the MCE will be able to direct the AEMC to conduct reviews in accordance with its rule-making and market development function. Such a review could further assess the appropriateness of the available forms of regulation in the new NGL and the NEL, or the viability of subsequently introducing a stand-alone price monitoring option.

Conclusion & Recommended Option

The issue of the form of the regulator's decision making framework has been considered by a number of reviews, including the Productivity Commission's review do the Gas Access Regime, the Expert Panel report on Energy Access Pricing, and the Export Infrastructure Taskforce.

The aim is to ensure that the regulatory decision-making framework in gas and electricity is designed to encourage certainty for networks and provide incentives for investment; provide fair access prices to users; and ensure a balance in the provision of services to avoid over-provision or under-provision of network infrastructure and services – over-provision can distort market dynamics, while under-provision can lead to congestion and problems with system reliability.

A regulatory decision-making framework should be flexible enough to be adapted according to the degree of regulatory risk/certainty in the market. Different aspects of a revenue allocation are subject to a different degree of risk/certainty, and the regulator should have guided discretion to exercise its judgement according to the presence of such risk/certainty.

The synopsis of options above, demonstrates that Option 4 enables more efficient regulatory decisions. This option best meets the aims of:

- reducing the risk of regulatory error,
- balancing the interests of consumers and the service provider, and
- allows for the regulatory regime to evolve where required.

The key aspect of Option 4 is that different elements of a revenue allocation are subject to different degrees of risk/certainty and require different levels of flexibility/consistency between service providers. Therefore the need/risks of regulatory discretion vary. Option 4, when compared to the other options considered, deals with this issue in a more appropriate and timely fashion having regard to the need for certainty, balancing the interest of users and the service provider and efficient regulatory outcomes

In addition, Option 4 fits appropriately within the broader regulatory framework. That is, it is important to ensure an appropriate decision-making framework is put in place having regard to the other features of the regulatory framework that deal with regulatory risk, which include:

- the NEL and NGL objective which promotes efficient investment in, and efficient use of energy services for the long term interests of consumers with respect to price, quality, safety, reliability and security of supply.

- the pricing principles that require the AER, as the regulator, and AEMC as the rule maker, to:

- provide a reasonable opportunity for a network operator to recover at least the efficient costs of providing services that are the subject of the network pricing determination and complying with a regulatory obligation;
- provide effective incentives to a network operator to promote economic efficiency in the provision by it of services that are subject to a network pricing determination;
- make allowance for the value of assets forming part of the network and have regard to previous regulatory valuations.
- have regard to the economic costs and risks of:
  - the potential for under-investment and over-investment in assets by the network operator; and
  - the potential for under-utilisation and over-utilisation of the capacity of assets forming part of a distribution or transmission system, and the capacity of proposed new assets.

- the availability of a limited merits review mechanism. This allows affected parties to challenge the AERs regulatory determinations, increasing the accountability of the regulator and managing risks of regulatory error.

These along side option 4 work together to reduce the risk of regulatory error.

In summary, in considering all these factors against the objectives of this RIS, each option has been assessed as meeting the RIS objectives as follows:

Assessment of Options against RIS Objectives.

Elements	Options			
	1	2	3	4
Encourage certainty for networks and provide incentives for investment.		●	○	●
Provide fair access prices to users.	○	○	●	●
Ensure a balance in the provision of services to avoid over-provision or under-provision of network infrastructure and services – over-provision can distort market dynamics, while under-provision can lead to congestion and problems with system reliability.		○	○	●

Key to Table: ●=substantially meets objective, ○=partially meets objective.

Accordingly Option 4 is considered to be the most effective option in meeting the objectives outlined in this regulator impact statement.