



Major Energy Users Inc.

Department of Industry

Energy White Paper

Response to the Issues Paper

by

The Major Energy Users Inc

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EXECUTIVE SUMMARY

The Major Energy Users Inc (MEU) welcomes the opportunity to provide comments in relation to the proposed Energy White Paper.

The overriding issue that the MEU and its members must stress is the impact of the massive hike in domestic gas prices expected in the next 12-14 months and the potential for actual shortages of domestic gas resulting from the decision to allow unfettered export of gas from the eastern seaboard.

The price hike and potential shortage of gas will have a major impact on the decisions of current and potential gas users. Current industrial users will face considerable financial pressures with outcomes ranging from severe cost cutting to remain viable to closure of facilities - both of which will have a major impact on employment, particularly on regional employment. Future industrial users (as has already been seen) will elect not to invest in Australia and will invest elsewhere.

The cost of electricity will rise as the price of gas increases, causing more harm to all electricity users. A doubling of the gas price from \$4/GJ to \$8/GJ will have about twice the impact on gas fired generation prices than the imposition of the carbon tax had. With the increasing need for more gas fired generation as a back up to renewable generation and to meet short term peak demands, this added cost will have a severe impact on electricity prices, particularly as the gas generation, while essential for security of supply, will only be required intermittently.

The Issues Paper is sanguine about price rises for gas, observing that even if prices rise to export parity (or even higher if shortages occur), there will be a correction over time to reach a new equilibrium where gas prices reflect export parity. What is not addressed at all is the amount of industrial activity that will go out of business as a result of this correction, nor is there concern of the amount of industrial investment foregone due to high gas prices.

The Issues Paper assumes that the export value of the gas has greater value than the value added by downstream processing, yet nowhere is this assessed. There has been no cost benefit analysis to demonstrate the validity of the assertion. Yet based on historic prices for gas, producers were able to continue gas field development and be profitable and a considerable amount of downstream investment was implemented based on prices for gas at this level. This demonstrates that gas development is not necessarily reliant on exports - a balance is possible.

There is sufficient gas in fields readily available for development yet governments have failed to address the looming gas shortages. Despite the considerable forewarning of these and the incipient price rises, there has been no resolution of the impasses preventing these gas field developments.

The Energy White Paper must also recognise and address as appropriate that:

- Australia is an open and competitive economy
- Australia's competitively priced and low cost energy resources must be used to promote Australia's energy intensive industrial activities
- Australia's energy intensive industrial activities tend to be located in regional, rural and remote centres and the importance of these industries in these centres is great as they generate a significant economic and social benefit
- Governments must act urgently to implement the changes required to ensure that Australia benefits from having *both* a healthy export and domestic gas market; the right actions will enable both outcomes to flourish, further delays will severely impact on the domestic market particularly.
- Governments have an important role to play, especially where there is market failure.
- The NEM is becoming increasingly concentrated and market structures are under stress and are not producing competitive outcomes. Persistent exercise of market power is resulting in massive wealth transfers from consumers
- In the recent past, the NEM Rules were ineffective in producing competitive outcomes and regulatory regimes were inadequate to promote competitive market structures and outcomes. Although recent changes have been made to address these concerns, continued oversight must be implemented to ensure the changes achieve the expectations
- Governance arrangements of key institutions require urgent attention – there is much unfinished business. Involvement of consumers in reviewing the performance of the market institutions and much greater consumer involvement in changes to the market rules must be a priority

The MEU notes that the Issues paper raises many of the issues of concern that were addressed in the 2009-2012 Energy White Paper process. Whilst the MEU is keen to contribute to the 2013-2014 EWP process, it points out that many of the issues raised in the earlier process still have not been

addressed. The MEU is concerned that this new process effectively delays actions that have already been identified as needed urgent attention.

The MEU provides its responses to most of the specific questions raised in the Issues Paper, and provides explanation for the reasoning behind its responses.

1. INTRODUCTION

The Major Energy Users Inc (MEU) welcomes the opportunity to provide comments on the Issues paper relating to the proposed Energy White Paper 2014.

The MEU has provided some context for the comments it makes regarding each specific question raised in relation to each of the elements of the Issues paper. The MEU considers that this is essential for the Department of Industry (DoI) to understand the context in which MEU has developed its views on the way Australia should develop the use of its energy resources into the future.

2. ABOUT THE MAJOR ENERGY USERS INC

The Major Energy Users Inc (MEU) represents large energy consumers operating in the NEM and in other jurisdictions. The MEU comprises some 30 major energy using companies in NSW, Victoria, SA, WA, NT, Tasmania and Queensland. MEU member companies – from the steel, cement, paper and pulp, automobile, tourism, mining and the mining explosives industries – are major manufacturers in the NEM and in other jurisdictions and are significant employers, and are located in many regional centres including Gladstone, Newcastle, Port Kembla, Albury, Western Port, Mount Gambier, Port Pirie, Kwinana and Darwin.

Analysis of the energy usage by the members of MEU shows that in aggregate they consume a significant proportion of the gas produced and electricity generated in Australia. As such, they are highly dependent on the transport networks to deliver efficiently the energy so essential to their operations. Many of the members, being regionally based, are heavily dependent on local suppliers of hardware and services, and have an obligation to represent the views of these local suppliers. With this in mind, the members of the MEU require their views to not only represent the views of large energy users, but also those of smaller power and gas using facilities, and even at the residences used by their workforces.

The companies represented by the MEU (and their suppliers) have identified that they have an interest in the **cost** of the energy as well as the associated network services as this comprises a large cost element in their electricity and gas bills.

Although electricity and gas are essential sources of energy required by each member company in order to maintain operations, a failure in the supply of electricity or gas effectively will cause every business affected to cease production, and MEU members' experiences are no different. Thus the **reliable supply** of electricity and gas is an essential element of each member's business operations.

With the introduction of highly sensitive equipment required to maintain operations at the highest level of productivity, the **quality** of energy supplies has become increasingly important with the focus on the performance of the transmission and distribution businesses, because they control the quality of electricity and gas delivered. Variation of electricity voltage (especially voltage sags, momentary interruptions, and transients) and gas pressure, by even small amounts, now has the ability to shut down critical elements of many production processes. Thus member companies have become increasingly more dependent on the quality of electricity and gas services supplied.

Each of the businesses represented by MEU has invested considerable capital in establishing their operations and in order that they can recover the capital costs invested, long-term **sustainability** of energy supplies is required.

If sustainable supplies of energy are not available into the future, these investments will have little value.

Accordingly, MEU members are keen to address the issues that impact on the **cost, reliability, quality** and the long term **sustainability** of their gas and electricity supplies.

The members of MEU have identified that energy transport plays a pivotal role in the energy markets. This role encompasses the ability of consumers to identify the optimum location for investment of its facilities, and providing the facility for generators and gas producers to also locate where they can provide the lowest cost for energy supply. Equally, consumers recognise that the cost of providing the transport systems are not an insignificant element of the total cost of delivered energy, and due consideration must be given to ensure there is a balance between the two competing elements.

3. THE AUSTRALIAN ENERGY CONTEXT

Economic Contribution

The MEU considers that Australia's energy resource endowments have not only contributed to the development of a range of energy-intensive industries, but also stemming from the use of products from some of these industries (e.g. fertilisers and explosives), have also contributed to fostering our internationally competitive mining, minerals, agricultural, manufacturing and processed foods industries. These linkages are particularly important, as are the linkages to the economic and social benefits arising from the location of these industries in regional, rural and remote areas.

3.1 The costs in the energy market have risen massively

The NEM design is based on providing strong incentives for the supply side for providing a vibrant and responsive electricity supply. If incentives are inappropriate and over-incentivised investments are made in transmission and distribution networks – as have been the case under the existing Rules – users of energy face significantly higher but arguably unnecessary costs (and hence adversely affect downstream investments). Even more importantly the Australian economy will be incurring large dead weight losses.

But in delivering a reliable electricity market (as has been the case), the incentives provided to supply side participants have resulted in a number of detrimental outcomes, including:

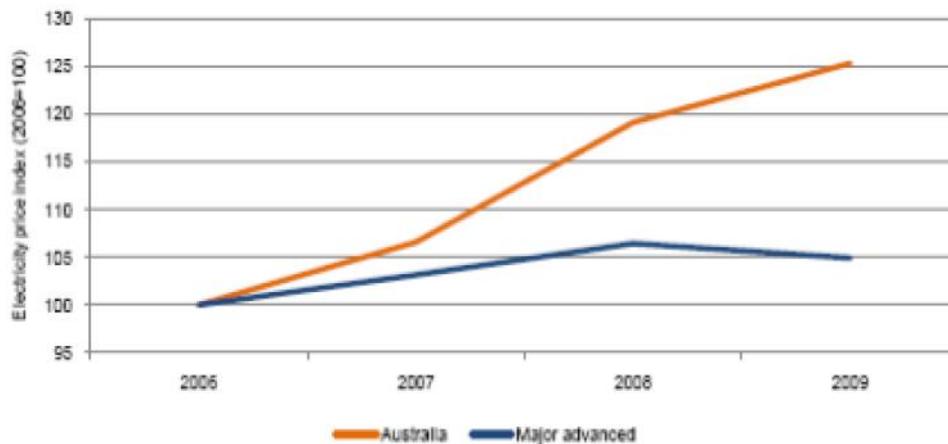
- A rapid and sustained price increase in electricity is having dramatic impact on the budgets of industry (especially energy intensive industry) as well as lower and medium income households, with some households paying up to 10% of their income on energy. Energy costs are now extremely topical, a direct contrast to a decade ago when mention of energy costs was very rare.

The sharply increasing cost of electricity was identified by Garnaut¹ in his update #8 in both relative (figure 1) and actual (figure 2) terms²

¹ Garnaut: Climate Change Review Update 2011 Transforming the electricity sector

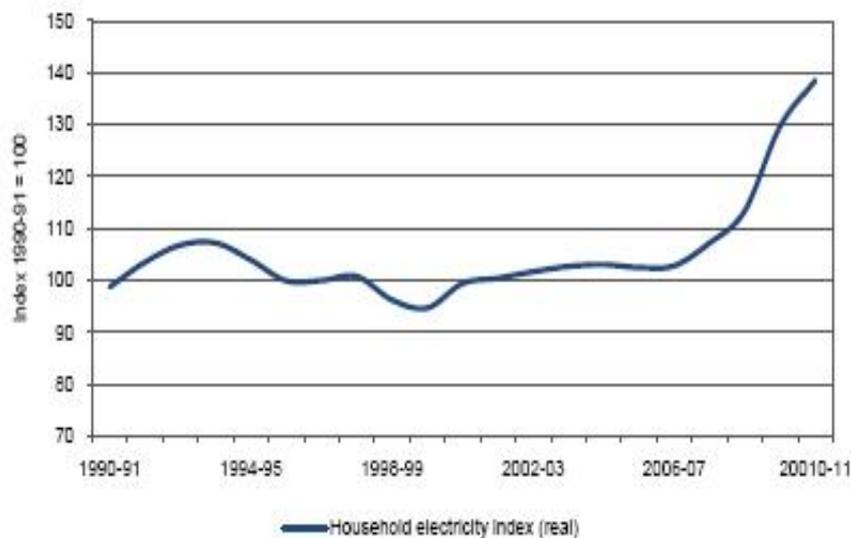
² ibid pages 7 and 8

Figure 1: Real electricity prices in Australia and the seven major advanced economies, 2006 to 2009, index in US dollars



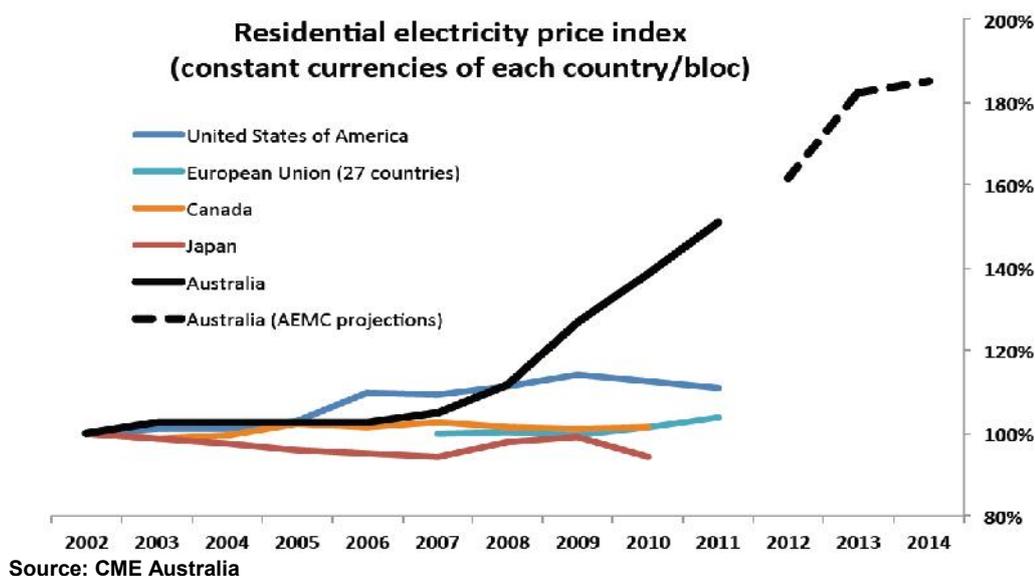
Source: IEA 2009, OECD 2010.

Figure 2: Real household electricity price movements
(constant 100 would mean electricity prices rising at same rate as other prices)



Source: Australian Bureau of Statistics, Consumer price index for electricity (Category 6401.0).

CME Australia has calculated electricity price movements for Australian households over previous years and the doubling of prices now puts Australia's electricity price rises amongst the highest in the world as the following chart indicates.



There are multiple causes of the sharp increases in energy prices in the past few years since 2006/07, including:

- Generator market power such as seen in SA and Queensland regions. The lack of changes to the rules proposed by the MEU and the AER has allowed the exercise of generator market power to continue.
- Steeply rising transmission and distribution network prices – on average these rose in real terms by ~50% over the past five years³ caused by the rule changes in 2006 and 2007.
- The electricity market (particularly seen in some regions) exhibiting excessive volatility in spot electricity prices, and as a result retailers are including in retail price offerings, large risk premiums which are causing significant retail contract price increases.
- Associated with this, the growing concentration of the market for example, through gentailers dominating both production and sale of electricity.
- Similarly in the gas market, joint marketing reduces competition at the producer end, while gas gentailers reduce competition at the shipper and retailer end of the supply chain. The growing concentration of electricity and gas network ownership may also impinge on price discovery.⁴

³ Weighted annualised average increases alone for the three years 2010, 2011 and 2012 gives an increase of ~40%

⁴ For example, when a single overarching company owns multiple pipeline or electricity networks, then the ability of the regulator to benchmark by comparison becomes more problematic.

- Implementation of the carbon emissions tax and the 20% mandated renewable electricity target.
- The indirect costs caused by the need to augment networks to meet the carbon tax and MRET requirements.
- The myriad other federal and state Governments renewable energy and climate change programs and 'initiatives', such as feed-in tariff schemes, climate change levies, energy efficiency programs etc, impacting on the costs of compliance by national retailers and businesses.
- Electricity consumption in recent years has flattened to the extent that in some regions electricity consumption is falling, such as in NSW. This fall in NSW might be a result of the massively increasing costs of electricity in that region which, coupled with a high \$A, has caused closure of a number of energy intensive industries.
- The apparent use by state governments of their electricity assets to extract additional revenue from electricity consumers through increased dividends and state taxation.
- The separation of the setting of network reliability performance standards (set by governments) from the costs involved (set by the regulator); reliability standards have too often been set without reference to the cost implications of these standards.
- The failure by governments and regulatory bodies to appropriately engage consumers in the decision making processes in market design and network regulation and operations.

A number of these issues are explored in more detail below and in subsequent sections that respond to the specific questions raised in the Issues Paper.

3.2 Regulatory Issues with Network Price Determinations.

As noted in many reports, increases in network prices have been the primary driver of consumer electricity price increases, although the impact varies from state to state.

For example, in Victoria the increase in basic network charges has been relatively low with much of the increase driven by increases in the retailer component of the bill. Nonetheless, the costs of the mandated roll-out of smart

meters has been extremely high, adding more than \$120 per annum to each to the electricity bills of smaller consumers.⁵

In contrast, other jurisdictions saw very large increases in network costs (not explained by smart metering). These cost increases were claimed to be a result of forecast growth in peak demand and upgrading the supply system, particularly to meet new jurisdictionally imposed reliability standards.

Overall, regulatory gaming has persisted despite efforts of regulators to overcome their concerns about it. Up to the recent changes in the energy market rules and the new approach to the merits appeal process, regulated networks have been able to maximise their revenue streams well above the levels considered appropriate by regulators and consumers. In particular, the rules provided excessive incentives to network owners to invest above prudent levels while achieving rates of return well in excess of the risks that the networks faced.

There is an expectation that the recent changes to the rules and the energy laws will lead to better regulatory decisions and a lesser ability to game the regulatory process, especially the use of the Tribunal appeal process to undermine decisions made by the regulator in the long term interests of consumers. However, this is still to be demonstrated. It is critical, therefore, that consumers and other stakeholders maintain engagement in the regulatory decision making process and that the regulator has adequate resources to fulfil these expectations.

Notwithstanding reforms however, it is clear that, without further government intervention, the impact of the past incentives will continue to cause financial harm to current and future network users for decades to come.

Thus, whilst the supply side incentives have delivered a reliable electricity supply system, there have been some significant negative price outcomes from the approach taken, and which will continue to impact users into the future, even with the current reforms in place.

3.3 Consumer engagement in key regulatory processes.

The MEU acknowledges that the details of energy market design and regulations are complex, and therefore engagement of consumers is a difficult

⁵ In part, this reflects the inevitable costs of rolling out a relatively new technology for Australia (particularly the communication arrangements). However, the regulatory controls on smart meter costs passed through to consumers differed from standard control arrangements and were much more lenient than would be expected. As a result, the 2014 approved smart meter annual charges for a single element meter ranges from \$117 to \$195, and will rise by another approximately 10% in 2015. Larger commercial smart meter charges are even greater than this. For details, see <http://www.aer.gov.au/node/2292>.

process. As a result, the regulators have in the past relied on processes that generally leave consumers on 'the side-line' despite the objectives of the energy laws of rules as serving the long-term interests of consumers.

For example, decisions were made about reliability input standards without reference to consumers' views of the cost-benefit trade offs of such developments. Similarly, and more starkly, consumers were not adequately engaged in the decision to roll out smart meters in Victoria. Planning decisions on wind generation and CSG are similar examples, in this case, resulting in significant disruption to progress in the both areas.

The MEU notes, however, that there has been some progress in this area in conjunction to the changes to the NER and the NGR that require networks to conduct meaningful consultation with consumers as part of their regulatory proposal.

These improvements have been preceded by the AER's 2013 'Better Regulation' program. The program was constructed to include the active involvement of different consumer representatives and other stakeholders in all stages of the program. This gave consumers the ability to better understand the issues and to provide observations that clearly did influence a number of the outcomes to the benefit of consumers.

The final outcome of the AER's program has a number of aspects that consumers considered did not adequately address their concerns. Nevertheless, the process adopted for enhanced consumer engagement was a significant improvement on previous arrangements and plans are in place to facilitate continued involvement beyond the Better Regulation program.⁶

The MEU considers that other regulatory bodies, particularly the AEMC, could well adapt these proactive consumer engagement processes in their own decision-making. Given the changes in the energy law and rules, it would be useful for the Australian Competition Tribunal to also proactively consider how they could facilitate consumer engagement in their decision-making on network appeals.

3.4 The effects of declining demand and consumption, and the MRET

The issues raised above are compounded by the changes in demand and consumption, particularly for electricity.

For a number of reasons, energy demand (especially that of electricity) has reduced both in terms of demand and consumption. There is an expectation that whilst demand and consumption might increase over time, such increase

⁶ For example, through the Consumer Challenge Panel, and through regular meetings between the AER and consumer groups and a best practice guideline for networks to establish their own consumer engagement process.

will be modest and certainly not at the rates of growth seen in the past two decades. In fact, recent forecasts of demand and consumption imply that future levels of demand and consumption will not reach those of the late 2000s for 5-10 years.

At the same time, the impact of the mandated renewable energy target has resulted in considerable investment in large amounts of new generation, particularly in intermittent renewable generation and the necessary back up of fast start low capital cost thermal generation with a high cost per unit of output. This has caused output from base load generation to be reduced and, as a result base load generation has permanently closed or is shut down for considerable periods.

Both the impact of lower demand and consumption has resulted in significant amounts of the network assets becoming redundant in both transmission and distribution. Compounding this, the closure of generation assets has caused some transmission assets to become redundant as well.

Both of the above points are made in the Grattan report "Shock to the system Dealing with falling electricity demand" issued in December 2013. On pages 15 and 16 of the report Grattan points out:

"The current value of regulated assets in the NEM and the SWIS is around \$86.9 billion. If the fall in peak demand in each state is applied to the value of assets, it suggests that our major power networks may already contain around \$4.9 billion in excess assets. These assets are neither wanted nor needed, but they are costing consumers about \$444 million a year."

This cost to service this unnecessary supply of network assets is considerable yet the current regulatory approach requires consumers to pay for a significant amount of assets that are not needed.

In late 2011, the MEU proposed a rule change that would have networks optimised (ie exclude the cost of unnecessary assets as applied under the original electricity code) but the AEMC decided that such a change in the rules was not in the long-term interests of consumers. Put another way, the AEMC decided that consumers should pay \$444 million a year for assets that they don't use and don't need.

In competitive business, unused assets are written off and impact the profits of the firm's shareholders; this is in stark contrast to what the rules grant network shareholders – in the case of network assets, it is consumers bear all the risks of forecast and investment error. Nor are consumers fully compensated for taking this significant risk through even lower rate of returns allowances to the businesses.⁷

⁷ The AER's current rate of return guideline (December 2013) reduces the equity beta from 0.8 to 0.7 in the cost of equity assessment, but this is still above the equity beta

3.5 Increasing concentration of the electricity and gas markets

Despite the initial moves in the electricity market to foster robust competition by diversifying ownership, the Australian electricity industry has, in fact, become more concentrated, along with re-aggregation of retailers and generators⁸. During the 'reform period', this process of concentration has resulted in fewer retailers and three dominant vertically integrated "gentailer" businesses dealing in multi-fuels, as well as wind, solar and other renewable energy sources. Investments in new generation have largely been undertaken by these vertically integrated businesses who have also procured many generation assets made available for sale⁹. There has been little interest by merchant/independent generators building new generation assets since the early period of the NEM development.

These outcomes (ie fewer independent generators and a very few very large energy retailers which are also the major providers of new generation) would suggest that the barriers to entry are higher now in both retail and generator sectors since the disaggregation process.

The MEU has analysed the degree of competition in the NEM based on calculations of the Herfindahl Hirschman Index (HHI), which is an indicator used to provide a helicopter view of market competition. The revealed trends are not encouraging. For example, the HHI for retail in the NEM indicates that the electricity retail market is classified as "highly concentrated". Generation is classified as "moderately concentrated" on a NEM wide basis, but in each region of the NEM, generation is "highly concentrated" in all regions but Victoria, where it is classed as "moderately concentrated".

Quantitative analysis, such as this, reinforces the intuitive views that the NEM has achieved only small gains in generation competition (although there are marked regional differences) but retail concentration has increased markedly in recent years. Yet, despite such quantitative analysis demonstrating the reverse, there has been a curious mantra perpetuated that competition has increased as a result of the disaggregation of the government owned vertically integrated supply businesses.

Such minimal reductions in generation competition with reduced retail competition provide, prima facie, a view that there are significant barriers to entry of new generation and even more so for new entrant retailers.

commensurate with the significant transfer of risk to consumers; an action that is not available to normal commercial businesses.

⁸ For example, it is interesting to note that Origin Energy and AGL Energy are now larger businesses than any of the state owned entities that were the initial focus of the disaggregation

⁹ These include the recent sale of the assets underpinning the "gentrader" asset agreements in NSW

In addition to the concentration in the electricity market, the gas market also exhibits a high degree of concentration. The acquisition of the Epic Energy assets and the planned acquisition of Envestra by APA Group has increased the concentration of the gas transport infrastructure, and the low level of competition amongst gas supplies is well known, as are the barriers to entry in both the wholesale and retail market, including access to transmission capacity for new entrant gas shippers or retailers.¹⁰

Increasing concentration of the energy supply chains has inevitably led to an ability for rent taking, increasing the pressure on the prices for energy to end users.

3.6 Resource Endowment

The MEU believes, along with the development of the proven vast reserves of coal seam gas (CSG) in the Surat Basin in southern Queensland, so too should the reserves of CSG in the Gloucester Basin in northern New South Wales and other regions be developed. In a similar vein, the oil and gas resources embedded in the many shale beds should be developed.

Although there were four LNG projects proposed to develop the Queensland CSG finds, already the high cost of LNG plant development and the risk of gas shortages has resulted in one (the Arrow/Shell project) being deferred.

Further, despite the potential for gas shortages in the domestic market, state governments (notably those of NSW and Victoria) have precluded development of CSG fields to alleviate the potential gas shortage.

Even the lower planned export of CSG from Queensland (with the decision to defer the Arrow/Shell project) has still resulted in a doubling (or more) in the price of gas used in the eastern states to world parity levels and beyond. This has not only an impact on the use of gas for secondary processing, but will impact on the cost of generated electricity as the higher gas costs filter into the electricity generation market.

The reserves in the NSW Gloucester Basin have the potential to provide a high security of gas supplies to the New South Wales and more generally the southern Australian markets, but if the proposals to export this CSG from Newcastle (or to the Queensland LNG processing plants) eventuate, then there is a real risk of continued high gas prices and the continued potential of gas shortages for domestic use.

¹⁰ See, for example, Johnston M, and Hughson B, *Gas wholesale markets and retail competition in NSW and Victoria*, July 2012. A report to the Public Interest Advocacy Centre (NS) and the St Vincent de Paul (Victoria)). <http://www.piac.asn.au/publication/2012/09/gas-wholesale-markets-and-retail-competition-nsw-and-victoria>

Although the MEU supports the concept of gas reservation for domestic use, it acknowledges that reservation is a vexed issue. Detractors of the approach point to the outcomes in Western Australia where gas prices are at export parity levels even though gas reservation is in place. What is not addressed in this comparison is that the WA gas reservation program is also tied to the joint marketing of the North West Shelf (NWS) gas, meaning that there is no domestic competition between shareholders of the reserved gas from the NWS gas reserves. If the joint marketing of NWS gas for domestic use was no longer authorised, then it is probable that the resultant increased competition would result in lower prices for the gas reserved.

Whilst there has been considerable discussion about the benefits and detriments of gas reservation, another aspect of the gas supply equation that has not received adequate attention in recent times, is the ability of gas producers to "sit on" gas reserves for considerable periods without any attempt to develop the resource. Since the late 1990s there have been discussions about imposing a "use it or lose it" policy¹¹, but the policy change has never resulted.

This aspect has particular importance in relation to the current concerns that there might be insufficient recoverable gas to completely utilise the LNG trains currently under construction at Gladstone. The Arrow/Shell consortium is indicating that perhaps it might not build its projected LNG train(s) preferring to sell its gas to one of the Curtis LNG train owners who might not have sufficient gas for the commitments they have made. Other gas producers, previously active in the domestic market, are also holding back gas with the aim of selling gas at higher prices in the future.

If there are known gas reserves which are not being developed, despite a projected shortage, then a "use it or lose it" policy will provide an impetus to address domestic gas user concerns.

Additionally, the required gas transport infrastructure to bring gas to market is currently inadequate. Private enterprise has commercial pressures on it that make it difficult to provide a social return on their investments without some government facilitation.

Such government facilitation can be wide ranging where there is market failure in the short term – including reservation of energy for domestic use, facilitating the development of liquid gas wholesale markets, underwriting surplus capacity on infrastructure assets, determining that government owned and regulated businesses have to provide some social return as part of the

¹¹ Such a policy imposes time limits on producers' right to acreage, where they can retain the rights to the acreage only if there is serious work carried out to develop the resource within a fixed time limit. Failure to comply with the requirements allows other developers to assume the rights.

dividends they provide, and providing assistance through underwriting of foundation customer contracts.

The MEU considers that unless the Energy White Paper addresses the aspect of ability of governments to require a social return as part of the privilege of using Australia's natural energy resources to generate profits, then there is a strong risk that future generations will face a less attractive future than we can provide.

Moreover, resistance by the community to these developments will increase unless there is a clear net benefit to them in the development of the unconventional gas resources.

4. SOME OVERARCHING CONCERNS

In preparing its response to the Issues Paper, the MEU and its members identified some key over-arching concerns that should be reflected in the development of the Energy White Paper. Whilst a number of these concerns have been identified within the Issues Paper, the MEU notes that some conclusions could be better developed.

4.1 Key principles underlying the energy white paper

The MEU considers that two overarching key principles should be adopted with regard to the development of the energy white paper:

1. That Australia operates an open and competitive economy.

This means that the Australian economy operates in an internationally competitive environment and is exposed to international challenges, such as export competition and import competition from overseas economies and firms. It is also exposed to competition from overseas for human resources and investment capital. Thus, for example, it would be foolish for Australia to adopt strict emissions requirements ahead of international commitments, as all it would do would be to disadvantage Australian industry relative to its competitors.

2. That there is a need for government intervention when there is market failure in the short term.

This issue is more fully addressed in other parts of this submission.

In past decades, Australian governments have linked the importance of our rich and competitively-priced resource endowments to the development of value-added industrial activities, in enhancing employment opportunities and in raising Australia's standards of living. Indeed, as stated by the Energy Reform Implementation Group (ERIG) in its report¹² to the Council of Australian Governments:

“Access to competitively priced and reliable energy underpins the competitiveness of Australia's export industries, is a crucial input to the domestic economy and a key enabler for almost every economic activity”.
(ERIG page 3).

The importance of competitively priced energy in enhancing the competitiveness of Australia's energy intensive industries, both as an energy source as well as a feedstock (in the case of gas) cannot be over-emphasised.

¹² Energy Reform - The way forward for Australia

For example, gas is used as a feedstock (as well as an energy source) in a number of world class Australian industries, producing fertilizers and explosive grade ammonium nitrate. These industries' outputs, in turn, are used by other internationally competitive industries, such as agriculture and mining, construction, and quarrying. These linkages are very important and reflect the historical desire by State and Federal governments to ensure that industrial development was facilitated by the availability of ample, reliable and low cost electricity and gas.

There were also important **governmental objectives** associated with the fostering of industrial development and the development of regional, rural and remote areas. For example, in announcing a national energy policy framework on 8 June 2001, COAG stated its first objective as:

“Encouraging efficient provision of reliable, competitively priced energy services to Australians, underpinning wealth and job creation and improved quality of life, taking into account the needs of regional, rural and remote areas;”.

COAG further stated amongst its **agreed principles** guiding the national energy policy framework:

“Carefully consider the social and economic impacts on regional and remote areas, with particular regard to businesses, industries and communities;”

This principle reflects the importance of the location of major industrial activities in regional, rural and remote areas¹³, and the MEU members recognise the importance of such a principle, first hand as many are located in rural and regional areas. .

The importance of **national** approaches to energy policy cannot be overstated. Whilst it is recognised by the MEU that the current Energy White Paper is a Federal initiative, it is critical that in developing the **national energy policy framework**, there is buy-in from the States and Territories. In fact, this approach was undertaken in 2001 under the COAG auspices whereby all Australian governments were stated to have subscribed to the National Energy Policy Framework including its objectives and principles. It is instructive that an agreed principle of the policy framework was stated as:

“Facilitate constructive, effective inter-jurisdictional co-operation and productive international collaboration on energy matters”. (page 15)

Against the above comments, the MEU considers that:

¹³ MEU member companies are the largest employers in a number of regional centres, such as Wollongong, Newcastle, Port Pirie and Mt Gambier

- There is a need for an over-arching principle that recognises that Australia is an open economy and for government intervention where there is market failure
- Recognise (as all previous governments have done) the continuing importance of competitively-priced energy in contributing to value-adding industrial activities and in enhancing Australia's internationally competitive industries
- The economic and social importance of maintaining the long term viability of regional, rural and remote areas
- The national energy policy framework truly reflects a national approach and clearly has ownership by all Australian governments.

4.2 The benefits of value adding (or “The Nauru Experience”)

The Issues paper prepared to inform the development of the Energy White Paper, has an underlying assumption that the development of Australia's energy resources will provide the best outcome based on their being sold at the highest prices for the resources themselves, ie sold effectively in a raw or, non-valued-added form.

It is becoming more and more obvious that in an energy hungry world the highest prices for raw energy resources (such as coal, oil, gas and uranium) are available from overseas buyers, and that the domestic purchasers of this locally produced raw energy are evincing views that at international prices for energy, they are uncompetitive in their value adding processes. Should this occur then downstream processing of, and value adding to, Australia's resources would reduce. Further, the loss of the investments made in the past will impact on the view future investors have of the Australian market.

Should the raw energy be exported in preference to using it domestically and downstream industry does reduce, the impact in the short term might be quite modest. It is the long term impact that should be of concern to government.

Probably the most obvious example of taking a short term view is the experience of the island of Nauru. Nauru used to be the lowest cost provider of phosphate rock in the Pacific region. While it had supplies of this, the island prospered. The Nauruans did not use their natural resources in a way that provided for the long term needs of the island and for the future generations, and when the phosphate rock was all exported, they had little ability to provide for the current population and Nauru now has a major problem.

Australia has more resources than Nauru, and it has the opportunity to utilise its resources to get both a benefit from the needs of other countries (by export) and to value add so that it maintains and develops its secondary industries. It is the secondary industries that provide the bulk of the employment and training opportunities for all Australians, especially those of future generations.

In its January 2014 Quarterly article "Next-shoring: A CEO's Guide"¹⁴, McKinsey comments:

"The impact of energy costs

The price of natural gas in the United States has fallen by two-thirds as gas production from shale deposits rose by 50 percent annually since 2007. A narrow range of sectors—gas-intensive manufacturing, such as the production of petrochemicals, fertilizer, and steel—are benefiting most directly. Some downstream players in the energy value chain have begun shifting investments. Dow Chemical, BASF, and Methanex, for example, have announced plans for new US manufacturing capacity to take advantage of cheaper, abundant energy supplies.

These moves are important for such companies and subsectors; McKinsey Global Institute (MGI) research suggests that **by 2020, lower-cost energy could boost US GDP by somewhere between \$400 billion and \$700 billion.**" (emphasis added)

The Energy White Paper should recognise how Australia's abundant raw energy resources can be best utilised to also provide for the long term needs of the nation, rather than what can be done in the short term to maximise the ability to export raw energy for the maximum revenue it can generate.

4.3 Investment incentives

There is a generally held view that under the current approach to the provision of many parts of the supply chain for development and delivery of essential and common services, investment is expected to be made by the private sector (notwithstanding government ownership of some electricity assets), although in times past similar infrastructure was initially developed by governments and in some cases, later sold to private entities. The most obvious of these has been the sale of coal export facilities and gas and electricity infrastructure.

Under a private regime (especially in the case of gas pipeline infrastructure), the drivers for investment revolve almost entirely around the immediate needs for infrastructure, and in many cases, this immediate need determines the sizing of the infrastructure. This results in new assets being sized to meet current needs, as the added investment needed to provide surplus capacity does not get the immediate cash return required by the investors¹⁵. Unless

¹⁴ Available at http://www.mckinsey.com/insights/manufacturing/next-shoring_a_ceos_guide?cid=manufacturing-eml-alt-mip-mck-oth-1401

¹⁵ It is important to note that firms where their shareholding is publicly held, suffer the need to deliver returns measured in terms of a few quarters as investing Funds (such as

there is included a reasonable element of capacity for expansion in essential infrastructure, a less than economically efficient outcome results.

In addition to this aspect, a private firm is unlikely to invest until it has firm commitments for a significant element of the capacity to be provided. The impact of this approach is, that because a firm commitment for capacity has to be lodged before an infrastructure project will proceed, there is a delay in the decision to proceed with the investment, and that the bulk of the return on the investment is "locked in" before any commitment eventuates.

In a similar vein, decisions by downstream users of energy require certainty of energy supplies at prices that make their products commercially viable. Thus commitments for downstream investments are predicated on certainty of upstream supplies. This decision making process further exacerbates the time scale to implement new investment so necessary to the continued well being of the nation.

In contrast, a government can (and has done so in the past) take a longer term view of an infrastructure investment. It does not have the same commercial imperative to generate an immediate cash return and therefore can take a longer term view of the worth of an investment. An example of an infrastructure project that most likely would have not occurred without government involvement is the Dampier Bunbury gas pipeline, yet the importance of this asset needed some 10-15 years before its full value has been realised both in terms of return on investment and its importance to the value adding element it provides.

In addition to the commercial return, governments have the ability to include into their assessment of an infrastructure project, the *social return*¹⁶ an investment has and to include this social return along with the cash return such an investment might generate. A private investor cannot include in its assessment any value for the social return the investment might provide.

Thus, it is important that in assessing the directions for the Energy White Paper, the impact of the drivers behind the decision to invest are fully appreciated. This means that governments still have an essential role to play in the development of the infrastructure essential to maximise the potential of Australia's energy resources – whether that role is as an infrastructure developer, or as a provider of some degree of guarantee of return on an investment through a form of cash guarantee or a foundation user of the asset.

superannuation funds) assess the market returns of their investments on a quarterly basis, and have a limited preparedness to accept lower returns over more than 2-3 years.

¹⁶ A social return would include the generation of employment that would not otherwise occur and the increase in GDP that might eventuate.

It is clearly insufficient for government to assume that private investment in essential infrastructure will occur, and that adequate surplus capacity will be provided to match future needs. There will always be market gaps in the short term.

4.4 The supply of skilled labour

In an allied issue to that of the long term future and the needs of future generations of Australians, is that of ensuring there is adequately trained labour available for the resources sector, including energy resources. A major issue for the resources sector (which operates predominantly in remote parts of the country) is access to labour sufficiently skilled to develop and operate the facilities used for winning Australia's resources.

History shows that immigration has been the mainstay of Australia's labour pool. As well as immigration, Australian governments (directly and indirectly) historically provided a significant proportion of the training for trades skills, through their electricity, gas, water and transport industries. It is over the last 10-15 years that Australian governments either sold or corporatized these industries and the new owners of the businesses have elected to seek commercial returns at the expense of the combined commercial and social returns that governments have the ability to achieve, but as private enterprise can quantify only a commercial return, it is not able to provide for any social returns.

An example of this *social return* in relation to skills training is the way the Latrobe Valley in Victoria was developed. The Victorian government recognised the value of the vast brown coal deposits and developed these into one of the largest power generation centres in the country. As part of this process there was a decision made to provide extensive technical training for many young people that lived in the area. These became the core of the skilled labour used to develop the Bass Strait oil and gas fields, and further a field.

Similarly, the various government owned electricity, gas, water and transport (trains, trams and aircraft) provided secure and very competent technical training programs for many young people who then took these skills to the remote areas where resource development occurred.

It is interesting to note that since deregulation of the electricity and gas markets, the quantity of training provided by the new businesses has reduced. In the regulated sectors of these businesses (eg transmission and distribution of gas and electricity) the businesses actively seek regulated funding for technical training of employees to replace their ageing workforces. Their view (even of the government owned businesses in Queensland, NSW and Tasmania) is that it is not their responsibility to provide technical training for young people. An outcome of this approach is that they seek higher operating expenses to pay higher wages to attract employees from a diminishing skilled

workforce. In this they are replicating the same approach used by employers in the private sector and by government owned businesses in competitive areas of the electricity market (such as power generation).

It is essential that the longer term skill needs of the energy sector are appropriately recognised in the Energy White Paper, and where these skills will have to be developed.

5. The Security of Energy Supplies

The issues Paper states that the challenge for the reform package is one of putting 'downward pressure on energy costs' while 'growing exports'.¹⁷ This involves consideration of issues relating to both the supply and demand of electricity and gas.

As the Issues Paper states:¹⁸

"...ensuring consumers pay no more than necessary for reliable and secure energy supplies becomes more challenging against this background of declining energy consumption and growth in new sources."

To address this challenge, there is a need for a much greater understanding of the interplay of various factors across the energy markets. The MEU considers that the discussion points raised in this section of the Issues Paper touch on a relatively narrow range of the issues around supply security.

As the MEU highlighted in its submission to the 2012 Draft Energy White Paper, it is essential that the White Paper addresses the broad range of issues in energy policy and its implementation based on a genuine realisation of the widening gap between energy prices in Australia and those of our international competitors.¹⁹

Similarly, while the Issues Paper usefully highlights the links between the development of the Energy White Paper and the multiple additional processes and reviews that are planned or underway, there are a number of important regulatory developments that are not cited and that the MEU believes are relevant to the White Paper.

The Issues Paper's discussion on energy supply security is focussed on addressing supply side issues with the aim of reducing costs to domestic consumers. It seeks comment on:

- the network reliability standards;
- developing oil reserves;
- increasing new gas sources and transparency in the gas market; and
- the regulation of energy infrastructure.

¹⁷ Issues paper, p 3.

¹⁸ Issues Paper, p 11.

¹⁹ See for example, MEU, *Comments on the Draft Energy White Paper*, February 2012, p 3.

The following sections include the MEU's response to these supply-side issues. However, the MEU considers that there are other important matters left out of the discussion in the Issues Paper that the MEU believes should form part of the final Energy White Paper's consideration of supply side cost pressures

A number of these additional factors are also discussed in the following sections.

5.1 Drivers of energy price increases – network costs

The Issues Paper correctly identifies that there has been a significant increase in electricity costs to consumers over the last five years and, in parallel, a decline in electricity demand across most sectors.

The MEU considers that by only raising the issue of 'community expectations' regarding reliability standards for networks, the Issues Paper takes too narrow a view on the potential for cost savings and regulatory reform in the energy networks.

There are indeed no simple solutions to the question of energy costs and a focus on one or two causes of price rises or declining demand will be bound to achieve a sub-optimal outcome for the economy and consumers.

The significant increases in network prices in most regions of the NEM explain over half the increases in energy prices. The reasons for these network price increases, however, include a number of factors such as:

- The structure of the initial national electricity rules (NER) and national gas rules (NGR) and the limitations that the rules place on the ability of Australian Energy Regulator (AER) to exercise its discretion in the long-term interests of consumers;
- The role of the Australian Competition Tribunal (Tribunal) decisions in undermining the AER's discretion, and resulting in further price increases for consumers;
- Associated with these first two factors, the excess rate of return allowances that have increased electricity and gas prices both directly and indirectly (through incentivising excess capital expenditure amongst other things);
- The need for new investment in aging infrastructure, reflecting a period of underinvestment and the cyclical nature of the asset lives;

- The continuation of government ownership of the networks in some states, which may, in turn, have encouraged overinvestment and impeded improved productivity in the network businesses;
- Distribution and transmission reliability standards (set by state governments) that are not always set on a cost efficient basis or in line with consumer expectations and value; and
- Excessive delays in addressing the issue of peak demand growth.

The MEU is therefore disappointed that the Issues Paper pays very limited attention to most of these important drivers of network charges, seeking comments only on ‘how community expectations with respect to reliability standards can be better understood.’

While this is an important issue, it is only one of the drivers of change in network prices that need to be considered in developing a policy response to increased energy costs.

The MEU considers, therefore, that the White Paper must take a more comprehensive approach to its task of addressing network costs and consider, for example:

- Consider how best to support the continued implementation the rules changes and the principles of consumer engagement established in the AER’s Better Regulation program developed to ensure a focus on the long term interests of consumers is maintained;
- Similarly, for the SCER to continue to monitor the outcomes of the changes to the Limited Merits Appeal process as captured in the recent amendment to the National Electricity Law (NEL) and the National Gas Law (NGL);²⁰
- Bringing forward the policy response to the recommendations arising from the AEMC’s transmission framework review with the aim of ensuring that investment in the electricity transmission system is responsive to changing energy supply and demand conditions;²¹
- Providing adequate long-term funding for the effective operation of the AER and the AEMC to ensure their continued ability to engage with

²⁰ The amendments to the NEL followed an extensive review of the application of the Appeal process and the approach adopted by the Australian Competition Tribunal. The consequential changes to the NEL and NGL were submitted to the South Australian Parliament in December 2013 but are not yet included in the NEL. It is essential that the changes to the Limited Merits Review process of the Australian Competition Tribunal Limited be in place prior to the AER’s next round of revenue determinations.

²¹ AEMC 2013, *Transmission Frameworks Review, Final Report*, 11 April, Sydney.

stakeholders, monitor network and retail performance and the operation of the wholesale markets market²² and develop appropriate expertise, methodologies and systems including forecasting capacity;

- Addressing the implications of changing energy demand patterns including early follow up on SCER's proposed changes to the rules governing network pricing arrangements; and
- The early action on privatisation of network assets or, in the absence of privatisation, the independent monitoring of the financing and performance of state-owned networks by (for example) the Productivity Commission.²³

Above all, the White Paper should provide an overarching, nationally coherent framework directed at achieving an efficient and co-ordinated response to the energy issues identified in the Issues Paper and in the many preceding studies on Australia's energy markets.

5.2 Additional processes relevant to reliability and network costs

The MEU agrees with the government's stated intention to link the Energy White Paper process within a broader package of government reforms.

However, the MEU is concerned that the summary of additional processes referred to in Box 2 of the Issues Paper (p 6), does not include the important reforms of network regulation such as the implementation of the 2012 and 2013 amendments to the NER, NGR, NEL and NGL (referred to previously). Nor does the Issues Paper refer to the implementation of the Power of Choice review, the transmission frameworks study or to general enhancements of forecasting processes.

Similarly, the Issues Paper does not include reference to the other important issue of network pricing that is currently the subject of a rule change proposal by SCER to the AEMC. If the Government is genuinely interested reducing energy costs and improving efficiency of supply as an outcome of the White Paper, it must include an assessment of the changes to network pricing that arise from (inter alia):

- The recommendations of the Power of Choice study; and
- The effect of declining electricity demand on network revenue and prices to consumers.

²² For instance, the MEU would be most concerned if budget constraints limited the ability of the AER to effectively defend its decisions in the Tribunal.

²³ This independent monitoring is in addition to the enhanced monitoring of network performance by the AER that includes both low level and high level benchmarking.

A recent report for the AEMC illustrated the impact of declining demand on residential electricity prices (see table extract below).²⁴

Figure 2.9 Impact of change in average demand on the a residential annual total electricity charge, 2013/14

Scenario	AusGrid	Endeavour	Essential	SP AusNet	Clipower	Powercor	Jemena	United Energy
1% increase in residential consumption	-0.66%	-0.64%	-0.51%	-0.89%	-0.85%	-0.84%	-0.88%	-0.85%
1% decrease in residential consumption	0.66%	0.64%	0.51%	0.89%	0.85%	0.84%	0.88%	0.85%
3% decrease in residential consumption	1.97%	1.91%	1.52%	2.68%	2.55%	2.51%	2.65%	2.55%

Source: Oakley Greenwood, *Possible Future Trends in Residential Electricity Prices 2013-14 through 2015-16: Network Cost Drivers*, Oakley Greenwood, October 2013, p.83.

For larger consumers, the impact of declining demand (e.g. from greater efficiency) is likely to be felt through higher fixed network charges as networks attempt to retain their overall revenue levels in the face of declining commodity based revenue. However, increased fixed charges relative to commodity charges serve as a disincentive for greater efficiency. The AEMC is currently investigating network pricing arrangements and it is appropriate that the White Paper also consider how declining demand may impact on network prices.²⁵

The changing structure of energy demand also highlights the importance of improved independent demand forecasting models and systems.

Forecast errors by network companies have already caused significant and excessive, increases in capital investment and network costs.²⁶ For example, a 2012 study by AEMO illustrates the difference between actual demand in Queensland and the forecast of demand provided by the regulated networks. AEMO found with respect to the forecasts provided by Powerlink to AEMO for the Electricity Statement of Opportunities:²⁷

²⁴ The table is an extract from *AEMC, 2013 Residential Electricity Price Trends report*, 13 December, 2013, Sydney, p 24.

²⁵ See AEMC, *Distribution Network Pricing Arrangements rule change review* (AEMC Reference ERC0161).

²⁶ Under the NER and NGR, prior to the recent amendments, the AER had very limited discretion to amend a forecast provided by a network for the purposes of a revenue determination.

²⁷ AEMO, *Concepts for Network Planning in Queensland, Version 1*, 2012. p 7. The study also indicated that the 50% POE forecast by Powerlink was at least 10% above the highest peak observed over the previous seven years. Note: this 10% is estimated from Figure 4, p 8.

"...the 2011-12 10% POE demand forecast [by *Powerlink*] of 11,289 MW is 2,392 MW (or 27%) higher than the current record peak demand for Queensland [observed over seven years]. While some of this can be explained by recent weather events in Queensland, it is unlikely to explain all of these differences." [*emphasis added*]

AEMO further suggests that based on alternative forecasts [to the *Powerlink* forecast] 'current network capability may be sufficient to meet the forecast needs of consumers...' ²⁸, suggesting that future capital expenditure could be significantly reduced.

These are all areas of reform that should form part of the Energy White Paper and subsequent policy development. The effective implementation of these programs has the potential to improve security and reduce energy costs to consumers. However, if these reforms are not consistently monitored and amended (as applicable), then the MEU predicts that yet another opportunity will go begging.

Specific Questions Raised in the Issues Paper

The Government seeks comment on ways community expectations can be better understood and reflected in reliability standards.

The question in the Issues Paper on community expectations for reliability of network service provision includes two components;

- Understanding community expectations; and
- Reflecting these expectations in reliability standards

Understanding community expectations is a complex task. Expectations can vary by, for instance, customer type, by region, by availability of alternative fuels. It is not surprising, therefore, that despite recognition of the importance of consumer expectations in setting reliability targets, there has been limited progress in this area, particularly outside Victoria. The preference has been in the past to focus network reliability standards on engineering inputs rather than consumer based outputs. This, in turn, has led to very high levels of investment and higher costs to all consumers.

²⁸ Ibid.

The MEU therefore believes the best answers to this question are likely to come from the current study being undertaken by AEMO on the value of customer reliability (VCR).²⁹

This study, which builds on previous work by the AEMO to measure value of customer reliability in Victoria,³⁰ has involved extensive consultation with stakeholders and a consumer survey across all market segments. The aim is to establish VCR's for different regions in the NEM and for different consumer classes, based on quantitative analysis of consumer preferences.³¹ AEMO states that:³²

"The VCRs developed as part of this review will be based on a deeper understanding of the value that customers place on reliable electricity supply nationally and will therefore be able to support better decision-making across the electricity industry."

And:

"As outlined in the Directions Paper, the primary focus of this review is to develop a suite of VCRs that will inform better network investment decisions."

The results of the consumer surveys should be available over the next few months and the final VCRs published by mid-2014. The MEU considers that this will provide an objective assessment and that this should form part of the White Paper policy analysis. The MEU also notes that the research by the AEMC on the value of customer reliability in NSW may provide additional information to support the work of AEMO.³³

However, the MEU believes that the *implementation* of reliability standards based on consumer preferences is considerably more problematic.

In response to request by SCER, the AEMC has finalised its studies on a

²⁹ See AEMO at <http://www.aemo.com.au/Consultations/National-Electricity-Market/Open/Value-of-Customer-Reliability-Statement-of-Approach>

³⁰ AEMO's previous work on VCR has been used for some time in network planning in Victoria.

³¹ A detailed outline of the methodology to measure VCR is set out by AEMO in a separate methodology paper. (See: Scarpa, Ric, *Methodology for the estimation of the value of customer reliability for AEMO*, November, 2013). The methodology paper states that it will involve the 'development of survey-based data collection method to achieve estimates of VCR by means of choice modeling and contingent valuation techniques. (p 1).

³² AEMO, *Value of Customer Reliability – Statement of Approach*, Nov 2013. pp 3 and 9 respectively.

³³ AEMC, *Fact Sheet – NSW customer survey*. The AEMC survey provided much higher estimates than the Victorian studies, and the MEU considers that the results should be used with caution. The study did, however, support the view that there is a net 'cost-benefit' in a relatively small reduction in the current NSW reliability standards.

national framework for distribution reliability³⁴ and transmission reliability.³⁵ The framework provides considerable scope for jurisdictions to develop individual reliability standards for both transmission and distribution. The seamless national energy market still seems too far away. As the MEU stated in its response to the AEMC's draft reports:³⁶

"The AEMC's more detailed process for setting actual reliability standards and targets continues to place jurisdictional ministers (as the "standard setter") at the centre of the process and to allow them a significant degree of 'flexibility' in what aspects of reliability are measured and what standards are set."

The MEU's particular concern is with the role of jurisdictional ministers in setting transmission standards:³⁷

"There is a very real risk that making each of the jurisdictional ministers responsible for TNSP [transmission service provider] reliability standards...will result in a plethora of additional measures and variable standards."

The MEU therefore considers that the *implementation of reliability standards* is an area still in need of policy and regulatory reform in order to achieve the full economic benefits for consumers. This reform will require a much greater commitment by jurisdictional ministers to the objective of a seamless national set of reliability standards and targets based on the objective assessment of economically optimal performance levels.³⁸

The MEU considers that there has already been too great a delay in moving to these economic output based approaches. The MEU is particularly concerned that such standards will not be available for the next round of regulatory revenue determinations in NSW and Queensland due to a lack of political commitment to jurisdictional reform.³⁹

³⁴ AEMC 2013, *Review of the national framework for distribution reliability, Final report*, 27 September 2013, Sydney.

³⁵ AEMC 2013, *Review of the national framework for transmission reliability, Final report*, 1 November 2013, Sydney.

³⁶ MEU, *Consultation Paper on National Reliability Standards, Comments on the Consultation Paper*, August, 2013, p 4.

³⁷ *Ibid.*

³⁸ This is not to say that the standards and targets should be the same. However, variation should not be based on objective criteria for efficient service provision.

³⁹ The MEU acknowledges that the NSW government has stated its intentions to amend the reliability standards for NSW distribution businesses as set out in the distribution Licences. The NSW Government states that the licencing conditions will be modified, in advance of the June 2014/15 network revenue determination, to remove the design planning criteria but retain the existing targets relating to the frequency and duration of power outages' (Media Release by the Minister for Resources and Energy, *Putting a stop to Labour's gold plating*, 17 October, 2013.). However, at this time there is no amendment to the published distribution licence conditions (refer to the IPART web-site). In any case, the focus of the proposed licence changes is on removing the reliability input parameter, however, it is not clear whether

Supply Adequacy for Peak Demand

The MEU notes that the Issues Paper does not raise the question of reliability of supply for peak demand. Presumably, the view is that there is a sufficient generation capacity to meet demand.

Events of January 2014 would indicate that there is currently sufficient capacity in generation to satisfy extreme conditions including coincident peak across South Australia and Victoria. However, there are a number of interrelated issues that may need further exploration:

- The continued concern about the ability of wind and solar to provide capacity during peak periods;
- The impact of growing renewables on the electricity spot market (and contract) prices and on the incentives for investment in peak gas generation; and
- The loss of capacity availability supplied by fossil fuel plants at critical peak demand days, for instance with unplanned down time by a number of base load coal and gas generators.⁴⁰

For example, the MEU considers that the introduction of large amounts of renewable but intermittent generation has resulted in a reduction of electricity generated by some thermal generators. This (together with low load growth overall) results in the thermal generators having to cover their fixed costs over a lesser amount of generation volume, thereby increasing prices. In some cases, base load thermal generation is scheduled not to be available for extended periods (eg Alinta closes its base load Northern Power Station in SA for the winter months) reducing installed capacity and leaving only high priced generation (eg open cycle gas turbines) available to meet peak demands.

There are complex interactions between all these factors and their impact on both energy prices and investment in supply and transmission networks. The MEU would expect the White Paper to provide further insights into how these factors impact on energy prices in both the short and longer term.

The Government seeks comment on the value of developing fuel reserves to meet Australia's international oil security obligations, and augment domestic security.

Security in oil supplies and the downstream provision of specialized feedstock and other products is a critical issue for MEU members. The MEU therefore

the output standards are/will be linked to consumer expectations for reliability and whether there has been any public consultation on the suitability of these output measures.

⁴⁰ For example, during the extreme heat period of mid-January 2014, Loy Yang Power Station was unavailable for... Similarly, in South Australia, the Torrens Island Power Station (TIPS) was not operating for a significant period.

believes that the Government has a responsibility in the White Paper to critically examine this issue and to ensure that there is ongoing monitoring of the supply situation given the rapid changes in the national and international energy and geopolitical environment.

The MEU notes that the US government has a policy that domestic demand takes priority over exports of energy, and the MEU considers there is considerable merit in assessing the benefits of such an approach in the Australian context. At the very least, the Australian government should undertake a thorough cost benefit analysis of any additional proposals for exporting gas in Australia that takes into account the full life-cycle costs and benefits of export versus domestic consumption.

The Issues Paper notes that with increased demand and reduced indigenous production of fuel oil, Australia's oil reserve position has moved significantly below its commitment under the International Energy Program (Treaty) to hold oil stocks of some 100 days.

The 2011 National Energy Security Assessment (2011 NESAs) considered that the international market was sufficiently strong and Australia's supply sources sufficiently diverse and competitive to provide an adequate level of fuel security for Australia, including oil prices. In addition, the 2011 NESAs noted that local refineries already rely on a large percentage of imported crude oil and, therefore, they argue, closure of refineries would not significantly add to the risk of external interruption to supply.

However, the closure of 3 refining plants in the last 3 years and the prospect of further declines in refining capacity⁴¹ provides a continual challenge to the assumptions in the 2011 NESAs assessment. There are a number of industry players who would argue that it is in Australia's interest to ensure that at least some refining capacity is retained within the country. For example, Mobil Oil argued in its 2012 submission to the House Economics Committee that:⁴²

"The existence of domestic refining has a number of flow-on benefits ... Australia's refineries also supply raw materials to the petrochemical industry and help underpin a range of petrochemical, chemical and related industry

...we believe that some level of domestic refining capacity is highly desirable to provide additional flexibility to cope with the short term product supply interruptions or imbalances which may occur...we endorse the conclusion from the LFVA [Liquid Fuel Vulnerability Assessment] that the continuing presence of domestic refineries contributes to Australia's ongoing energy

⁴¹ For example, the Shell Refinery in Geelong (which currently supplies some 50% of Victorian oil and 30% for South Australia) is currently for sale and Shell has publically announced that if it cannot be sold, Shell may convert the refinery to an import terminal.

⁴² Mobil Oil Australia Pty Ltd, *Submission to the House of Representatives Standing Committee on Economics Inquiry into Australia's oil refinery industry*, November, 2012, pp 4 and 6.

security as it increases the number of options available.

...

Beyond the question of fuel supply security, we suggest that the Government needs to consider the strategic implications of having (or potentially not having) domestic refining capability and factor that fully into its broad industry policies."

Irrespective of the different views on the issue of retaining some refining capacity, the oil industry appears to support the importance of regularly reviewing the security of supply. In particular, there was support for the need to undertake a further National Energy Security Assessment (such as the proposed 2014 review) and similar reviews.

For example, while supporting the view that there was adequate energy supply security for Australia even with declining refinery capacity, Shell Australia also concluded in their submission to the Standing Committee on Economics that:⁴³

"Although Australia has access to well functioning and highly efficient liquid fuel markets we believe government continues to have a role in...continuing to monitor the industry in the form of regular National Energy Security Assessments and Liquid Fuels Vulnerability Assessments in order to make an assessment of Australia's liquid fuel supply security and to implement in a timely manner any change in policy."

The MEU is most concerned that the recovery of manufacturing and processing in Australia is not jeopardized by uncertainty over the security of oil supplies and associated refining products and by government policy with respect to this.

This means, amongst other things, that the government has a responsibility to ensure that regulatory settings appropriately balance environmental and economic interests. The government also has a role in ensuring that there is, are open and competitive markets and an appropriately skilled work force.

The MEU believes that the 2014 NESA will be a particularly important input into the White Paper (although the MEU notes it is not included in the list of additional processes regarded as relevant to the White Paper.⁴⁴)

In particular, the domestic and international energy markets and geopolitical environment is changing too rapidly for the Government to rely on the conclusions of previous studies. For instance, while there is currently an

⁴³ Shell Australia Limited, *Submission to the Inquiry into Australia's Oil Refinery Industry*, 22 November, 2012, p 15.

⁴⁴ Issues Paper, p 6.

oversupply of refining capacity in the Asian region, this may not be the case if oil demand in Asia expands rapidly – lack of refining capacity in Australia will give the government little capacity to respond quickly and protect Australia from being a price-taker in a market where demand has outstripped supply. As stated by Mobil:⁴⁵

"Once refinery facilities are shut and demolished they are essentially gone for good as it is extremely difficult to envision a business case for establishment of a new refinery in Australia in the foreseeable future..."

In addition, recent discoveries and testing for shale oil (and gas) deposits suggests that Australia may in future be again able to supply the majority of its domestic oil requirements.⁴⁶ It would be of concern to industry generally in Australia (particularly in the light of prospective gas price increases) if the capacity to refine that oil locally was lost through failure of governments to provide timely strategic support to the oil industry and its restructuring.

The Government seeks comment on ways to increase new gas sources to meet demand and measures to enhance transparency in market conditions.

The MEU has already expressed its grave concerns with the growing problems facing gas consumers in securing long-term gas supplies at reasonable prices in a number of submissions to governments and other energy related statutory bodies.⁴⁷

Gas price rises are a major issue for large gas users.

The availability of a secure and reasonably priced supply of gas to industry is a matter of great – and increasing - concern to the MEU. In its 2012 submission to the 2012 Energy White Paper, the MEU highlighted the important role of gas in the development of value added industry in Australia as follows.⁴⁸

"...Australian industry, for both export and import replacement, has benefited significantly by the use of gas as a thermal energy source, as well as its use as an intermediate product for the production of fertilizers, explosives and by-products for the agricultural, mining and quarrying industries. In fact, competitively-priced gas supplies have enabled the development and expansion of many internationally competitive Australian industries."

⁴⁵ Mobil Oil Australia, *Submission to the Inquiry*, op. cit, p 4.

⁴⁶ See for instance, Matt Chambers, *Australia tipped to overtake China in shale boom*, The Australian, 20 January, 2014.

⁴⁷ See for instance, Major Energy Users, *Comments on the Draft Energy White Paper*, February, 2012, pp 20 – 22.

⁴⁸ MEU, *Comments on the Draft Energy White Paper*, February 2012, p 20.

The development of the coal seam gas (CSG) production, particularly in Queensland, and the associated LNG export industry poses a very significant challenge to the availability of competitively priced gas to Australia's existing and future industrial gas consumers. Indeed, a number of Australian companies are forecasting construction new facilities overseas due to the high cost of gas.

The MEU's view is that governments and others have been far too 'sanguine' in their assessment of the risks these changes pose to industry in Australia. The MEU is very concerned that the state and federal governments have failed to address this matter with the attention and urgency that is required.

Nor have governments fully understood the flow-on effects to other industries in Australia and overall cost-of-living pressures. The MEU, for instance, has been seeking a total cost-benefit analysis on the complete life cycle of Australia's energy resources and their uses.⁴⁹ This life cycle analysis should be part of the White Paper. It is only when the full impacts on the community of the further loss of important industries are taken into account that can policy makers can make a rational rather ideological choice.

The linkages between gas prices and electricity prices also need to be considered as part of any cost benefit review. For instance, higher gas prices are likely to lead to the closure of some gas-fired generation plants in the east coast market.⁵⁰ This in turn limits the market's ability of the electricity market to respond in a cost-efficient way to peak electricity demand and to extreme conditions of electricity demand.

The MEU therefore concludes that government policy on gas supply for domestic and international markets has failed to live up to the principles established in the NEL and NGL that the energy market should operate in the long-term interests of Australian consumers.

The impact of the issue of east cost gas supply is already being felt by a significant number of non-residential gas consumers. For example, the Australian Industry Group (AIG) found in their 2013 survey of business gas users that respondents reported as follows:⁵¹

- "Nearly 10% could not get a gas contract offer at all
- A third could not get a serious offer; and
- A quarter could get an offer from only one supplier."

In addition, the AIG survey found that of businesses offered gas contract

⁴⁹ Ibid, p 22.

⁵⁰ See, Matt Chambers, *AGL warns of gas plant closures as carbon price falls and gas prices rise*. The Australian, 3 August 2013.

⁵¹ AIG, *Energy Shock, the gas crunch is here*, July, 2013, p 6.

prices;

- "Short-term contracts commencing in 2013 say offers of \$5.12 per gigajoule (an increase of around 25 per cent);
- For businesses seeking longer-term gas contracts, the average offer was \$8.72 per gigajoule, more than double the historical price."

As the AIG report also notes, the LNG related gas price shock is 'four times larger than the carbon price shock and this adjustment comes without compensation, assistance or responsive policy'.⁵²

Moreover, the gas price shock follows on from the rapid increases in electricity prices over the last few years, increases that will only be partially relieved by removal of the carbon price (as noted elsewhere in this submission).

The current situation with respect to east coast gas supply has been well anticipated in some quarters and there have been multiple studies and enquiries conducted over the last few years by industry, federal and state governments and regulators (such as the Productivity Commission and the AEMC).

The MEU and its members, amongst many other industry players, have provided input to a number of these studies. It is of considerable concern, therefore, that the Government appears to be undertaking yet another round of enquiries. The MEU would draw their attention to the many considered responses provided to previous government enquiries. Industry needs policy action more than another review by federal or state governments, action that is focused on facilitating new gas production and improvements in the marketing arrangements for gas.

Increasing new gas sources

The MEU notes that there is a general consensus that there are more than sufficient conventional and non-conventional gas resources available in eastern Australia for a sustainable export and domestic gas market.

The challenge for the government is to put in place the policy settings that will encourage economic development of these resources while ensuring an equitable and efficient allocation of gas between the export and domestic markets.

For example, there is only a limited benefit in the Government intervening in current wholesale gas market operations and gas transmission arrangements if any additional gas supplies are directed solely at LNG export markets; the gas producers and LNG providers are in a position to work out these supply

⁵² Ibid.

issues on a commercial basis through various contractual arrangements.⁵³ These parties are also able to underwrite any additional pipeline developments that may be necessary to deliver gas to the LNG plants. Transmission pipelines will be built if foundation shippers want them built.

However, if the community and their governments want domestic industry to survive, grow and compete internationally, the MEU strongly believes that a more active government policy approach is required than has been seen to date.

The MEU does not accept a 'laissez-faire' approach by government that, in effect, supports gas producers at the expense of the broader manufacturing and process industries that employ many more people. Nor does the MEU accept further delays in action that, in practice, amount to a laissez-faire approach.

Managing transition

In the MEU's view it would be very concerning if the White Paper simply took the position that gas prices will rise to net-back international parity levels and industry will just have to adjust. Such a view fails to recognise the negative impacts on the economy that such an outcome will have as highlighted previously in this submission.

For instance, industry faces a relatively rapid adjustment period (after a long period of relative stability in gas pricing). However, most large gas consumers are capital-intensive businesses with long-lived assets. For some, it will be more economic to close down the business than to invest in adaption of their processes. In any case, the question must be asked – what other energy sources for providing thermal input to are available to them? Electricity prices have more than doubled (and are sensitive to gas prices, oil is too expensive, and so this leaves businesses facing a return to coal. It is doubtful if this is an acceptable outcome to the community.

In the case where gas is used as a feedstock, alternatives are very limited as the processes used are designed to use gas as a feedstock. As noted above, such companies are locating off-shore where gas prices are lower.

Moreover, in the near term, there is a real risk that in gas prices will 'overshoot' their long-term efficient levels as supply and demand go through a period of adjustment. Industry will be caught in the middle, and notwithstanding that high gas prices may be transient, investors will make decisions based on these short-term prices in the absence of confidence on

⁵³ For example, Origin Energy and APLNG hold a relatively large percentage of CSG gas acreage in Queensland and LNG train development. Both parties are actively managing gas supply risks through a variety of gas sale and swap agreements and cooperative infrastructure connection agreements. See: Origin Energy ASX Media releases 25 October 2013, 28 November 2013, and 19 December 2013.

future gas price levels.

For this reason, the MEU strongly supports the earliest adoption of an approach that encourages the development of new gas resources, enables a sustainable export industry but also enhances the market conditions for domestic gas consumers and manages transition risks.

Governments must accept a responsibility for proactively managing this change in the gas supply-demand position and ensure short-term dislocation does not become long-term stagnation for the domestic industry. After all, government permitted the export of large amounts of gas that now are likely to exceed the gas fields' capacities to provide for the export permitted (as discussed below).

This does not necessarily mean the Government should implement a gas reservation policy, although the MEU considers such action has considerable merit. Even so, the MEU acknowledges that such a policy would need careful design in order to mitigate the risks of deterring further expansion of domestic gas production and distorting the efficient operation of the gas market.

As an alternative, the MEU does believe there is also some merit in the White Paper considering the recommendations of, inter alia, the AIG. As stated by the AIG, 'a price transition and supply squeeze as serious as that now confronting eastern Australia demands a policy response'.⁵⁴

The AIG suggests a package of mutually reinforcing policies that include:⁵⁵

- Enable development of unconventional gas resources by regulatory arrangements that result in 'timely, workable and consistent' decisions while building community confidence;
- Enhance transparency and competitiveness of the gas market by accelerating market reform and developing more options for supply; and
- Building confidence amongst gas users in future supply availability by introducing a national economic approvals process for additional LNG export capacity.⁵⁶

The MEU believes there is some merit in these recommendation and strongly supports the urgency of the AIG's message to governments and regulators. The MEU would add to this, however, the need for a comprehensive examination of the adequacy of gas transmission across the eastern states, particularly the capacity for efficient transmission between states and between

⁵⁴ AIG, *Energy Shock, The gas crunch is here*, July 2013, p 6.

⁵⁵ Ibid

⁵⁶ The MEU notes similar recommendation for an independent assessment of the economic benefits of any new gas LNG projects compared to domestic usage by the EUAA. See for example, EUAA, *Upstream Gas Policies for Australia*, October, 2013, p v.

different gas supply sources.

Moreover, the MEU notes that since the AIG report was published (July 2013), the need for governments at all levels to better co-ordinate their policies and to have a greater sense of urgency has become even more pressing.

There is growing concern that CSG upstream production rates may not be sufficient to meet the demands for downstream LNG processing with the result that the producers are starting to call on conventional gas supplies to supplement CSG production rates,⁵⁷ at least in the first few years.

This will result in earlier and stronger pressures on gas prices across the east coast gas markets. In addition, gas production from new sources will neither be sufficient or timely enough to ease these pressures in the next five years or more given the many delays in proving up and developing additional gas resources outside existing CSG acreage⁵⁸, especially with the moratoriums applied by state governments.

In this context, the MEU also highlights that this same period (i.e., the period between 2014 and 2020, coincides with the time when a large number of domestic gas supply contracts are due to expire.

For example, the 2013 Gas Market Report by the Bureau of Resources and Energy Economics (BREE) states:⁵⁹

"The East Coast market is now transitioning as LNG projects are commissioned, and with domestic long term wholesale contracts expiring in the next few years. The problem is particularly acute in New South Wales where a large number of wholesale gas supply contracts are set to expire between 2014 and 2018. By 2018 less than 15 per cent of New South Wales demand will be met by existing contracts."

The studies by AIG (noted above) indicate the challenges that gas users are already facing. It is very likely that these challenges will grow in the next few years as users compete with LNG projects that are facing their own challenges for secure and reasonably priced supplies of gas.

How long the pressures on east coast gas prices will remain, however, is unclear and will depend on many factors including the rate of growth in LNG exports to Asia by the US and Canada. Nevertheless, even if gas supply pressures are eased by (say) 2020, considerable harm will be done to domestic gas consumers with long-term impacts on manufacturing capacity,

⁵⁷ See for example, Lowe K, *Gas Market Scoping Study, A report for the AEMC*, July 2013, pp 31-32. The report states that 'the LNG projects will be ramping up to full capacity (late 2014-2018) and a significant proportion of the gas previously directed into the domestic market by both the LNG proponents and the Cooper Basin will be diverted to the LNG facilities.

⁵⁸ Ibid.

⁵⁹ Bureau of Resources and Energy Economics, *Gas Market Report*, July 2013, p 17.

unless effective transitional measures are put in place sooner rather than later!

Reforming the gas market

With respect to gas market reform the MEU believes that there are opportunities to make the wholesale gas market operate more efficiently and transparently.

The Gas Market Scoping Study commissioned by the AEMC⁶⁰, for instance provides a number of areas of market design changes and enhanced transparency and information sharing that would potentially facilitate the domestic gas market and gas price discovery. The MEU expects that the White Paper will include some consideration of these recommendations.

The MEU would certainly welcome reforms that would facilitate large energy users and second-tier retailers to participate more directly in the various gas wholesale markets.⁶¹ This will not only add competitive pressures into the wholesale market, it would also enable large gas users to offer demand-side services directly into the market, in addition to the contingency gas aspects included in the short term gas trading markets (STTMs).

There has been limited assessment of the potential for this type of demand-side action in the gas market as historically decisions were made by governments as to who was required to surrender their contractual rights to gas for the security of the gas networks. However, the MEU expects that with the right market arrangements, demand-side services can provide a more economic solution to periods of peak gas demand.

This would require some changes to the current of gas market arrangements and efficient risk management 'tools'. In addition, further enhancement of the risk management and price discovery mechanisms would encourage greater participation by a wider variety of players in the wholesale gas market. This should also include enhancement of the current limited mechanisms for capacity trading.

Another important emerging issue is the need to develop better physical and financial alignment of the Victorian wholesale gas and transmission arrangements with the arrangements in other states, particularly NSW.

The ability to efficiently export gas and trade capacity from Victoria to NSW, for instance, may be a vital 'life-line' for NSW gas users during the transitional period. The MEU is a strong advocate of further development in this area to assist the transition process for gas consumers. However, it should not be

⁶⁰ Lowe, K, *Gas Market Scoping study, A report for the AEMC*, July 2013

⁶¹ This includes both the Short Term Trading Market (STTM) that covers gas wholesale markets in NSW, Queensland and South Australia; and the Declared Wholesale Gas Market (DWGM) in Victoria.

seen as a substitute for addressing the broader questions of enhancing gas supply and improving gas wholesale market arrangements.

The Government seeks comment on issues relating to the regulation of energy infrastructure.

The MEU would like to see reforms in the wholesale electricity and gas markets that improve their competitiveness, liquidity and transparency. The MEU considers that a focus on these outcomes is becoming even more important than ever. In particular, the rapid growth in gas usage for LNG, the changes in both supply and demand factors and the increasing level of vertical integration (the 'gentailers') and consolidation of suppliers must be addressed.

As previously noted in this submission, there are a number of important changes to the regulation of electricity and gas infrastructure. These include:

- Amendments to the NER and NGR designed to increase the ability of the AER to exercise its discretion and ensure that revenues allowed to gas and electricity networks reflect only those necessary to ensure the efficient investment in and supply of energy to consumers;
- Amendments to the NEL and the NEL to change the focus of the decisions by the Australian Competition Tribunal to the long-term interests of consumers;
- Investigation of rule changes required to improve network pricing arrangements in the long-term interests of consumers and to implement the Power of Choice recommendations.
- The various studies addressing the question of reliability standards at a jurisdictional and national level
- The increasing concentration of infrastructure (networks and generators) ownership as well as energy retailing

The MEU has provided extensive input into all the above processes reflecting its view that these are critical to achieving efficient energy markets.

However, the MEU believes that there has not been adequate attention paid to the interplay of energy infrastructure and the ability of generators to exercise 'transient' market power in the electricity spot market.

While much has been made of the problems of renewable energy in terms of its costs and impacts on electricity supplies, the MEU believes there should be equal attention to the direct and indirect costs of 'strategic' bidding by conventional generators, and the planned and unplanned unavailability of these generators at very high demand periods.

The MEU considers that the current regulatory arrangements do not provide sufficient power to the regulator to identify and act on these incidences, the costs for which flow through to retailers in greater risks and onto consumers in higher charges.

Transmission related issues have bedeviled regulators and policy makers alike. Is, for instance, the capacity market structure providing efficient and timely signals about congestion on gas pipelines? The MEU considers it does not.

Moreover, the MEU considers that the limitations of the transmission system and its interplay with the spot market have provided some opportunities for generators to exercise transient market power. This is best evidenced in the South Australia and Queensland markets. The exercise of transient market power in turn has deleterious effects on electricity prices to consumers and the willingness of large consumers to participate directly or indirectly in the wholesale market.

In general, the wholesale gas markets face a somewhat different challenge. Here, the concern is more about the difficulties facing non-traditional 'players' gaining entry into the gas market at an acceptable level of price and risk. For example, in the absence of liquid physical and financial markets, potential new gas retailers may find it difficult to justify entry into the market. The wholesale gas market activity is, therefore, overwhelmingly dominated by the three major gas retailers, Origin Energy, AGL and Energy Australia who also own much of the capacity on the transmission pipeline.

Given the increasing consolidation and vertical integration in the market, the White Paper should provide a vigorous analysis of the effectiveness of the wholesale and retail rules which assumed a much greater level of disaggregation and competition. Similarly, the impact of increasing consolidation of network ownership on the ability of the AER to enforce financial and operational discipline should be carefully considered in the White Paper.

6. Regulatory Reform and Role of Government

In the early 1990s, there was a CoAG decision made to implement considerable reform to the energy markets along with a number of other reforms designed to implement improved productivity. One of the most important aspects of the reform process was to increase competition in the provision of energy recognising that there were specific elements of the energy supply chains that should remain monopolies.

Initially, the degree of competition increased, especially in the generation and retail sectors of the supply chain. However, this degree of competition has reduced considerably. The supply of gas has essentially remained in the same few hands, with little improvement in gas production competition - section 3.2 expands on this issue.

Left to itself, a commercial entity will seek to reduce competition as this increases its profitability. It is government's role to ensure that competition is enhanced as this provides an efficient market for all.

Consumers have seen the government efforts to increase competition have been overcome by poorly drafted legislation that have prevented the "watch dogs" from ensuring that competition remains the main driving force of the energy markets. The MEU points to three examples which highlight its concerns.

Example 1. In the lower south east of SA, there is a single gas pipeline serving all of the gas consumers in the region, including those in Mount Gambier (the SEPS pipeline). As all gas users must access this pipeline, it provides a monopoly service and therefore should be regulated. Coverage of this pipeline was revoked in 2000 on the basis that prices for its use were controlled by a long-term contract. In 2010, the long-term contract expired allowing the owner an unfettered ability to set prices at whatever level it desired, and did so. An application to have the pipeline regulated (as all other monopoly assets are) was prevented through the drafting of the legislation, despite a recognition of its monopoly status. This example shows that even clearly monopoly services can avoid being regulated through poor drafting of legislation.

Example 2. In 2007, AGL (the largest electricity retailer in SA) was granted permission to acquire the largest generator in the region. Once secured, AGL was able through the electricity rules to use its market power to massively increase electricity prices in 2008, 2009 and 2010. Its ability since to continue increasing prices has been curbed slightly through falling demand for electricity. Recent increases in demand (combined with the increase in intermittent renewable generation) have seen this market power be used again. It was the drafting of the legislation that prevented the "watchdog" from preventing this acquisition.

Example 3. WA has a gas reservation policy to ensure that there is sufficient gas available for the vast North West Shelf (NWS) reserves to provide for the increasing needs for domestically used gas. To counter competition, the developers of the NWS reserves were initially authorised to undertake joint marketing as this was seen as providing an important element in ensuring the development would be commercially viable. This authorisation has been renewed a number of times since the development became commercial, and it still applies. This ability for joint marketing has contributed to domestic prices for gas equalling (and sometimes exceeding) the export parity price for gas from the NWS, providing the developers with considerable monopoly rents. The drafting of the legislation allows this no longer necessary practice to continue.

It is quite clear that the government has an important role in continuing regulatory reform and to ensure that the errors in legislation are identified and rectified to ensure that the amount of competition in the energy markets is increased rather than reduced.

These examples would suggest that there are three general areas for regulatory reform and/or more effective implementation of existing regulation. They are:

- Review of the effectiveness of regulatory arrangements for covered and uncovered pipelines given the changing nature of gas supply.
- Pursue the amendments to the NEL and the powers of the AER to monitor generator market power following the advice from the AEMC to SCER on the potential for substantial market power to 'exist or be exercised in future in the NEM'.⁶²
- Review and tighten requirements for approval of joint marketing applications given the negative impact on upstream competition of such arrangements, particularly as the diversity of supply increases.

Specific Questions Raised in the Issues Paper

The Government seeks comment on priority issues, barriers or gaps within the CoAG energy market reform agenda.

The MEU believes that progress on many of the items in the COAG energy market reform agenda has been too slow and intermittent. There have also been unnecessary delays to the adoption of agreed national reforms by

⁶² See for instance, AER, *State of the Energy Market, 2013*, p 22.

various jurisdictional ministers to the particular frustration of energy users who manage businesses across multiple jurisdictions.

Given the many changes in the energy market and the extent of the potential benefits to electricity and gas consumers of reform (and the risks of not undertaking the reforms), further delays in pursuing a national reform agenda are unacceptable. The economic case for a competitive national energy market has long been made; now is the time for COAG to focus on completing its task and for jurisdictional ministers to respond accordingly.

The MEU believes that urgent priority should be given to the following:⁶³

- **A stronger focus by COAG on achieving national consistency across the energy market;** reforms that were initiated over 15 years ago and are still to achieve their potential. This includes commitments by COAG members to consistent and timely implementation of:
 - Nationally consistent approach to reliability standards. This includes not only agreement on a nationally consistent reliability framework, but a real effort to harmonise the reliability standards and targets themselves;
 - Adoption by all jurisdictions of the National Energy Consumer Framework (NECF) – the NECF came into law in July 2012 after some four years of public consultation, yet two key states are yet to implement the NECF imposing significant costs to retailers and their customers;
 - Deregulation of retail prices (with appropriate and consistent consumer protections) – jurisdictions agreed to work towards deregulation of retail prices in 2006; however this has not yet occurred in all states.
 - Adoption of the Power of Choice recommendations including the national smart metering program and tariff reform across all jurisdictions;
 - Progressing the implementation of reforms to the transmission arrangements, noting the issues discussed previously in this submission on transient generator market power.⁶⁴

⁶³ The MEU's comments are based on COAG's *Energy Market Reform – Implementation Plan* (2012) and subsequent progress bulletins from SCER (as reported on the SCER web-site).

⁶⁴ The AEMC conducted a review at the request of SCER of the transmission framework (electricity) to investigate arrangements governing the provision and utilization of electricity transmission services in 2013. See AEMC 2013, *Transmission Frameworks Review*, Final Report, 11 April 2013, Sydney. The review produced an extensive list of recommendations including an alternative transmission model for the NEM. SCER is yet to undertake further assessment of this model. The MEU considers that the model, which includes a mechanism for generators to gain firm access to pipeline, may not adequately address the MEU's continuing concern with respect to the exercise of transient generator market power.

- **Review of network pricing arrangements.** The AEMC's consultation timetable suggests that the relevant rule changes will not be finalised until the end of 2014. It is questionable under the current timetable whether there will be sufficient time for the AER to develop the required pricing guideline and for distribution businesses to provide the required pricing structure statements before 2016/17.⁶⁵
- **Implementation of the recommendations of the demand-side participation (DSP) package** as set out in 5.1.1 to 5.1.5 of the CoAG Reform Plan. The MEU is particularly keen to see more progress in areas that related to demand-side management as this is an untapped resource with potential benefits to networks and large consumers. These proposals include:
 - the development of a 'new mechanism' for demand side resources to participate in the NEM (recommendation 5.1.3 - the Plan proposes that this would be in place by July 2014).
 - Arrangements that will allow consumers to unbundle electricity supply from demand side services (recommendation 5.1.4).
- **Ensuring adequate funding of the proposed national advocacy body** such that the long-term interests of all consumers can be appropriately defined and advanced across the energy market processes by a number of skilled advocacy bodies to provide expert advice on consumer issues in addition to the advice from the national advocacy body.
- **Ensuring that there is effective implementation of the amendments to the Limited Merits Review process.** While the relevant legislation has been proclaimed, the MEU believes it must be supplemented by specific consultation with consumers to ensure that consumers understand their new rights and obligations in the process. Similarly, it would be beneficial for forums to be held with networks in the hope that this would reinforce the intent of the changes and reduce the extent of 'automatic' appeals.

Reducing the number of appeals will also assist in better managing the costs of the AER who has had to fund responses to numerous appeals to the Tribunal by the networks. The MEU therefore, also concurs with the original timetable set by CoAG for reform of the Tribunal; that is,

⁶⁵ The rule change proposals by SCER and by IPART are being reviewed by the AEMC who is undertaking a consultation process through 2014. SCER's rule change proposal advocates that DNSP's would be required to submit a pricing structure statement as part of their regulatory proposal with both required at least 17 months before the start of a new regulatory period (see NER CI 6.8.2 of the proposed rule changes). The proposed rule changes also require the AER to develop a new guideline on consultation on pricing principles (see NER 6.18.1 of the proposed rule changes)

that the new appeals regime should be in place (including above consultation processes) 'in advance of the next round of full determinations'.⁶⁶

It is worth noting here, that over the course of the last round of regulatory determinations, there were a total of 18 appeals by electricity businesses alone, which had the effect of increasing costs to consumers of some \$3 billion, plus the significant additional legal and operational costs to the AER.⁶⁷

- **Rationalisation of the multiple environmental and energy efficiency state and federal programs** that have emerged over the last few years. Compliance with various schemes places an unnecessary burden on large users with multiple sites, for limited net gain. The MEU considers there must be considerable efficiencies to be gained by consolidation and harmonisation of these schemes.
- **Action by SCER and AEMC on generator market power issues.** The MEU raised a rule change to address the issue of generator market power and the AEMC final decision has been referred to SCER for action. The AER raised a rule change some six months ago to address disorderly generator bidding, but so far no action has resulted.

The MEU notes that there are a number of energy market institutions established to address issues in the energy markets - the ACCC (competition issues), the AER (market monitoring and regulation), the AEMC (rule making and advice to government), AEMO (market operations and advice to government), the NCC (gas market competition issues) and the Competition Tribunal (appeals of regulatory decisions).

The MEU considers that all have made decisions which are not demonstrably in the long term interests of consumers and, from a consumer's viewpoint, made decisions that actively support the interests of the supply side of the energy markets to the detriment of consumers. What is concerning to consumers, is that most of these institutions do not have formal representation of consumers within their decision making structures, yet a number have or have had, at times, de facto representation from the supply side of the markets.

Even at the final decision making level within government (the Standing Council on Energy and Resources - SCER), decisions are made about the electricity markets and its regulation where owners of generation and network assets have significant input into how the electricity market will be controlled.

⁶⁶ COAG, *Energy Market Reform – Implementation Plan*, 2012, p 4.

⁶⁷ AER, *State of the Energy Market 2013*, December 2013, pp 68 – 69.

It is important that there be a review of the performance of each of the energy market institutions. The MEU is aware that a review of the AER is proposed and that the Competition Tribunal is to be reviewed again in 2016 following the recent reforms to its decision making criteria. However, there is no formal proposal to address the performance of the other institutions.

Consumers expect that the performance of the institutions must be assessed in reference to the Objectives included in the two energy Laws, and as the long term interests of consumers is the focus of the Objectives, then consumers must be heavily involved in these reviews. In this regard, the MEU considers that only one of the four institutions, the AER, has attempted to establish a more formal process for proactively engaging with consumers; albeit flawed in some ways, it provides a framework for improving engagement processes by all of the other regulatory bodies.

The Government seeks comment on possible approaches and impacts of review of tariff structures including fixed network costs, further time-of-use based electricity tariffs and the use of smart meters.

The Issues Paper notes that the Government is considering 'two additional issues that impact on the electricity market',⁶⁸ including a review of the Renewable Energy Target and reforms to network pricing, including those enabled by the roll out of smart meters.

Renewable Energy Policy

With respect to the proposed review of the mandated Renewable Energy Target (MRET), the MEU highlights the importance of managing the cost imposts on energy consumers while providing policy certainty to investors in renewable energy. At the end of the day, if policy changes are not managed carefully, the uncertainty itself will increase costs.

Any new policy on renewable energy policy should be developed with an understanding of all the interlinked components in the energy value chain and the dynamic nature of both domestic and international energy markets and climate policy. It should include the flexibility to respond to change in a coherent and systematic way. 'Flip-flops' in policy undermine investor confidence.

⁶⁸ DOI, *Energy White Paper – issues paper*, December 2013, p 15. The most significant contributors to the increase in costs for consumers were based on the 'averaging period' for the risk free rate (as input to the cost of capital) and the value of taxation imputation credits; both areas that are largely irrelevant to the true costs facing networks, but with significant impacts on revenue allowances. The 2012-13 review of the Tribunal's decisions confirmed that these were made without sufficient consideration of the national gas and electricity objectives and the long-term interests of consumers.

The MEU notes that despite the decreasing consumption of electricity, the current MRET is still set in absolute terms (ie in GWh) rather than the legislated 20% of electricity used in 2020. The use of the absolute amount of renewable energy is forecast to significantly overshoot the 20% target.

These changes will impact in complex ways on electricity prices and supply arrangements. If the absolute target is retained, for instance, it means that the electricity market has only six years to adjust from the current 5% to more than 25% supply from renewables. Such a level of dislocation in traditional supply arrangements is unprecedented and extremely challenging for all stakeholders.

In a similar vein, the decision to have the small renewable target (SRES) uncapped, will result in the SRES element significantly overshooting the 4 GWh that was extracted from the MRET allowance for this purpose.

Network pricing structures

The MEU has expressed its concerns with current approaches to network tariff structures, the complete lack of transparency in the tariff setting process and the uncertainty that this has created for both businesses and households.

This has been a matter of considerable concern to large consumers. For instance, the MEU knows of a number of large consumers who have seen their electricity charges almost double from one year to the next with minimal advance (and in some cases no) consultation from the network companies involved; any explanation provided is meagre at best. Such large increases in costs are extremely difficult to manage.

The MEU agrees with the Issues Paper that there will be even more challenges facing network pricing in the next few years arising from:

- the changes in demand, with negative growth;
- changes in the energy market more generally, e.g. through the increasing penetration of distributed generation and micro generation (such as residential and commercial PV); and
- the overinvestment in capacity in the current regulatory period that will need to be recovered through additional price increases in the next regulatory period.

It is essential that the pricing of network services transitions to more sustainable and cost reflective pricing structures over time, based around signalling the actual infrastructure costs of a consumer's demand. Time-of-use tariffs are a starting point for this, but ultimately, all consumers may need to be subject to critical peak pricing or demand based pricing signals. These latter

tariffs are not only (potentially) more cost-reflective, but also more robust in terms of the stability of network revenue.

It is also essential, however, that this transition is undertaken in consultation with consumers and in a manner that takes account of the significant impacts of this change on some consumers or consumer segments. Governments will need to be proactive in their response to these changes to avoid significant consumer backlash.

For example, the MEU considers that reform of network pricing ultimately hinges on improvements in metering and communication infrastructure. However, the experience of the smart meter roll-out in Victoria illustrates the importance of effective communication of the overall benefits to the community, and the tight management of costs of the roll-out.⁶⁹ A retailer/consumer led roll-out is likely to be less controversial, but must be carefully managed to achieve appropriate levels of technological compatibility across retail and network systems.

The Government is seeking comment on areas where further privatisation of government-owned assets would contribute to more effective regulatory frameworks and better outcomes for consumers.

The MEU has long advocated the privatisation of both generation and network assets, including distribution and transmission. Privatisation is likely to drive improved efficiency and lower costs to consumers in the long-run. However, to achieve this outcome, a strong regulatory framework and independent, skilled regulatory body must be in place for the monopoly service providers.

The MEU notes that there is now a considerable body of evidence in Australia that government ownership of networks has been associated with lower efficiencies in capital and operating expenditures. While costs are higher, however, service performance is no better than the privately operated businesses.⁷⁰

The AER's benchmarking studies in 2014 will provide further insight into the extent and nature of these differences.

Similarly there is little evidence that government ownership of generation assets has enhanced the efficiency or reduced the wholesale energy price.

⁶⁹ The allowed costs of the mandatory roll-out of smart meters by the Victorian distribution network companies was regulated by the AER but subject to an Order in Council by the Victorian government that removed much of the regulatory power of the AER to exercise its discretion in approving cost applications.

⁷⁰ For example, see AER, *State of the Energy Market 2013*, December 2013. The significant growth in revenue is illustrated on page 70, and network performance on pp 80-82

For example, the significant price spikes in the Queensland region of the NEM in the summer of 2011-12, which flowed through to consumers in the form of higher contract prices from retailers, appear to largely relate to the conduct of government owned generators.

That is, the pricing events appear to reflect strategic bidding by one generator (CS Energy) that contributed to network congestion and forced higher cost generation into the market. The problem of higher cost generation being forced into the market was compounded by 'disorderly bidding' by generators that caused significant spikes in the Queensland regional market spot price.⁷¹

In general, therefore, the MEU sees no benefit to the community of having either networks or generators in public hands, providing the regulatory regime has the 'punch' to drive continued improvements in costs and performance.

Recognising that energy is an essential service, the MEU accepts that energy supply must be considered in a broader context, however, this is best managed by effective regulation (as above) and transparent direct subsidies by governments to relevant consumers.

For these reasons, the MEU would oppose reductions in regulation where this undermines the existing focus on the long-term interests of consumers and the discretion of the regulatory bodies such as AER and AEMO to act in those interests. Absent a strong and transparent regulator, community objection to privatisation is likely to continue and the political will to privatise assets is likely to dissipate.

However, changes to regulation that progresses a nationally integrated energy system are very welcomed by the MEU, and they will provide the basis for an efficient, privatised energy market.

⁷¹ This summary of the summer 2011-2012 draws on the following reports: AEMO, *NEM Operations Review – Queensland Summer 2012*, May 2012, pp. 9 – 12; and AER, *State of the Energy Market 2013*, December, 2013, pp 10-11. The AER report suggests that the restructure of the government's generation portfolio in July 2011 allowed one generator to control both ends of a strategic transmission line in central Queensland, enabling bidding behavior that periodically contributed to network congestion (p 10). Reports on the summer of 2012-13 are not yet available.

7. Growth and Investment

The MEU is pleased that in 2012 the Federal Government requested the Productivity Commission (Commission) to undertake a review of Australia's major project development assessment processes. The Final Report is now available⁷² and the MEU also welcomes the inclusion of the Report in the White Paper process. The Issues Paper states that the Government has identified 'duplication in planning and environmental approvals' and is now seeking to 'streamline regulation through cross-accreditation processes.'⁷³

The MEU agrees that there can be considerable costs and delays caused by duplication and complex regulation and these should be addressed through an open constructive dialogue between business, governments and consumers (who ultimately bear the costs and benefits of the process). Engagement with consumers is essential to minimise the public resistance that can follow major developments.

Specific Questions Raised in the Issues Paper

The Government seeks comment on commercial or market initiatives that could enhance growth and investment in the energy and resources sectors.

The Productivity Commission's final report provides an important 'starting' point for achieving best practice approval processes. The MEU supports its overall recommendations for reforms, viz:⁷⁴

- Achieving regulatory objectives and strategic decision making;
- Reducing regulatory overlap and duplication;
- Regulatory certainty, transparency and accountability;
- Improving timeframes and co-ordination; and
- Better targeting and enforcement of conditions.

The MEU also strongly supports the Commission's emphasis on effective implementation of the reforms.⁷⁵

With specific reference to major energy projects, the MEU considers that there are a number of key interrelated factors affecting growth and investment in the gas production and transmission businesses. These include:

⁷² Productivity Commission, *Major Project Development Assessment Process, Research Report*, November 2013.

⁷³ Issues Paper, p 20.

⁷⁴ Productivity Commission, 2013, p 29.

⁷⁵ Ibid, p 27 and pp 349-366.

- A lack of a clear and coordinated strategy by federal and state governments on the development of gas supply;
- Uncertainties over government approval processes and the factors influencing these approvals;
- Uncertainty over the government's approach to export versus domestic use of gas;
- Continual changes in environmental policies that undermine confidence in the competitive position of gas in the domestic market, including gas use for generation;
- The comparative costs of exploration, production and transformation of gas in Australia
- Access to skilled labour and the impact the demand for labour in the new energy sectors has on labour costs and resources across industry generally.

The Government seeks comment on areas where approvals processes could be further streamlined while maintaining proper environmental safeguards.

As in many other aspects of the energy industry, a major problem for both producers and users of electricity and gas is the plethora of different regulations between and within the state and the federal governments.

Given the emerging issues with gas supply in particular, the MEU is supportive of moves to streamline the development approval processes. The MEU also agrees that it is important to do so in a way that maintains environmental standards and meets community expectations of a 'social' return on the investments.

A number of initiatives have implicitly recognised the need for more consistency across different jurisdictions, including:

- The National Partnership Agreement on Coal Seam Gas and Large Coal Mining whose purpose is to 'strengthen the regulation of CSG and large scale mining development by ensuring that future decisions are informed by substantially improved science and independent expert advice';⁷⁶
- The National Harmonised Framework on natural gas from coal

⁷⁶ COAG, *National Partnership Agreement on Coal Seam Gas and Large Coal Mining Development*, 2012, p 3. The Agreement is between the Commonwealth and NSW, Victoria, Queensland, South Australia and the Northern Territory governments.

seams,⁷⁷ and

- The implementation of a 'one-stop shop to 'help business navigate licensing and other regulatory processes'.⁷⁸

These are all potentially useful reforms. However, while they may facilitate the process, they do not directly address the plethora of different national, jurisdictional and local regulations impacting on energy production, generation and use. These differences are a source of costs and inefficiencies particularly for businesses that operate in different regions of the country, each with their own specific and detailed requirements.

For example, under the National Partnership Agreement, jurisdictions commit to 'take account' of the independent expert's advice in a 'transparent way' (if this advice has been sought). However, the jurisdictions are not obliged to act on this advice.⁷⁹

Similarly, the 'one-stop shop' should simplify the 'discovery' of different licensing and regulatory arrangements, but businesses still have to establish and maintain different processes and reporting systems to meet these different requirements.

The rationalisation of assessment and monitoring processes between the Commonwealth and each of the states and territories should therefore be a priority area for the White Paper to address. The MEU recommends that it follows the same principles for rationalisation of approvals for major project developments that are set out by the Productivity Commission 2013 study and referred to previously.

In addition, this rationalisation process should be undertaken with reference to (as applicable) independent scientific evidence such as that provided through the national partnership process (above) and including informed community feedback.

Addressing community concerns

The controversies over the development of the coal seam gas industry has highlighted to the MEU, the absolute importance of assessment processes that encourage investment but are transparent, and achieve a balance in environmental, social and economic outcomes.

While specific to the coal seam gas industry, the MEU believes the principles set out by SCER in the 2013 National Harmonised Regulatory Framework for

⁷⁷ SCER, *The National Harmonised Regulatory Framework for Natural Gas from Coal Seams*, 2013.

⁷⁸ DOI, *Energy White Paper –Issues Paper*, December 2013, p 20.

⁷⁹ COAG, National Partnership Agreement, 2012, p 4. The expert advice is provided by the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining (the IESC). The IESC was established as part of the Agreement.

Natural Gas from Coal Seams (the Framework), have wider relevance to the energy industry. For example, the Framework states:⁸⁰

"These regulatory and legislative settings should be underpinned by the principles of co-existence. This is where a shared commitment exists between the resources industry, other land users, local communities and governments to multiple merit-based sequential land use that provides certainty for industry and improved community confidence in land use decision-making."

The MEU considers that 'co-existence' is an important principle for all parties to acknowledge, particularly given the significant concerns with energy supply and costs across the community.

In line with the Framework approach, however, this co-existence will only occur if there is open discussion with the community on the risks and benefits, of different supply options. This discussion should draw on objective scientific evidence, best risk management practices and reflect the commercial realities of energy supply in today's economy.

The MEU notes that there appears to be widely differing outcomes applying to essentially the same resource development under differing jurisdictions. For example in the US, where land holders are able to negotiate a share of the benefit of a resource development, development is more likely to occur than where (as in NSW for example) land holders have no ability to share in the wealth created by a resource development. Compensation (if any is offered for the disturbance caused to land holders) is usually insufficient to prevent activities opposing the development.

The MEU does not support a "laissez faire" approach to this issue but points out that a cooperative coexistence, with all affected parties (land holder, developer, and government) sharing in the rewards of environmentally careful resource development is more likely to result in developments occurring rather than the current approach where sensible resource developments are being prevented and, as a result, causing shortages in energy (especially gas) for domestic use. It is up to governments to address these issues constructively and preemptively with the community; waiting for price increases and supply shortages to change public opinion is not an acceptable option.

⁸⁰ SCER, *The National Harmonised Regulatory Framework for Natural Gas from Coal Seams*, 2013, p 6.

8. Trade and International Relations

The White Paper should address the issue of whether unfettered export of Australian resources should be permitted or whether there is a need to ensure that its resources provide both an economic benefit in the short term but also allow the resources to provide for the needs of future generations.

The MEU considers that both can be achieved by a government policy that requires a proportion of Australia's resources to be reserved for domestic use and secondary processing where availability and/or price prevent their secondary use domestically.

The implementation of the carbon tax, the mandated renewable energy target (both the LRET and SRES), the many state based premiums on energy (such as the premium feed in tariffs for roof top PV) and the plethora of energy efficiency schemes all add to the cost of energy for domestic use but are not seen by many of our trading partners. This means that we are exporting energy and other resources for transformation overseas which then are returned to Australia to compete with domestic secondary production.

Imposing costs on our secondary processing has the impact of reducing employment and technical training. To offset this lack of skilled resources, we are allowing issue of temporary visas which results in the effective export of jobs and cash caused by a lack of sufficient domestic secondary processing firms to provide the skills training needed more widely.

Specific Questions Raised in the Issues Paper

The Government seeks comment on ways to grow the export of value-added energy products and services

Whilst the export of value-added energy products and services can assist in improving the overall economy, the MEU considers that this is a secondary issue when compared to the value-adding that will be achieved by enhancing the ability of the secondary processing of Australia's resources.

Greater value to the economy (both in the short and long terms) will be better achieved the value-adding of the nation's resources domestically, whether this secondary processing is for export or for import replacement.

The Government seeks comment on ways it can remove unnecessary barriers to continued foreign investment in Australia's energy sector.

Australia already has significant investment in developing its resources generally but it also has been the beneficiary of massive investment in secondary processing of these resources. It would be inappropriate for

government to implement policies for greater investment in energy resources than it allows for any other investment.

What must be a concern for government is that high domestic prices and shortages of energy (eg gas on the eastern seaboard) make investments in secondary industries less viable. This results in the potential for earlier investments made in the secondary processing area becoming less viable and thereby the potential of sovereign risk as previous investments made become non commercial⁸¹.

Further, while encouraging investment in the energy sector will provide some national benefit, investment in secondary processing of resources will have a much greater impact nationally both in terms of gross domestic product and employment in the short and long term.

The Government seeks comment on ways it can strengthen support for access to export markets.

See the MEU comments above

The Government seeks comment on ways to support business to maximise export opportunities for Australia's energy commodities, products, technologies and services including the value of Australia's participation in the variety of international forums.

See the MEU comments above.

The MEU does not consider it appropriate to comment on the question of participation of forums

⁸¹ It is important to remember that government promises were made in the past based on low costs for energy due to easily won fuels. To artificially increase these costs is a sovereign risk issue

9. Workforce Productivity

A fundamental issue in relation to employment is that there is a need to ensure Australia has:

- Work sufficient for its current population,
- The workforce is sufficiently trained to carry out the tasks required, and
- Sufficient work will be available for future generations.

To provide employment requires both the work to be carried out and the skills needed for the tasks to complete it. To attempt to address this aspect in relation to the energy sector in isolation of the wider economy is blinkered in the extreme.

As an initial observation, overall the amount of employment provided by the energy resource sector is quite modest and but little more when employment in the energy delivery industry is included. By far the greatest long-term employment opportunity is provided in the areas downstream of the production and delivery of energy. This is where the energy resource is value added. Traditionally, it is the downstream sectors that employ the greatest number (from the direct employment and that from those who support the direct employment) and also carry out the most training. Many of those trained in the downstream sectors become the source of skilled labour for the upstream sector, including construction work.

The Issues Paper highlights that workforce issues "are a pressure point". To a large extent the MEU agrees with this, but notes that the need to highlight this relates more to the costs of construction of the new facilities rather than the permanent employment the new facilities will require. Allowing the concurrent construction of so many new facilities in such a short time has resulted in a massive demand for construction workers and this has resulted in much higher costs for the new facilities than would have been the case if fewer projects were built and then non-concurrently. Already there are signs that the amount of new investment is declining and this will lead to a lessening need for construction employees than currently is the case.

The MEU recognises that the new facilities will have to be staffed and that these staff will have to be trained. As these facilities tend to be located in less hospitable parts of the country, there will be a need to entice labour from other parts of the country to work there. Additionally, the doubling of LNG export capacity currently in hand will result in increased demand for staff with specific skills to operate the facilities.

If Australia's energy resources are exported, effectively these exports provide work in other countries. This does not mean Australia should not export some of its energy resources, but it needs to recognise that some of these

resources need to be reserved for generating employment domestically now and into the future.

This clearly provides a view that Australia should use its energy resources strategically to provide adequately for the national needs now and into the future, and not be allowed an unfettered ability to export. While unfettered export of energy resources might provide a short term boost to the nation, it will constrain its development and ability to support its population in the future.

As noted earlier, Australia should reserve sufficient of its energy resources for domestic use at prices that allows viable long term secondary processing so that there is an ability to maintain adequate exports and import replacement at prices which are internationally competitive.

These secondary value-adding industrial users of energy are also employers that provide skills training for labour needed by the energy producers because these value-adding industries provide such a large proportion of employment. Attempting to provide the skills enhancement needs purely by the energy developers themselves is unlikely to solve their long term needs due to the relatively high labour turnover they currently experience (principally caused by facility remoteness), and this trend is unlikely to change.

Skills development needs employment stability while the skills are being acquired. This stability is provided by secondary, value-adding industry which provides an environment where the skills can be learned. Large industrial energy users (who are often located in regional and rural areas) provide the foundation for a stable local workforce which, in turn, allows development of skills which can be used by the energy resource developers when needed.

If there is a concentration on the energy resource sector and downstream value adding is not encouraged by policy, there is a large risk that over time the skills needed by the energy resource developers will not be provided.

Thus the long term viability of the energy resource sector in relation to its need for skilled labour, needs a commitment that some of the energy resource developed will be reserved for domestic use at prices that allow the long term viability of secondary value-adding industry which in turn will provide the ability to train the skilled labour need for the energy resource development and operation.

Specific Questions Raised in the Issues paper

The Government seeks comment on the nature of any current skills shortages being experienced and how these could be addressed by and with industry.

See comments above

The Government seeks comment on the capacity of industry and education sector led programs to meet the long-term training and skills development needs of the energy and resources sectors.

See comments above

Historically, remote facilities have tended to recruit "ready made" labour for its needs as the cost of training labour in the remote areas is both challenging and expensive. As a result, most labour used in the remote locations is already trained for the tasks they undertake. This puts the responsibility on other employers to train this labour.

A vibrant and viable secondary industrial base is required to provide the basic training of labour needed in remote areas. The alternative to using domestic labour sources is the importation of labour trained overseas and reduces work opportunities for the Australian populace.

Labour employed from overseas effectively is an export of funds - using domestically sourced labour results in their pay being used domestically and increasing the national GDP.

The Government seeks comment on the capacity of industry and education sector led programs to meet the long-term training and skills development needs of the energy and resources sectors.

The declining industrial base in Australia and the strictures placed on it from high energy costs and a high \$A has led to a reducing capacity in the secondary processing market to train "ready made" labour for the remote facilities. Providing an environment for the manufacturing base by ensuring that it can access the necessary inputs at prices they can afford synergistically allows them to continue providing the training sought by the remote facilities.

The Government seeks comment on specific long-term training and skills development needs for alternative transport fuels, renewable energy, energy management and other clean energy industries.

The MEU does not consider it appropriate to comment on this question

10. Driving Energy Productivity

As the Issues Paper notes, reducing energy consumption through more efficient utilisation of energy per unit of output can generate significant benefits to the consumers and the broader economy.

Australia has traditionally been relatively low in energy efficiency compared to other advanced countries. This has been attributed to various factors including the historical low price of energy.

In recent years, however, it is reported that there has been significant improvements in the efficiency of energy use as measured by overall energy intensity (energy used per unit of GDP). In part this reflects changes in industry structure from raw material processing to more secondary industrial activity. However, it is reasonably certain that other factors are also at play.

The MEU considers the government's focus on reducing energy costs and improving efficiency is appropriate. However, there is an implicit contradiction in these two objectives that have to be carefully worked through. That is, reducing energy costs removes one of the drivers for greater efficiency in energy use; investment in energy saving equipment will, for instance, have a longer pay-back period if prices are lower. As stated in the Issues Paper:⁸²

"Rising energy prices have seen energy efficiency emerge as an increasingly important enabler of economic growth."

Equally, the MEU notes that increasing energy prices have resulted in economic growth being negatively affected.

As a result, there will be more reliance on the government developing additional "non-price" policies to promote energy efficiency, such as mandating efficient standards for equipment or dwellings above current standards, or providing support for additional levels of investment by consumers in efficiency. However, while these actions may not directly affect the price of energy, there will be indirect costs associated with them that flow through to the costs of goods and services to consumers and exported products.

Thus, removing a price on carbon (and similar activities) while striving for greater energy efficiency through more direct intervention will require a very clear understanding of how the costs and energy savings will flow through the economy.

⁸² Issues Paper, p 31.

Specific Questions Raised in the Issues Paper

The Government seeks comment on the current suite of energy efficiency measures, ways these could be enhanced to provide greater energy efficiency or possible new measures that would enhance energy productivity.

It is essential that duplication of efficiency programs (such as between state and federal governments) is avoided and that programs are carefully targeted so that the community and energy users receive maximum benefit from the government's policies and their associated investments. For example, it is important that governments fund programs that address real barriers to efficiency and do not fund those that a business would be expected to undertake on a commercial cost-benefit analysis.

The MEU also agrees with the need to minimise unnecessary regulatory, reporting and compliance obligations with the caveat that it is important to ensure the integrity of the programs and that they are delivering real savings.

One of the MEU's other major concerns is the multiple ways jurisdictional governments have implemented energy efficiency programs and the extent to which they complement (or otherwise) any national energy efficiency projects. As a matter of principle, the MEU would prefer to see a national framework for energy efficiency. Analysis has indicated that this would result in a more cost-effective outcome (at least in terms of administrative costs) than continuation of the state based schemes.⁸³

A further important consideration is that the Government should be clear about its ultimate objective for energy efficiency before it designs a program. Is the primary aim to reduce peak demand, annual demand or carbon emissions? Decisions need to be made on which objective achieves the greatest beneficial impact and what specific efficiency activities should be undertaken to meet the chosen objective.

The MEU considers that further analysis of this will be required in conjunction with the implementation of the Government's direct-action plan. It is important that there is consistency and minimal overlap between the two programs.

The Government seeks comment on the use of demand-side participation measures to encourage energy productivity and reduce peak energy use.

There are two distinct areas for demand management, one is demand management to assist the network manage local or regional constraints on

⁸³ NERA/Oakley Greenwood, *Analysis of Compliance Costs for a National Energy Savings Initiative*, December 2012. See for instance, Table ES.1, p vi.

network capacity; the other is to assist the wholesale energy market when there is a shortage of supply. To a degree the MEU has addressed its concerns in other sections.

Network demand management

The MEU considers that some important steps have been taken to drive demand-side management, including the introduction of a regulatory investment test for distribution networks (RIT-D) to complement the existing regulatory investment test for transmission networks (RIT-T). In addition, the recent reforms to the NER mean that the AER will require networks to demonstrate that they have considered non-network alternatives as part of the capital expenditure proposals.

However, effective demand management for networks requires networks and consumers to be far more proactive in the planning and implementation of demand management than they have hitherto. Both parties will need to better understand the 'where, how and when' network demand management will operate and the financial costs and benefits for the network and the consumer. As noted elsewhere, network cost reflective pricing is an essential element for achieving demand side management to impact networks

Energy market demand management.

This is an aspect of the wholesale market design that has long been a source of complaint by the MEU. There are multiple restrictions in the rules that prevent large customers providing direct energy market services despite their willingness to do so.

Even so, many large users of energy are active in the spot electricity markets and reduce their demands at times of high spot prices. Where the rules need to be modified is in the occasional provision of demand reduction when there is a need in order to maintain security of the system. The MEU was and still is a strong supporter of the Reserve Trader concept and considers that this element of the market should be retained.

Similarly, the MEU considers that the ability of end users to be able to offer their capacity into the market (such as applies in relation to contingent gas in the gas STTM) should be permitted. This will result in demand aggregators being able to offer demand reduction services at critical times.

The Government seeks comment on measures to increase energy use efficiency in the transport sector.

The MEU is concerned that the focus on carbon reduction and improved efficiency has tended to be more on fixed energy use (electricity and gas used residentially and industrially rather than on the area of transport.

The White Paper will need to take a broad perspective on the issue of efficiency in the transport sector.

For instance, while improved efficiency in passenger vehicles is important in the long run, the findings of the ABS confirm that it takes quite some time for the efficiency of the overall stock of vehicles to respond. The ABS noted that average fuel consumption by passenger vehicles remained at around 11.5 litres per 100 kilometers between 1998 and 2007 despite efficiency gains because (in part) due to the 'relatively slow drop in the average age of passenger vehicles'.⁸⁴

Nevertheless, the ABS reports also indicate a marked drop in transport use per household, most particularly in the period after 2007-08 following significant increases in the real price of transport fuels.⁸⁵

The ABS also highlights the significant growth in rail and light rail passenger trips within urban areas of 19% between 2002-03 and 2007-08. In 2007-08, 711.3 million passenger rail journeys occurred in Australian urban areas, a growth of 19% over five years (from 2002-03).⁸⁶ While the ABS has not updated these figures, it is clear from other data that this growth in rail transport passenger usage has continued. Other reports indicate even greater rate of growth in freight transport.⁸⁷

Therefore, any assessment of transport efficiency in the White Paper must also look to actions that will improve access to, utilisation and efficiency of other urban transport infrastructure as well as roads.

⁸⁴ ABS, Report no 1370.0, *Measures of Australia's Progress 2010, Fuel consumption and emissions*, 15 September, 2010.

⁸⁵ ABS, Report no 4604.0 – *Energy Account, Australia, 2011-12*, 26 November, 2013.

⁸⁶ ABS, Report no 1370.0, *Measures of Australia's Progress 2010, Rail sea air and freight*, 15 September, 2010.

⁸⁷ For example, a report by the Australasian Railway Association (October 2013) suggests an increase of 84 million passenger journeys since 2008. Freight traffic grew by 8.2% in tonnage in one year to 2011-12; including a growth of 14.8% in non-bulk rail freight traffic. The same report, however, notes that only 5% of freight in the Sydney-Melbourne corridor is carried by rail.

11. Alternative and Emerging Energy Sources and Technology

The MEU considers there three core approaches to reducing carbon emissions:

- Generate electricity using means that use less or emit no carbon emissions per unit of generation
- Develop an environment where less energy is needed for each energy using process (ie increasing the efficiency of energy use)
- Capture carbon emissions and secure these in a way that reduces the atmospheric carbon concentration.

As noted in sections above, the MEU does not consider it appropriate for governments to attempt to “pick winners”. Nor should government decide that one technology or approach will achieve a better outcome than another.

Along with transport, one of the largest emitters of atmospheric carbon is the generation of electricity and, as such, this area needs to receive significant attention, but even by concentrating on this single aspect is there is no clear way forward as to what is the most cost effective method for reducing the amount of atmospheric carbon.

Because of this the government role should be to provide the correct environment for development of the most cost effective outcomes. One of the aspects that is currently causing concern, whilst the electricity market structure has embedded within it a process which provides for competitive neutrality between different forms of power generation, governments are imposing policies on it which distort this neutrality. To minimise the distortions caused by policies, this neutrality must be maintained. This means that it would be inappropriate for the government to decide that (say) a remote geothermal generator in one region should get preferential treatment over a wind farm in another region. Yet this is potentially an outcome that has been identified as being appropriate in order to encourage renewable generation.

In a similar vein, it is inappropriate for government to be a supporter say of underground carbon storage over algal carbon capture and storage.

What government needs to do is to advise the parameters of what are acceptable forms of renewable generation, efficiency enhancements and emission capture and allow the market to develop the most effective solutions to the overall requirement to reduce carbon emissions.

In regard to energy efficiency, it is important to recognise that energy efficiency is not just an issue related to end usage but also it is an issue for generation and transmission. Ensuring that generation is the most thermally efficient is just as effective as improving the efficiency of end usage. Reducing the power losses in transmission systems also improves the overall efficiency of energy use. Thus using generation technology which is more efficient (eg a

combined cycle gas turbine rather than an open cycle gas turbine or conventional steam turbine) and having generation close to where it is used, provide large steps in improving the overall national thermal efficiency of energy use. It is appropriate for government to require that market structures deliver electricity in the most thermally efficient manner.

Equally, users of energy are driven by the cost of the energy to introduce energy efficiencies. At the same time, capital available to energy users is limited, so users will dedicate their limited resources to aspects which deliver the greatest financial benefit. This means that if energy costs are sufficiently high to make investments in greater energy efficiency viable, then this is where scarce capital resources will be dedicated⁸⁸.

Specific Questions Raised in the Issues Paper

The Government seeks comment on ways to encourage a lower emissions energy supply that avoids market distortion or causes increased energy prices.

There is currently sufficient conventional generation available to preclude the immediate need for new generation to be provided. This means that without external pressures, the emissions from the existing stock of generation will not reduce. To provide investment to replace current generation with lower emission generation, or to invest in more efficient plant by users, will result in costs. Government has to decide whether this cost is to be borne by tax payers (such as would apply for implementation of the "direct action" program) or directly through the cost of energy supplied, as is the current case. Either way, there will be a cost to the nation to achieve the policy outcome.

As noted above, and elsewhere in this submission, the market will naturally seek the lowest cost option to meet a need. Unless low emission generation provides a lower cost than a carbon based thermal technology, the market will build new generation using carbon based technology. This means that, if government seeks to reduce carbon emissions, it will have to mandate this as an outcome (such as the MRET scheme), force the inclusion of costs for the carbon based technology (such as a cost on carbon emissions) or provide funding to low emission generation to match the costs of alternative higher emitting generation (such as taxpayer contributed grants). Whatever approach the government has, it must be transparent so the consumers and taxpayers can clearly identify the impacts of the policy decision made.

Whichever alternative to achieving its carbon emission reduction the government seeks to implement, it is essential that the market is given the freedom to select which technology is most appropriate for the need;

⁸⁸ However, if prices are too high, then the end user will cease production. Whilst this might achieve a reduction in emissions, it also results in a loss of jobs and reduces the likelihood of future investment in downstream activities.

government should not attempt "technology picking" as this will cause an unnecessary distortion to the market.

For example, if the government decided that carbon capture and storage (CCS) was to be implemented in preference to geothermal power even though both provide base load characteristics, distortions will eventuate. It is likely that geothermal options will be remote from the existing transmission grid. To integrate the geothermal option might therefore require the provision of massive extensions to the transmission system at significant expense. In contrast, the CCS option will include considerable capital cost for its implementation but be provided much closer to the transmission system with much less need for network augmentation - a cost which is borne by consumers. A market driven process will optimise between the costs of both options whereas government directive or support for one technology might result in a higher cost to consumers.

The MEU considers that the market is best able to decide what will be the lowest cost solution; government should not attempt to "pick winners" and should just provide an environment which allows the best technologies to develop to meet the need and prove their commerciality. At most, government could provide enhanced tax incentives to those developments which will deliver the targeted outcomes of reducing the release of atmospheric carbon.

The government should maintain competitive neutrality in relation to differing solutions to achieving the carbon emission reductions sought. As noted above it is the environment, (taxation, mandating, etc) in which the targeted development is allowed to prosper, that governments should provide

The Issues Paper notes that environmental considerations impact on hydro generation but that nuclear power might present an alternative.

The MEU does not agree with the view that hydro generation is not environmentally acceptable. Whilst there may be a moratorium (itself a market distorting policy) on "new dams", pumped hydro generation provides a sound methodology for storage of electricity and the supply side smoothing that is an essential aspect of the use of solar and wind technologies which are inherently intermittent. In contrast to large water storage for domestic water supplies which require large reservoirs, pumped storage needs a much lesser amount of space and water volume. The MEU considers that pumped storage using either or both fresh and seawater as the medium will have a modest impact environmentally, but provide a beneficial adjunct to the electricity market.

The MEU considers that nuclear is an option that should be included in the mix of generation technologies that should be permitted in Australia but that decisions to use the technology should be market based and not mandated.

The Government seeks comment on the need to review existing network tariff structures in the face of rapidly growing deployment of grid-backed-up distributed energy systems, to ensure proper distribution of costs.

There are two aspects of network pricing that must be addressed.

Firstly the allocation of network costs must be made more equitable. In particular, greater recognition of the fact that demand of all the users connected to the network drives the capacity of the network and the capacity of the network is driven by the peak demand all consumers using power at that time. This means that tariffs based on consumption do not reflect the cost that each user imposes on the network. This issue is currently under review by the AEMC through a rule change request.

Secondly, network pricing has a massive impact on decisions made by investors for new generation, whether this is based on large, small or micro generation options. Pricing and pricing structures need to reflect only the actual additional costs a new generator imposes on the network from its electricity usage. Despite this generalisation, care must be taken to ensure that some get "free" access to spare capacity with the last connected being liable for all of any network upgrade required.

Generators seeking to connect to the distribution network are treated considerably differently to those connecting to the transmission network; whereas large generation connections to the transmission network are encouraged and pay no exit charges for any load they impress on the system, small generators in the distribution networks are discriminated against. Distribution networks argue that even though self generating end users require the network to "backup" supplies when the generator is not operating (eg when under going maintenance), the self user/generators should pay network usage charges as if they were using the network services for the entire year. Networks therefore charge for usage of the network at the full rate even when the generator is only unavailable at low network usage times. This means that a self generator needs 100% backup of its own generator or it pays full price for the network to supply its load even though used only occasionally.

Distributed generation would be more widely implemented if the networks provided a discounted rate for providing backup services. To ensure that these backup services are not used when the demand is high, it is recommended that the discounted service be permitted when the backup is used at times of low demand on the network.

The Government seeks comment on additional cost-effective means, beyond current mandatory targets and grants, to encourage further development of renewable and other alternative energy sources and their effective integration within the wider energy market.

See comments above.

The Government seeks comment on any barriers to increased uptake of LPG in private and commercial vehicles and CNG and LNG in the heavy vehicle fleet.

The MEU does not consider it appropriate to comment on this question.

The Government seeks comment on any barriers to the increased uptake of electric vehicles and advanced biofuels.

The MEU does not consider it appropriate to comment on this question.