

Queensland Minerals and Energy Sector

Energy White Paper Issues Paper

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EXECUTIVE SUMMARY

The Queensland Resources Council (QRC) is the peak representative organisation of the Queensland minerals and energy sector. The QRC's membership encompasses exploration, production, and processing companies, gas and energy production and associated service companies. The QRC works on behalf of members to ensure Queensland's resources are developed profitably and competitively, in a socially and environmentally sustainable way.

QRC has a unique and important role through its diverse membership across the energy production and energy-intensive manufacturing sectors. This membership of Queensland-based firms represents the practical nexus between the key components of energy policy.

Energy is a significant and increasing component of resources sector operations. Lower mineral grades and higher overburden strip ratios (i.e. digging deeper) mean energy intensity and costs are increasing much faster than for other sectors of the economy¹.

QRC estimates the Queensland resources sector consumes about 22 percent of the state's electricity with aluminium and zinc smelters responsible for approximately 15 percent of the load. Demand is likely to increase as the processing of coal-seam gas (CSG) into liquefied natural gas (LNG) for export begins in late 2014.

Electricity is a significant input cost for miners accounting for approximately 4-5 percent of a typical mining operation's total costs and up to 50 percent for a smelter. Resources operations also incur very high costs from shutdowns caused by energy supply interruptions. Competitively priced and reliable energy has been the cornerstone of the sector's comparative advantage in global markets. Regrettably this advantage has been surrendered.

The Queensland resources sector is trade-exposed and operates in highly competitive markets with limited ability to either modify consumption or pass on additional costs to customers.

The sector's global competitiveness is currently challenged by high structural costs compared with competing exporters. Energy -intensive minerals processing is vulnerable to high domestic prices – caused in the main by the carbon tax, Renewable Energy Target (RET) and high electricity transmission and distribution costs and increasingly domestic feedstock gas costs. Furthermore, most resources markets are over-supplied, with prices in most markets depressed. The persistent strength of the Australian dollar against the US dollar serves to depress Australian dollar revenues and exacerbate competitiveness concerns.

Australia would benefit enormously from an integrated and coherent national position on energy policy as a part response to these issues.

Over the past decade Australian energy policy makers have pursued disparate options in seeking to reconcile the policy imperatives of securing low-cost and reliable energy supply while lowering carbon emissions. However, there is little evidence to suggest that Australian energy policies *per se* have resulted in meaningful carbon abatement or globally competitive electricity supply (\$/MWh). On the upside, in an engineering sense Australia has achieved a very reliable electricity network that should have adequate capacity for some years to come.

Policy outcome observations:

- Changes in policy approach have caused investment uncertainty and distortions in market behaviour. For example, the RET has crowded out investment in more efficient supply responses, and because it has increased volatility in the National Electricity Market (NEM), necessitated additional generation (at greater cost) to offset the interruptability that has been introduced.

¹ <http://www.bree.gov.au/publications/economic-analysis-end-use-energy-intensity-australia>

- There has been no fundamental change in the fossil fuel/renewable energy mix over the past 10 years with the split remaining staying approximately 85 percent fossil fuels and 15 percent renewables. This suggests that achieving meaningful carbon abatement has been difficult. Recently coal-based generation has begun to displace gas-based generation despite a very large investment in capacity over recent years.
- In Queensland, electricity prices have risen by around 65 percent from 2000-2012, which is much higher than the Consumer Price Index.

Looking to energy exports, of increasing concern to QRC are the difficulties and risks facing developers in converting Queensland's world class endowment of gas, uranium and thermal coal into competitive global supply. Despite more than \$70 billion of new resources investment in Queensland over recent years, there has been a very obvious and significant cooling of investment sentiment in the past 12 months. This runs counter to the strength of long-term global demand fundamentals but reflects low commodity prices, poor investment appetites and also concerns about Australia's global competitiveness in energy pricing.

The International Energy Agency (IEA) says Queensland's energy commodities will play a significant role in the world's global energy demand profile over coming decades.

The issue for current and prospective energy producers is that existing and new Queensland resources operations are struggling to position themselves on the lower quartiles of the global cost curve – a major advantage in smoothing the bumps in commodity price cycles.

The cost problems confronting current Queensland resources projects have been assessed by the QRC. Across a sample of 25 projects in 2008, 80 percent were in the very competitive first and second cost quartiles. In 2013, only 48 percent of these 25 projects remained in cost quartiles one and two. Similarly some Queensland and Australian refining operations were amongst the lowest-cost producers in the world, and are now finding it hard to compete in international markets.

The situation is no better for proposed Queensland resources projects. From a sample of 29 proposed projects assessed by QRC, only 31 percent would commence operations in the competitive first and second quartiles.

A significant role exists for state and federal governments to address these concerns.

Reforms the QRC supports to encourage greater efficiencies in domestic energy markets and to encourage greater energy independence include:

- All technological, regulatory and policy options to promote the domestic production of alternative fuels (gas, oil shale and coal to liquids in particular) should be pursued to offset the risks associated with Australia's considerable and growing imported liquid fuels dependency.
- Removing unnecessary impediments to developing new gas resources, providing a certain and predictable regulatory and investment environment, and assisting the transition to a more liquid and competitive east coast market via improved market data and transparency, gas market governance and effective market regulatory settings.
- Modified electricity supply reliability requirements to promote efficiency, including a move away from prescriptive standards to flexible, customer-driven standards. Associated with this is the need for cost-reflective pricing (which will entail a variable component to reflect the change in cost of supplying during peak demand) so consumers are aware of the costs associated with higher reliability and to encourage improved demand management.
- More efficient planning of large transmission investments especially when customers are planning multiple significant loads.

- Ensuring the allowable revenues of the regulated entities or network service providers (NSP) (in Queensland – Ergon, Energex and Powerlink Queensland) are based on a WACC that reflects the risks these companies currently face and the true cost of their capital. Furthermore, the risks faced by the NSPs of stranded assets due to falling demand in the NEM should be borne by those companies, not consumers.
- Changes to network business ownership (i.e. the Queensland Government should divest Ergon, Energex and Powerlink) alongside the improvement of regulatory measures controlling WACC, reliability, capital and operating expenditure. It should be noted that a change of ownership of itself will not address the key issues expressed in this paper, and in-fact could in some cases worsen the situation.
- A reduction in the disproportionate powers of the NSPs (especially around easement acquisition and risk sharing) so their responsiveness to information requests is improved and mines/projects are able to provide their own connection assets with a view to removing all information asymmetry between the parties.
- Adding some urgency to the existing tardy and fragmented reform process. The Standing Council on Energy and Resources needs to accelerate reforms — particularly for reliability and planning — which have been bogged down by successive reviews.
- Work with state governments to develop an agreed set of priorities and actions.

Reforms the QRC supports to encourage greater investment and competitiveness of the resources sector include:

- An effective national access regime to promote efficient infrastructure charges (by curtailing monopolistic power).
- A framework of workplace law and regulation that promotes cooperative and productive workplaces, recognising that a genuine, sustainable safety net and appropriate protections against exploitation or discriminatory conduct are important elements of such a framework.
- The industry seeks an active partnership with government to deliver an uninterrupted, sustainable education and training pathway to increase workforce participation, workforce diversity and workforce skills.
- Repeal of the carbon tax which currently imposes a unilateral tax on fugitive emissions from coal mining and a cost burden on high emissions industries that is greater than any other economy wide scheme in the world.
- Repeal of the MRRT which is an unnecessary, extra layer of taxation (and bureaucratic compliance) on top of company tax and royalties.
- Removal or streamlining of red and green tape across all aspects of operations.
- The use of tax incentives as a means of offsetting the considerable risks associated with resources exploration and R&D spend in particular. Improved pre-competitive geoscience information is another effective means to offset the risks associated with exploration, particularly greenfield exploration.
- Pursue the so-called 'one-stop-shop' state/federal approvals arrangements, focus on addressing the direct impacts of resources projects and government be more realistic in terms of addressing the cumulative impacts of proposed projects when conditioning and approving new project approvals.
- Land access reforms that reduce the total cost of securing access (in particular reducing large legal services overheads); reduce the total time taken to secure access; and restore the value of

effective direct working relationships between the landholder and resource company.

- As the Energy Efficiencies Opportunities Program has not identified a large, deep and renewable pool of significant energy efficiency savings in the resources sector that would not otherwise have been considered, this program should be made voluntary.
- Through greater industry consultation, consider the public benefit of proposed regulation of off-road diesel engines noting the tradeoff between fuel efficiency and pollutant control.
- A considerably larger focus on promoting CCS commercialisation as the cornerstone to utilising Australia's rich fossils fuel endowment and achieving sustainable environmental outcomes.

1. THE SECURITY OF ENERGY SUPPLIES

The Government seeks comment on:

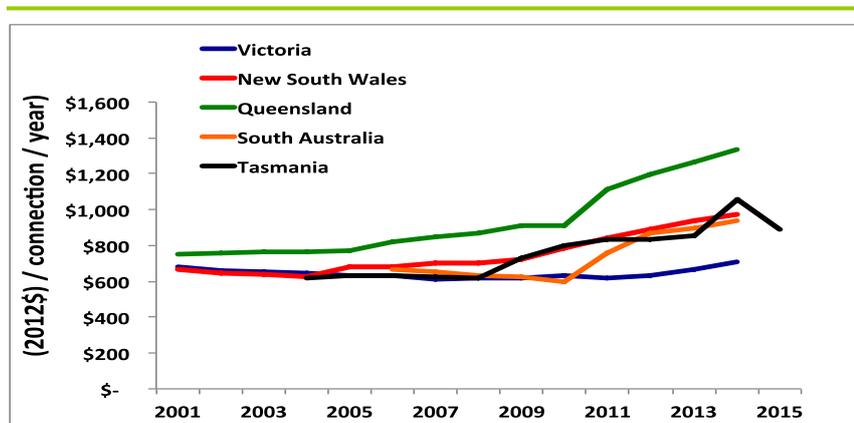
- ways community expectations can be better understood and reflected in reliability standards**

Background:

- Since 2004, Queensland has undergone significant electricity network investment, owing to increased reliability standards (N-1), guaranteed service levels and minimum service standards.
- Government policy decisions made over a decade ago without economic assessment are now driving high network charges resulting in high retail electricity prices. For customers connected to a sub-transmission network (e.g. Ergon Energy's regional network) the Value of Customer Reliability benchmark is passed on in charges for the distribution network. These costs are apparent in Chart 1.

Chart 1

Distribution costs in Queensland have risen more quickly than in other states



Source: AER and jurisdictional regulator price and revenue control decisions. CME analysis.

- AEMO is undertaking detailed surveys of customers by load profile and location to obtain more accurate estimates of the value customers place on reliability.
- The debate around deterministic vs probabilistic reliability standards is also occurring with the current AEMC Transmission Frameworks Review likely to result in a changed approach to meeting reliability requirements, with a focus on reducing cost.

QRC position and recommendation to government:

- It is evident that different classes of users have different reliability requirements and they should be able to contract their required level of reliability to the extent practicable within the electricity supply system. This means they should be willing to pay for that level of reliability. A substantial part of the network augmentation capital expenditure in recent years has been to meet forecast peak demand growth, driven mainly by smaller consumers who do not directly pay for the cost their peak demand imposes on the system because of the structure of tariffs and lack of time-of-day pricing. This customer base, while important (particularly with respect to personal health) is not a productive sector of the economy.

The Government seeks comment on:

2. the value of developing fuel reserves to meet Australia's international oil security obligations, and augment domestic security;

Background:

- QRC is of the view that Australia's growing oil import dependency (\$30 billion by 2015, rising potentially to \$90 billion by 2030²) may present a number of substantive risks.
- The nation's inability to supply the majority of its own future energy needs and/or diversify its supply mix means that Australian industry and the public at large will be increasingly exposed to global geo-political risks (e.g. Iran is a recent case in point) and other volatilities commonly associated with the global oil market (e.g. currency manipulations are putting upward pressures on oil prices).
- Increasing community awareness of, and government policy support for alternative fuels such as synthetics would provide an alternative domestic source of supply to reduce Australia's reliance on imports and provide a number of strategic, economic (employment, excise and value-adding technology commercialisation opportunities), and environmental benefits (cleaner, higher quality fuel) for Australia.
- The abundance of Australia's resources and well-developed energy supply infrastructure creates an opportunity to diversify the transport system energy base. Australian resources include the existing well-developed natural gas, coal and LPG as well as potential use of oil shale, coal-seam gas, various forms of renewable energy, and potential for the development of biofuels.
- Australia's liquid fuel stocks are increasingly supplied through a mix of crude oil and refined products imports, domestic crude, and alternative fuel production.
- Significantly, according to a 2013 NRMA report on Australia's Liquid Fuel Security, Australia has at present 23 days of supply with 10 of this being contained in vehicles, tankers and refineries.
- Australia's security of supply is expected to diminish because of strongly rising demand in the Asia-Pacific and an increasing reliance on imports caused by reduced domestic production of refined product as plants struggle to reduce their marginal costs compared to that of their global competitors.
- Raw supply will need to be obtained from stocks that are arguably shrinking and from regions that lend themselves to political instability. Reliability of supply is an increasing risk. Less secure supply has a number of implications, not least of which are economic. Each instance of a supply constraint, interruption or forced recourse to more expensive alternatives have adverse consequences for the efficiency and competitiveness of Australian producers and for Australia's

² ACIL Tasman 'Australia's Future Transport Fuel Supply Options' 2009

economic performance.

- Alternative fuel technologies including gas-to-liquids, coal-to-liquids, and shale-to-liquids; biofuels (ethanol/biodiesel), LNG and CNG have the potential to make significant employment and tax contributions as well as diversifying Australia's fuel supply mix. Each technology has different potential to contribute in terms of volume and timing. Some options have practical or economic limitations to their likely uptake. Others have greater volumetric potential but may face greater challenges in relation to technology development and commercialisation.

QRC position and recommendation to government:

- All options are potentially valuable and all deserve the attention of political leaders, policy makers, industry participants and consumers to ensure they are given the opportunity to progress through normal channels of technological and commercial demonstration, and to proceed to full scale development subject to successful clearance of normal economic, commercial, environmental and other regulatory hurdles.

The Government seeks comment on:

3. ways to increase new gas sources to meet demand and measures to enhance transparency in market conditions

Background:

- East Australia gas consumption (including export) is forecast to rise from 697 PJ per annum in 2012 (residential and commercial, large industrial and gas powered connection) to 1395 PJ/a in 2015 and 2386 PJ/a by 2020³. Of note, 2012 domestic demand levels are expected to decrease by 2020 given 'demand destruction'.
- Australia is endowed with significant gas resources with total 2P eastern Australia gas reserves estimated to be 44,244 PJ with an additional 72,863 PJ of 2C gas⁴. The degree to which the market can convert these 2C resources to economic reserves and ameliorate further tightening and potential higher prices is unclear. Much will depend on the rate of development and commissioning of new LNG projects; the time to reach capacity and flow rates for coal seam reserves; the ability to quickly bring forward new projects in New South Wales; and whether reversion occurs and when.
- While gas supply has expanded, the additional demand competition from LNG exports in conjunction with higher extraction costs has seen a significant tightening in supply and higher prices on the domestic gas market. The average cost of development for new unconventional and CSG gas is already approaching \$5/GJ⁵ and is expected to continue to rise. Detailed pricing terms and actual pricing levels are confidential, but speculation surrounds a \$7-9/GJ base price and for smaller industrial users purchasing through retailers, an asking price of \$9-11/GJ appears likely. Inclusion of an oil price linkage is not unusual.
- The AEMO Gas Statement of Opportunities (GSOO) reports that Eastern Australia has abundant gas reserves and resources sufficient to supply demand for at least the next 20 years. However, from 2019 when a six-train LNG export industry is expected to be fully operating, AEMO has forecast that some gas demand shortfalls may arise if gas production is limited to existing and committed projects. These shortfalls could be alleviated by building new gas pipeline infrastructure and/or developing new sources of gas supply such as unconventional gas resources in the Cooper Basin or CSG resources in the Gunnedah and Gloucester Basins.

³ Gas Statement of Opportunities, 2012

⁴ Gas Statement of Opportunities, 2012

⁵ IES 2013

- Positive action to inform and educate the public with transparent fact-based information on a national basis is essential to all future development. The Queensland Government for example has taken positive steps through the establishment of the GasFields Commission.
- Actions taken now will not avert the gas supply constraints impacting the market, however prudent actions to encourage and increase gas exploration and production may determine the length of time before gas again becomes readily and competitively available for Australian industry. To that end, economic modelling by ACIL Allen suggests that by the end of the decade, the difference between a 'high supply' response' and a 'low supply' response could be the difference between a \$6/GJ and a \$9/GJ indicative wholesale supply response.

QRC position and recommendation to government:

- The Eastern Australia Domestic Gas Market Study outlines a range of options that could be considered by governments to address gas supply constraints and facilitate a larger, and better functioning and more dynamic and transparent market. QRC encourages careful consideration of these options in close consultation with gas users and producers.
- Following consultation with the QRC's large domestic users and gas suppliers, QRC believes government should focus on removing unnecessary impediments to developing new gas resources and providing a certain and predictable regulatory and investment environment. We recognise that a markets-based approach to policy setting will create an environment that facilitates investment to underpin production for domestic and international export markets. To that end, specific reforms should include:
 - Assisting the transition via improved market data and transparency and gas market governance (i.e. better data and analysis of gas market issues). An East Coast Gas Market Development Plan is required in addition to completion of SCER's current reforms such as development of the Wallumbilla hub and support for pipeline capacity trading.
 - Address regulatory impediments to supply:
 - Queensland Competition Authority's draft CSG regulation review (November 2013) identified changes to the following impediments to the exploration and extraction of CSG:
 - Develop Standard conditions for CSG activities to enable pre-approval whenever prescribed environmental requirements are met (recommendation #1).
 - A single financial assurance be established and administered (recommendation #3).
 - Review the guideline to define Category C environmentally-sensitive areas (ESAs) (recommendation #5).
 - Great flexibility be provided for CSG operations to meet offset requirements (recommendation #10).
 - Rationalise compliance and reporting of CSG activities (recommendation #14).
 - Clarity on the definitions of 'Preliminary Activity' and 'Advanced Activity' be provided by NRM (recommendation #26).
 - A revised approach to tenure administration be developed based on a total project rather than an individual tenement assessment (recommendation #27).
 - The development of guidelines to assist in the lodgement and assessment of Potential Commercial Area applications (recommendation #28).

- A single scheme for protecting high value agricultural land (recommendation #30).
- The term 'Notice of Intention to Negotiate' in the *Petroleum and Gas (Production and Safety) Act 2004* be amended to allow advanced activities to commence within the mandated 20-day negotiation period (recommendation #31).
- The Productivity Commission's review on the non-financial barriers to mineral and energy resource exploration in Australia:
 - Remove inflexible relinquishment requirements on petroleum and gas exploration tenure that are an issue for the long-term sustainability of the exploration sector.
 - Implement a system of project management for tenure. The petroleum and gas industry are disadvantaged compared to other sectors such as coal and mineral due to their inability to manage exploration tenure on a project basis. Project status provides for flexibility of relinquishment and work program in acknowledgement that exploration activities are high risk and managed on a project basis have potential to add greater benefit to the State in the long term.
 - Improve the predictability of assessment timeframes for exploration tenures. There is an increasing concern for Queensland explorers with timeframes to grant tenure ballooning out to two years.
 - Reduce the impact of overarching planning policies, like the Regional Planning Interests Bill, that fail to assess and mitigate the negative impacts on future exploration activity in Queensland.
 - Improve land access processes. Queensland is currently experiencing issues with the amount of legal fees incurred in negotiated conduct and compensation agreements with landholders.
 - Address the overlapping tenure issues in Queensland where the current regulations are a barrier to future exploration as an existing tenure holder has the right to lock out a potential gas explorer.
 - Review the excessive reporting requirements for petroleum and gas explorers as it adds an enormous amount of cost to an activity with daily drill reporting as only one example.
 - Maintain a healthy budget for the Geological Survey of Queensland (GSQ). The last Queensland budget saw the allocation of some \$30 million in funding over 3 years to GSQ which was a very welcome first step to making good the neglected funding of GSQ's role in providing an important public good. Greater public funding of GSQ should be a priority, as it underpins Queensland's precompetitive exploration capability.

Consideration should also be given to promoting the right market and regulatory settings are in place to ensure initiatives such as the newly created gas supply hub develop into liquid and transparent trading points.

The Government seeks comment on

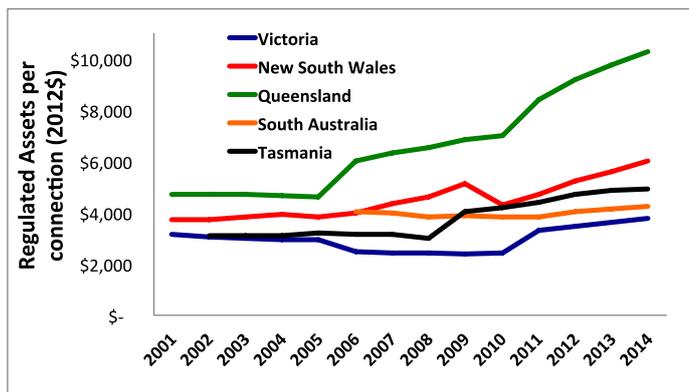
4. Issues relating to the regulation of energy infrastructure.

Background:

- A main reason for higher electricity distribution and transmission charges, especially in Queensland, is the growth in the regulated asset base of supplying entities (refer Chart 2). There is evidence that increases have not been in response to peak demand but rather due to demand forecasting error, exacerbated by regulatory design issues (excessive prescription), poor regulatory conduct, and conflicts arising from government ownership (expanding the regulated asset base, even if inefficient, which has delivered higher profits to energy GOCs).

Chart 2

The main reason for higher distribution network charges is the growth in the regulated asset base. For distributors in Queensland the outcome is remarkable



Source: AER and jurisdictional regulator price and revenue control decisions. CME analysis.

QRC position and recommendation to government:

- New investment in electricity generation may continue to be hampered unless there is a substantial reduction in the level of market distorting regulation. To the extent that regulation is necessary, it should not discriminate between energy sources and deliver a competitive and efficient energy market to optimise energy security and minimise energy cost to consumers.
- Consistent with the recent findings of the recent Productivity Commission report into Electricity Network Regulation, the following reforms should be prioritised:
 - Modified reliability requirements to promote efficiency, including a move away from prescriptive standards to flexible, customer driven standards. Associated with this is the need for cost-reflective pricing (which will entail a higher variable component in charges to reduce peak demand investment) so all consumers are aware of the costs associated with higher reliability and to encourage improved demand management.

- More efficient planning of large transmission investments especially when customers are planning multiple significant loads.
- The allowable revenues of the regulated entities or network service providers (NSP) (in Queensland these are Ergon, Energex and Powerlink) be based on a WACC that reflects the very low risks they currently face.
- Changes to network business ownership (i.e the Queensland Government should divest Ergon, Energex and Powerlink).
- A reduction in the disproportionate powers of the NSPs (especially around easement acquisition) so their responsiveness to information requests is improved and mines/projects are able to provide their own connection assets.
- Adding some urgency to the existing tardy reform process. The Standing Council on Energy and Resources needs to accelerate reforms — particularly for reliability and planning — which have been bogged down by successive reviews. Delays to reform cost consumers across the National Electricity Market (NEM) hundreds of millions of dollars.
- Work with the states to develop an agreed set of priorities and actions.

2. REGULATORY REFORM AND THE ROLE OF GOVERNMENT

The Government seeks comment on:

1. priority issues, barriers or gaps within the COAG energy market reform agenda.

Issues that should be prioritised are outlined under 'issues relating to the regulation of energy infrastructure' above.

The Government seeks comment on:

2. 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.

Background:

- Moves towards a greater component of fixed charge in the total cost has led to large users with a relatively flat load incurring large increases in electricity prices even though these users have not caused the need for peak load network infrastructure investment.

QRC position and recommendation to government:

- The sector's preference is for variable and cost-reflective tariffs to reduce peak demand investment and to encourage consumers to reduce costs through demand management and energy efficiency.

The Government seeks comment on:

3. areas where further privatisation of government-owned assets would contribute to more effective regulatory frameworks and better outcomes for consumers.

Background:

- There is sufficient evidence to suggest that multiple and competing objectives (maximising profits while ensuring competitive supply), political intervention and the imposition of non-commercial restrictions have resulted in a poorer level of performance when compared with comparable private sector electricity companies in other Australian jurisdictions.
- Strong evidence in support of privatisation was recently provided by Mr Rod Sims, Chairman of the ACCC, who was recently quoted as saying:

"There is no doubt in my mind that energy prices, particularly in NSW and Queensland, would now be lower had the private sector owned those network business rather than them staying in the public sector. I don't think there is any doubt about that."

QRC position and recommendation to government:

- Privatisation of the state's electricity generation, distribution and transmission businesses with effective consumer oriented regulatory and commercial safeguards.

3. GROWTH AND INVESTMENT

The Government seeks comment on:

1. commercial or market initiatives that could enhance growth and investment in the energy and resources sectors.

Background:

- In its publication *Resources and Energy Major Projects*, the Bureau of Resources and Energy Economics (BREE) suggests there are tens of billions of dollar in potential new resources projects in Queensland. These projects are at various stages, including publically announced, feasibility assessment, and committed.
- In order for a project to be developed, the expected price for the resource must be above the incentive price (i.e. the price per tonne required to cover both the operating costs of the mine and the cost of the capital used to develop it). If the average price is below the incentive price, the Net Present Value of the project will be negative. Australian resources projects, especially metallurgical and thermal coal projects have among the highest incentive prices of all identified projects globally, meaning they are the least likely to proceed without either a significant increase in prices or a major shift in the cost environment for new projects in Australia (labour, regulatory and transport in particular).
- Furthermore, specialist coal consultants, Wood Mackenzie have advised QRC that to achieve a 15 percent Internal Rate of Return, and at the current AUD:USD exchange rate and metallurgical and thermal coal prices, only a handful of proposed Australian metallurgical coal projects could conceivably make a return on investment. No thermal coal projects would be economic. Accordingly, with resources prices not expected to recover for a number of years due to the strong increase in supply over the past decade, the main opportunity to get projects developed is to substantially reduce costs.
- The resources sector is highly capital intensive, drawing heavily on other business sectors to provide essential inputs. For a minerals operation, and as a percentage of costs, the main input sectors in order of importance include labour, energy, parts, tyres and repairs, and export infrastructure (railway and ports). Producers are currently seeking cost reductions across the full spectrum of these inputs.

QRC position and recommendation to government:

- As a complement to energy reforms outlined in this submission, government through various policy levers can assist the issue of costs, including through:
 - An effective national access regime to promote reasonable infrastructure charges (by curtailing monopolistic power).
 - flexibility and adequate protections in the skills and workplace relations policy settings to ensure wage control.
 - repealing the carbon tax which currently imposes a unilateral tax on fugitive emissions from coal mining and a cost burden on high emissions industries that is greater than any other economy wide scheme in the world.
 - repealing the MRRT which is an unnecessary, extra layer of taxation (and bureaucratic compliance) on top of company tax and royalties. Australian coal producers already face the highest effective tax rate in the world.

- removing or streamlining red and green tape across all aspects of operations.
- using tax incentives as a means of offsetting the considerable risks associated with resources exploration and R&D spend in particular. Improved pre-competitive geoscience information is another effective means to offset the risks associated with exploration, particularly greenfields.

The Government seeks comment on:

2. areas where approvals processes could be further streamlined while maintaining proper environmental and social safeguards.

Background:

- There are a number of initiatives at the State levels to streamline approvals processing for resource projects concurrent with early negotiation with the federal government on a bilateral approval agreement to reduce the level of duplication of both assessment and approvals a project needs.
- There are many criticisms of the current assessment process. Through the comprehensive environmental impact statement (EIS), the process has become so long, complex and detailed that it makes it very difficult for local communities to engage in the assessment process. When EIS reports routinely run to 10,000-14,000 pages and the hard copies weigh upwards of 7-8 kilos, they are not user-friendly documents. As the EIS has become increasingly exhaustive in coverage, the sheer volume of information has made them increasingly inaccessible to local stakeholders.
- In areas where there are a number of major projects proceeding in close proximity, the volume of information compounds. This is the second major criticism of the assessment process that the assessment tends to be on the basis of *ceteris paribus*, assuming that all else is equal. Critics of the assessment say that this means that they are ill-suited to assessing the cumulative impact of multiple projects in a small area – for example around Gladstone Harbour.
- Regulators tend to respond to these criticisms by requiring proponents to consider the cumulative impact of their project in addition to all the other major proposals. The difficulty with this approach is that to assess the impacts of other projects with any confidence requires access to detailed commercially sensitive information and in many cases competing projects are not disposed to cooperate with the provision of data.
- When major projects are routinely having 1200 or more specific conditions imposed on them - which collectively require hundreds of subsidiary assessment processes - the case could be made that regulations are being made by stealth. In many cases, these quasi-regulations are blurring the boundaries of the government's responsibility to provide basic services for growing communities by seeking to shift these costs onto major projects.

QRC position and recommendation to government:

- Pursue the so-called 'one-stop-shop' arrangements, focus on addressing the direct impacts of resources projects, and be realistic in terms of addressing the cumulative impacts of proposed projects.

The Government seeks comment on:

3. further ways that regulatory burdens could be reduced while maintaining appropriate levels of disclosure and transparency in energy markets; and

Background:

- The electricity market has continued to evolve and in general, participation in the NEM is reasonably efficient with respect to compliance and information disclosure.
- Issues relating to transparency of information regarding infrastructure and interaction with the physical grid remain a constraint on efficiency (particularly managing technical performance). However, market information and transparency is relatively mature. This is a manifestation of the NEM's maturity, given planning for the market commenced in 1991, and formal operation of the NEM began in 1998. There is room for improvement, particularly focused around understanding network capacity, energy flows and other characteristics of the physical infrastructure. A range of reforms of similar magnitude to the establishment of the NEM are being considered by the AEMC's Transmission Frameworks Review.
- Gas markets are less mature, and the dominant transactions remain bi-lateral contracts delivered over a national gas transmission network, making information provision less detailed and a less efficient process. Both the market and physical pipeline network (in a commercial sense) are less mature than the NEM, and the transparency of information reflects this immaturity. There are significant differences, both technical and commercial, between electricity and gas that mean the two markets will never mirror each other. Continued evolution of gas market information – related to gas and transport markets – is consistently flagged a key area of reform.

QRC position and recommendation to government:

- No recommendation.

The Government seeks comment on:

4. the impacts of variable land access policy and ways the community could be better informed and engaged on development in the energy sector.

Background:

- Statutory regional planning is an increasingly important means by which land access policy is being delivered in Queensland. From the LNP's Resources and Energy Strategy (November 2011) the intention is described as:

'Implementing a better system of regional planning to provide improved security for miners, landholders and Queensland communities alike.'
- The *Regional Planning Interests Bill* 2013 improves security for landholders and communities at the expense of resource tenure holders.
- The resources sector would prefer to see regional planning re-focused on improving security for resource tenure holders, landholders and communities in a process to enable balanced economic development.
- One of the resource sector's primary concerns with regional planning processes is the risk of mapping restrictive land use zones which may sterilise resources without any consideration of the opportunity cost or assessment to consider a project on its merits.

- The resources sector is concerned that the implementation of the 'new generation' of statutory regional plans is being misinterpreted as delivering certainty of outcome through predetermined land use zones, rather than delivering the certainty of good process and respect for property rights that would be consistent with achieving the state government's goals of coexistence and economic development. The distinction risks being lost between a sensible process of recognising the local value of existing land uses, versus preserving those land uses to the exclusion of all else.
- Regional planning should be about maximising the opportunity from both engines of economic growth and identifying how resources and agriculture could be mutually supportive.
- In relation to ways the community could be better informed and engaged on development in the energy sector, the QRC finalised the *Listening to the Community*' initiative in 2013. The objective of the study was to develop a set of best practice community engagement strategies.
- Four strategies have been identified which, when used in combination, are an effective way to engage with the community, as they each offer a different focus and meet different community needs. Companies must be aware of the following when engagement strategies are designed:
 - (1) Inform: Engage in open and honest communication on subjects that are important to the community. Self-promotion of a company's involvement or investment in the community is viewed poorly.
 - (2) Consult: Engage in genuine consultation and be willing to listen to the community's perspective. Outcomes of the consultation need to be fed back to the community
 - (3) Involve: Undertake engagement with the view that the company is part of the community and not outside it. Employees play a key role in connecting companies and communities, even if they do not live in the town.
 - (4) Collaborate: Demonstrate a strong commitment to collaboration supported through follow up on actions. Collaboration should produce results, however small.
- The study concluded that to build a culture of trust between the resource company and the community, various community engagement tools should be used as part of an ongoing cycle of engagement, rather than as a discrete process. A combination of tools should be used and the mix varied according to the project's lifecycle and needs of the community.

QRC position and recommendation to government:

- QRC advocates for a land access regime under which meaningful relationships with landholders can be pursued, based on opportunities unique to each landholder and not just a price tag for compensation. QRC members believe landholders are missing out on opportunities for constructive proposals for in-kind benefits like new roads, grids, fences, bores, dams and the like which were typical of the arrangements pre-dating the new land access regime. This approach shifts the focus of compensation from financial to developing and implementing the suggestions from independent farming advice and hence, exploration would become more of an opportunity than a threat.
- QRC suggests three key areas for reform for land access in Queensland:
 - Reducing the total cost of securing access – in particular reducing large legal services overheads
 - Reducing the total time taken to secure access
 - Restoring the value of effective direct working relationships between the landholder and resource company.

4. WORKFORCE PRODUCTIVITY

The Government seeks comment on:

- **the nature of any current skills shortages being experienced and how these could be addressed by and with industry;**
- **the capacity of industry and education sector-led programs to meet long-term training and skills development needs of the energy and resources sectors; and**
- **specific long-term training and skills development needs for alternative transport fuel, renewable energy, energy management and other clean energy industries.**

Background:

- The resources sector continues to face skills shortages in key areas notwithstanding weaker conditions in parts of the sector over recent times.
- The sector remains concerned about chronic underfunding of resource-related higher education courses in Australia. Industry-led training in the Vocational Education and Training (VET) sector remains a key priority. There needs to be broader recognition that labour mobility is important to the success of Australia's resources industry. Strategies such as Fly-in, Fly-out arrangements and an effective skilled migration program provide the flexibility that allows Australia to secure major resource investments.
- Restrictive workplace relations laws need reform. Laws and regulations governing workplace relations should help to foster direct relationships, providing employers and employees with the instruments to best suit their needs based on a platform of mutual respect, shared purpose and accountability.

QRC position and recommendation to government:

- The resources sector seeks a framework of workplace law and regulation that promotes cooperative and productive workplaces, recognising that a genuine, sustainable safety net and appropriate protections against exploitation or discriminatory conduct are important elements of such a framework.
- The sector seeks an active partnership with governments to deliver an uninterrupted, sustainable education and training pathway to increase workforce participation, workforce diversity and workforce skills.

5. DRIVING ENERGY PRODUCTIVITY

Government seeks comment on:

1. 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

Background:

- In recent years the Australian Government has supported a broad range of initiatives to promote energy efficiency objectives with the overall aim of reducing greenhouse gas emissions.
- The main initiative targeted at the industrial sector is the Energy Efficiency Opportunities (EEO) Program that requires energy-intensive businesses to undertake regular energy efficiency assessments and mandates associated reporting and verification processes.
- The ACIL Tasman Energy Efficiency Opportunities Program Review (April 2013) states that rising energy prices have been the fundamental driver of energy efficiency outcomes (72 per cent of respondents) over the past five years. The rise in the average improvement in energy efficiency over this period also coincides with notable increases in energy prices. As a result, 61 per cent of respondents think the EEO scheme should stop immediately, notwithstanding other benefits cited in the report, and only 15 per cent think the scheme should operate for another five years as recommended in the government's proposals.

QRC position and recommendation to government:

- The commonly quoted information market failures do not widely apply within the resources sector meaning a more flexible approach is required. For example:
 - The resources sector is energy intensive, energy costs are high, so there is a high incentive for industries to focus on and contain energy costs.
 - The resources sector is inherently energy efficient – there is a stronger inter-linkage between process efficiency and energy efficiency than in services, commercial and general manufacturing sectors.
 - Resources sector projects are large and capital intensive – as such there are fewer barriers to knowledge, engineering and resources for cost effective energy efficiency improvements.
- As government considers the best way to encourage energy efficiency it must distinguish between different energy users. Proposals that might apply, for example, to residential homes or 'deep' commercial markets such as office buildings or hotels should not be presumed as effective or efficient when considering unique, purpose-built energy-consuming activities (such as mining production, minerals processing or smelting facilities). For many resource companies, EEO has not identified a large, deep and renewable pool of significant energy efficiency savings that would not otherwise have been considered and as such should be made voluntary.

Government seeks comment on:

2. the use of demand-side participation measures to encourage energy productivity and reduce peak energy use

Background:

- Given the current demand destruction going on at present, demand-side measures are much less relevant to large users than they were a few years ago.
- Grid electricity demand has been declining since 2008 and the rate of decline is accelerating. Demand for electricity was 4 percent lower for the first quarter of the 2013-14 financial year than in the previous financial year and is now around 10 percent lower than when electricity demand peaked in 2008. Demand for electricity in Australia is now around the same level as it was in 2004.
- The loads servicing the resources, industrial and manufacturing sectors have substantially reduced and we have seen generation levels from black coal-fired stations in New South Wales and Queensland reduced significantly. The reductions are very transparent - the mothballing of units has already commenced (e.g. two units at Tarong Power Station were taken offline in 2012 but may be restarted) and further cut backs are likely if demand remains weak.
- There is good reason to think that declining electricity demand will prevail. Since 2009-10, electricity demand has been trending down. There are a variety of reasons for this decline including:
 - structural changes in the industrial and manufacturing sectors of the economy.
 - the high exchange rate and associated impacts on trade-exposed industries.
 - penetration of renewables technology in response to the Renewable Electricity Target.
 - significant installation of solar PV in response to state government feed-in tariff incentives and lower installation costs.
 - rising retail electricity prices.

QRC position and recommendation to government:

- No recommendation.

Government seeks comment on:

3. measures to increase energy use efficiency in the transport sector.

Background:

- The COAG Standing Council on Environment and Water is developing a National Plan for Clean Air for completion by end 2014. For the endorsement of COAG, the plan, inter alia, will include new air quality standards and proposals for laws, regulations, incentives, guidance, partnerships or other actions for implementing emission and exposure reduction actions.
- A key reform under consideration is whether Australia should adopt US or EU emission standards for Non-Road Diesel Engines and Equipment (NRDEE). Emissions in this context refer to NO_x and hydrocarbons (HC) and particulate matter (PM_{2.5}). It does not refer to carbon dioxide (CO₂e). There are presently no regulations or standards in place that limit emissions from NRDEE in Australia.

- Supported by a draft cost benefit analysis that will shortly proceed to the Office of Best Practice Regulation, the proposed measure is to mandate that from 2015 only Tier 3 emission compliant NRDEE can be imported into Australia and Tier 4 NRDEE by 2018. QRC understands that the measure is principally aimed at engines used at mining sites and at airports, and there has been no consultation with the users of these engines, and only with the original equipment manufacturers (OEM) whose interests may not be aligned.
- The resources sector's fleet of mining and transport vehicles is nearly all operated by high horsepower diesel engines. These include trucks, cranes, excavators, dozers, scrapers and heavy forklifts. It is clear from initial enquiries with member companies and the OEMs that there are significant trade-offs associated with adopting Tier 3 and tier 4 US or EU emission standards for diesel engines used in this type of plant and equipment.
- Trade-offs include: higher initial cost, decreased fuel efficiency, higher life-cycle costs, and the need for an adequate supply of urea for the use of Selective Catalytic Reduction technology. Given the remoteness of many Queensland mine sites and negligible contribution to problem Australian airsheds, difficulties in offsetting higher fuel and operating costs, and decreasing global competitiveness, this measure, when considered as a standalone policy, appears unlikely to deliver a net benefit. QRC acknowledges that in certain applications such as underground mining, lower emissions (especially PM) is desirable, meaning a tailored policy solution may be more effective.

QRC position and recommendation to government:

- QRC wishes to work collaboratively with government to ensure all impacts are understood prior to consideration of these proposed measures and to request that a decision is not made on this matter until further consultation with the Australian resources sector has occurred.
- The further work we will seek to undertake with counterparts in other jurisdictions is to be able to provide governments with detailed advice on the impact of these proposed changes on our sector including both costs and trade-offs, and what may be a more efficient means to achieve agreed policy objectives. We will be in a position to provide that advice by mid March 2014.

6. ALTERNATIVE AND EMERGING ENERGY SOURCES AND TECHNOLOGY

The Government seeks comment on:

- 1. ways to encourage a lower emissions energy supply that avoids market distortion or causes increased energy prices.**

Background:

- Given the demand profile and current state of the various energy technologies, it is very difficult to reconcile these three objectives.
- Lower emissions options would include super critical or better coal-fired generation (perhaps carbon, capture and storage ready), more gas-fired plant, or more renewable, or nuclear.
- With the depressed demand outlook, the only new grid connected generation being built in the NEM in the next decade is likely to be renewables with the only uncertainty being the volume, which will depend on the Australian Government's forthcoming RET review. There would appear little scope for new technology in this period at least. This will however create further market distortions and increased power prices. This is because these sources will crowd out investment in more efficient supply responses, and result in increased volatility and unreliability in the NEM, necessitating additional generation, at greater cost, to offset the interruptability likely to be introduced.
- The major new technology likely to emerge in the next decade is off-grid battery storage that will only further contribute to disconnection from the grid, lower grid demand and push out even further the time when new grid generation technology can be deployed.
- When demand was rising, gas was seen as the 'transition' fuel between coal and lower carbon sources. Now demand is falling there is no need for gas plant – which is just as well because the advent of LNG exports means that gas will be too expensive to use in domestic power generation in any form other than as peaking capacity. Even if a carbon price were to be introduced over the foreseeable future, it would need to be set at a relatively high level to make gas competitive.
- The introduction of new generation sources post a 10-year time horizon will be driven by the grid demand outlook, relative prices and fuel costs.
- The International Energy Agency says that CCS can deliver almost 20 percent of the global greenhouse gas abatement needed by 2050.

QRC position and recommendation to government:

- Government's are encouraged to place a considerably larger focus on the role of coal and government's substantive role in promoting CCS commercialisation as the cornerstone to utilising Australia's rich fossils fuel endowment and achieving sustainable environmental outcomes.
- Despite continued assertions from Australian government's that for Australia to become a leader in energy technology we must build and support technologies such as CCS, little by way of solutions to address the considerable market failures associated with its research, development and commercialisation have been offered.