

# Executive Summary

The Energy White Paper is central to the Australian Government's economic reform agenda for a strong and prosperous national economy. Reliable and affordable energy, used productively, supports business competitiveness, lowers the cost of living, and grows export income.

There is no 'silver bullet' to achieve the change needed in the energy sector. Coherent and constructive market reform and properly integrated policies will give industry and consumers confidence in energy policy.

Reforms are needed to create competition, and drive innovation and productivity. Competition encourages innovation, leading to better products and services. It also encourages better prices. Competition is best enabled through a deregulated environment. Sometimes, however, regulation is needed to protect consumers and the environment.

Competition and deregulation improve productivity. Keeping costs down in the global energy market requires a focus on productivity in the extraction, production, supply and use of energy. Improved productivity will help attract investment, lower the cost of doing business in Australia, and lower household energy costs. The more productive use of energy also reduces Australia's emissions intensity.

This Green Paper includes market reforms designed to attract energy resources investment, stabilise energy price rises, and prepare for the nation's future energy security.

## Chapter 1: Attracting energy resources investment

Our economy benefits enormously from the export of energy resources, in the order of \$69 billion in export earnings in 2012-13.<sup>9</sup> We need policies that attract the investment required to continue growth in the sector. The Australian Government is committed to providing policy stability and certainty as a priority so that Australia is an attractive investment destination.

Australia must be a more attractive investment destination than other resource rich countries. Inappropriate taxes and regulation, such as the carbon tax and the Mineral Resources Rent Tax (MRRT), have been stifling the investment and innovation needed to create jobs and wealth. They have been repealed but productivity still needs to be improved. Such improvements can flow from increasing the return on capital, reducing labour costs, productive use of energy, achieving clearer community support for resources projects, more efficient regulation, and infrastructure availability. Productivity and innovation will preserve Australia's position as a leading global energy provider. For example, the booming liquefied natural gas (LNG) export industry in Queensland will make Australia the first nation in the world to bring onshore coal seam gas (CSG) to export markets.

Being a more attractive investment destination than our trade competitors means having a productive workforce with the right skills. Government needs to work with industry to provide a skilled and productive workforce, and help local businesses to compete with international suppliers. Open and free access to publicly funded geo-scientific and environmental information will also help encourage exploration and the timeliness of approvals.

Australian Government reforms to improve the business environment will help companies as they refocus on improving the productivity of their capital investments in a competitive global environment. This chapter sets out how the Government will ensure Australia is open for business.

<sup>9</sup> Bureau of Resources and Energy Economics, 2014, *Resources and Energy Quarterly*, June Quarter 2014, Canberra

## Chapter 2: Electricity prices

Electricity prices have recently increased sharply, with household electricity prices rising by around 50 per cent nationally over the past four years.<sup>10</sup> This price rise mainly reflects investment in poles and wires to ensure reliable supply to customers during periods of highest demand. The carbon tax and other environmental policies, such as solar feed-in-tariffs, have also affected prices. Grid-based electricity demand has fallen, despite anticipated growth in demand. Higher prices resulted from increased investment at a time when falling demand reduced the volume of sales across which investment could be recovered. The recent slowdown in network investment, and changes to the rules determining permitted rates of return for those investments, have stabilised prices.

Imposing unnecessary regulatory barriers and providing subsidies distorts energy markets, and does not allow the market to follow its natural course. Privatisation and greater competition are needed to drive the innovation and productivity that leads to better products and services for consumers. Markets need to work in a way that gives consumers choice in how they access their electricity, and suppliers the ability to respond to those choices.

States and territories need to reform the way that electricity is priced, so that households and businesses can take more control over the way they use electricity. Such pricing can lower electricity use during times of peak demand by imposing higher prices when electricity is most costly to deliver. Spreading use more evenly in this way lowers the cost of supply. However, flexible pricing only works when consumers have adequate information about their use, and the cost, of electricity. This requires more advanced residential electricity meters than those currently in most houses. These measures, however, will not take us back to the past when electricity was cheap because of government subsidies that ultimately, and indirectly, cost consumers. We need to complement structural reform with a focus on productivity to keep costs as low as possible.

## Chapter 3: Building gas supply and improving market operation

Australia's gas markets are changing. The east coast market, which until now has only been a domestic market, is preparing to export LNG. Supply now needs to meet domestic and international demand, and domestic prices naturally will start to match higher international prices. This export industry provides an enormous opportunity for the nation's economy. The east coast market is also starting to need unconventional gas resources as more conventional resources are depleted. Some states have regulatory and planning barriers preventing needed supply. These barriers are creating potential near-term supply shortages on the east coast, and also increasing prices. Increasing supply is the best way to ease the pressure, but increasing prices are nonetheless inevitable. The timely increase of gas supply must be supported by regulation that addresses community and environmental concerns. This effort should be supported by improved environmental and scientific data to inform decisions made by communities and landowners.

There is also an opportunity to improve transparency and competition by further developing the emerging gas trading markets. Governments and industry can work together on innovative strategies for better gas market function. An example is the Wallumbilla Gas Supply Hub in Queensland that provides for more open gas trade.

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<sup>10</sup> Australian Energy Market Commission, 2013, *2013 Residential Electricity Price Trends report*, Sydney

## Chapter 4: Security, innovation and energy productivity

Australia's energy security arrangements have so far effectively avoided major disruptions to energy supply. The potential near-term shortage in east coast gas supply and national liquid fuels refining capacity are, however, watch-points. Ad-hoc and interventionist approaches to shaping our future energy system will not give the best results. Forced outcomes and unnecessary regulatory barriers should not prevent access to the broadest possible range of competitively-priced energy options, now and in the future.

Australia's domestic energy sources are changing slowly, but coal still provides the largest amount of electricity. It is important that coal is used in a way that produces the most energy for the lowest emissions, but this requires major capital investment in a market that is currently oversupplied. Gas provides a lower emissions source of energy for electricity generation, but in Australia, it is increasingly becoming a more expensive fuel source than coal. Nuclear energy remains a serious consideration for future low emissions energy. Renewable energy will continue to play an important role, especially in regional and remote areas that are off the main electricity grid. The development of large-scale energy storage could be a game-changer for renewable energy, because it can smooth the intermittent supply that typifies renewable energy, and reduces the need for reliable baseload energy from other sources.

Changes in energy technologies can emerge quickly, with the most recent example in Australia being the rapid uptake of solar photovoltaic panels. Australia needs to take advantage of new technologies, many of which will happen overseas, that can contribute to the reliable and affordable supply of energy. New energy sources and technologies increase the flexibility and sustainability of the energy system, as well as helping to lower emissions.

Australia imports much of its transport (liquid) fuels, through well-established supply chains and markets. The country's increasing demand for fuel, combined with reduced domestic refining capacity, needs to be monitored. Increasing cost-competitive domestic production of alternative fuels could diversify the country's liquid fuel supply and strengthen fuel security.

Strong partnerships between government and industry on technology research and development are an important way of ensuring that research investment is well-targeted. This includes governments usefully investing in pre-commercial research and development, as well as the adaptation of international developments to Australian conditions. The challenge is to encourage new technologies without causing unnecessary energy cost increases. Regulatory barriers to the adoption of new energy technologies should also be removed.

Australia has been successfully increasing energy productivity through increased end-use efficiency for decades. This has seen continuing rapid increases in the volume and quality of energy services (lighting, heating, cooling, for example) while the amount of energy needed per service has declined. In more recent years, these trends have contributed to reducing overall electricity use. Consumers can also help support energy security with better energy efficiency, aided by improved information that will help them to use energy cost-effectively.

## The Australian Government's energy policy goals

### Attracting energy resources investment

- Streamline environmental and other approvals to create more certain, timely and accessible approvals. Better regulation will lower costs to business, boost productivity and enhance Australia's international competitiveness.
- Drive better skills and workforce productivity, including access to skilled migration so industry has access to the skills it needs for timely and cost-effective projects, which will encourage future investment.
- Create supply chain opportunities for local small-to-medium enterprises, and create more Indigenous employment opportunities in the energy resources sector.
- Enhance pre-competitive geoscience and improve access to environmental data to lower costs and exploration risk, reduce duplication and regulatory burden, improve community engagement, and better-inform decision-making and environmental management.
- Identify and address infrastructure bottlenecks so industry has access certainty, reducing infrastructure duplication and cost.
- Promote Australia's energy products, technology and services exports to increase the export earnings of Australia's energy resources, products and skills.

### Electricity prices

- Pursue tariff reform and improved consumer access to energy use data, including electricity network tariff reform to limit cross-subsidies. This will help consumers be better informed, and provide tariff choice and options to manage energy use and cost. Energy users will pay their fair share of the costs of the poles and wires that supply electricity.
- Ensure reliability standards do not encourage unnecessary investment in electricity networks so consumers do not receive higher reliability standards than they would be willing to pay for if they understood the impact on electricity prices.
- Improve the efficiency of electricity use to drive electricity cost savings for consumers.
- Rationalise emissions reductions actions to reduce unnecessary costs so consumers do not pay more due to market distortion.
- Remove unnecessary regulatory barriers and market interventions, and encourage further privatisation to create better prices and services for consumers through more competition, efficiency and innovation.

### Building gas supply and improving market operation

- Bring on new gas supply as quickly as possible to avoid potential supply shortages so that domestic gas users do not pay higher prices than necessary.
- Improve the availability and quality of market information to improve market transparency and competition so gas sellers and buyers have more certainty about the availability of supply and pricing.
- Reform gas markets to create more flexible and transparent market arrangements.

### Security, innovation and energy productivity

- Maintain secure, competitively-priced and reliable energy supplies so consumers have access to adequate and reliable energy.
- Improve energy productivity to increase domestic security and reduce greenhouse gas emissions intensity.
- Develop a better 'outlook' capacity so Government is better prepared to respond to supply issues, to global market opportunities, and to invest strategically in research. Industry will have access to better information, giving more certainty and encouraging investment.
- Keep the range of energy options technology neutral by tackling regulatory barriers and making best use of research investments so Australia is able to choose from the broadest possible range of energy options. This will strengthen Australia's energy security.
- Look for relevant international technology engagement to benefit Australian industries from international experience.