POLICY PRINCIPLES

APPEA

Climate change policy principles

A GOVERNMENT–INDUSTRY PARTNERSHIP FOR
A CLEANER ENERGY FUTURE | **NOVEMBER 2010**

AUSTRALIAN PETROLEUM PRODUCTION AND EXPLORATION ASSOCIATION

APPEA supports a national climate change policy that delivers abatement at least cost and facilitates investment decisions consistent with there being an international price on carbon.

What is APPEA's position on climate change?

Reducing greenhouse gas emissions is a global priority.

Our abundant natural gas resources place Australia in an enviable position to maintain long-term, clean energy security domestically and internationally. Natural gas makes it possible for Australia to meet the world's growing energy needs over the coming decades while incorporating a strategy to curb emissions and address the risk of climate change.

Societies around the world will continue to face two major, interdependent challenges:

1. to maintain and expand energy supplies to meet growing consumer demand
2. to address the social and ecological risks posed by rising greenhouse gas emissions and the potential for human-induced climate change.

Managing greenhouse gas emissions and meeting growing energy demand requires action by individuals, companies, and governments. This will entail an integrated set of solutions, including increasing efficiency, advancing lower-carbon energy technologies, and supporting effective national and international policies.

Given the importance of competitively priced and reliable energy to global economies and improved living standards, it is essential that policies aimed at reducing greenhouse gas emissions do so at the lowest possible cost. This requires using an appropriately designed carbon pricing mechanism to impose economy-wide, predictable and transparent costs to shape business and consumer plans and investments. In addition, global participation is critical to reducing costs and risks.

Adaptation is also an important element of climate change policy response. Adaptation strategies must be used to mitigate the risks that a changing climate may pose.

APPEA has developed policy principles to underpin Australia's policy response to climate change.

A PLAN FOR ACTION

Developing Australia's gas resources can deliver significant national economic, environmental and social benefits. APPEA works with all Australian governments to realise these benefits.

The development of Australia's natural gas resources can deliver significant national economic, environmental and social benefits. APPEA will continue to work with all Australian governments to realise these benefits.

Australia has substantial natural gas resources. Developing these resources can provide significant national economic and social benefits. The relatively low-cost emissions abatement opportunity offered by increased use of natural gas means developing these resources can also deliver significant environmental benefits.

In order to realise these benefits, APPEA will continue working with all Australian governments to:

- support a national climate change policy response consistent with the policy principles outlined in this paper
- work to increase the supply of natural gas for electrical power generation thereby lowering the emissions intensity of Australia's electricity supply sector
- work to expand the use of natural gas in the domestic economy, for example in resource processing, with consequent reduction in the emissions intensity of resource processing
- increase the export of Australian LNG to help Australia's Asian trading partners lower their greenhouse gas emissions, thereby contributing to a potential significant reduction in global emission compared to the use of higher emitting fuels.

GUIDING PRINCIPLES FOR CLIMATE

The Climate Change Policy Principles are provided to assist policy makers in developing responses to the risks posed by global climate change.

Throughout the world, national and regional policymakers are considering a variety of legislative and regulatory options to mitigate greenhouse gas emissions. APPEA believes assessing these options requires an understanding of their likely effectiveness, scale, and cost, as well as their implications for economic growth and quality of life.

As part of this, other national policies that can facilitate the delivery of climate change policy objectives in taxation, economic growth, population growth, energy supply and and security, international trade, and environmental and social responsibility must be considered. A consistent policy approach must be developed.

Australia should make an equitable contribution, in accordance with its differentiated responsibilities and respective capability[1] to global action, to reduce greenhouse gas emissions.

1 Australia's contribution to the global climate change effort as set out here reflects the principle in Article 3.1 of the United Nations Framework Convention on Climate Change (see unfccc.int/essential_background/convention/background/items/1349.php). In determining Australia's differentiated responsibilities and capabilities, consideration should be given to matters such as Australia's economic growth and structure, population growth, energy production and energy use.

Australia needs a single national approach to regulating greenhouse gas emissions that encourages sensible, broad-based investment.

1 Australia should engage the international community in pursuing identified and beneficial environmental outcomes through greenhouse gas emissions reduction action that:

- allows for differentiated national approaches
- promotes international participation
- minimises the costs and distributes the burden equitably across the international community
- is comprehensive in its coverage
- allows for the unrestricted flow of credible emissions units between international jurisdictions
- is underpinned by streamlined, efficient and effective administrative, reporting and compliance arrangements.

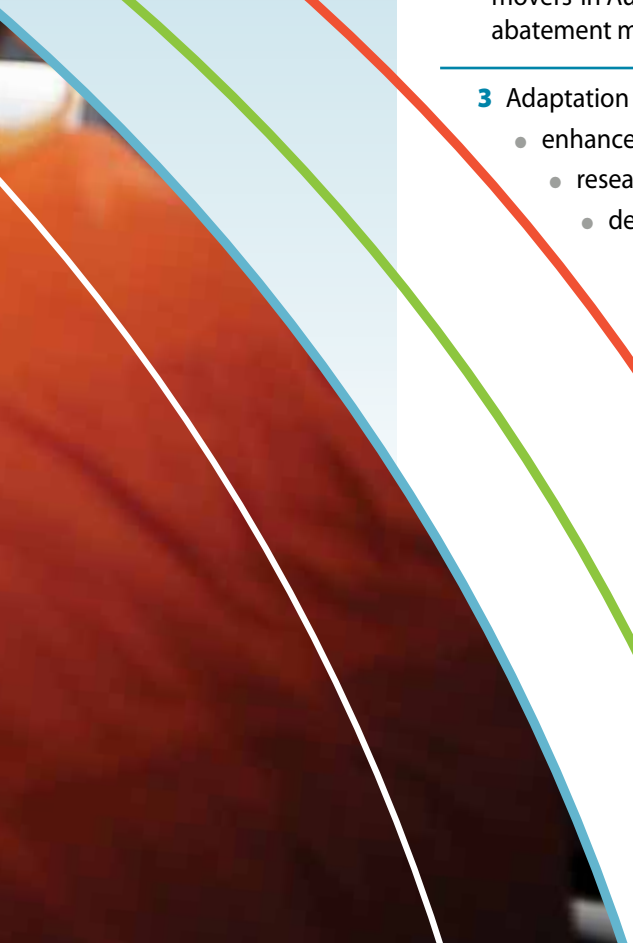
2 In this global context, Australia should develop a single national approach to regulating greenhouse gas emissions. This national approach should be developed and implemented transparently to maximise community support. It must provide stability and send clear signals to encourage sensible and broad-based investment and it must not be overly complex. This approach should:

- deliver emissions reductions at the lowest possible cost to the Australian economy — this is best achieved through a price on emissions imposed on the widest possible coverage of emissions
- address all greenhouse gases, emission sources and sinks
- recognise the widest possible range of credible offsets
- be fully integrated with Australia's energy policy
- in the event Australia takes action before comparable action is taken by the nations with which we compete, maintains the competitiveness of Australian export industries, particularly cleaner global contributor exports (such as LNG), by minimising the costs the industry faces in the absence of a carbon price being imposed on higher-emitting energy sources in customer countries and competitors
- not discriminate against new entrants to Australian industry nor disadvantage 'early movers' in Australian industry who have previously implemented greenhouse gas abatement measures.

3 Adaptation strategies to mitigate the risks posed by a changing climate should include:

- enhanced climate modelling to provide location specific climate change forecasts
- research into possible climate change impacts on the Australian environment
- development of land use and planning guidelines consistent with the available evidence of likely climate change impacts
- the development of risk management strategies to reflect likely impacts of climate variability
- current mitigation measures inconsistent with this national approach should be removed. An example of this is the Renewable Energy Target, which subsidises specific technologies and is a high-cost approach to reducing greenhouse gas emissions.

4 Any additional measures targeted at reducing greenhouse gas emissions should only apply to sectors of the economy that are not covered by single national approach.



Greater use of Australian natural gas – in the domestic market, and in Asia as LNG exports – can significantly reduce greenhouse gas emissions.

Gas as a low-emissions energy source in Australia

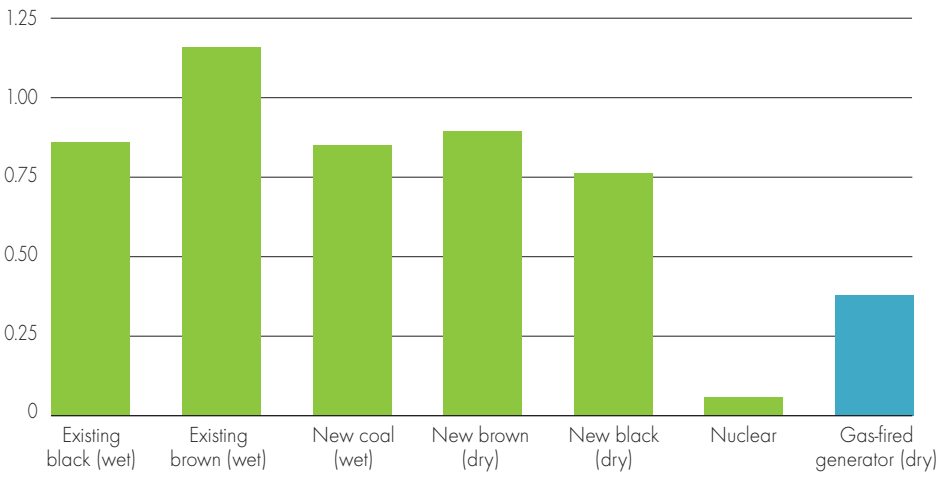
Australia could generate significant additional national economic, environmental and social benefits through greater utilisation of its substantial natural gas reserves. Using more natural gas in Australia's power generation and resource processing would significantly enhance the nation's ability to meet increasing energy needs while at the same time reducing greenhouse gas emissions.

If Australia's ongoing energy demand is met — as coal-fired power generation retires — with a combination of natural gas and renewable energy (in line with the government's renewable energy target), greenhouse gas emissions would drop by as much as 20 per cent from 2000 levels while delivering twice as much power generation. This equates to a saving of nearly 1.5 billion tonnes of carbon dioxide emissions compared with maintaining the current level of coal-fired power generation.

It also achieves a doubling of electricity production whilst delivering almost 10 per cent of the Australian Government's 2050 goal to reduce greenhouse gas emissions by 60 per cent.

These outcomes are possible because currently available natural gas technologies produce only 30 to 50 per cent of the emissions produced by current coal technologies in generating electricity. According to the Commonwealth Scientific and Industrial Research Organisation (CSIRO), current generation coal fired power stations produce between 0.8 and 1.2 tonnes of carbon dioxide equivalent greenhouse gas emissions (CO_2-e) per megawatt hour (MWh) of generation while a combined cycle gas turbine power station produces only around 0.35 to 0.36 tonnes CO_2-e/MWh[2]. Figure 1 shows that, in electrical power generation, gas produces significantly lower greenhouse gas emissions than other fossil fuels.

Figure 1: Emission intensity by technology (CO_2: tonnes/MWh)



Sources: ACIL Tasman, company websites/reports, McLennan Magasanik Associates, ROAM Consulting (2009).

Natural gas is the lowest-cost means to reduce greenhouse gas emissions in electrical power generation, both through increased use of existing gas-fired power plants and a 'coal to gas shift' (ensuring new power stations are gas-fired). Figure 2 shows the cost of reducing emissions in electrical power generation[3].

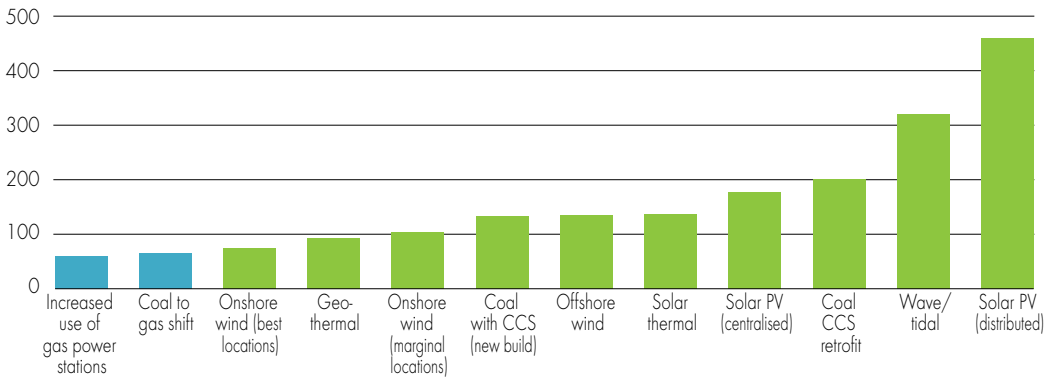
Increased use of natural gas also offers other environmental benefits, such as: reduced particulates emissions; reduced emissions of sulphur dioxide (an important contributor to smog and acid rain); and significantly lower demand for water for power station cooling.

2 Energy Futures Forum (2006), The heat is on: the future of energy in Australia, December (see www.csiro.au/science/energyfuturesforum.html for further details).

3 See ClimateWorks Australia (2010), Low Carbon Growth Plan for Australia: March 2010 (available at www.climateworks.com.au/low_carbon_growth_plan.html) for more information.

Much greater use of Australia's extensive gas resources will be crucial in meeting the challenge of significantly reducing global greenhouse gas emissions at lowest possible cost whilst enhancing Australia's economic and export performance.

Figure 2: Cost of abatement for alternative electrical power generation technologies ($A/tonnes CO_2-e abated)



Source: ClimateWorks Australia (2010). Note: The ClimateWorks Australia report does not consider the cost of nuclear power in Australia.

Gas as a low-emissions energy source in Asia

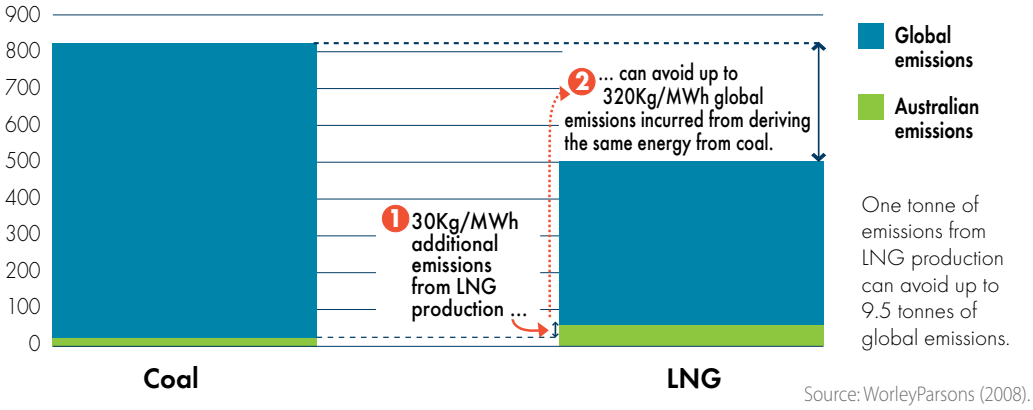
Australia's LNG industry is in a unique position to contribute substantially to the economic development of the nation and reduce greenhouse gas emissions. Australia's vast reserves of natural gas and proximity to growing markets make us well-placed to meet the global climate change challenge while substantially contributing to Australia's economic growth.

A 2008 study by WorleyParsons[4], for example, compares lifecycle greenhouse gas emissions of Australian LNG exports from the North West Shelf Project with Australian east coast black coal exports in terms of lifecycle greenhouse gas emissions: from extraction and processing in Australia through to an end use of combustion (using different power generation technologies) in China for power generation.

Figure 3 below is derived from data within the study, and shows that:

- for every tonne of CO_2-e emitted in LNG production within Australia, between 5.5 and 9.5 tonnes of emissions from the coal alternative can be avoided globally.
- LNG has a substantially lower greenhouse footprint associated with it compared to coal — not just in combustion emissions, but throughout its lifecycle
- the lifecycle greenhouse intensity for LNG is about 40 per cent lower than that of coal.

Figure 3: Displacement of coal by LNG (kg/MWh CO2-e by fuel source)



One tonne of emissions from LNG production can avoid up to 9.5 tonnes of global emissions.

Source: WorleyParsons (2008).

There are significant global benefits from increased use of Australian gas in export markets.

4 WorleyParsons (2008), *Greenhouse Gas Emissions Study of Australian LNG*, July.

APPEA: The voice of Australia's upstream oil and natural gas industry

APPEA assists its members by working with federal, state and territory governments to ensure Australia's regulatory and commercial framework promotes investment and maximises the return to the Australian community from the nation's oil and gas resources.

Since 1959, APPEA has been the peak national body representing the collective interests of the upstream oil and gas exploration and production industry. APPEA's full member companies, those that explore for and produce Australia's oil and gas resources, account for an estimated 98 per cent of the nation's petroleum production. In addition, APPEA also represents associate member companies that provide a wide range of goods and services to the industry.

APPEA aims to secure the right conditions so that member companies can operate safely, sustainably, and profitably. The association also conducts several forums for exchanging ideas and contributing to the development of the industry's policy positions.

APPEA wants to work with governments to achieve credible industry actions and governmental climate change policies. Such policies must address climate change concerns in an economically and commercially viable way and contribute to a regulatory and commercial framework that promotes investment and maximises the return to the Australian community from the nation's oil and gas resources.

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