

## Energy

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The economy is completely underwritten by the energy market in Australia. The challenge remains to provide adequate supply cheaply for today's consumers while ensuring that the impact of the generation and consumption of that energy is not unfairly borne by future generations.

The energy market in Australia is complex and encompasses all forms from liquid, gas and solid fuel systems to renewables like solar, hydro, wind and geothermal systems. The consumption of energy is also wide ranging in utilisation of electricity for stationary applications to fuels for transport and industry. From a consumptive perspective the major energy products consumed in Australia are approximately coal (37%), oil products (35%), gas (23%) and renewables (5%).

Electricity has been primarily the domain of state governments historically, however increasingly the emergence of the interstate transmission grid has shifted the responsibility. Increasingly there is an emerging conflict between corporatisation and full privatisation of electricity assets. The ownership of generation and transmission assets is of primary concern to the national interests of Australia and a rethink of the role of the federal government in this space is now warranted.

Approximately 85% of Australian electricity is currently generated on simple cycle thermal coal fired power stations. This generation technology is nearly a century old and the full impacts of this generation system will not be fully borne for generations to come. Notwithstanding the long term impacts of relatively inefficient generation of 33% in energy conversion, the current electricity prices do not include capital or replacement costs for the fleet of generators that are fast approaching their decommissioning as they literally wear out.

Major generators are now coming off line and increasingly running below capacity. It is becoming urgent to make decisions on infrastructure in this sector to ensure the Australian economy is not exposed to increasing volatility in supply and price of electricity.

Newer generation technologies must be incorporated to dramatically reduce the climate impact of our electricity needs. For example, combined cycle gas turbines are much more efficient generators in the energy conversion sense, approaching 60%, effectively halving greenhouse gas emissions per kilowatt hour. However there needs to be a much greater emphasis on incorporating renewables and newer technologies into the generation mix to replace the ageing fleet of generators in an orderly fashion without exposing the economy to price or supply shocks.

Beyond electricity, Australian energy demands are massive in the form of oil and gas products. Currently Australia consumes approximately 18.5 billion litres of diesel and 2.7 billion litres of petrol annually. Intuitively diesel is more geared to commerce and industry with mining consuming approximately 30%, transport approximately 35% and agriculture about 2% of annual diesel usage. Gas consumption currently stands at approximately 210,000 GJ of which manufacturing consumes approximately 40% and electricity and heating consume approximately 42%.

Clearly Australia is heavily dependent on fossil fuels to meet current demand. It is unlikely that the current energy demands can be met cost effectively in the short to medium term through renewables. However, current assets and infrastructure deployed in the Australian economy are unacceptably exposed to increasing fuel cost and supply volatility.

The "just in time" practice of supply in modern supply chains dramatically increases the social and economic risks associated with disruptions in the energy sector. The Australian government has a responsibility to assure adequate supply at an affordable and stable price to ensure long term economic prosperity and effective public utility.

Short term thinking by politicians concerned about election cycles and the next media headline is putting Australian energy security at great risk. KAP is focussed on real and meaningful solutions to Australia's energy needs to underpin a viable economy to secure jobs and prosperity for the entire nation.

KAP will pursue policies that:

- Retain essential energy generation and transmission assets in suitable structures to ensure the public good and national interests are best served, including caveats on private investment
- Establish an independent energy authority to ensure political expedience is disempowered in the development and implementation of the national energy plan
- Develop a robust and effective national energy plan by 2015 to deliver energy security to the Australian economy with a tactical response to 2030 and a strategic positioning to 2050.
- Invest in the national grid to improve generation and transmission efficiency both in terms of cost and also environmental impact
- Provide generational equity in the investment and deployment of Australian resources to achieve a stable energy future
- Implement resource reserves that protect Australian supply of resources to meet domestic energy needs ahead of export demand
- Support small business to optimise their energy efficiency and minimise energy demand, acknowledging the potential poverty traps that are increasingly occurring where time and cash poor businesses are effectively unable to mitigate rising energy costs.
- Encourage ongoing consumptive energy optimisation to mitigate rising energy costs to contain inflationary pressures to cost of living