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Energy Policy White Paper based on a selected application of market based policies

by Hugh Saddler

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There is a contradiction at the heart of the energy policy White Paper. Its centrepiece is a \$500 million fund to support development of new low emission energy supply technologies. But the policy settings which are used to justify this use of public money will, if retained, ensure that the new technologies are never used.

A condition of support from the Fund is that the technologies “be commercially available by 2020 to 2030” (p. 144). What does “commercially available” mean? If it means “technically capable of widespread use”, then carbon capture and geosequestration (CCG), the technology expected to receive the lion’s share of the \$500 million, should easily meet the criterion. But if it means “able to compete with conventional (pulverised fuel – PF) coal fired generation under current policy settings”, it is an entirely different story.

Under current policy settings coal is priced in Australia at the cost of extracting it from the ground, with no impost to cover greenhouse and other environmental costs of coal use. When used in a modern conventional coal fired power station it provides the world’s cheapest incremental source of electricity, and sets the level of prices in Australia’s electricity market.

A power station using CCG will have to bear the additional cost of carbon dioxide capture from the exhaust gases, pipeline transport and injection underground. These must make it much more costly than conventional coal fired generation. As “Coal21”, the industry’s plan of action document for this technology, says: “It is unlikely that any technology combination that includes CO₂ captures and storage will be competitive with conventional PF generation.” (p. 14) If being competitive with conventional coal generation is the test of what “commercially available” means, then, under the logic used by the White Paper, CCG should receive no funding.

Yet it is precisely this competitiveness test that the Paper applies to lower cost, zero emission technologies, already in widespread use, such as wind and waste biomass fuelled generation. Though the cost of these technologies is steadily decreasing through the “learning by doing” experience of increasingly widescale deployment, they are still more expensive than conventional coal generation. They currently access the electricity market through the Mandatory Renewable Energy Target scheme, which requires electricity consumers to pay higher prices for electricity than if only coal fired generation were used. The government calls this a subsidy, and the White Paper makes it the argument for not extending the scheme, thereby stunting prospects for further growth and associated cost reduction in renewable energy technologies.

What does the Government expect to happen in twenty years time, if and when CCG is technically ready to be deployed? Will it refuse to “subsidise” use of the technology, so

ensuring that it is stillborn? Or will it mandate use of this new, higher cost technology? The contradiction is obvious.

All this presumes that the Government will stick to its undertaking not to increase the cost of conventional coal fired generation by introducing a carbon tax or emissions trading. This may not in fact always be the case. The White Paper says

“Australia will not impose substantial economic costs, such as through the introduction of emissions trading, in advance of an effective global response emerging. Should such a response emerge, the government would need to consider least cost approaches to constraining emissions.” (p. 27)

This implies the use of a predominantly market based policy approach, which would allow the lowest cost emission reduction technologies to come to the fore. Between now and about 2020 these technologies will be greater energy efficiency, and, on the supply side, natural gas fired generation and cogeneration, wind, waste biomass and selected applications of direct solar energy. They will not include coal fired generation with CCG, which will simply be one of a number of options for the much longer term, after Australia has already made substantial progress in reducing emissions by using more technically mature and less costly technologies that emerge from the competitive play of sensibly structured energy and emissions markets.

It is only with a completely different policy, based on picking winners and discredited notions of supply push innovation, that carbon capture and geosequestration could take pride of place. That seems to be what the Government is offering in its Energy White Paper.

Hugh Saddler is the Managing Director of Energy Strategies, a consultancy company specialising in energy and greenhouse policy