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The low emissions technology statement: a (hydrogen) bomb

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Matt Canavan's lucid insights published in the Australian this week show how little understanding politicians and officials have of the electricity industry where supply must exactly equal demand and into which they have "force-fed" intrinsically unreliable, high cost renewables. This created a Frankenstein made more monstrous by every additional piece of tinkering.

Yesterday's Low Emissions Technology statement and announcements last week show the government pursuing a further iteration of its tragic energy policy. It is sinking the industry deeper into a morass of central planning and control conditioned by carbon dioxide mitigation.

Angus Taylor now defines policy as resting on five pillars: clean hydrogen; energy storage; green steel and aluminium; Carbon Capture and Storage; and soil carbon projects. It is supported by $1.9 billion in new expenditure commitments.

All of these pillars can only exacerbate the migration of the electricity industry from the low-cost competitive energy which created present living standards. The new agenda maintains the ascendency of raucous climate activists and venal renewable energy subsidy seekers in replacing cheap reliable energy.

In the case of hydrogen as a fuel for the 21st century, Angus Taylor committed $70 million last week, on top of more than $400 million in earlier spending. Hydrogen has nearly three times the energy of gas but the trick is to extract it cheaply. The Minister has set a price goal of $2 per kilogram hydrogen; yet, this is equivalent to $16.68 per gigajoule or more than threefold the present price of gas. Even with technological advances (and assuming none with gas), BloombergNEF forecasts the cost of hydrogen generated electricity will still be double that of gas 30 years from now.

An unanticipated breakthrough might occur and IEA identifies 319 hydrogen research projects underway around the world (eight in Australia). But it is a long shot and not one for government "winner-

picking", which used to be a derisory epithet, but apparently no longer is.

The second pillar, "energy storage" refers to batteries, the Snowy 2 pumped storage facility and the Tasmanian "battery of the nation" Marinus transmission link. All of these have a place only because the force-feeding of renewables into the system is creating unreliability. This has to be countered at considerable cost – at least $14 billion for the two hydro facilities. In a system that had remained unpoliticised, as intended, none of these costs would have a place.

The third pillar, green steel and aluminium at a competitive cost to fossil-fuelled counterparts is a pipedream.

The fourth pillar is Carbon Capture and Storage. The Global Carbon Capture and Storage Institute was funded by an initial grant of $315 million from Kevin Rudd. Tony Abbott tried, unsuccessfully, to grab the funding back and it has since had infusions from Malcolm Turnbull. In spite of its funding by the Australian taxpayer, the institute does not publish its financial accounts. CCS is a priority for spending under the new policy. The area is a black hole that at best offers some alleviation of the costs that climate policies impose.

Finally, in an initiative redolent of the Country Party's "protection all round" we have a policy to sequestration of carbon in the soil. If the goal of 90 million tonnes were to be reached at the price goal of $20 per tonne set for CCS, that would be a handy $1.8 billion a year injected into the farming sector.

The government itself expects to spend $18 billion in low emission technologies over the next ten years and sees this as enticing 3-5 times as much in private "investment". Mr Taylor does not seem to realise that this is compounding the wasteful spending. The technology initiative represents a subordination of energy policy to climate policy. Some of the ambiguities created include:

- Electricity use has evolved to be on-demand, but we are building intermittent power sources
- Electricity storage is expensive, but we are building power sources that require storage
- Networks are the largest component of power bills and create the most outages, but we are building power sources that depend on larger more complex networks
- Rooftop PV reduces reliance on the grid, while wind and solar farms require a larger more expensive grid, but we are building lots more of both
- Synchronous generators inherently provide auxiliary services – such as inertia, reactive power, fault level and bulk power – but we are building a more complex fragile power system where each of these auxiliary services are provided by a separate piece of the system
- We are building a power system so interconnected that an hour of low wind in South Australia (the smallest most distant part of the grid) creates a price spike across the entire network.

It is ironic on the day of the Technology Statement, de-industrialisation from the politically induced reduction in energy competitiveness became even more evident.
The Tomago aluminium smelter in New South Wales (which accounts for 10% the state's electricity) announced that the much more expensive power it now faces brings it higher costs than its rivals

overseas. Such a situation was inconceivable 20 years ago before policies undermined our cheap electricity supply. Tomago and Portland in Victoria, two of the nation's crown jewels, are being sacrificed on the altar of policy irresponsibility. Their demise – alongside our living standards — is inevitable unless we reverse course and embrace the cheapest energy sources.

Angus Taylor may think that by adopting a slightly differentiated version of green left orthodoxy he will gain some supporters. Precedent shows this to be unlikely. Offering Danegeld never works – it simply motivates the recipients to seek more.

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