

Capacity Investment Scheme hog-ties nation to energy woes

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Market regulation is designed to modify the outputs of, and inputs to, goods and services. In doing so, they will not only cause higher costs and prices but also bring unanticipated distortions that require additional regulations that normally magnify cost increases.

Nowhere is this more apparent than with regulations placed over the Australian electricity market and the expanded subsidies envisaged

under the government's recently announced Capacity Investment Scheme.

Electricity is the building block for modern production and human comfort. It involves the cost of generation, the cost of transporting it through poles and wires, and the cost of administering that process.

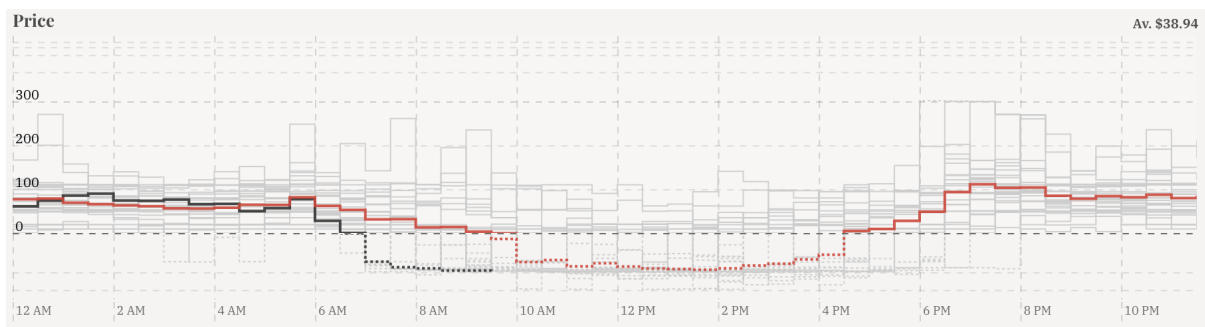
Electricity demand in Australia has fallen over recent years. As well as technology bringing greater efficiencies in use, in part this reflects relatively low economic growth and is also (and relatedly) a result of higher prices.

Notwithstanding falling demand, the electricity price ex-generator has soared since 2015 when competition from subsidised wind and solar started to force coal generators to close. The average price rose from under \$40 per megawatt hour to over \$125 last year.

The government also wants to increase the costs of the poles and wires component of electricity in order to accommodate wind and solar, which are less dense, more dispersed, and less regular than from the coal it replaces. Increased management costs to accommodate wind and solar plus burgeoning staff increases in the multiple regulatory authorities have added further costs.

Aside from raising average prices, the regulations and subsidies to wind and solar have transformed the supply pattern of electricity. Previously, prices were higher during the daytime and especially morning and evening peak times when demand is high and power from the low-cost coal generators had to be supplemented with supplies from higher cost but more flexible gas and hydro.

But increasingly, as illustrated below on December 3 for Victoria (an uncharacteristically low power-cost day) prices are lower during daylight hours and higher at night. This is because the solar supplies – both rooftop and grid-sized – are not available and nights are also normally less windy.



With this ‘duck curve’, not only are the daytime prices now lower, they are frequently negative (as they were from 9 am to 5 pm on December 3 in Victoria). During negative pricing events, suppliers actually pay consumers (or rather their agents, the retailers) to use their product.

In the past, this was rare and only occurred when generators ramped up in preparation for early morning peaks. In today’s market, negative prices prevail almost 20 per cent of the time due to increasing supplies of wind and solar, which are paid a subsidy of \$40-55 per megawatt hour whenever they operate.

To try to force even more wind and solar into the system, the government has ambitious plans for increased transmission. More transmission might allow additional supplies of renewable energy to reach consumers but only at a cost of \$100 billion. Moreover, as these supplies will displace more reliable and controllable coal, they will cause even wilder ex-generator price swings as well as additional increases in average prices.

Hence the Capacity Investment Scheme (CIS), which at least for the next seven years is to operate alongside the existing subsidies. With the CIS, instead of plying new wind and solar supplies with subsidies paid for by electricity consumers, the Commonwealth will use taxpayer funds to buy supplies itself at above market prices on a state-by-state basis. Allowing hope to triumph over experience, the Commonwealth has designed this new subsidy regime as an antidote to the poison administered by the existing subsidies.

It has seven 'selection criteria'.

The most important criteria seeks out projects that contribute to system reliability, and lower costs per megawatt hour.

This is code for increasing nighttime supplies at lower costs. As such, it rules out solar, which can never operate at night, and infers that approved schemes must include using gas, hydro, or batteries to allow storage.

The Commonwealth faces state antipathy to gas, even as a back-up to the beloved but inherently costly and unreliable wind/solar. And the Snowy 2.0 fiasco would have further discredited the already implausible possibilities for additional hydro.

That leaves batteries. Multiple studies have illustrated their staggering costs.

One, recently assessed by the [Manhattan Institute](#), puts the cost of battery firming for a hydrocarbon and nuclear-free US electricity supply at US\$100 trillion – four times the nation's GDP – for a much higher power cost. For Australia, the renewables-sympathetic [Global Roam](#) consultancy, using highly optimistic assumptions, estimates

battery back-up equivalent to 70,000 Hornsdale Tesla batteries. That would put the cost at \$6.3 trillion – or three-times GDP. In both cases, those costs exclude the ambitious plans for replacing gas and petrol with electricity.

Pie-in-the-sky electricity plans in response to activists claims that the present systems bring ‘global boiling’ (coal and gas) or threaten doom (nuclear) have brought energy crises throughout the Woke-conditioned Western world. Australia’s latest variant is timed to further the government’s credentials for the current Dubai climate jamboree. But it is also part of the long-term ideological attack on hydrocarbons (and nuclear) vainly hoping that two decades of alternative energy’s disappointing outcomes will be turned around.

As with earlier energy subsidy augmentations, the CIS is intended to lock-in policies for 15 years or more. Unless it makes vigorous statements that it will abrogate any such policies should it regain office, the Coalition, like its predecessors, will be hog-tied by economy-debilitating energy measures that force high prices on consumers and producers alike.