

Electricity has suddenly morphed into a re-run of the carbon tax political war, writes **Peter Hannam**.

**E**nergy security for all Australians" is the bold if now ironic promise that greets visitors to the homepage of the Australian Energy Market Operator.

The 90,000 South Australian households that endured blackouts during the evening of a heatwave on February 8 might not feel particularly secure. Nor would workers at Tomago Aluminium in the Hunter Valley after AEMO ordered much bigger power cuts two days later at Australia's largest smelter to ensure grid stability as the record hot spell swept eastwards.

There, crews braved 50 degree-plus temperatures to deploy 12-foot timber poles to ensure the molten material in expensive potline-cells reheated properly once electricity was restored.

With the National Electricity Market (NEM) set to lose one of its largest power plants next month when the 1600-megawatt Hazelwood station in Victoria closes, remaining surplus capacity is about to shrink further. And if supply challenges weren't enough to fret over, electricity has suddenly morphed into a rerun of the carbon tax political war, guaranteed to generate exaggerated partisan claims and short-term, costly partial fixes.

### How bad is the problem?

"It's serious," Matt Howell, Tomago's chief executive says after his smelter faced a second day of cuts last Saturday. "It's an emergency and we need people to respond to it."

Fortunately, barring a repeat of this month's extreme heat, the NEM may not get another major challenge until next summer, although by then AEMO is predicting supply constraints for Victoria and SA.

But in a week marked by re-energised attacks by the federal government on state and federal Labor's renewable energy plans, there is dimming hope a multi-party political consensus can shore up our grid.

Among the most pessimistic is Danny Price, who sits on the government's Climate Change Authority and, as managing director of Frontier Economics, advised Malcolm Turnbull when he was Opposition leader on setting up an emissions intensity scheme. That plan, adopted by Labor but ruled out by Prime Minister Turnbull, would help transform an ageing electricity industry towards the low-carbon future by using a market to price pollution.

"All the arrows are pointing in a very bad direction" even as Australia's power sector rapidly deteriorates to "Third World standards", Price says. "This place is mad."

### Will people invest in renewables?

Uncertainty generated by political bickering means investment even in maintenance is



Photo: Darren Pateman

being affected, leaving generation capacity more vulnerable to unplanned outages, Price says.

Only the mandated Renewable Energy Target (RET) is driving spending on new large-scale generating capacity. Including the 2300MW of new projects under way or expected to start in 2017, the RET will require \$10.8 billion between now and 2020 in new investments, the Clean Energy Council estimates.

Chief executive officer of the Australian Energy Council, Matthew Warren, warns that without bipartisan cooperation at state and federal levels, "we are likely to see a second decade of energy policy uncertainty, which would be catastrophic for the cost and reliability of energy in Australia".

Alan Finkel, the chief scientist who is conducting a review on the future security of the NEM, underscores the shifting policy stances aren't helping: "There's no doubt that every investor group we've spoken to has said that the policy uncertainty is making it much less likely that they will invest."

### Will the lights go out?

The NEM - which serves 80 per cent of Australians through one of the world's biggest interconnected electricity grids - sets an "expectation" demand will be met 99.998 per cent of the time, and the recent outages will probably fall within that range.

Governments and AEMO also learnt from the SA outages, helping NSW dodge worse two days later. Still, evidence is mounting of an emerging energy crisis. Exhibit A from this month's events include AEMO's own report on the SA leg of the heatwave, while its follow-up review of the handling of the NSW component out next Wednesday will become Exhibit B.



### Comment A lot of hot air, but no plan on power.

Peter Hartcher, Page 30



The first report revealed that the outage could have been avoided. SA had sufficient gas-fired capacity to meet demand, prompting Victoria's Energy Minister Lily D'Ambrosio to be among those seeking answers: "What went wrong with AEMO's demand ... forecasts? Why didn't AEMO contact Engie [the French-owned operator of the Pelican Point gas-fired power plant that operated at only half capacity] earlier?"

According to the report, AEMO was only told by Engie at 6.09pm (local time) "that they don't have the gas to run the unit". Twenty-four minutes later, AEMO ordered load-shedding of 100 MW to "restore system security". However, that cut then tripled in size to 300 MW because of a software glitch.

NSW managed to enjoy "uninterrupted electricity supply" during its event, Joe Adamo, an AEMO executive general manager says, thanks to "the efforts of NSW and ACT consumers" and Tomago's "cooperation".

Fairfax Media can reveal AEMO intervened at 5.58pm on February 10, to order Tomago to turn off its potline No. 3 within two minutes. That dropped demand 290 MW but also overlapped for 15 minutes with the shutdown of potline No. 2 for a similar power saving that had already been ordered by Tomago's supplier, AGL.

With Tomago down almost 600 MW at one point, the curtailment was almost six times bigger than it asked for in SA.

### Why do prices keep rising?

Soaring gas and electricity prices are coming to consumers small and large, as wholesale prices keep rising.

During the recent events, NEM wholesale prices touched the maximum allowable \$14,000 per MW-hour, compared with an average under \$60 for all 2016 in NSW.

"It is for the Australian Energy Regulator to determine whether participant behaviour complies with the market rules, and we understand it will be investigating these matters," Adamo says.

AEMO notes that the spot prices are continuing to rise.

Futures contracts in NSW for 2018 delivery have almost doubled from \$47 to \$89 per MW-hour in the past 12 months, and NSW will adjust its retail prices on July 1.

Hugh Sadler, an honorary associate professor at ANU, predicts troubles will intensify next year when summer peaks return. He sees much scope in side responses to power demand, with moves - seven years in the making - soon to allow willing electricity

users to power down for a fee. Pumped storage, using off-river hydro to pump water higher during surplus times for use later, is another short-term fix that also has Turnbull's attention. The PM is especially keen on the use of sites, such as the disused Kidston gold mine which has a deep shaft and the potential to deliver as much as 330 MW.

Alan Pears, an energy expert with RMIT University, predicts one outcome of the political paralysis will be an acceleration of the update of solar panels and batteries.

"The fundamental issue is that everything at the moment is undermining confidence [in the NEM]," he says. "And that supports the push for distributed solutions."