

Energy at a crossroads: fossils renewed



Portland's aluminium smelter was faced with closure due to rising prices before government intervention. Picture: Jake Nowakowski



Donald Trump's US has the world's largest reserves of fossil fuels.

Graham Lloyd, *The Australian*, 12:00AM February 3, 2017

As air pollution rules were tightened across the US under Barack Obama, "rolling coal" became a popular pastime for many of the disaffected. Enthusiasts modified their diesel engines to emit as much black smoke as possible on demand, sometimes for the cameras and into the faces of a passing cyclist or Prius driver.

Fast forward and electric cars are still hot with the hipsters but the Prius is passe, Donald Trump is in the White House and pick-up trucks are the biggest selling cars in the US, thanks to a world awash with cheap oil.

For critics, Malcolm Turnbull is now “rolling coal”, blowing black smoke to the urban elites, Labor and the Greens, criticising a “mindless rush to renewables” that raises prices for ordinary people and can push whole states into darkness.

Having “drawn the battle lines” in an address to the National Press Club, the Prime Minister has set a key plank of the political contest for the year. It represents a reality check on action on climate change, a pitch to jobs and security but with just enough support for battery storage and new technology developments to avoid his being cast a Luddite.

In doing so, the federal government is facing the post-Trump reality and showing the Coalition has been paying attention to lessons that have bedevilled energy policy renewal at home and abroad. Intermittency, value destruction, cost escalation, industry dislocation, supply constraints and a gnawing urban/rural divide are not confined to Australia.

Germany’s Energiewende, which aims to ultimately increase the share of renewables to between 80 per cent and 95 per cent of energy supply by 2050 is being tested by the reality of intermittency of wind and solar. German carbon dioxide emissions increased last year for a second year in a row as nuclear was swapped for coal and natural gas.

Not only was new solar and wind unable to make up for the lost nuclear but the percentage of time during 2016 that solar and wind produced electricity declined dramatically. Germany added 10 per cent more wind turbine capacity and 2.5 per cent more solar panel capacity from 2015 to 2016 but generated less than 1 per cent more electricity from wind and generated 1 per cent less electricity from solar. The poor performance was because Germany had significantly less sunshine and wind last year than in 2015.

Tripling Germany’s renewable capacity to 155 GW, as suggested by supporters, would involve putting a 200m high wind turbine every 2.7km across the country, including lakes, mountains, towns and cities. Fritz Vahrenholt, a founder of Germany’s environment movement and a former renewable energy entrepreneur says “even with this huge capacity, the problem of intermittency is not solved”. Germany has nine neighbours to call on for support. When there is no wind in winter or at night, Germany calls on old Austrian oil-fired power stations, Polish hard-coal plants or French and Czech nuclear power to keep the lights on.

But Germany is still building new-generation, coal-fired electricity plants to help replace the production lost from turning its back on domestic nuclear.

Against a backdrop of supply concerns and high state-based renewable energy targets, the Turnbull government is arguing Australia should follow suit and showcase the latest in high-efficiency coal technology.

Australia is the world’s largest exporter of coal. It has invested \$590 million since 2009 in clean coal technology research and demonstration but does not have one modern high-

efficiency, low-emissions coal-fired power station, let alone one with carbon capture and storage, Turnbull says. “Here’s the current picture — old, high-emissions coal-fired power stations are closing down, reducing baseload capacity,” Turnbull told the National Press Club on Wednesday. “They cannot simply be replaced by gas — because it’s too expensive — or by wind or solar because they are intermittent,” he says. “Storage has a big role to play, that’s true, but we will need more synchronous baseload power and as the world’s largest coal exporter we have a vested interest in showing that we can provide both lower emissions and reliable baseload power with state-of-the-art, clean, coal-fired technology.”

He said the next incarnation of national energy policy should be technology agnostic — “it’s security and cost that matter most, not how you deliver it”. The federal government’s embrace of new generation coal has been widely criticised by supporters of renewable energy. And industry will need a lot of convincing to invest, given the lack of certainty that has dogged Australia’s recent energy policy development.

It is not just the risk of building new coal plants on time and budget that is of concern, but guaranteeing electricity that is generated will be able to reliably get access the grid. Under current arrangements, renewable energy production is able to edge baseload fossil fuel electricity out of the market because it makes its money from trading renewable energy certificates rather than the sale of power. For new generation coal plants to work, proponents would need a guarantee of access, possibly in the form of renewable energy certificates or “capacity payments” as has happened in Britain and elsewhere in Europe.

Everything, it seems, is now up for grabs in this year’s review of climate and energy policy.

By publicly hedging on renewables and considering coal, the Turnbull government is reflecting a broader new global reality. Renewables are not going away and there will be improvements in battery storage and grid management and other energy efficiencies but the transformation is coming both in the political response to climate change and the practical response to ensuring stable and affordable supplies of power.

To appreciate how quickly and fundamentally things are changing, it is necessary to go no further than a one-hour press briefing held jointly this week by the Global Warming Policy Foundation and Foreign Press Association in London. The briefing was attended by reporters from the major British newspapers including The Times, The Financial Times, The Guardian and the world’s leading wire agencies and special-interest energy publications. They were there to hear comments from Myron Ebell, who served as head of the US Environmental Protection Agency’s transition team from early September until January 19, when he helped to draft an advisory action plan on how to implement Trump’s campaign promises.

Rising from a sea of incredulity was a question from one journalist present that underscored just how things had changed. “Me and my colleagues in this room haven’t spent much time speaking to people like yourselves and the Global Warming Policy Foundation over recent times because nothing you have to say has any support in fact,” the journalist said. “There are a lot of politicians and policymakers who have determined what you have to offer is essentially meaningless in terms of where the planet should be going, where the economy

should be going and business should be going, but yet here we are all sitting in a room listening to you again. Why do you think that is?" he asked.

Ebell said: "Well, elections are surprising things sometimes." Ebell's analysis is as relevant for Brexit as the US presidential race and provides some clues as to how debate is being fundamentally recast in other democracies, including Australia. Trump was elected President, Ebell says, largely because he figured out and supported policies that were popular in the heartland of the US, that are not those of the bicoastal elite. Energy policy is central to the divide. "The people in New York and Boston and Seattle and Los Angeles think that their lives and jobs don't really require much energy," Ebell says. "The people who don't live in the areas dominated by the bicoastal urban elite, the people who dig up stuff, make stuff and grow stuff for a living are the people who have direct experience of the consequences of the policies that create higher and higher energy prices," he says. "California has electric rates twice the national average. The Obama strategy was to try to turn the whole of the country into something representing California or New York, where energy prices are high and where the energy-intensive industries have disappeared and gone somewhere else. "The thing is the people of California still need energy-intensive goods — they have outsourced them all.

"The question is if you turn Indiana and Ohio and Michigan into replicas of California, what is going to happen to the economy of those centres when they aren't part of a financial centre or a hi-tech Silicon Valley or they don't have Hollywood and who is going to produce those goods?" Ebell says. "The answer is they will go to places in the world that still have low electric rates and have not adopted."

This is the lesson in Victoria's Portland aluminium smelter, which was faced with closure due to rising energy prices before state and federal government intervention. Like Trump, the federal government is putting itself on the side of the worker, whom it says Labor has abandoned with high renewable energy targets and energy costs. Ebell says Trump won the election because he appealed to those people and during the campaign he learned a lot from talking to them so his mandate is clear and he knows who he got it from.

Ebell says rejection by the American people of what they were told by the bicoastal urban elite was not an isolated phenomena and had been seen in Britain in the Brexit vote. "The people of America have rejected the expertariate and I think for good reason because I think the expertariate have been wrong about one thing after another, including climate policy," Ebell says. "If you think the science is settled, I agree to this extent. There is a consensus and I am sure everybody who is familiar with climate science agrees with it. "There are greenhouse gases, the atmospheric concentration of greenhouse gases is increasing as a result of human activity and all things being equal there will be some warming in the climate, that is the consensus."

But he says people who promote the "alarmist agenda" have claimed the entire consensus goes much further. "If there is a claim that catastrophic climate change is imminent, it is based on model predictions which the facts are proving to be untrue," he says.

The world's leading weather agencies, including the US National Oceanic and Atmospheric Administration, say 2016 marks three consecutive years of record warmth for the globe. NOAA says the average temperature on global land and ocean surfaces last year was 0.07F warmer than the previous year. Ebell says the narrow margin of temperature rise over the past 20 years means the changes over a 20-year period have been statistically insignificant.

He says he has never met Trump and cannot speak for his personal views on climate change but he is certain the President will deliver on what he promised during the election. Two promises that matter to Australia's medium-term energy policy are the US withdrawal from the Paris climate agreement and the pledge to make the US the world's biggest energy producer. "Trump made it clear that the US is going to withdraw from the Paris climate agreement," Ebell says. "I don't think President Trump is very concerned about having a seat at the table. "The people who elected him would prefer not to have a seat at the table."

The pledge to withdraw from the Paris deal and boost fossil fuel production has caused alarm among environment groups. But Trump's reasoning is strategic, grassroots and geopolitical. "President Trump said during the campaign he wanted to make the US the world's biggest energy producer," Ebell says. "It is not only about energy policy, it is about geopolitical strategy. By becoming the world's largest supplier of energy, the US will reduce the influence of certain countries in the Middle East and of Russia. "It is going to happen because the US has the world's largest reserves of fossil fuels. "We have by far the world's largest reserves of coal and we also have because of the shale revolution gigantic fields of natural gas and oil that will make the US inevitably the world's largest producer of oil and gas."

He says he expects Trump to be "very assiduous in keeping his policies".

There are several ways in which a Trump administration can withdraw the US from the Paris deal. One is to stop US funding. Another is to have the US congress reject the Paris agreement on the basis that legally it is a treaty and does not qualify as an executive presidential order.

Ebell says he favours a withdrawal from the UN Framework Convention on Climate Change, which he says would be the "cleanest way" as it would absolve the US from any commitments. Under this scenario, the Paris deal and the UN climate change process will effectively be dead and Australia's renewable energy response will look very different - indeed.