Physics of the atmosphere will ignore atmospherics of Australian politicians

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CLIMATE CHANGE AUTHORITY

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Opinion article

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Nine years ago this month, the Turnbull Government secured the parliamentary ratification of the Paris Agreement, reaffirming "Australia's strong commitment to effective global action on climate change".

Almost five years later to the day, the Morrison Government committed the country to reaching net zero greenhouse gas emissions by 2050.

The Coalition – the Liberals and the Nationals – are presently debating whether to ditch their own policies. One possible compromise reportedly involves "watering down" the 2050 target, a move at odds with our Paris commitment, and one that would run counter to the goal Labor legislated into law in 2022.

The Climate Change Authority cautions against abandoning 2050 as the target time for reaching carbon neutrality. Having a firm goal that catalyses and coordinates action by communities, businesses and governments – at home and abroad – will deliver a lower-cost decarbonisation of our economies.

Backing for "decisive action now" to deliver net zero emissions by mid-century includes all the peak business organisations – the AiGroup, the Australian Chamber of Commerce and Industry, and the Business Council of Australia.

These groups all understand that kicking net zero to the Never Never will raise the costs of the transition. When investors see a lack of bipartisanship on a major policy area, they slap on a premium for uncertainty that feeds into the entire supply chain.

They also recognise that a departure from the Paris Agreement on the 2050 would open the way for the dilution of other decarbonisation efforts. Proponents of such a move are, after all, unlikely to stop at dismantling the arch of climate action after removing its keystone.

Australian voters have endorsed climate action in the four elections since the Paris signing in 2015, arguably with overwhelming backing at last May's federal polls.

They understood the national interests are best served by building sustainable industries that can – indeed, must – replace coal and gas exports.

With Australia's abundant renewable energy resources, we will have few rivals when it comes to attracting companies that can make steel, aluminium, ammonia and even silicon without the reliance on fossil fuels.

Again, any injection of doubt about the commitment to this shift from one side of federal politics sends strong signals of unreliability to our major trading partners. If we're not going to stay the course then they will divert their billions of dollars – if not trillions – of orders and investments to partners they can trust.

Technological trends, thankfully, are largely headed one way.

For all the bluster of the return in the US of the "drill, baby, drill" Trump Administration, finite fossil fuels aren't getting easier to find. Indeed, almost 90% of the annual upstream oil and gas investment since 2019 merely offsets production declines rather than serve new demand, according to the International Energy Agency.

Indeed, the IEA has separately noted, two-thirds of the $US3 trillion ($A4.6 trillion global investment into energy last year was poured into clean energy. Such technologies will fall by 22%-49% in price by 2035, Bloomberg New Energy Finance estimated earlier this year.

Given the advances seeming announced almost weekly – from new solar panel efficiency records being set in Sydney to China launching new sodium-ion batteries – investors and consumers can expect innovations will only sharpen clean-tech's competitiveness.

The rapid take-up of the Government's home battery subsidy – topping 100,000 units and 2000 megawatt-hours of capacity in less than four months – reflects the huge household appetite to marry rooftop solar with storage to push down power bills.

As automakers are pouring money into electric vehicle research and development, or electronic firms offer ever more energy efficient appliances such as heat pumps. Fossil fuel-powered machines, after all, tend to be wasteful of energy compared with electrons.

National interest, of course, is not merely served by trade and investment flows. We all have a visceral stake in ensuring the relatively stable climate that has enabled human civilisation to thrive since the last ice age prevails.

Put bluntly, that civilisation has relied on our atmosphere, land and oceans to dump our waste. This giant experiment – turbocharged by the industrial revolution's reliance on ancient fossils to power it – is reaching dangerous points that the Paris Agreement is trying to avert.

The Intergovernmental Panel on Climate Change, which pulls together the world's best climate science, tells we must reach net zero emissions by around 2050.

To be clear, we shouldn't read 2050 and net zero as absolutes in the sense the world "ends" on January 1 of that year if we haven't achieved by then – in the words of the Agreement – "a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases".

Rather, we must strive now to eliminate those emissions because every additional concentration of carbon dioxide, methane and other heat-trapping gas we send into the atmosphere does just that. We trap more of the sun's energy and energise our atmosphere just that little bit more.

It seems we need constant reminders decarbonisation is more than just a nice-to-have outcome. It's a must-have if our children and their children are going to have a chance to enjoy semblances of the stable climate we have.

I defy anyone to read the Government's recently released National Climate Risk Assessment without taking away some sobering questions.

What will it mean for our $2.4 trillion mortgage market if increasing numbers of homeowners can't afford rising insurance premiums because they reside in areas of rising risk from floods, storm surges, bushfires and other no-longer-so-natural perils?

No insurance, no mortgage.

And who will fund the costs of keeping regional communities functioning when they are exposed to what the assessment report describes as "extreme, concurrent and cascading events"?

Time spent in drought, especially in the winter and spring planting seasons, has been on the increase in recent decades across the country's east and southwest, according to a research paper out just last week.

One of its authors, Professor Andy Pitman from the University of NSW, says increased evaporative demand associated with a warming atmosphere means "a farmer or water manager needs more rain now than they did in the past for the same outcomes".

Where's our food going to come from in the future, and how much more will it cost?

And how can "connections to Country" be maintained by Aboriginal and Torres Strait Islanders when sea-level rises or other increased hazards force relocations of people and flora and fauna?

And of course, when it comes to climate impacts, Australia is not alone. Countries to our north are also facing a rising threat to human and ecosystem health, so finds new research out this month by Australian scientists.

Humans, after all, can't tolerate sustained humidity and heat – as measured by so-called wet-bulb temperatures – greater than 35 °C. Extremes recorded in the 2010s decade were comparable or more than the number in the three previous decades combined in the study area that covered southeast Asia and northern Australia.

What will defence's role be in the future when our neighbours become less stable?

So when you hear politicians opposing "net zero at any cost", ask yourself what level of cost you're prepared to bear if we and other nations rip up the Paris pact.

Because ultimately, the physics of the atmosphere will ignore the antics and atmospherics of politicians.