

October 11

Grand plans, chaos & green shoots:
What a year of energy turmoil means for customers

Hello.

These days it's customary for leaders of big energy companies to talk about the need for stability and national plans. My own voice is among those you'll have heard.

The truth is, I'm getting tired of all the talk. I'm getting tired of the sound of my own voice.

Calls for stability are becoming background noise, too easily brushed aside in a populist energy debate. Still, an orderly transition to cleaner forms of power is as relevant and critical as ever.

Rest assured, I will come back to these themes.

First, some context to help explain why 2500 people come to work each day at EnergyAustralia.

Recently we farewelled a long-serving non-executive director. In a wonderfully thoughtful speech she recalled her pride when one morning she became the star attraction during show-and-tell at her daughter's school.

When the children asked what our former director did at work, she explained she helped make the room warm. Gasps rippled around the class; heating was an important job!

Just as our former director felt then, I'm tremendously proud and grateful to be part of an industry that makes a difference – what we do matters.

Energy is an essential service. It's integral to our wellbeing and quality of daily life.

At EnergyAustralia we make, buy and manage energy for 1.7 million customers around the country – families and businesses.

It sounds simple. But lately it's been anything but.

There's a counterweight to the pride.

It's not easy to put into words how it feels. Just imagine your favourite sport: it might be rugby league, AFL, tennis, netball or cricket.

No need to argue which sport, they're all great games grounded in positive spirit and popular support.

But imagine if the referees or umpires were elected by popular vote... and they had the power to make the rules as they went along... And imagine if often and unpredictably that power was exercised right in the middle of a game.

That would be bonkers, wouldn't it? Do you think the fans and the players would like that game?

I'm sure you can see the parallels with energy. It's not a perfect analogy, but you get the idea.

To understand why making rules on the run is bad, and to appreciate what's at stake, let's agree what we're solving for.

- Today in Australia we get around 70 per cent or more of our electricity from coal-fired generation. We want that, eventually, to be zero percent.
- Generating energy for millions of households and businesses around the country produces some 430 million tonnes of carbon-dioxide equivalent each year. We also want that, eventually, to be zero.

- Depending on your assumptions about economic growth and industry transformation, the market operator AEMO estimates it will cost between \$8 billion and \$27 billion to replace retiring generation and meet consumer demand – it's a long way from zero dollars. And that's just over the next two decades.

So, the challenge is:

- To cut millions of tonnes of carbon emissions
- To make energy affordable while investing billions of dollars, and
- To keep the lights on as the equivalent of 14 Hazelwood power stations are withdrawn from the energy system.

In 2017 Victorian customers got first-hand experience of what happens when the retirement of just one of those plants is mismanaged.

The lessons of the recent past have been hard earned. Yet our rule-makers are forgetting what they already know.

Remember the trilemma? Affordable, reliable and cleaner energy...it's like a three-legged stool.

Balance on just one of those legs for too long and eventually the stool topples over. The energy system breaks, and it breaks badly.

For much of the past decade the wholesale electricity market was chronically over-supplied, and prices were very low, around \$30 to \$40 a megawatt hour.

From 2006 to 2014 EnergyAustralia lost around \$200 million in aggregate and had to write-off some \$1.9 billion from the value of its assets.

It is just as well we have patient owners.

A depressed wholesale market meant companies struggled to make a case for investing in reliability – either in maintaining existing baseload generation or planning for how the system would cope with a flood of intermittent solar and wind energy.

With prices low and seemingly under control, emissions became the consuming goal.

Then, old coal-plants were closed at short notice... The shock was felt around the country in the quarterly bills of customers from Ceduna in South Australia to Cairns in Queensland.

And remember South Australia? In 2016 the nation watched in disbelief as an entire state's energy system went black.

Every method we have of generating energy has its own distinct impacts on people and the environment; advantages and drawbacks to be managed.

Once they're in the system, there is no difference between the electrons produced by a wind turbine or by a coal plant.

But there is a world of consequences between having a thoughtful national energy framework and not.

Today, affordability has cycled around to being top of mind. Think what might happen if we balance our stool on that one leg to the exclusion of reliability and emissions...

In Australia it took 20 years for the installed capacity of renewable energy to reach five gigawatts. It will take less than two years for the next five gigawatts.

By around 2021 it's possible renewable energy, including solar PV, might supply half the market demand when the sun is shining.

Eventually it becomes cheaper to keep building solar systems and spill what can't be used, rather than store the excess.

AEMO's Integrated System Plan points to the possibility that slabs of renewable power won't be dispatched to safeguard system reliability.

If left unmitigated, it's possible energy will have zero market value for large parts of the day.

We are already seeing this phenomenon in California.

"Free electricity", you might think. That sounds great.

Then the sun goes down.

Now you're buying electricity from the grid, assuming dispatchable generation hasn't been forced from the market.

Storage has a critical role in a modern energy system, but it won't have scale by 2021.

At night you're paying far more than you used to. That's because the fixed costs of the energy system, including networks and generators, must be recovered in a lot fewer hours.

If you own a solar PV system you're exporting power during the day at zero dollars. And you're buying it at much higher rates in the morning and evening.

Your system may never pay for itself.

That's the path we're on. Even now, the market operator intervenes almost every day in South Australia to turn off renewable generation and keep dispatchable power stations operating.

Here's the truth – we have all the existing and planned capacity the system needs.

The National Energy Market has around 50,000 megawatts of installed capacity.

Average demand is around 22,000 megawatts.

Yet more than 37,000 megawatts of renewable generation is proposed beyond the 11,300 megawatts already built or committed¹.

Our exam question for the next decade is not building more generation – it's getting it all to work seamlessly.

What we lack is a framework to guide emissions reduction and make the grid stable.

Stability comes from integrating wind and solar power with flexible generation, like pumped hydro and flexible, fast-start gas plants.

Instead, decision-making is haphazard and dispersed, and not just between states and territories. Increasingly it's also spread across the thousands and millions of homes which are making and selling their own power.

It's an incredibly complex and difficult problem. And customers have already paid a high price for mistakes.

There are viewpoints on the extremes, but most sides do agree: Australia is making the transition to a cleaner energy future.

The question is how we get there, how soon and at what cost.

But rather than informed discussion, the complex story of electricity and gas in Australia is too often reduced to a sound bite.

"Gouging, fat-cat energy companies" ... It's a phrase repeated so often you'd be forgiven for asking if there is any other kind of energy company.

"Lazy tax" ... *"bandits"* ... and *"big stick"* are made for hashtags.

¹ <https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Planning-and-forecasting/Generation-information>

Energy companies aren't blameless. So, permit me a soundbite of my own: *politics is making it very hard for good politicians to do the right thing.*

The entire electricity supply chain, including retailers, is culpable in a failure to provide affordable, reliable and cleaner energy.

We've let down families and businesses across the country.

However, the Australian Competition & Consumer Commission makes no reference to "gouging" in its recent 400-page assessment of what went wrong.

It starts by castigating federal and state governments for an inability or unwillingness to agree a workable national policy.

No one's hands are clean. There is more than enough blame to go around.

So, who can the public trust to manage an orderly, fair transition for the energy system?

- Not the energy companies – it takes years to un-tarnish a reputation.
- Not the politicians – they won't even trust each other.
- What about the experts? – the ACCC led by Rod Sims, the Chief Scientist Alan Finkel, the AEMC, the AER and AEMO. Could they do it?

Great question. The government's apparent lack of trust in these institutions – its own experts – is hard to fathom.

After 15-months of investigation, with information-gathering powers comparable to those of a royal commission, the ACCC made 56 recommendations to get our energy system back on track; to get it working in the best interests of customers.

So far, state and federal governments have accepted recommendations for more reporting for energy companies and increased penalties for wrong doing.

They're also considering implementing a default retail offer and financially underpinning new generation.

We are waiting to learn their approach to writing down the value of government-owned networks, closing-down expensive green schemes and coordinating or even reducing regulation.

Of course, accepting all these recommendations would impact government budgets, some of them dearly. Perhaps as much as \$140 of the annual savings on household bills projected by the ACCC are in the gift of state and federal governments.

Just as many hands contributed to the problem, industry and government must face up – together – to the responsibility of solving energy.

In the meantime, the federal government has added a fifty-seventh recommendation, one the ACCC has specifically cautioned against – “big-stick” intervention.

Here's an idea...

We're accumulating former Prime Ministers at an alarming rate. Back in early 2017, one of them declared Australia was in the grip of an energy crisis.

Across the energy industry we have some very smart people. Engineers, economists and professionals of all types by-and-large committed to building an industry of which Australia can be proud.

When all else fails, we might try relying on the good and talented people in our industry to solve the problem.

Rather than lurch from one expensive review after another and create new regulations and rules, why not trust the independent energy agencies we already have?

AEMC, AEMO and AER are apolitical by design and were created to promote investment in an efficient and reliable market.

Their job is overseeing flexible and resilient markets that benefit consumers; each one uses the word "independent" somewhere in its charter to describe itself. The problem is those bodies haven't always had the authority or opportunity – the true independence – to do their jobs.

Establishing true independence would require a lot of careful thought, planning and design to get right.

But Australia has done it before. We have a wonderfully successful model in this country that's envied around the world – the Reserve Bank of Australia.

I'll declare my self-interest – I'm a sitting RBA member and I believe the bank has been instrumental in the country's recent economic prosperity.

Just as the RBA is responsible for monetary policy, our independent energy institutions might take charge of delivering carbon policy. For example, the AEMC might do this with advice from AEMO and AER.

And rather than interest rates, the lever would be a mechanism for managing carbon – one that perhaps in time is applied more broadly than just to the energy sector, which accounts for a third of Australia's emissions.

It's not a new idea – and it's certainly not mine. Warwick McKibben has long been an advocate. Frank Calabria from Origin has also offered it for discussion.

The concept of asking independent institutions to guide energy tends to attract scepticism, even ridicule. But the blame-game isn't getting us anywhere and we're running out of time and people to trust.

Years of policy paralysis interspersed with intense bursts of market intervention have not led to good outcomes.

Customers have been shocked by electricity prices, their supplies of power are less reliable and a transition to a zero-emissions future is still in debate.

The stakes are simply too important to play politics.

It's a bleak picture, and scaremongering is not what we want to be known for.

We want to be known for fixing things.

We do believe energy is solvable.

Australians live in the greatest country on earth. In the more than 60,000 years people have spent on this continent, our home has been harsh on us.

That's made us smart, inventive and tough. We are used to tackling challenges.

I am convinced it is possible to deliver affordable, reliable and cleaner energy for families and businesses, no matter where they are or how much they make.

The ACCC has made 56 recommendations and the Chief Scientist 50.

I believe these five points are the keys to getting energy back on track:

- Drop the "big stick" rhetoric. Governments should work with, not against, industry to deliver better outcomes for customers.
- Commit to a truly national energy framework. That means federal and state governments getting on the same page.

- Send the right signals for industry to build the assets we need – signals for reliability and security, in lock-step with an emissions trajectory. A policy vacuum here is not in Australia’s national interest.
- State governments – lift the bans and go-slows on gas development.
- And please – trust the experts to do their jobs.

I remember asking one of our very bright and talented people at EnergyAustralia why, in the face of so much external criticism, he would choose to be part of our industry.

He replied politely, but you could sense in his raised eyebrows he felt it was a curious question - curious because the answer was so obvious.

He said: “I work at EnergyAustralia because I want to do something that matters – and energy matters.”

Please, remember that: energy does matter. We can fix this.

Thank you.