

CLIMATE MEDIA CENTRE

Summer Blackouts Messaging Advice

(Last updated November 2024)

Context: AEMO has released load shedding warnings as NSW heads into a heatwave period with four of 12 generating units at coal-fired power stations in the state offline for repairs/maintenance. With coal-fired power stations reaching their end of life, and not enough renewable energy capacity being brought on quickly enough, this will no doubt be a continuing issue this summer.

This provides an opportunity to talk about the need to speed up the switch to renewable energy to ensure reliability in the grid, because this is a today problem.

Key Messages

Australia's polluting coal-fired power stations are closing down. We need a plan to add more renewable energy quickly.

- Our coal-fired power stations are outdated, [unreliable](#), polluting and must be replaced soon. Australia's Energy Market Operator expects them all to close by 2038 at the latest.
- In November 2024 at least four of NSW's 12 coal powered generating units were shut down for maintenance. As these power stations age, the time, expense and complexity of this maintenance has increased.
- Coal-fired power stations generate power by burning coal, but this can also cause them to overheat during hot weather. This risks them suddenly switching off (known as a 'trip') during hot weather, which is a danger to our energy reliability.

Renewable power is here now, and can provide power 24/7.

- Already, about [40% of Australia's electricity](#) comes from solar, wind and hydro power. That's [doubled](#) in the past six years.
- [Australian Energy Market Operator](#) (AEMO) tells us that large-scale solar and wind, backed up by storage (massive batteries and hydro power), can provide power 24/7.
- Under the Federal Government's plan we'll have 82% renewable electricity in place by 2030.
- Every [State and Territory](#) in Australia is making progress, e.g. 50% of homes in Queensland have rooftop solar; and South Australia, Tasmania and the ACT all have more than 70% of their electricity from renewable power.
- Unlike our existing reliance on a few big coal generators, the renewables-powered grid we are building will be powered by hundreds of wind and solar farms, linked by transmission and backed up by storage like big batteries and pumped hydro.

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Climate change is harmful and urgent.

- Climate pollution is overheating our planet and harming us and our kids right now.
- Pollution from coal, oil and gas causes more intense and frequent unnatural disasters that endanger our Australian way of life.
- Every action taken today to tackle dangerous climate change helps secure a safer future for our kids.

Can Say/Can't Say

Avoid:

- Repeating unhelpful messages, such as the claim that there's a "shortage" of renewables to keep the grid running. Even to negate it.
- Emphasising individual responsibility with how people monitor or use their own energy.

Remember:

- Energy operators/govts need to balance upgrade costs vs level of reliability.
 - Analogy: *"Over-investing in reliability of a grid is like building all the lanes we ever need on the Sydney Harbour Bridge so traffic never slows down."*
- Find ways to tie renewables back to benefits of greater cost-of-living relief, and the fact we need to spend money upgrading our system no matter what.
- Talk about over-reliance, and dependence re: coal and gas.
- There are many significant impacts of an energy blackout on vulnerable populations which should also be emphasised and respected.

<i>Don't Say...</i>	<i>Do Say...</i>
We don't have enough renewable energy at the moment to cope...	There are clean energy projects in the development pipeline that can be fast-tracked to help ensure the reliability of Australia's energy system...
The ongoing closure of coal power stations will see an ongoing loss of reliability in the grid...	All of Australia's energy needs can be reliably met if governments around the country get on with delivering the renewable energy and storage projects in the pipeline ...

Possible Tricky Questions:

Don't these blackouts show renewables aren't reliable and that we need nuclear or coal and gas?

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- Coal-fired power stations are on the way out - in November 2024 at least four of NSW's 12 coal powered generating units were down for maintenance because they're old and they need a lot of work to keep running.
- At the moment (Nov 2024) our national grid is roughly 40% powered by renewable energy (that has doubled in the last six years) but we need to keep building that quickly so we're not relying on these creaking old coal power stations.
- Governments and power companies are currently building more large scale batteries (such as [the Waratah super battery](#)) which should help from 2025
- We need to keep building a flexible, clean and modern electricity system to replace coal- one that can respond to the changing ways that we use energy.
- The Australian Energy Market Operator says that large-scale solar and wind, backed up by storage (massive batteries and hydro power), can provide power 24/7. South Australia, Tasmania and the ACT are all operating reliably with more than 70% of their electricity coming from renewable power. References: [Accelerating renewables the only serious plan](#); Australian Energy Market Operator [roadmap overview](#)

But don't we just need more gas?

Climate pollution - from coal, oil and gas - is overheating our planet and driving unnatural disasters that endanger all Australians. With coal-fired power stations on the way out, what we actually need is a plan to get more solar and wind, backed by storage, online quickly. That will ensure the lights stay on. That will protect our kids.

Can you promise our listeners/viewers that renewables will bring down their power bills?

Coal-fired power stations are on the way out, and we do need to spend money on new energy to replace them. CSIRO has looked at all the options, and found the lowest-cost way to do that is with solar and wind, backed by storage - and highest is nuclear. So what we can guarantee is that going nuclear won't help anyone with their power bills.

We also know that the best way to reduce your power bills is to make your home more energy efficient and to have solar panels on your roof and a home battery. That's why it would be great to see schemes to help more Aussie families get these.

Why are people's power bills going up then? (Identify a culprit, and the solution that's working for people)

Most increases in power prices can be attributed to high gas prices, because in the end that's what sets the market price. Rising power bills are driving more and more Australians to turn to rooftop solar, and a home battery - because that way they're using less electricity from the grid. More than 4 million households have solar panels now, and collectively they're saving \$3 billion a year.

References: [AEMO's Q3, 2024](#) report, and [CSIRO'S GenCost](#) report.

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South Australia has close to 100% renewable energy but that state is at risk of blackouts when the wind doesn't blow or it gets too hot for the wind turbines to turn?

- As the SA electricity grid moves towards being powered fully by renewable energy, it will need to add more storage so people can use the affordable and abundant solar and wind power we have whenever they need it.
- Just like it doesn't need to rain every day in order for us to turn on the tap to get water, energy storage allows us to tap into our abundant solar and wind power whenever we need it.
- South Australians are already embracing home batteries. This [Race to the Top report](#) shows South Australia has the greatest proportion of people storing their solar power and using it at home at night, but at 2.86% of households there's still plenty of room for more battery systems.

Aren't renewables vulnerable to extreme weather events? They can't be relied on in storms - the power still goes out.

- Any electrical network can be damaged in storms; it doesn't matter how the power is generated. Storms can still bring down power lines in local streets at any time. This is why we need to cut climate pollution fast to prevent unnatural disasters from becoming more common, and extreme.
- In [February 2024](#) when storms damaged large parts of Victoria's electrical network and a million people lost power - [authorities were very clear](#) that the damage was to power lines, not renewable energy sources.

Why do we get these warnings of blackouts that never happen?

- Australia's energy regulators (the Australian Energy Regulator and the Australian Energy Market Operator) keep a close eye on likely spikes in energy use, like those prompted by heatwaves when more people use air-conditioning.
- The energy regulators are usually quite cautious and produce warnings so that governments, energy companies, transmission companies and large power users can take action to prevent blackouts before they occur. This could be by holding off on maintenance works or turning on hydro power.

Supporting Facts

- Australia's coal fired power stations are ageing, increasingly unreliable, and polluting. Ten large coal-fired power stations have needed to shut down since 2012 and clean renewables backed by storage have taken their place.
- Under the latest energy market operator projections, 90% of Australia's coal fired generation will be shut within the next ten years (and all will be shut before 2040).

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- Coal fired power has declined from around 94% of generation to 56% of generation in 2023.
- [CSIRO](#) says solar and wind, backed up storage, is the lowest cost option for new energy in Australia.
- The science is settled: coal, oil and gas is causing climate pollution and we need to build renewable energy as quickly as possible so we can phase them out.
- Renewable energy is safe, low-cost and clean. It has already reduced climate pollution from our electricity system by almost a quarter (23%) since 2005.
- The International Energy Agency has stated a continued [steep decline in demand](#) proves there is no need for - and there can be no - new coal, oil or gas projects if we are to avoid catastrophic climate change. Existing supplies of these fossil fuels are already enough to push us over 1.5 °C of warming.

ENERGY STORAGE
CAN HELP MAKE ELECTRICITY:

- **CLEAN**
Energy storage can help Australia **transition to a clean electricity grid** powered by wind and solar.
- **RELIABLE**
Energy storage can **ensure reliable electricity**, when the wind doesn't blow and the sun doesn't shine.
- **SECURE**
Energy storage can **provide crucial grid services** that ensure the lights stay on.

CLIMATECOUNCIL.ORG.AU crowd-funded science information

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WHAT ARE THE DIFFERENT TYPES OF ENERGY STORAGE?

→ PUMPED HYDRO

Flowing water moves downhill through turbines which rotate and generate power. Then the water can be pumped back uphill to be reused when needed.



→ SOLAR THERMAL

Uses the sun to generate and store electricity using mirrors, salt and steam. The mirrors focus sunlight onto a tower that heats salt, which creates steam to run turbines that generate electricity.



→ BATTERIES

When connected to renewables like solar and wind, batteries store excess energy. This energy can then be used later when needed, like at night time when the sun is no longer shining.

