11 December 2025

Season's greetings hydrogen hipsters from a warm and wonderful Port Kembla! This **Port Kembla Hydrogen Hub Update - Edition #35** contains information on the following key projects and initiatives:

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- **Clean Energy Education Program Update**
- **Jobs drive in as electric bus factory set to employ 147 workers in South Nowra** - 3 Dec 2025
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Previous editions of the **Port Kembla Hydrogen Hub Update** newsletter are available here.
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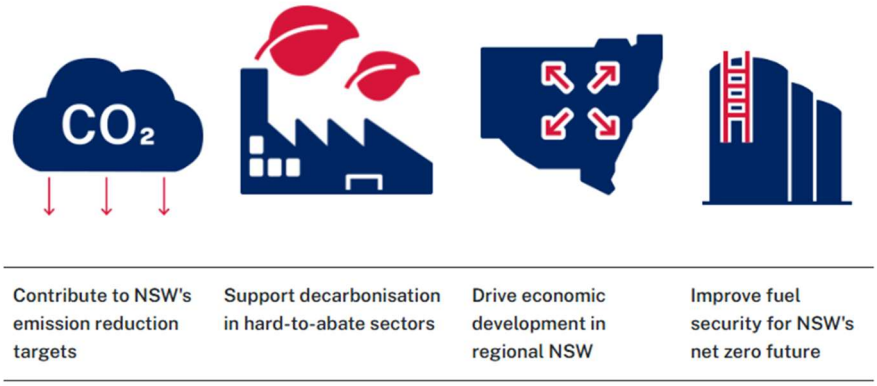
NSW Renewable Fuel Strategy

NSW Renewable Fuel Strategy | NSW Climate and Energy Action

The NSW Renewable Fuel Strategy sets a clear and achievable pathway to grow the NSW renewable fuel industry and help reduce emissions in sectors that are hard to decarbonise. It supports our vision for a sustainable future by accelerating the production and uptake of affordable renewable fuels in NSW, including sustainable aviation fuel, renewable diesel, biomethane and hydrogen. A strong renewable fuels sector in NSW will build new industries in our regions and strengthen the future success of existing industries. It can also accelerate a low carbon transition that benefits NSW communities, to help achieve our 4 key objectives.



The strategy delivers 20 actions across 6 focus areas

Key actions include:

- expanding Renewable Fuel Scheme support to biomethane
- providing up to $130 million funding through the Net Zero Manufacturing Initiative to support commercial-scale production of renewable fuels from emerging technologies
- providing up to $40 million in the Industrial Decarbonisation Initiative to accelerate biomethane production
- funding renewable diesel trials for transport, construction, mining and agriculture sectors
- providing $1.5 million to fund research and innovation for improved industry capability
- funding crop research and development trials to test and demonstrate biomass production opportunities in partnership with primary producers

- supporting the expansion of GreenPower certification to additional renewable fuels and co-products.

Renewable fuels explained

Renewable fuels are used directly as fuel, or feedstock (inputs) in industrial processes. They are generally gaseous or liquid and produced from either:

- sustainable biomass (organic material) such as agriculture and food wastes, known as biogenic fuels, or
- hydrogen generated using renewable electricity and water, known as e-fuels.

Renewable fuels will play a pivotal role in decarbonising our hard-to-abate sectors, which account for about 19% of NSW's total emissions. Manufacturing, primary industries and transport, for example, may face challenges to electrification due to chemical, technical, or practical limitations. Renewable fuels can provide a short-term decarbonisation option where electrification is not yet available or serve as a long-term solution.

As an emerging industry, renewable fuels are not yet cost-competitive with fossil fuels or produced at the scale required to enable full decarbonisation of our hard-to-abate sectors in NSW. Unless renewable fuels are available at a reasonable cost and sufficient scale, these sectors will fall behind in the transition to net zero.

That's why we are working with businesses and industry to foster a thriving renewable fuels sector that will support economic growth, create jobs and enhance energy security across the state. The strategy supports the Net Zero Plan Stage 1: 2020-2030 and our legislated goal to cut emissions by 50% by 2030, 70% by 2035 and net zero by 2050.

Clean Energy Education Program Update

Clean Energy Tour - Inside Industry

An important aspect of the region's clean energy transition is community education. Since 2023, Wollongong City Council, the NSW Government and Port Kembla Hydrogen Hub have funded regular clean energy tours as part of the Clean Energy Education Program. These tours were managed by Inside Industry utilising the BlueScope Visitor Centre as the launching pad.

Over 1,400 people across schools, community groups and industry stakeholders have participated in these popular tours since their inception, an amazing result. The tours have played a vital role in raising awareness of hydrogen technologies and the Port Kembla Hydrogen Hub, while also supporting curriculum-aligned learning for students across the region.

The program has laid a strong foundation for future clean energy education and community engagement in the region. Big shout out to Green Gravity for supporting the Clean Energy Tours.

Jobs drive in as electric bus factory set to employ 147 workers in South Nowra

3 December 2025

Jobs surge in Shoalhaven with new electric bus factory | South Coast Register | Nowra, NSW

A major jobs boost is set to drive into the Shoalhaven on the back of electric buses. Shoalhaven Council has approved a development application for Foton Mobility Distribution to build an electric bus factory in South Nowra. Company owner Neil Wang said the factory would be capable of building about 400 buses a year. Foton launched in the Shoalhaven earlier this year after securing a contract to supply the NSW Government with electric buses, and has been working from a temporary site along the Princes Highway at South Nowra while waiting for the DA to be approved.

Image: State Member for South Coast, Liza Butler, Foton Mobility Distribution CEO Neil Wang, State Member for Kiama Katelin McInerney, and NSW Transport Minister John Graham with one of the fully kitted-out electric buses. Picture by Glenn Ellard.

Mr Wang said there were about 500 applications for the first 17 positions available in the company, and 14 of those 17 jobs were given to people from the Shoalhaven area. Working with 32 local contractors and suppliers, the Foton staff have already fitted out 25 buses that are operating in parts of Sydney, with many more to come.

Mr Wang said Foton was importing the shells of electric buses from China, coming in via Port Kembla. Once in Nowra, the Foton staff put in 440 hours of work on each vehicle, completing 40 different tests including installing the vinyl floor, seats, seat poles, rails, handrails, ducting, security systems, the high voltage componentry, fire suppression systems, security systems and reversing camera systems before the buses are handed over to the operators. However more work will be

completed in Nowra as the factory is built, the staff gain more skills, and more people join the workforce.

Foton expects to employ an extra 67 staff during stage two of its development, and potentially have 147 workers when production is in full swing during stage three. Training is a key component of the work, and Mr Wang praised the staff at Nowra TAFE who, he said, were prepared to organise specialised training courses for Foton's workers. Mr Wang said cooperation from TAFE was a key reason behind his decision to set up in Nowra.

Image: Foton CEO Neil Wang discusses aspects of his buses with NSW Transport Minister John Graham, State Member for South Coast Liza Butler and State Member for Kiama, Katelin McInerney. Picture by Glenn Ellard.

The proximity to Port Kembla, the number of big bus operators in the region, and Nowra's isolation which would help retain staff, were other factors in the decision to set up in South Nowra.
Mr Wang said he also loved the area, after living in the Illawarra for five years, and said he always had a dream of building buses in the region. With that, "I want to prove made in Australia also means quality and support," he said. An Australian citizen for the past 15 years, "I support Australian-owned businesses, with buses made in Australia for Australians."

NSW Transport Minister John Graham said the Foton buses were initially going to Sydney, where there was better recharging infrastructure. However that meant buses that had been operating in Sydney were being moved out into regional areas, so "this change will benefit all the state," Mr Graham said.

Image: The Foton name is starting to be seen on Sydney's streets, where 25 electric buses put together in Nowra are operating. Picture by Glenn Ellard.

He said construction of the Foton factory was "a big step for Nowra that will allow is a real expansion here. The bus manufacturing in Nowra will see a permanent factory established, will see a step up of another 20 jobs come on-stream, will see a very large facility here capable of housing 21 buses at a time, and a capacity increase as well," Mr Graham said. The factory will also be equipped to build hydrogen-powered buses, according to Mr Wang.

State Member for South Coast, Liza Butler, praised the way Foton was "bringing manufacturing back to NSW". She said Foton was skilling up its staff "to eventually build all of these buses from scratch right here in the Shoalhaven". State Member for Kiama, Katelin McInerney, said Foton was on "a wonderful journey" that would not only create jobs for staff and a wide range of contractors and suppliers, but also help revolutionise the state government's fleet of 8000 buses.

APAC Hydrogen Summit: Port Kembla Delegation

17 November 2025

The Port Kembla Hydrogen Hub recently hosted a delegation as part of the APAC Hydrogen Summit program being held in Sydney on the 20 and 21 November. The group included many international delegates from a broad array of countries including a large contingent from Germany. Delegates were given of tour of Port Kembla that showcased the clean energy ecosystem including the Coregas hydrogen refuelling station that has been operational since July 2023, Australia’s first for heavy vehicles.

A luncheon was held for the delegates at the BlueScope Visitor Centre with Deputy Mayor, Councillor Linda Campbell giving the official welcome. Presentations were given by representatives from Remondis, Foton Mobility Distribution, UOW and Hysata. On display at the Visitor Centre were the Remondis hydrogen powered refuse truck and Foton Mobility Distribution (FMD) hydrogen powered bus.

Image: Remondis hydrogen powered refuse truck in operation since October 2023 on display for APAC delegates

Remondis have been operating the hydrogen powered refuse truck since October 2023, another Australian first and have generated a lot of data and experience. FMD are establishing a heavy vehicle manufacturing facility at Nowra and are already assembling buses there in a temporary facility. The company has a policy of trying to maximise local content where possible. A good example of this policy is with regard to the Foton T5 Electric Truck, Australia's best-selling small electric truck used by Woolworths for home deliveries. The dealer optioned tipper body is now being made at Albion Park from BlueScope Steel instead of being fully imported.

Embattled steelworks should become a green iron beacon

17 November 2025

Embattled steelworks should become a green iron beacon | Illawarra Mercury | Wollongong, NSW

One of Australia's steelworks facilities should be turned into a green iron and steel hub to lead the worldwide race to decarbonise metals. But using gas rather than renewable energy to fuel production could undermine its potential and cost the government billions of dollars in subsidies, a report warns. Clean Energy Finance released the advice about South Australia's Whyalla Steelworks on Monday from a report endorsed by The Superpower Institute. It comes after the steelworks was forced into administration in February and received a $2.4 billion rescue package from federal and South Australian governments, including $1.9 billion to invest in its long-term future.

The 56-page report, called A Strategy for Whyalla, investigated potential outcomes for the facility, including its transition into a centre for green iron and steel production. Green iron is produced using renewable energy resources, such as solar, wind and hydrogen rather than coal or gas and has the potential to cut 90 per cent of emissions from the steelmaking process. The research found Whyalla well placed to take advantage of South Australia's high-quality magnetite iron ore deposits and its vast renewable energy supply to produce green metals.

Image: A redesigned Whyalla Steelworks could be a leading option in Australia's green metals charge. (Isabella Ward/AAP PHOTOS)

Australia had a rare chance to play a role in the emerging green iron export market, Climate Energy Finance director and co-author Tim Buckley said, if it acted swiftly. "Green iron is the biggest single opportunity for Australia in the next two decades but it's probably also the single biggest strategy risk for our country if we don't get involved and get moving," he told AAP. "We should be deploying and developing Australian based technologies and learning by doing." The report was highly critical of proposals to use gas rather than renewable energy to reduce iron and steel emissions as an interim measure, however, and estimated gas subsidies would cost taxpayers between $1.7 billion and $2 billion over a decade.

Using gas would also fail to meet green metal standards set by Europe, Mr Buckley said, and could limit its future export potential. "South Australia has got excellent magnetite resources, they've got brilliant renewable energy penetration and they've made really good progress on that," he said. "Their least competitive advantage is that (they have) some of the highest gas prices in Australia." The report issued several recommendations, including re-evaluating the use of gas at Whyalla, developing off-take partnerships for green metals and supporting green hydrogen production.

If governments made smart investments in the facility, The Superpower Institute chief executive Baethan Mullen said, it could provide jobs for decades. "There is an incredible opportunity for Whyalla to become Australia's first green iron and steelmaking success story," he said. "Government support for a gas option at this point would be a significant misstep." The Whyalla steelworks employs about 1100 people, produces iron and steel including rail products and its sale process began in June, overseen by administrator KordaMentha.

Image: Whyalla steelworks was forced into administration but received a $2.4 billion rescue package. (Isabella Ward/AAP PHOTOS)

Don't forget gas: industry calls for renewable support

30 October 2025

Don't forget gas: industry calls for renewable support | Illawarra Mercury | Wollongong, NSW

Australia should not put all of its renewable energy investments into just a few baskets, a group warns, as it will not address the nation's ongoing reliance on gas. More than 50 organisations, from energy retailers to manufacturers, issued an open letter to the federal energy minister on Thursday, calling on the government to extend financial support to renewable gas projects. The energy source, also known as biomethane, could reduce both emissions and prices, they say, while establishing a new renewable energy sector.

The call comes after the government listed biomethane as an emissions-reducing fuel in its Net Zero Report and after a study by Blunomy found Australia could produce significant amounts of the gas using existing materials. Renewable gas, or biomethane, is created by processing the gas generated from decomposing organic waste at facilities such as breweries, piggeries, dairies, abattoirs, landfill sites and wastewater treatment plants.

The processed biogas is compatible with the existing gas network, Bioenergy Australia chief executive Shahana McKenzie said, and was a proven technology with potential to cut emissions from hard-to-abate sectors. "The government has understandably been very focused on decarbonisation of the electricity sector over the last five years," she told AAP. "We really need the government to now pat its head and rub its belly at the same time and support decarbonisation of the gas network as well."

Image: Renewable gas is created by processing gas generated from organic waste from places such as farms. Photo: Dan Peled/AAP PHOTOS

The open letter to Energy Minister Chris Bowen calls for the government to broaden the eligibility of its Hydrogen Headstart and Hydrogen Production Tax Incentive schemes to include biomethane projects. Hydrogen had proven more costly to develop than expected, Ms McKenzie said, and while its production should be pursued, renewable gas projects could deliver results faster and require smaller investments. Australia operates 250 renewable gas facilities "behind the meter", she said, but co-investments would help to achieve larger scale production. "Gas is going to be needed for a long time in Australia," Ms McKenzie said. "What we are saying is let us help you decarbonise it so we can have it as a renewable (form of energy)."

Image: A study found Australia could produce significant amounts of the gas using existing materials. (Liv Casben/AAP PHOTOS)

A recent study into biomethane by Blunomy found Australia had enough material to create about 400 petajoules of the gas each year, priced between $10 and $27 per gigajoule. Companies who signed the call to fund renewable gas projects included AGL, Opal, Pepsico, Brickworks and Energy Networks Australia, whose chief executive Dom van den Berg said Australia should look to international examples such as Denmark. "Decarbonising Australia's economy requires exploring every available pathway, including renewable gases like biomethane," she said. "We should be learning from the countries already demonstrating what's possible and integrating these technologies to reduce emissions while keeping energy affordable and reliable."

Clean Energy Showcase #4

23 October 2025

Image: Clean Energy Showcase delegates at Hysata with CEO Paul Barrett

The annual Illawarra Shoalhaven Clean Energy Showcase, hosted by Invest Wollongong in partnership with the NSW Government, has underlined the region's growing leadership in driving Australia's transition to a low-carbon economy. With more than $750 million in recently completed energy projects — including the Squadron Energy LNG Terminal, Coregas Hydrogen Refuelling Station, Jemena Port Kembla Pipeline Duplication, and EnergyAustralia's Tallawarra A + B Power Stations — the Illawarra-Shoalhaven region is fast emerging as a powerhouse for clean energy innovation and infrastructure. The momentum continues with nearly $1.7 billion in proposed green hydrogen developments from BOC and ATCO, reinforcing the region's position as a key hub for Australia's clean energy supply chain.

Delegates at the showcase toured leading facilities including BlueScope Steel hub (supplying plate for renewable projects), Orrcon Steel Tube Mill (producing solar farm components), Hysata (pioneering electrolyser manufacturing), and Green Gravity (developing renewable energy storage solutions). From advanced steel manufacturing to next-generation hydrogen technology, the Illawarra-Shoalhaven is demonstrating how regional collaboration, innovation, and investment are powering Australia's clean energy future.

New BlueScope report shows 14 per cent drop in carbon emissions intensity and increased recycling

17 September 2025

Bluescope's sustainability targets for 2050 with lower emissions | Illawarra Mercury | Wollongong, NSW

A new sustainability report from BlueScope reveals it has reduced its steelmaking greenhouse gas emissions intensity by 14 per cent since the 2018 financial year. Total scope two emissions (indirect sources) dropped to 1700 ktCO2-e in the 2025 financial year compared to 1750 in 2024, while scope one emissions (direct sources) remained at 8,500 ktCO2-e. The steelmaker now also produces 52 per cent of its raw steel production from recovered and recycled scrap steel.

The report outlines BlueScope's framework to sustainability, which managing director and CEO, Mark Vassella, said "ensures transparency and accountability". "In a year marked by evolving industry dynamics and macroeconomic uncertainty, we focused on business resilience and delivering on our sustainability commitments," he said. "Our achievements this year are a testament to the strength of our people and the resilience of our strategy. "I have great confidence in our leadership and teams across the globe, as they build on our strong foundations for enduring business strength and growth."

Image: Inset, BlueScope managing director and CEO, Mark Vassella, main, file picture of BlueScope Steelworks at Port Kembla. Pictures by Anna Warr

The report is broken into four focus areas: action on climate and environment, safe thriving people and engaged communities, enduring business strength and growth, and responsible products and supply chains. BlueScope has set a target to hit net zero scope one and two emissions of greenhouse gases (GHG) by 2050, which it says is "contingent on five key enablers" in its Sustainability Report. The enablers are technology evolution, raw material supply, firm, affordable renewables, availability of competitively priced green hydrogen and supportive public policy. BlueScope has progressed partnerships with BHP, Mitsui Iron Ore Development, Rio Tinto, and Woodside Energy towards the NeoSmelt project, which would produce iron without the need for traditional blast furnaces.

The steelmaker has also secured supply agreements in New Zealand to increase scrap steel to be used across its operations, with continued investigations into biocarbon as a potential replacement for pulverised coal injection in the blast furnace at Port Kembla. "Our people at our three steelmaking sites identify and implement projects to optimise assets through energy and process efficiencies, including recycling increased amounts of scrap and energy, and moving towards low-carbon energy sources," the report says. "BlueScope's steelmaking GHG emissions intensity is estimated to be below 1.3 tC02-e per tonne by 2030. This would represent at least a 20 per cent reduction in BlueScope's steelmaking GHG emissions intensity on our FY2018 baseline."

Wollongong Council and Green Gravity announce partnership to advance renewable energy storage

14 September 2025

Wollongong partners with Green Gravity for clean energy | Illawarra Mercury | Wollongong, NSW

The Wollongong City Council and Green Gravity have announced a partnership which aims to position Wollongong and the Illawarra region as a hub for world-leading clean energy solutions. A Memorandum of Understanding (MOU) between the two will establish a strategic collaboration to advance renewable energy storage and decarbonisation outcomes across the region. The MOU will see Green Gravity and the council collaborate on multiple initiatives, including aligning Green Gravity's innovation pipeline with the council's investment prospectus priorities in clean energy, advanced manufacturing and technology and will run for two years.

Wollongong-based Green Gravity, run by former BHP executive Mark Swinnerton, is pursuing an innovative form of electricity creation using the vertical drop available in disused mine shafts. "Wollongong has both the legacy mining assets and the industrial demand profile to make it the natural home for our technology," Mr Swinnerton said. "By partnering with Wollongong City Council, we can unlock the region's potential as a global centre for innovation in clean energy storage while creating lasting economic and community benefits."

Image: Left, Green Gravity operation at BlueScope, right, Mark Swinnerton (left) and Greg Doyle sign a Memorandum of Understanding. Left pictures by Adam McLean, right picture supplied

The announcement comes on the back of the NSW Parliamentary Inquiry into Beneficial and Productive Post-Mining Land Use, which highlighted the potential of post-mining lands to support a range of sectors. An oversight group comprising Green Gravity and Council leaders will guide activities, with the partnership also set to explore a range of collaborative opportunities, including joint advocacy for government funding in the region. General Manager of Wollongong City Council, Greg Doyle, said the MOU would strengthen the Illawarra's position in the global clean energy transition. "This MOU reflects Wollongong's commitment to fostering partnerships that drive sustainability and economic transformation," he said. "Collaborating with Green Gravity not only supports decarbonisation, but also strengthens local industry capabilities and positions the Illawarra as a leader in the global clean energy transition."

Giant $150m battery at Unanderra would 'revolutionise' power delivery, company says

7 September 2025

$150m battery project to boost the transition to renewable energy. | Illawarra Mercury | Wollongong, NSW

Plans are in for a $150 million giant battery project at Unanderra that its owner says would accelerate the transition from coal to renewable energy. Endeavour Energy subsidiary Ausconnex has lodged plans for the high-voltage battery, which could store up to 200MWh of energy and supply up to 100MW of power to the surrounding region. The lithium-ion battery system would "revolutionise energy infrastructure", residents and businesses nearby were told in a letter drop in May. It would be constructed at Endeavour's Springhill field service centre on Glastonbury Ave at Unanderra, and could store solar-generated power when it's generated during the day for use when more power was needed, such as in the evening, when more appliances are used in households.

Image: The battery would be built at the Endeavour Energy site on Glastonbury Ave. Image not to scale.

The "battery" would in fact be a series of 40 large batteries, transformers and a control room, linked to the Springhill substation by underground cables. Ausconnex's application states that battery energy and storage systems (BESS) were "critical to ensuring reliable access to a cleaner and greener future for everyone", as they would accelerate the transition from coal to renewable electricity. "A BESS captures and stores electricity from renewable and non-renewable sources in commercial-sized batteries," the letter, sent to neighbours within a 1.5km radius of the site, stated. "The BESS releases this stored power when needed to meet energy demand. "Importantly, this process to invest in a renewable energy future produces no greenhouse gas emissions. "This initiative supports the upgrade to the existing electricity grid through the growth of renewable energy sources. "It helps to deliver safe, reliable, and cleaner power, contributing to the NSW Government's goal of reaching net zero emissions by 2050." It would be remotely operated and monitored 24-7, Ausconnex stated, and would operate for 20 years before being decommissioned.

Given the projected cost of $130-150 million, the project easily qualifies as State Significant Development and is being assessed through NSW Major Projects. Endeavour is also in the process of rolling out 54 community batteries across its network, enabling more homes to connect their solar power to the grid in a way that maximises their benefits. The utility company had said the high uptake of rooftop solar had created "congestion" for the power network as excess electricity is generated during daylight hours when less power is used. The first of these batteries in the Illawarra was switched on in Shell Cove and was followed in March by more in Dapto and Warrawong.

Winds of change: reforms coming for renewable energy

6 September 2025

Winds of change: reforms coming for renewable energy | Illawarra Mercury | Wollongong, NSW

Any map will suggest Australia, an island nation with the world's sixth largest coastline, is a natural candidate for offshore wind projects. While rooftop solar leads the way in our energy generation, wind turbines could keep the lights on in thousands of homes with just a few ventures, according to

Rewiring Australia chief executive Francis Vierboom. "Offshore wind is a great opportunity to get a lot of energy into the system that's renewable," he says. "It will be critical for Victoria's ability to turn off coal and it will play a similar role if we can make it happen in Newcastle where there are bigger power stations."

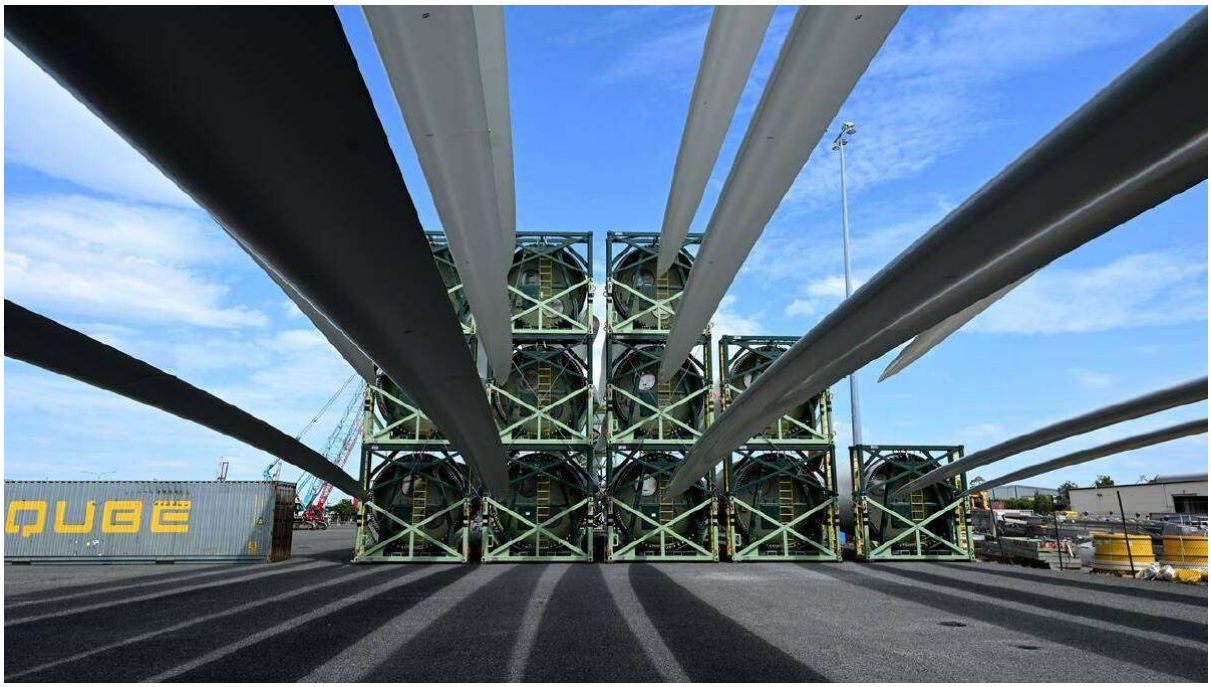


Image: Offshore wind technology could give Australia a big energy boost but projects are facing obstacles. (Darren England/AAP PHOTOS)

But strong headwinds have struck the technology, with companies backing out of multibillion-dollar projects off the NSW and Victorian coasts in recent weeks, rising construction costs and waning support in the US. Changes being proposed by the federal government could make it easier for companies to assess offshore projects, but experts say Australia may still need to change the direction of its plans.

Wind is used to generate more than 1174 gigawatts of power around the globe, according to the World Wind Energy Association, with China leading the way by a large margin followed by the US and Germany. In Australia, wind creates 13.4 per cent of energy in the national grid but all of it is created by turbines on land. By installing turbines 10-30km off the coast, Climate Council spokesman Greg Bourne says the technology could play a significant role in swapping fossil fuel for renewable energy. "Wind is going to play as much of a role as solar," he tells AAP. "The sun does go down but the wind tends to blow day and night and therefore it has a portfolio effect which becomes very, very beneficial."

Six areas off NSW, Victoria, Western Australia and Tasmania have been declared offshore wind zones, ready for development. But each is different, Mr Bourne says. Shallow waters are available in some like Gippsland in Victoria and Bunbury in WA and are suitable for fixed, gravity-based turbines. Others with deeper water would require floating constructions. "Floating structures are much more expensive and you really need to know that you can get your project away," he says.

Image: Deeper water offshore farms require more expensive floating constructions. (AP PHOTO)

Two major offshore wind projects proposed for Australia have been abandoned in recent weeks, including a $10 billion development that would have been the first to deploy floating turbines. Norwegian firm Equinor that had backed the Novocastrian Offshore Wind Farm, to be located off Newcastle and Port Stephens, withdrew from a feasibility licence in August, leaving its Australian partner, Oceanex, unable to pursue it. A second $10 billion offshore wind project, called Gippsland Dawn, shut down in July when a shareholder behind Blue Float Energy decided the industry was no longer commercially viable.

Around the world, offshore wind projects suffered an 18 per cent decline outside China during 2024 and the US government has since withdrawn approvals from several existing projects. Danish firm Orsted has launched a lawsuit against the administration this week for preventing work on its offshore wind project when it was 80 per cent complete. The market instability is making companies rethink investments in the technology, Climate Energy Finance director Tim Buckley says. "We've just had a reality check from Trump destroying offshore wind in the US," he says. "Offshore wind is going to be a very financially challenged proposition here in Australia."

Image: Orsted has launched a lawsuit after work was halted on a project that was 80 per cent complete. (AP PHOTO)

Combined with inflated construction costs and untested floating turbine technology, he says, offshore wind is unlikely to play a role in helping Australia reach its target of 82 per cent renewable energy by 2030 but could help to tackle the remaining 18 per cent. "Offshore wind could play a key role if Australia decides we are going to go to 100 per cent decarbonised electricity by 2040. "It probably be the last five per cent." To boost the technology's potential, federal Energy Minister Chris Bowen last month launched a public consultation for 10-year research and demonstration licences in declared zones.

Licences would allow companies to use monitoring equipment in dedicated areas, such as specialised buoys, before applying for a feasibility licence. Satya Tanner, who leads the Australian arm of offshore wind consulting firm LAUTECH, says companies who seek to develop Australian projects take significant financial risks, betting on both environmental conditions and off-take agreements from state governments.

Introducing a less costly path into the industry could boost its chance of success, she says, particularly if financial assistance follows. "Some R&D licences will allow us a bit more poking around without having to commit to a full project and I think that's a really great idea," Ms Tanner says. "It's a bit like walking in the fog and only being able to see three steps ahead and an R&D opportunity would give you the ability to see a bit more than three steps ahead." Australia will need a lot more renewable energy to reduce emissions from its biggest exports, such as iron ore, she says, and offshore wind projects could ensure continued export revenue and jobs in smelters and steelworks. "If we do not make this shift towards clean electricity-based exports then it's not looking good for our economic future," Ms Tanner says.

Thoughts on BlueScope's plan to rezone land 'the size of Monaco'? Now's your chance

5 September 2025

Giant BlueScope land transformation to reshape Illawarra's future | Illawarra Mercury | Wollongong, NSW

The massive plans to rezone unused BlueScope industrial land are now on public exhibition. Described as "the world's current largest industrial land transformation", the steelmaker's proposal outlines plans which would rezone 200 hectares of land not currently being used by the Port Kembla Steelworks for use in a "future-focused hub". Doing away with the land's current heavy industry zoning, the hub would provide space for advanced manufacturing, tech start-ups, and industry-led research into new materials, automation and clean technologies. The proposal will also provide other land uses, as well as opportunities for community and recreational infrastructure.
A partnership to develop a "super TAFE" on the site was announced in 2023 as part of the masterplan for the location.

As significant as steelmaking
NSW minister for planning and public spaces, Paul Scully, said the site had the potential to have the "most significant difference to the Illawarra's industrial landscape since steelmaking commenced nearly 100 years ago and the biggest change to our local economy since the University of Wollongong became an independent institution 50 years ago." "This site is about the same size as Monaco and has the potential to transform the local economy and create 30,000 jobs," he said.

"The Port Kembla Steelworks has been at the heart of Wollongong for nearly a century, shaping our city, our economy and our identity. "This transformation is about honouring the site's industrial history while building a precinct that brings new industries and new jobs to the Illawarra."

Image: Aerial shot of the vacant land. Picture by Adam McLean

The operation of the steelworks and port would continue uninterrupted during the project, while several historic buildings on the site would be preserved and repurposed. The proposed areas included in the redevelopment include the No.1 Steelworks site, which was first used for steelmaking in 1928. A survey conducted in 2023 by RepTrack found 86 per cent of the 515 community members who responded supported the transformation project. BlueScope's head of property development, Michael Yiend, said the public exhibition was a "significant milestone" for the project. "This transformation will complement existing and future steelmaking operations while attracting emerging industries to the site, creating a multi-decade pipeline of investment, economic growth, and new local career opportunities," he said. "We are proud to work alongside the NSW Government, Wollongong City Council, and the community to realise this vision and reinforce the Illawarra's key role in Australian industry, driving sustainable growth for decades to come."

Image: Program for rezoning. Picture supplied

The plan will remain on public exhibition until October 5, 2025, with community members and stakeholders invited to provide feedback on the proposal. It is estimated once the public exhibition is over, a ministerial determination for the proposed rezoning will be made in late 2025.

Green hydrogen is hitting hurdle after hurdle — can anything get it moving?

4 September 2025

Green hydrogen is hitting hurdle after hurdle — can anything get it moving? - ABC News

A few years ago, green hydrogen was the talk of Gladstone. A town built on coal was going to turn green, as the new zero-emissions fuel would become the backbone of its energy-hungry industry. Chris Skerman, who runs a local civil construction and industrial maintenance firm, remembers the conversations. "Very, very big projects were being discussed — billions and billions of dollars worth of construction in the area," he said. "It was pretty exciting." Some of the work did arrive, including Fortescue's $150 million green hydrogen facility on the city's outskirts that opened in April 2024. Just over a year later, it is now sitting silent. Fortescue has heavily scaled back its ambitions for the technology, while others have pulled out of hydrogen altogether. Mr. Skerman said the hope — and hype — around hydrogen had left many around Gladstone dismayed. "I don't think too many people know what the future is for hydrogen at the moment," he said.

A hard year for hydrogen

The news for advocates of Australian green hydrogen in the past year or so has been almost relentlessly bad. The headline was the axing of a $14 billion project in Gladstone backed by the Queensland government-owned Stanwell Corporation. Late last year, Origin Energy pulled out of a massive project in the Hunter and withdrew from hydrogen altogether, arguing the maths was not adding up. Its partner in the Hunter project, explosives manufacturer Orica, is still pushing ahead — with the federal government committing more than $430 million for a scaled-back project near Newcastle.

Image: Excitement around green hydrogen has faded in Gladstone, with an uncertain future facing business owners like Chris Skerman. *(Adam Kennedy/ABC News)*

Billions of dollars in support are expected to flow to the green hydrogen and critical minerals sectors — if they actually produce it. Here's what the new tax credit scheme looks like. And Fortescue confirmed in July this year that it had dumped its Gladstone hydrogen project, along with another in Arizona. The resources giant has been one of the technology's biggest backers, with billionaire executive Andrew Forrest using a 2023 speech to label hydrogen's doubters "muppets". Fortescue is not pulling out of hydrogen altogether, as it remains committed to using the technology to manufacture green iron at its Christmas Creek mine in the Pilbara. The company's metals and operations chief executive, Dino Otranto, said there were no regrets about the steps taken so far. "I certainly don't think that we've made judgement errors or huge mistakes in this space," he said.

"Any new energy will involve taking some risk on a number of different technologies. Some will pay off, and some won't. "That's just the normal course of business. But just because it's hard doesn't mean that we shouldn't do it." Fortescue was awarded more than $44 million in federal funding for its Gladstone plant, which it has said it intends to repay where it can.

High hopes meeting hard economics

The 'renewable superpower' idea for Australia is relatively simple. Australia's vast landscape provides enormous capacity to generate solar and wind energy, both of which have fallen sharply in price in recent decades. That energy can be used to produce green hydrogen, which can then be used to make products like green iron and green ammonia for export across the globe. On top of that, some sectors simply cannot be decarbonised without switching from gas to hydrogen.

Image: Resources company Fortescue insists it has not overcommitted on green hydrogen plans. *(Adam Kennedy/ABC News)*

Governments have put serious money on the table to help make hydrogen a reality. The former Morrison government was the first to invest hundreds of millions of dollars in 'hydrogen hubs' around the country. But the Albanese government has really stepped up the pace. So far, $4 billion

in taxpayer support has been earmarked for the sector, primarily available as 'production credits' — paid for each kilogram of hydrogen produced. But energy analyst with MST Financial, Saul Kavonic, said there was little to show for it. "All those hopes that we would see this big green hydrogen economy have pretty much come to nothing," he said. He said the key challenge yet to be overcome is simple — it is too costly. "Ultimately, what it comes down to is green hydrogen is very expensive to produce," he said. "It starts with electricity, usually solar or wind, and then it creates hydrogen from that, which can then be used as a fuel which is completely green. "The problem is the cost of this fuel is, at the moment, 300 to 700 per cent higher than, for example, a similar competing source of energy, which is gas. "In order for green hydrogen to ever get competitive, we need to see significant cost reductions, not just in electrolyser equipment, but actually in the source of energy as well."

Bowen argues government role is more important than ever

Despite the hydrogen headwinds, the Albanese government is maintaining its faith in the green fuel. Energy Minister Chris Bowen compared the technology to solar and batteries, arguing that both started out unfeasibly expensive, but have fallen sharply in price over time. "Yes, it's taking longer than I would like to become commercial. It's taking longer than some people predicted," Mr Bowen said. "But the work continues, and its opportunity and potential remains.

"And in some ways, that makes it more important for governments to remain interested, not less important." The minister said the best argument for green hydrogen was that when it comes to decarbonising some sectors, there was simply no alternative. "Things like cement making, and steel making, and fertiliser making, and plastics making," he said. "If you're serious that that has to decarbonise, as basically anybody who's serious about climate change is, then green hydrogen has to continue to be developed. "When you think about decarbonising industry, show me what can replace natural gas around the world. And it's only one thing — green hydrogen."

Image: Energy Minister Chris Bowen looking over plans for a green hydrogen plant earlier this year. (ABC News: Ben Clifford)

Australia's green hydrogen ambitions have not been constrained to Australia. Germany has invested its own taxpayer funds in helping develop Australia's hydrogen industry, and has joined with Australia to provide $660 million in backing to a global hydrogen auction — aimed at securing buyers for the industry. That auction is planned to take place either late this year or early next year. Australia has struggled in recent years to make progress, with emissions marginally climbing in 2024.

Germany wants to use green hydrogen to decarbonise its massive energy-hungry industries, but has little capacity to produce the fuel domestically. Germany's ambassador to Australia, Beate Grzeski, said the country was still relying on Australia's sector taking off. "Germany remains committed to its decarbonisation goals and the importance of green hydrogen, especially for the industry. In the future, we will depend on hydrogen imports," she said. "Despite the withdrawal of projects, we still see a significant number of projects in the pipeline and the potential of Australia's resources. "This continues to make Australia one of Germany's most important partners with regard to hydrogen."

A smaller, less ambitious short-term

Many of those looking to the future for green hydrogen argue the best step is to limit ambition. Energy program director at the Grattan Institute, Alison Reeve, helped shape Australia's hydrogen strategy while working in the public service at the end of the past decade. She said a lot has been learned about hydrogen in the past few years — including that the industry was going to have to start small, and build more slowly than many had hoped. "A couple of years ago, a lot of the projects that were floating around were absolutely gigantic," she said. "They would have required electricity infrastructure equivalent to the entire energy market that we have now. You would have had to build a second energy market to support them. "We're now in a phase where people are going, 'actually, let's just take the intermediate step'.

Image: A green sign for Hydrogen Power SA erected on a vacant arid site in Whyalla

Do the project that maybe replaces seven per cent of current hydrogen in an ammonia plant with green hydrogen. "And it makes sense for us to do those intermediate projects. Actually take slow and steady steps, rather than trying to make this gigantic leap to projects the scale of which we would never have built in this country." Ms Reeve said the massive subsidies offered by the Albanese

government were aimed at supporting a massive industry — and came partly due to an 'arms race' with the former Biden Administration in the US, which was offering much larger subsidies of its own.

She said it might be time for a rethink about how the industry was supported, moving away from tax credits that are only paid when companies make a profit, and being open to seeing projects fail. "When you are dealing with an industry that is at a very early stage of its development, you should be worried if projects are not failing," she said. "That is actually kind of a necessary stage to go through for new industries. "We should expect that there will be projects that fall over that have to pay back their grants to the government and that sort of thing."

Chris Bowen said there was still life in the industry. The SA government's plan to build a major hydrogen electrolyser and power plant near Whyalla has been scrapped, with the premier blaming the lack of progress on a plan for green steel at the local steelworks for the decision. "Reports of the death of green hydrogen are, in my view, exaggerated," he said. "I don't discount the headwinds and the challenges, but nor do I discount the opportunities and the potential." For those pinning their hopes on the sector booming, there are still plenty of nerves.

The mayor of Gladstone (and former Labor candidate), Matt Burnett, said governments should have been open to developing a hydrogen industry with gas — so-called 'blue hydrogen' — before transitioning to renewable-fuelled green hydrogen. "Some of these projects were probably scaling up too big, too fast," he said. "I've always supported all sorts of hydrogen, not just green hydrogen. Blue hydrogen was always a good option." Chris Skerman in Gladstone said the big money promised for green hydrogen investment was exactly the sort of thing his region needs. "This is the industry town — we build those sorts of things all the time and run these plants quite regularly," he said. "So a lot of the area is built on the back of that sort of work. So our economy needs it."

The Illawarra businesses given a nod in parliament for 'making net zero a reality'

2 September 2025

Illawarra's climate action spotlighted in Parliament by Byrnes | Illawarra Mercury | Wollongong, NSW

Businesses and community members of the Illawarra were given a nod in the House of Representatives as politicians debated renewable energy. Member for Cunningham, Alison Byrnes, highlighted multiple projects underway in the Illawarra, which are working towards net zero, during a speech against the Repeal Net Zero Bill 2025, Monday, September 1. The bill was introduced by Nationals MP Barnaby Joyce and would repeal multiple pieces of legislation related to the government's climate targets. Ms Byrnes called the bill a "farce" and while the coalition debated whether there should be a net zero target, industry and communities in the Illawarra were "forging ahead with making net zero a reality".

Ms Byrnes highlighted companies like Hysata, making hydrogen electrolysers in the Illawarra, Bluescope Steels, relining and upgrading its blast furnace and the Energy Future Skills Centre at the University of Wollongong. "What we need to do is secure the jobs of the future in the clean tech space, and I've worked hard to make sure that the Illawarra can seize those opportunities," Ms Byrnes said. "I have spent the last three years working with both traditional and emerging industry to ensure that our region is at the forefront of this energy transition." Ms Byrnes also highlighted programs like the community battery program in Warrawong and Dapto, and Electrify 2515, the

pilot program currently under way led by Saul Griffith and Rewiring Australia. "Local people, businesses and community organisations all know the one thing that the coalition wants to ignore," she said.

Image: Federal MPs Ed Husic and Alison Byrnes with Paul Barrett from Hysata in 2024. Picture by Sylvia Liber.

"They know that climate change is real, they know it needs urgent action, and they know we must take action now. "Achieving net zero by 2050 is absolutely critical. I back it." Opponents of the 2050 target are ramping up pressure on their leaders to ditch the target, saying it's hurting regional Australia and driving up power bills as Australia phases out coal and boosts renewable energy investment.

Offshore wind

Ms Byrnes also accused the "liberals and their buddies" of blocking the Illawarra offshore wind zone. "The Illawarra offshore wind zone is another project I have proudly and loudly backed because I know that we need to be looking at every single opportunity for good, clean tech jobs in our community and because I back our clean energy future," she said. "They [the coalition] hounded and hounded and hounded this project down, spreading misinformation to try and scare our local community, because they don't actually want us to invest in those clean tech jobs of the future, and that is just shameful. "We cannot be deterred from looking at clean tech jobs because of a few loud voices. This is far too important for our future."

Contact

The **Port Kembla Hydrogen Hub** is funded by the Illawarra Shoalhaven Joint Organisation (ISJO) and NSW Government. For further information, please contact Jessica Young, Port Kembla Hydrogen Hub Facilitator by email: info@portkemblahydrogenhub.com.au. Previous editions of the **Port Kembla Hydrogen Hub Update** newsletter are available here.