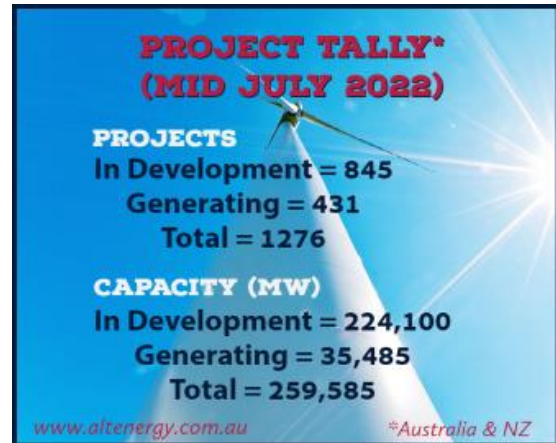




WATTS NEWS

Week ending 2 September 2022

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Barwon Renewable Energy Partnership secures wind power agreement

25 August

The Barwon Renewable Energy Partnership (B-REP) of Barwon Water, Barwon Health and GeelongPort has collectively taken a big step towards using 100% renewable electricity and producing net zero emissions having secured a power purchase agreement (PPA) with a local wind farm.

The B-REP recently entered a PPA with the Mount Gellibrand Wind Farm near Birregurra for the provision of 68 gigawatt hours a year of renewable electricity. ACCIONA Energia's [Mount Gellibrand Wind Farm](#) has been operating since 2018 and has 44 turbines, each with a capacity of 3 megawatts.

The 10-year agreement will see the renewable electricity produced at the farm and sent to the grid allocated to the three organisations, offsetting the energy used at their facilities.

Barwon Water Managing Director Tracey Slatter said she was thrilled to be working with Barwon Health and GeelongPort to support the region's transition to renewable energy.

"Barwon Health and GeelongPort play such significant roles in our region and we're proud to partner with them to enter into a long-term arrangement for the supply of renewable energy from a local provider.

"This project is the final step to meet Barwon Water's target of using 100% renewable electricity by 2025, and a huge step towards Barwon Water's target of achieving net zero emissions by 2030. It is really exciting in terms of action on climate change, and I couldn't be more proud of the work that has been done to get us there."

Ms Slatter said that previously, more than 80% of Barwon Water's emissions came from the use of electricity sourced from the grid.

"The turbines at Mount Gellibrand Wind Farm will deliver Barwon Water 45 gigawatt-hours a year of renewable electricity – more than 100% of our total electricity needs in an 'average year' (and 75% in a very dry year).

"It will complement our existing on-site, behind-the-meter generation (such as the 3-megawatt Black Rock Solar Farm) and the Zero Emissions Water Power Purchase Agreement with Kiamal Solar Farm."

Ms Slatter said the project would help contribute to Victoria's renewable energy and emissions reduction targets and contribute to creating new jobs and further developing the renewable energy sector.

"This initiative is a major step in reducing carbon emissions in the region and will help each of the participating organisations offset rising energy costs, which in turn will help to reduce operating costs."

GeelongPort Chief Executive Officer Brett Winter said investing in clean energy opportunities was essential for tackling climate change and GeelongPort was excited to be partnering with leading organisations such as Barwon Water and Barwon Health to support the development of renewable energy facilities in our region.

"Sustainability is a core value at GeelongPort, because not only do we work here, but we live here too. Our Environment Strategy has the bold vision to be Australia's most environmentally sustainable bulk port.

Source: Barwon Renewable Energy Partnership

The full announcement is available at <https://www.barwonwater.vic.gov.au/about-us/news-and-events/news/barwon-region-renewable-energy-partnership-secures-wind-power-agreement>

NEW PROJECT

Wallaby Creek Wind Farm

Location: Approximately 10 kms south of Narromine in the Narromine Shire Council LGA, New South Wales

Capacity: Up to 250 MW

Developer: ACCIONA Energy

Status: In feasibility stage

Estimated cost: Up to \$425mil

Description: The proposed [Wallaby Creek Wind Farm](#) will consist of up to 44 X 5.7 MW wind turbine generators and associated infrastructure across approximately 8000 hectares of pastoral and cropping land. The project is situated within the Central West Orana Renewable Energy Zone. It is proposed to connect to Essential Energy's 132kV Narromine South Switching Station, located approximately 10km north of the project. Construction is anticipated to start in late 2024. Map location accuracy = high.

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https://www.acciona.com/projects/wallaby-creek-wind-farm/?_adin=02021864894

Goyder South Stage 1 is the first part of Neoen's Goyder Renewables Zone, wind, solar and storage. Goyder South has received development approval for a total of 1200 MW of wind generation, 600 MW of solar generation and 900 MW of battery storage capacity, making it the state's largest renewable project.

At 412 MW, Goyder South Stage 1 is significantly bigger than the next biggest wind farm, the Snowtown Stage 2 site, which is 270 MW.

South Australian Premier Peter Malinauskas and Energy Minister Tom Koutsantonis attended the formal commencement of construction at the site in Burra in the state's mid-north yesterday.

Representatives from the local Ngadjuri Nation people joined Neoen Australia's Managing Director Louis De Sambucy, Department for Energy and Mining Chief Executive Dr Paul Heithersay, and local service providers, land-owners and communities of the Mid North region to mark the occasion.

The South Australian government's \$593 million Hydrogen Jobs Plan will unlock as much as \$20 billion worth of renewable energy projects, according to expert analysis.

Source: SA Government

Construction begins on SA's biggest wind farm

26 August

Construction is commencing on South Australia's biggest wind farm, with Neoen's [Goyder South](#) project to deliver an additional 412 MW of capacity to the grid in South Australia.

The wind farm will consist of 75 turbines and is expected to be operational in 2024. The project will create more than 400 jobs during the construction phase.

The commencement of construction work on the Goyder South project is a significant moment for renewable energy in South Australia.

Construction of the Darwin-Katherine 'Big Battery' underway

29 August

The Territory Labor Government knows that investing in renewables delivers clean, affordable and reliable energy for Territorians, attracts new private investment and creates more local jobs.

Construction is underway for the Territory's \$45 million big battery – known as [Darwin-Katherine Battery Energy Storage System](#) (DK

BESS) - with earthworks complete, heavy foundations, in-ground services and culverts well underway.

The 35MVA battery is expected to pay for itself in approximately five years and deliver cost savings of around \$9.8 million per year. It will also reduce emissions by about 58,000 tonnes per annum.

The Darwin and Katherine Electricity System provides energy to 150,000 Territorians and the DK BESS is the first step towards reducing the use of gas generators for the system.

It will unlock further capacity for households to connect their rooftop solar and for industry to invest into lower cost solar systems for commercial and industrial operations.

The DK BESS is expected to be operational in 2023, with battery installation due to commence late this year.

Quotes from Chief Minister, Natasha Fyles:
“We’ve backed renewables and so have Territorians - they know renewables deliver cleaner, cheaper and secure power.

“The cutting-edge technology in our Battery Energy Storage System will reinforce the Northern Territory as the solar capital of Australia. It will store power and be the backbone of the Darwin to Katherine Electricity grid.

“The Territory Labor Government is backing Territorians, solar and lower prices to get it done.”

Quotes from Minister for Renewables and Energy, Selena Uibo:
“Construction of the Darwin-Katherine BESS is a huge step forward in our plan for 50% renewables by 2030.

“Our electricity will be more reliable and stable, whilst maintaining affordability for Territorians.

“Our future is renewables. This is why we are investing now in the BESS and hydrogen powered generators so we can have clean and efficient energy to help reach our renewables and net zero emission targets.”

Quotes from Territory Generation CEO, Gerhard Laubscher:

“The Darwin-Katherine battery not only delivers on a portion of the Government’s Darwin-Katherine Electricity System Plan but is also key to unlocking flexibility in our generation fleet to better manage the increasing impacts of solar on the system.”

Northern Territory Government

NEW PROJECT

Helios Energy solar development update

29 August

Helios Energy today provided an update of its national grid-scale solar development programme, confirming the first two priority developments in its project pipeline.

Helios is a collaboration of renewable energy developers that has been developing a pipeline of high-quality, grid-connected solar developments across New Zealand over the last two years.

Helios director, Jason McDonald, said the company’s [first development](#) would be an approximately 115-megawatt project, located to the north-east of Transpower’s Edgumbe substation, near Whakatāne.

He said the project – enough to generate enough clean electricity for approximately 25,000 homes – has been under active investigation for more than two years. Helios has secured the exclusive right to lease 165 hectares of land for the project.

“With high sunshine hours, solar is a perfect fit for the region and for leading New Zealand’s transition towards a clean energy, low carbon economy. Solar energy is reliable,

uses very little water, produces no emissions, makes very little noise, is quick to construct and can generate large volumes of the lowest cost electricity currently available,” he said.

“The Edgecumbe project will be a high-quality development that is being carefully designed to minimise visual impacts. Solar has the lowest profile and visual impact of any renewable energy technology and can be effectively screened with established native planting.

“Additionally, the land will remain in agriculture and continue to be grazed by sheep around and under the panels. The land can be quickly returned to its original state at the end of the project’s life.”

There will be significant economic benefits for local communities over the 12-month construction period, through using local contractors, creating training opportunities and accommodating specialists from outside the region.

Jason McDonald said the project was the first grid-scale solar development in the country to receive contracted permission to connect to the national grid. He thanked Transpower for the way it had worked closely with Helios to provide the grid connection agreement, noting it was significant for both parties.

Transpower General Manager, Customer and Strategy, Chantelle Bramley said the agreement was the first of many to come as New Zealand moves towards electrification of the economy as part of lower carbon future.

“The signing of our first grid connection agreement with a solar developer is a positive milestone for New Zealand’s energy future. We congratulate Helios and we look forward to working with them as the project comes to fruition. Transpower has a large pipeline of connection enquiries, and we expect to sign many more connection agreements for renewable energy projects as New Zealand moves to decarbonise its economy.”

Helios is currently developing a resource consent application which it expects to file with the District Council over the coming months.

Jason McDonald said the company was also investigating the potential for a project of up to 100-megawatts to the south of Greytown in the Wairarapa and was beginning to engage with local stakeholders on the project.

He said Helios had secured an exclusive right to lease the required land from an established Greytown farming family and was making good progress on connecting the project to the local electricity network. He said the site was already well screened from neighbours and the road with shelterbelts and, with additional planting, could be developed without impacting the unique character of Greytown.

“We’re in earlier stages of investigation with the Wairarapa site and are looking forward to discussing the project, and how the benefits of the project to the region might be maximised, with the local community.”

Jason McDonald said the company is also making good progress on a range of other potential developments across the North Island and the central and lower South Island.

Source: Helios Energy

\$5.9 million community benefit contribution with Oxley Solar Farm

29 August

Councillors unanimously endorsed an agreement with [Oxley Solar Farm](#), a 225 MW solar farm proposed east of Armidale, for them to make a community benefit contribution of around \$5.9 million.

Mayor Sam Coupland said he expected that this would be the first of many such deals over the coming years as part of the NSW

Governments New England Renewable Energy Zone (REZ).

“Our REZ will offset almost 11 percent of Australia’s current CO2 emissions and is the equivalent of planting around 500,000,000 trees or removing 12.5m cars from our roads,” said Mayor Coupland

“Our community expect that our contribution to the national emissions task is recognised and the impacts of individual projects minimised.”

One of the first orders of business of Mayor Sam Coupland when he was elected in January this year was to draw a line in the sand with the NSW Government on their proposed New England Renewable Energy Zone. Mayor Coupland presented a statement of expectations to the NSW Government in March which outlined a number of requirements that renewable energy developers would be expected to meet if they proposed to construct wind or solar farms in our region.

Historically wind and solar farms have contributed little in employment (outside construction phases) and almost nothing in community benefit contributions, however, Council is now very clear that developers can expect little support if they are not engaging meaningfully with locals, minimising the impact of their project and making appropriate financial contributions to the community.

Oxley Solar Farm met one of those expectations by agreeing to make a community benefit contribution of \$5.9 million over the next 20 years with approx. \$2.79m due on commencement of construction and the remaining amount payable over 20 years. They have also significantly scaled down the original footprint of the solar farm in response to local submissions and in an attempt to minimise their impact.

Oxley Solar Farm still needs to address a number of issues raised in public submissions in order to obtain the necessary State Government approvals and Mayor Coupland pointed out that the community benefit deal doesn’t guarantee the Oxley Solar Farm will receive State Government planning approval.

“There is still a substantial part of the State Government assessment process to undergo on this project and I would encourage our community to continue to actively participate in that process,” said Mayor Coupland.

“Council intends to review thoroughly how Oxley have responded to concerns raised by the local community and will provide feedback on that to the NSW Government.”

Source: Armidale Regional Council

NEW PROJECT

Thomastown BESS

Location: Thomastown, Victoria

Capacity: 300 MW/600 MWh

Developer: AusNet Services

Status: Planning application submitted to state government

Description: AusNet is planning to install a [Battery Energy Storage System](#) (BESS) and associated infrastructure to the northwest of the existing Thomastown Terminal Station. The project involves construction of approximately 200m of connection assets to link the BESS to the adjacent Thomastown Terminal Station. As part of the project the terminal station will be upgraded. Subject to planning and grid connection approvals, the Thomastown BESS is expected to be operational in 2025.

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NEW PROJECT

Mayfield West BESS

Location: Mayfield West, City of Newcastle, NSW

Capacity: 28 MW

Developer: Steel River West

Status: Approved by state planning authority

Expected cost: \$29.47mil

Description: The proposed [Mayfield West battery system](#) will comprise of a 28 MW lithium-ion battery energy storage facility using one of three different battery options. The three options involve containerised batteries, Tesla Megapack or a 'generic' battery system similar to the Tesla Model. It will connect to the local Ausgrid 33kV electrical distribution network. Project managed by Precinct Capital & Edify Energy.

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Registered industry interest includes:

- More than \$35 billion in potential investment from 10 wind generation projects, with 8 located offshore, totalling 12.9 gigawatts of generation capacity;
- 5 solar projects;
- 16 energy storage projects including 11 batteries;
- 4 pumped hydro projects;
- 4 hydrogen production and two hydrogen electricity generation projects; and
- 3 new load projects including green steel manufacturing.

“This highlights the variety of large-scale energy projects being developed in the region, that will ensure the Illawarra plays a role as the powerhouse of the renewable energy economy,” Mr Kean said.

“The Illawarra has a proud history of manufacturing and the REZ will only build on this legacy, with ROI projects including emerging manufacturing industries such as green steel production.”

Illawarra REZ attracts \$43 billion in potential investment

29 August

The Illawarra Renewable Energy Zone (REZ) has attracted \$43 billion worth of potential investments in response to a call for expressions of interest for large-scale energy and green manufacturing projects.

Minister for Energy Matt Kean said 44 projects were registered – including offshore and onshore wind, solar, energy storage, pumped hydro, green hydrogen and green steel – potentially delivering 17 gigawatts of generation and storage capacity.

“The response has been tremendous, with particularly strong interest in offshore wind, energy storage technologies and green hydrogen,” Mr Kean said.

“The Illawarra REZ will help deliver cheap and reliable energy, power existing industries, support emerging industries to thrive and create thousands of new jobs in the future.”

The information provided through the ROI will be used by the Energy Corporation of NSW (EnergyCo) to inform the timing, capacity, design and location of the Illawarra REZ and is the first step in engaging with industry on its design.

EnergyCo will be engaging closely with industry, local government, local communities and other stakeholders as it progresses the design and delivery of the REZ.

The Illawarra REZ is expected to be formally declared under the NSW Government’s Electricity Roadmap legislation by the end of 2022.

Source: NSW Government

Equinor and Oceanex Energy team up to pursue offshore wind opportunities in New South Wales, Australia

30 August

The Norwegian broad energy company, Equinor and leading Australia and New Zealand offshore wind developer Oceanex Energy (Oceanex) are teaming up to progress offshore wind opportunities in New South Wales, Australia.

The Commonwealth Government has signalled a strong desire to develop an offshore wind market in Australia with new legislation and an emerging regulatory framework coming into effect recently.

The collaboration will combine Oceanex's local knowledge and experience gained over the last decade with Equinor's world-leading offshore experience and pioneering role in the development of offshore wind.

Oceanex has prepared the ground for offshore wind projects in New South Wales over several years with a focus on the Hunter Valley ([Novocastrian Offshore Wind Farm](#)), Illawarra ([Illawarra Offshore Wind Farm](#)) and South Coast ([Eden Offshore Wind Farm](#)). Once the relevant declared areas have been announced by the Commonwealth Government, the two companies intend to submit feasibility licence applications for offshore wind acreage in these regions.

Lars Johannes Nordli, Vice President Business Development Renewables Asia & Pacific in Equinor said, "Australia has set a net-zero target by 2050 and has signalled a strong desire to accelerate renewable energy as part of its energy mix. Our ambition is to apply our industrial offshore experience and broad energy competence to create long-lasting value and supply homegrown renewables power to Australia by working closely with a strong local partner such as Oceanex in New South Wales. Assessing renewable opportunities in Australia supports our

strategy as a global offshore wind major to build scale in core areas and secure growth options in attractive new markets early."

Andy Evans, Chief Executive Officer, Oceanex said, "We are delighted to be partnering with Equinor on offshore wind opportunities in New South Wales. We believe that Equinor, as leaders in offshore wind and floating foundation development, are the ideal partner to progress these exciting projects. Our optimism is heightened by detailed stakeholder engagement, strong industrial bases, especially in the Hunter and the Illawarra, and our high-level environmental studies and grid studies which support large new infrastructure uptake and State and Commonwealth policies. We look forward to continuing the development of our projects in New South Wales and working closely with Equinor to build this new industry in New South Wales."

Equinor and the shareholders of Oceanex will co-invest in entities to explore these opportunities, with the transaction expected to complete in Q4 2022, subject to relevant approvals.

Source: Oceanex

PROJECT UPDATE

Quorn Park Solar Farm

The federal Department of the Environment has declared Renewable Energy Developments' proposed [Quorn Park Solar Farm](#) a non-controlled action so EPBC Act approval is not required. The proposal is for an 80 MW AC solar farm development site located ~10km north-west of Parkes and covering 470 ha owned by a single landowner. The project includes approximately 250,000 panels and 19 inverter stations; an on-site substation; a new double circuit 132 kV transmission line to connect with Essential Energy's 132 kV transmission line approximately 700 m south west of the site; and an energy storage system (20 MW / 20 MWh).

Coca-Cola Europacific Partners signs landmark renewable electricity agreement

30 August

Coca-Cola Europacific Partner's (CCEP) Australian operations will move closer to its goal of utilising 100 per cent renewable electricity, thanks to an agreement with Alinta Energy and supported by one of Western Australia's largest wind farms.

The maker and distributor of some of the world's most-loved beverage brands, including Coca-Cola, Kirks and Mount Franklin, has signed an eight-year agreement that will propel its ambition to achieve net zero by 2040 for direct emissions. As part of this target, CCEP is working towards a goal of 100 per cent renewable electricity across its operations by 2025.

The long-term agreement which commences on 1 January 2023, includes large-scale generation certificates and 13,000 MWh a year of renewable electricity supplied from the [Yandin Wind Farm](#), located in the wheatbelt town of Dandaragan, 175km north of Perth.

Coca-Cola Europacific Partners' Vice President & General Manager of Australia, Pacific, and Indonesia, Peter West said the landmark agreement bolsters CCEP's commitment to tackling climate change.

"CCEP is taking serious action to reduce our carbon footprint across our operations, and as a global business, we have set bold targets. Our partnership with Alinta Energy brings us a step closer to achieving our target of 100 per cent renewable electricity by 2025, which is one of the ways we'll reach net zero by 2040."

Alinta Energy's MD & CEO Jeff Dimery welcomed the long-term commitment from CCEP Australia and its iconic brands.

"Coca-Cola Europacific Partners has been ambitious and enthusiastic about transitioning their business to renewables.

"It's terrific leadership and we congratulate them on their long-term commitment," he said.

Alinta Energy has also made significant progress towards meeting its own renewables ambition to have 1500MW of owned and contracted renewable generation online by 2025. With 900MW of owned and contracted renewables on the books and several gigawatts of significant projects under development, the company has almost two-thirds of the generation required to meet its target.

Source: Alinta Energy

Local businesses in the offshore wind spotlight

30 August

Local businesses can connect with future opportunities in Gippsland's emerging offshore wind sector through a study now underway for Star of the South – Australia's first proposed offshore wind project.

The project is seeking out local businesses that supply goods and services needed for offshore wind projects and opportunities to grow local capabilities.

Businesses who get involved may be featured in an offshore wind local supplier directory and promoted across the global offshore wind supply chain.

By showcasing all that Victorian businesses have to offer in this directory, global suppliers can easily find local businesses to work with, helping deliver an economic boost and local jobs.

Star of the South has identified more than 100 opportunities for Gippsland businesses to supply the offshore wind sector including welding, excavation, electrical, vessel and helicopter services, fencing and safety equipment.

The directory will also feature local steel, manufacturing, Traditional Owner, and social and inclusive procurement opportunities.

Gippsland businesses are already assisting in the development of Star of the South. Port Albert Fishin' Charters has so far provided vessel services for offshore surveys and site visits.

"As a small Gippsland business, it's excellent to have an opportunity to work with Star of the South", said Port Albert Fishin' Charters Owner Brian Spiteri.

"I'm looking forward to an offshore wind industry coming to the region. I can see some great opportunities not only for my business, but for many others around Gippsland. I really encourage all local businesses to look at how they can make the most of what this new industry will bring".

To be included in the study and directory, businesses are encouraged to register and identify their capabilities on the project's ICN Gateway at gateway.icn.org.au before 30 September.

Businesses wanting to be involved can learn more at starofthesouth.com.au/suppliers or by attending an ICN webinar on Wednesday 7 September at 4pm.

This work is co-funded through the Victorian Government's Energy Innovation Fund, aimed at creating a competitive offshore wind sector in Victoria. The Victorian Government recently announced a plan to build at least 9GW of offshore wind by 2040.

Pending approvals, Star of the South is aiming to start construction around the middle of the decade and have its first turbine spinning around 2028. The up to 2.2GW project is projected to invest \$8.7 billion in Victoria adding \$10.4 billion to Victoria's economy and boosting the Gippsland economy by \$4.9 billion.

Quotes attributed to Star of the South CEO, Charles Rattray

"This work is important because it'll connect local businesses that can help bring offshore wind projects to life with buyers from across the globe - not just for Star of the South but for other offshore wind projects in Australia and the world.

"We're excited to show the world what Gippsland, Victoria and Australia has to offer and ensure local businesses are well-positioned to make the most of opportunities and grow local jobs.

"We expect our contractors to work with local suppliers, Traditional Owner and Indigenous-owned businesses, and social enterprises – the directory will make it easy for them and increase use of local businesses.

"Expressing interest through our ICN Gateway is the best first step to get involved.

"Gippsland is the first region to adopt offshore wind so local businesses have the opportunity to gain a foothold and competitive advantage in the industry."

Source: Star of the South

Critical investment needed to manage reliability gaps

31 August

AEMO has issued its 2022 [Electricity Statement of Opportunities \(ESOO\)](#) report, forecasting electricity reliability concerns that require an urgent response in most regions of the National Electricity Market (NEM) in the next 10 years.

The ESOO models the latest market data to identify combinations of circumstances when electricity supply won't be sufficient to meet demand, helping inform the planning and decision-making of market participants, investors and governments.

AEMO CEO Daniel Westerman said: “The report reiterates the urgent need to progress generation, storage and transmission developments to maintain a secure, reliable and affordable supply of electricity to homes and businesses.

“Forecast reliability gaps have emerged across NEM regions due to considerable coal and gas plant closures, along with insufficient new generation capacity commitments needed to offset higher electricity use.

“In the next decade, Australia will experience our first cluster of coal-generation retirements, at least five power stations totalling 8.3 gigawatts (GW), equal to approximately 14 per cent of the NEM’s total capacity. Without further investments, this will reduce generation supply and challenge the transmission network’s capability to meet reliability standards and power system security needs,” he said.

Considering only existing and committed¹ projects, AEMO forecasts reliability gaps against the Interim Reliability Measure² in South Australia in 2023-24 and Victoria from 2024-25. New South Wales is forecast to breach the reliability standard from 2025-26, followed by Victoria (2028-29), Queensland (2029-30) and South Australia (2031-32).

“Despite the challenging reliability outlook against ‘committed’ projects, should the 3.4 GW of anticipated generation and storage projects, alongside ISP actionable transmission projects, be delivered to their current schedules, then reliability standards would be met in all regions of the NEM until later in the decade when more large thermal generators exit,” Mr Westerman said.

“The five transmission projects identified in the 2022 Integrated System Plan – Humelink, VNI West, Marinus Link, Sydney Ring and New England REZ Transmission Link – should progress as urgently as possible to enable electricity consumers to make shared use of existing and future generation and storage.

“Governments also have a range of measures to bring in new generation, storage and transmission, which will greatly aid the short-to medium-term outlook. As these become committed, they will be incorporated into future reliability assessments, and will reduce the reliability risks presently forecast,” he said.

AEMO will continue to work with governments, market bodies, industry and community to manage risks and potential solutions as the power system transitions from coal to firmed renewables, supported by efficient investment in the transmission system.

Structural reforms to the NEM and amendments to the National Electricity Objective agreed by Energy Ministers recently will greatly assist in improving the investment environment and enable the transformation of the NEM.

Source: AEMO

PROJECT UPDATE

Cobbora Solar Farm

Marble Energy has submitted a referral for its proposed [Cobbora Solar Farm](#) to the federal government for assessment under the EPBC Act. The Cobbora Solar Farm is situated within Central West NSW, around 55 km east of Dubbo in the locality of Cobbora. The project will have an indicative capacity of approximately 700 MW and include a centralised 200 MW/200 MWh Battery Energy Storage System (BESS). The project area will cover approximately 3300 hectares and the indicative disturbance footprint containing all project infrastructure will cover approximately 2700 ha. Marble Energy is investigating different options to connect to EnergyCo’s proposed CWO REZ transmission link, which currently has a corridor under investigation that passes through the southern portion of the project area. The area being considered for this project covers part of what was the Cobbora Coal Project holdings, a proposed open-cut coal mine.

Powin and Akaysha Energy announce 1.7 gigawatt-hour energy storage supply framework agreement

- The partnership with Akaysha marks Powin's official entry into Australia's Energy Market

31 August

Powin LLC (Powin) a global energy storage platform provider, and Akaysha Energy, a leading Australian battery storage developer announced today a partnership framework agreement where Powin is to deploy over 1.7GWh of energy storage systems over the next two years.

This partnership with Akaysha represents Powin's entry into one of the largest and most sophisticated energy markets in the world. As Australia continues to decommission fossil fuel power plants and invest further in renewable power, energy storage is critical in maintaining grid reliability while keeping energy prices low.

With more than 3 GWh of energy storage capacity in its portfolio, Akaysha was recently acquired by a fund managed by BlackRock Real Assets' Climate Infrastructure business. BlackRock Real Assets recently announced its intent to commit more than AU\$1 billion (US\$700 million) of capital to support Akaysha's development of battery storage assets in Australia.

"It is critical to have a diverse competitive landscape in the Australian ESS market. Powin's vertically integrated and flexible business model reduces project cost and risk by having multiple trusted cell suppliers, proprietary software, and an in-house power plant controller," said Akaysha Energy's Managing Director, Nick Carter.

Akaysha partnered with Powin for the performance, reliability and safety capabilities of their Stack product line and StackOS control system. Utilizing their StackOS advanced power plant controller, Powin's engineering team and Akaysha have been

working closely for several months and are well advanced in the grid interconnection process including the Generator Performance Standard mandated by Australia's grid operator required to enter the market and interconnect generation to the Australian grid on initial projects.

"This partnership is a key milestone as we expand our footprint globally and invest in new regions," said Powin's CEO, Geoff Brown. "Powin has spent the last decade developing our product in order to bring the benefits of clean and reliable electricity to the entire world. We are thrilled to partner with Akaysha Energy on this project due to their unrivaled knowledge of the Australian energy market and their team's extensive track record of bringing jobs and critical infrastructure to help Australia meet their net zero targets."

On July 12, 2022, the U.S. and Australia signed the Australia – United States Net-Zero Technology Acceleration Partnership to accelerate the development and deployment of zero-emissions technology that reduces greenhouse gas emissions and supercharges economic growth. The U.S. and Australia have a shared goal to reach net-zero carbon emissions by 2050. Both countries have recognized the integral role energy storage will play in reducing emissions by accelerating the adoption of renewables and improving grid reliability.

Source: Powin Energy

Final report for 2022 Reliability Standard and Settings Review

1 September

The Reliability Panel (The Panel) has published its final report on the review of the key reliability standard and market settings (2022 RSS review) aimed at maintaining a reliable power supply.

As the energy sector undergoes unprecedented change in the transition to net

zero, it is vital that financial incentives are sufficient to support the investment necessary to provide reliability outcomes consistent with consumer willingness to pay. Getting the right standard and settings in advance of further thermal generation retirements is essential for efficiently promoting the interests of consumers.

The 2022 RSS review considered whether the existing form of the standard and settings are adequate given the transformation occurring in the electricity market. The standard and settings aim to encourage investment in generation or demand response capacity while protecting the market from risk.

The final report sets out the Panel's final recommendations for the reliability standard and settings needed between the period of 1 July 2025 to 30 June 2028. They need to be submitted as rule changes to the Australian Energy Market Commission for any changes to be made to the existing standard and settings.

In determining whether the reliability standard and settings needed to be updated, the Panel considered its requirements, along with stakeholder submissions feedback. It also had regard to and balanced a range of trade-offs to determine the need for change for the review period, as well as what may be needed outside the review period as the market transitions. The Panel particularly had regard to consumer concerns about increasing market settings and electricity costs and its final recommendations, specifically the MPC and APC to achieve a trade-off between cost increases and limiting consumer bill impacts while supporting outcomes consistent with the reliability standard.

Final recommendations:

Reliability standard

- No change to the current form or the level of the reliability standard for the period of 1 July 2028 to 30 June 2028. The current level of the standard is 0.002% expected unserved energy (USE) in a region over a financial year.
- The Panel considers that due to the energy transition and the growth of variable

renewables, there is a need to change the way the reliability standard is applied and to capture more information about future reliability risks. The Panel considers changing the form is a better way than tightening the level of the standard.

- On that basis, the Panel will undertake a further review of the form of the reliability standard to take account of the increased 'tail risk' that is likely to emerge from 1 July 2028. The Panel considers that a change to the form of the standard should be known by the time the next RSS period starts, which is 1 July 2028.

- The reliability standard is based on expected unserved energy in a national electricity market region and set at a level that balances delivering reliable electricity supplies and maintaining reasonable costs for customers.

Reliability settings

Market Price Cap (MPC) and Cumulative Price Threshold (CPT)

- The Panel's final recommendation is for a progressive adjustment in the level of the MPC and CPT to achieve an MPC of \$21,500/MWh and a CPT of \$2,193,000 (corresponding to 8.5 hours of market prices at the recommended MPC).

- The Panel has recommended three progressive annual changes over the review period to achieve the recommended level by the end of the review period.

- Together, these price settings are considered sufficient to support investment outcomes, consistent with the reliability standard, while also limiting potential systemic financial risks.

- The form of the MPC and CPT are recommended not to change for the review period.

Administered Price Cap (APC)

- The Panel's final recommendation is to adjust the level of the APC from \$300/MWh to \$500/MWh.

- The Panel considers consumers' long-term interests are better served if the APC is raised. This will minimise the likelihood of repeated undue reliance on the compensation process resulting in significant compensation costs

being passed through to consumers via their retailers who may be unprepared for these costs as they cannot hedge against compensation.

- The Panel recommends that changing the form of the APC from a fixed to dynamic value should be considered in the follow-up review alongside the form of the reliability standard.

Market Floor Price (MFP)

- The Panel's recommendation is to retain the existing level and form of the MFP at - \$1,000/MWh. Analysis demonstrated that adjusting the level is not warranted in the absence of clearly identifiable benefits, and there are unacceptable risks associated with a lower level.

The Panel notes the recent Energy Ministers meeting on the path forward for considering any further work related to a capacity mechanism. The merits and design of a capacity mechanism were out of scope for this review as was consideration of the interim reliability measure which the AEMC is required to review by 1 July 2023.

Visit the 2022 reliability standard and settings review for more information and contact details.

Source: AEMC

Mid West Low Carbon Manufacturing Precinct update

1 September

- Strike has secured a \$6 million agricultural finance facility from Rabobank to support the acquisition of the 'Precinct'.
- Marketing to developers, owners and operators of the Precinct's renewable energy and carbon farming development opportunities has commenced.
- The WA Government's decision to exit coal fired power has substantially increased the attractiveness of the renewable energy development at the Precinct, with the

opportunity to support the State's decarbonisation plan via the upsizing of the development and exporting power to the State's grid.

Strike Energy Limited (Strike - ASX: STX) provides an update on the development activities at the Company's 100% owned Mid West Low Carbon Manufacturing Precinct, which sits above the South Erregulla gas discoveries in EP503 and which will host the Project Haber fertiliser development.

Precinct Acquisition

Strike has secured a \$6 million agricultural finance facility from Rabobank Australia Limited with a 3-year term to support the acquisition of the property, which is due to settle in September. The facility interest rate is in line with market agri-lending, which will be serviced predominately by lease of the property until Project Haber's investment decision when refinancing is planned to occur.

The debt will be secured against the property. The balance of the acquisition will be supported from existing funds. Renewable Energy Integration Strike has commenced marketing the opportunity to develop, own and operate the Precinct's renewable energy infrastructure.

Substantial interest has formed across the spectrum of commercial / ownership models with the opportunity of guaranteed power offtake to service Strike's Project Haber development a major attraction. Several of the engaged counterparties are also interested in potential renewable hydrogen integration for surplus power, which is made technically and commercially possible via the access to industrial quantities of water brought to the Precinct and the localised hydrogen demand opportunity that Project Haber presents.

Since Strike announced the acquisition of the Precinct, Western Australia's Government declared that the State-owned coal fired power stations would be retired by 2030.

This segment of WA's electricity system traditionally provides around 40% of total annual electricity consumed on the South West Interconnected System (SWIS).

The Government also announced that an estimated \$3.8 billion will be invested in new green power infrastructure in the SWIS including wind generation and storage to ensure continued supply stability and affordability. The Precinct is ideally located, not only in a Tier 1 wind resource location, but also within close proximity to the State's grid to support the connection of the renewable energy infrastructure.

The major 330kV distribution line is within 30km of the Precinct with several other 132kV lines running even closer. This exciting opportunity provides any potential developer the chance to participate in the 40% decarbonisation of WA's electricity system versus 2021 levels.

Carbon Farm Development

Strike has engaged with multiple developers, owners of nearby carbon farms and carbon operating service companies to explore the various models of how the Precinct may proceed with planting of its proposed carbon farm. Strike is looking to participate in some way in the carbon credit generation whilst balancing that with the capital required to sow and plant. Strike is expecting to be able to make a decision in the near future as to the preferred model and potential partners on the opportunity and will make further disclosure in due course.

Source: Strike Energy

PROJECT UPDATE

Shoalhaven Hydro Expansion Project

Origin Energy revives its [Shoalhaven Hydro Expansion Project](#) to almost double the electricity generation capacity of the existing scheme and has submitted a referral for the project to the federal government for assessment under the EPBC Act. Origin is proposing to construct and operate a new pumped hydro power station, providing an approximate additional 235 MW of generation capacity, on and under the land between the Fitzroy Falls Reservoir and Lake Yarrunga. Water from Origin's existing Lake Yarrunga allocations would be pumped up consuming energy when it is in less demand, with energy generated through the return of water from Fitzroy Falls Reservoir to Lake Yarrunga when demand for energy increases.

Origin said the project essentially duplicates the existing scheme and as such does not propose any new water storages or connections between water bodies. In addition, no transmission line augmentations are required to receive or distribute electricity beyond the existing Kangaroo Valley Power Station substation. The project area and disturbance footprint are 52.5 hectares.

After announcing plans for the project in October 2018, Origin suspended the project in 2020 following studies that determined it was technically feasible, but "not commercially feasible in the current economic and regulatory conditions". In particular Origin noted that "revenue generated by PHES projects in the NEM is likely to be significantly impacted by the development of Snowy 2.0".

Naturgy acquires its first hybrid PV solar and energy storage project in Australia

1 September

- Naturgy marks an important milestone with this project, representing its first foray in Australia into photovoltaic technology, through a hybrid PV-Battery project, which is the first one of this kind for the company worldwide.
- The [Cunderdin project](#) will be the largest DC-coupled solar PV and battery project to be built in Australia.
- The company extends its asset portfolio in Australia to the State of Western Australia in addition to its existing projects in Victoria, New South Wales and ACT.
- The acquisition transaction was successfully completed with the original developer Sun Bred Power (SBP).

Global Power Generation (GPG), a joint venture of Naturgy Energy Group, SA (75%) and the Kuwait Investment Authority (25%), has acquired the Cunderdin hybrid PV solar and energy storage project, with a circa 125 MWdc (100 MWac) solar PV capacity and a 55 MW / 220 MWh battery energy storage system.

The Cunderdin hybrid project has been developed by SBP and is located near Cunderdin in Western Australia, approximately 150 km east of Perth. It will be connected to the Western Australia's SWIS.

The Project's construction is expected to officially start in the last quarter of 2022, while the commercial operation is anticipated to commence in the first quarter of 2024.

The integration of a Battery Energy Storage System (BESS) with a large-scale photovoltaic (PV) power plant will enable further flexibility in the operation, allowing the plant to also support the Wholesale Energy Market in the SWIS during peak demand periods. The innovative configuration of the integrated dc-coupled BESS improves energy conversion efficiencies and contributes to drive down solar-plus-storage costs in comparison with the conventional AC-coupled facilities.

The BESS will be manufactured and supplied by Sungrow, a global tier-1 supplier of battery systems and inverters. The project will be constructed by a reputable and experienced contractor with a wide portfolio of projects in the infrastructure, resources and energy sectors in the country.

Australia, one of the key countries for Naturgy. With this project acquisition, Naturgy continues its pathway in Australia according to the ambitious objectives in the country to achieve 2.2 GW by 2025 as expected in its Strategic Plan.

Naturgy, through its subsidiary Global Power Generation, currently has 276 MW of installed capacity under operation with the Crookwell 2 Wind Farm (96 MW) in NSW and the Berrybank 1 Wind Farm (180 MW) in Victoria. A further 109 MW from Berrybank 2 Wind Farm is under commissioning and will be operational in Victoria this year in conjunction with a 10 MW / 20 MWh Battery Energy Storage System (BESS) located in the ACT. In addition to this, approximately a 630 MW portfolio of projects is supported by Power Purchase Agreements (PPAs) already secured (Ryan Corner, Hawkesdale, Crookwell 3 and Paling Yards wind farms). The Company also owns a 417 MW portfolio of projects under development in Victoria.

Naturgy is working to promote its role in the energy transition and the economy decarbonization. Its ambitious goal is to achieve emission neutrality by 2050 and an installed capacity from renewable sources close to 60%.

The company plans to invest 14 billion euros during its 2021-2025 Strategic Plan, approximately two thirds of which will be dedicated to boosting renewable generation, to move from the current 5.2 GW to more than 14 GW expected to be in operation by the end of 2025.

Source: Naturgy Energy

Further support for miners to reduce greenhouse gas emissions

1 September

- Western Australia accelerating efforts to achieve net zero emission mining
- MRIWA research scope to expand to support clean energy projects
- Second MRIWA conference to promote collaboration on industry decarbonisation

The McGowan Government will expand the research scope for the Minerals Research Institute of Western Australia (MRIWA) so it can support research into clean energy and emission reduction technologies.

Mines and Petroleum Minister Bill Johnston made the announcement today at the MRIWA Net Zero Emission Mining WA Conference, along with the launch of the Hybrid Power Purchase Agreement guide and template.

This template will help facilitate contract negotiations between miners and independent power producers for the installation of onsite renewable generation.

With decarbonisation activities and downstream processing opportunities accelerating, momentum continues to grow for industry to reduce emissions and reach the McGowan Government's goal of net zero emissions by 2050. The Government is supporting industry by:

- allocating \$6 million in funding for research and development in critical minerals, precision and low-impact mining, and the uptake of clean energy technologies;
- developing its Sectoral Emissions Reduction Strategies with industry;
- drafting the Greenhouse Gas Storage and Transport Bill; and
- providing a series of resources through its Energy Industry Development (EID) team.

While many clean energy technologies are well-established, significant technological barriers remain that are preventing broad adoption. Specific applications of clean energy

solutions at scale, particularly in heavy and extractive industries, remains a challenge.

MRIWA will commence consultations to identify and prioritise the high-impact research areas in parallel to legislative changes being made.

For more information on the EID's resources, visit <https://www.energy.wa.gov.au>

Comments attributed to Mines and Petroleum Minister Bill Johnston:

"The McGowan Government is committed to supporting the Western Australian mining industry as it transitions to net zero emissions by 2050.

"Expanding MRIWA's research scope will position our State to benefit from research and development focused on emissions reduction and the broader clean energy value chain.

"WA's mining and technology services sectors are world leaders in innovation - their skills and expertise are being applied to companies' decarbonisation goals."

Source: WA Government

Muswellbrook Pumped Hydro to deliver reliable, low-cost electricity – strengthening Australia's clean energy future

2 September

Through its JV with AGL, Muswellbrook Pumped Hydro Pty Ltd, Idemitsu Australia has signed a \$9.45 million Funding Agreement with the NSW Government's Energy Corporation of NSW (EnergyCo), to progress the proposed [Muswellbrook Pumped Hydro Energy Storage](#) (PHES) project at their old Muswellbrook Coal mine site.

The pumped hydro project, to be delivered by Idemitsu in partnership with AGL, will provide

reliable, affordable and sustainable electricity to households and businesses across the state.

The project will generate 250 megawatts of hydroelectricity with eight hours of storage capacity (for a total of 2000MWh of stored energy) to feed electricity into existing high voltage power lines nearby.

As Australia transitions to include more renewable energy sources, hydroelectric energy storage can provide large amounts of long duration storage to keep electricity running and is shaping up to be a critical part of NSW's future energy system.

Water will be pumped from a lower reservoir created within a rehabilitated mine void across 2000 metres to the top of nearby Bells Mountain where it will be stored in a 1.9 gigalitre reservoir that will be created on the top of the mountain.

Water will then flow using gravity through pipes to drive a turbine at the base of the mountain and generate electricity.

Idemitsu's masterplan for the old Muswellbrook Coal mine site includes a proposal to convert the area to a Clean Energy and Industrial Precinct delivering potential for new employment and economic opportunities in the region.

The project and new precinct will incorporate green hydrogen, solar, battery energy storage systems (BESS) and pumped hydro, and is a key part of Idemitsu's efforts to reduce its carbon emissions by four million tonnes and generate four gigawatts of renewable energy across its global portfolio by 2030.

Mr Steve Kovac, Chief Executive Officer Idemitsu Australia, said the Company is keen to invest in renewable energy projects which create both domestic and export energy opportunities across Australia.

"The Pumped Hydro Energy Storage project will leverage Idemitsu's global expertise to

deliver renewable energy projects while delivering benefits to the regional communities of the Hunter Valley. We are delighted to be part of Australia's bright, renewable energy future and have the support of EnergyCo.

"The Muswellbrook Pumped Hydro project will provide a reliable and cost-effective on-demand energy generation source which is critical to delivering renewable energy at lower prices that benefit both the community and businesses.

"Idemitsu is proud of its 115-year history and contributions to the community through Muswellbrook Coal. The Innovative rehabilitation and reuse of mine voids as proposed with the Muswellbrook Pumped Hydro project ensures that sites like Muswellbrook will continue to generate investment and long-term employment," he said.

Following positive results from the preliminary feasibility study, the project has progressed to a 'full' feasibility study which includes detailed design work, geotechnical drilling, engaging contractors and securing environmental approvals.

The NSW Government has committed \$50 million to the Pumped Hydro Recoverable Grants Program and the funding will expand the State's pipeline of pumped hydro projects by up to 3 gigawatts.

Source: Idemitsu Australia

\$45 million to accelerate pumped hydro

2 September

NSW's pumped hydro future is being fast tracked as five projects, with a combined capacity of almost 1.75 gigawatts (GW), have been awarded funding under the NSW Pumped Hydro Recoverable Grants Program.

Treasurer and Minister for Energy Matt Kean said the program provides recoverable grants to pumped hydro developers to help cover upfront costs and lower investment barriers for the private sector.

“Funding agreements are already in place with five applicants who have received a total of \$44.8 million to support pre-investment activities, establish project feasibility and develop a strategic business case,” Mr Kean said.

“If these pumped hydro projects proceed to construction, they are expected to create more than 2,300 jobs and attract \$4.4 billion of private investment, which will help grow the economy and support the regions.

“NSW has the most ambitious renewable energy policy in the nation, which is needed to replace ageing coal fired power stations and build a clean energy future for NSW.”

Mr Kean said pumped hydro is a key component of the State’s renewable energy plans, providing clean, reliable power and

creating infrastructure jobs right across regional NSW.

“This is a win for NSW as these grants will be repaid to the Government if a project reaches financial close, meaning that these same funds could be used to support even more projects in future,” Mr Kean said.

Pumped hydro acts like a giant battery for the electricity system. It works by using surplus renewable energy to pump water up a hill when it is sunny and windy, and releasing the water back down the hill through giant turbines that create electricity when it is still and dark.

NSW has a target to build at least 2GW of new long duration storage by 2030, and the Government has committed \$97.5 million to accelerate pumped hydro projects that could meet that target. This includes funding for private projects as well as funding to undertake site investigations for pumped hydro potential on existing WaterNSW dams.

Source: NSW Government