Project Update
Week ending 7 June 2019

Council floats idea of solar installations on water
30 May
Council is to investigate the feasibility of installing floating solar arrays at its water treatment plants to offset energy costs associated with powering its water infrastructure.

“This Council continues to make a clear and consistent case for a balanced and responsible approach to the current and future energy mix,” Mayor Anne Baker said.

“Investigating the potential application of innovative renewables technology and the benefits this may yield is a part of that balanced and responsible approach.

“Isaac is a region which is helping to energise the world through its rich resources and emerging renewables sector.”

Mayor Anne Baker said it cost Council more than $1.4 million in 2017-18 to power its network of water treatment plants, pumping stations and associated water infrastructure.

“Power costs are a significant expense to Council, but there is the potential to unlock savings by using on-site solar to offset the energy consumption of these critical assets, so we are taking the opportunity to investigate the feasibility of this,” she said.

“Installing a floating array on the surface of a dam or reservoir not only removes the need to acquire land to build a solar farm, but also delivers other potential benefits.”

Mayor Baker said covering at least part of the surface area of the raw water storage would also reduce the loss of water through evaporation, which represented a further saving.

The shade provided also reduced the potential for algal blooms in raw water storages, she said.

“Reducing energy costs and preventing evaporation represents a more sustainable approach to managing our water network,” she said.

Mayor Baker said Isaac region was already leading the way in the renewables sector with seven solar farms approved, a further two under construction, and approval for one of Australia’s largest wind farms.

“Technological advances are providing councils with the tools to reduce costs and provide better products to customers. For us it is about leveraging innovative applications of renewables to deliver benefits to our ratepayers and residents,” she said.

Mayor Baker said Lismore City Council had recently installed a floating solar array at its wastewater treatment plant which was projected to offset 12 per cent of the plant’s running costs.

Source: Isaac Regional Council
Civillex expands interstate

30 May

Together with RJE Smarter Engineering, Civillex has been awarded the Collector Wind Farm balance of plant contract by global sustainable energy solutions provider Vestas. The Civillex RJE Global Consortium will deliver the balance of plant work for the Collector Wind Farm, located just outside of Goulburn NSW. The Collector wind farm consists of 54 Vestas turbines that will generate 535GWh of energy each year - enough to power 80,000 homes.

Civillex Managing Director Joe Bartolo says, “Today marks a new era for our construction group as Civillex moves into NSW. We’re immensely proud of the reputation we’ve created in Victoria – a construction culture founded on dependability, adaptability and innovation fuelled by better business sensibility. We will continue to strengthen relationships and exceed project delivery outcomes with our Victorian clients and stakeholders and look forward to delivering our high-performance construction culture in NSW.”

The continued success trajectory of the Civillex team is due in part to their range and depth of expertise complemented by diverse project sector delivery experience, particularly in wind farm projects, underpinned by an enviable culture of high-performance and professionalism.

Source: Civillex

Council investing in 5-megawatt solar farm for clean energy future

31 May

Council’s plans for a huge 5-megawatt solar farm next to the Resource Recovery Centre at Myocum on Dingo Lane took a leap forward at the May Council meeting when $465,000 was committed to get the planning, design and tender process underway.

Once constructed, the new solar farm would generate enough electricity to offset Council’s power usage and send additional renewable power to put back into the grid.

“It’s no surprise that I am extremely excited by the scale of this project and the benefits it will deliver to our community.

“This will be the biggest solar farm this side of the range in NSW by a very long shot,” Byron Shire Mayor, Simon Richardson said.

“To give you some idea of the size - five megawatt solar farms can generate enough electricity for around 1000 households.

“Our plan is to use the energy generated by this solar farm to help Council achieve 100% net zero emissions by 2025 and to be a leader in the region, and NSW, with renewable energy solutions for the future.

“This is a serious project with the proposed solar farm to be built on approximately 13 hectares of land that is currently buffer land adjacent to the Byron Resource Recovery Centre,” he said.

The solar panels will occupy 6.3 hectares of the 73.53 hectare property.

“The allocation of $465,000 in the 2019/20 budget is a substantial investment and this means that once this initial feasibility work is done, we can immediately move straight into stage two which will be the actual construction of the solar farm.

“The protection of the environment is a major consideration for our residents, and Councillors and staff, so to be able to turn this project from a concept, to something that is delivering immense benefit by reducing our reliance on fossil fuels and using beautiful solar energy to power our organisation is a great outcome on so many levels.

“This will save money in the long-run which in turn is a saving for our ratepayers and it is a key component identified in our Net Zero
Emissions Strategy for Council Operations 2025,” Mayor Richardson said.

“People may also be interested to know that in the next several months we will be installing a solar roof on the carpark next to the Council offices in Mullumbimby with this project expected to generate power to help offset Council’s energy charges and also contribute to reducing Council’s net emissions,” he said.

Site studies and the procurement processes required to determine the detailed feasibility of the solar farm will progress during the next 12 months, including engagement with key stakeholders including neighbouring residents at Myocum. Based on the recent report to Council, and subject to the necessary approvals, construction could start around September 2020, with estimates for practical completion slated for May 2021.

Source: Byron Shire Council

NEW PROJECT

Hydrogen JV shows Taranaki’s transition to a low-emissions economy

Venture Taranaki has welcomed the announcement of a joint venture that will see a $50 million green hydrogen development in South Taranaki.

The partnership between Ballance Agri-Nutrients and Hiringa Energy will see four wind turbines added to the landscape at Kapuni, generating green – or zero-emissions – hydrogen for use in the industrial production of ammonia urea and hydrogen for supply to the heavy transport sector.

“This project is fantastic news for South Taranaki, the regional economy, and New Zealand as we look to transition to a low-emissions future,” says Venture Taranaki Chief Executive Justine Gilliland.

“The initiative will help launch the hydrogen industry in Taranaki, importantly supplying not just industrial applications but also the heavy transport sector. The production of green urea will benefit New Zealand’s food production sector.”

“In 1959 New Zealand’s modern hydrocarbon industry began with the discovery of the Kapuni reserve. It is fitting that now, sixty years later, Kapuni is leading New Zealand into the development of a new-energy industry.”

The project was highlighted in the H2 Taranaki Roadmap, a plan to leverage Taranaki’s oil and gas infrastructure and expertise to foster the development of a hydrogen industry in the region. The Roadmap was launched by Prime Minister Jacinda Ardern in March 2019.

“The H2 Taranaki Roadmap identified the significant strong opportunity for hydrogen to play a key role in New Zealand’s transition to the low-emissions economy of the future,” Justine says.

“Hydrogen has been produced from natural gas for years. This project will see that process move to utilise green hydrogen, and in doing so open many more opportunities for hydrogen supply in Taranaki and beyond.”

Source: Venture Taranaki

NEW PROJECT

Vacy Solar Farm

Location: Vacy, in the Hunter Region of NSW
Capacity: 25 MW
Developer: Rio Indygen
LGA: Dungog Shire
Description: The project is planned on 50 hectares of land used for grazing near the historic town of Vacy, and will connect to the grid at the existing substation at Martins Creek.
Contact: Jason Stephens
Rio Indygen
Email: jason@indygen.com.au
GFG Alliance enters strategic partnership with Shanghai Electric to deliver globally competitive renewable energy in Australia

3 June

SIMEC Energy Australia (SEA), a member of Sanjeev Gupta’s global GFG Alliance, today signed a key strategic partnership with Shanghai Electric for engineering, procurement and construction (EPC) for the Cultana Solar Farm project in South Australia.

The agreement was signed by GFG Alliance Executive Chairman and CEO, Sanjeev Gupta, and President of Shanghai Electric, Huang Ou, in the presence of representatives from key supporting financial institutions.

Landmark renewable project
Cultana is the first project of SIMEC Energy Australia’s landmark US$1 billion, 1GW dispatchable renewable energy program in South Australia. With capacity of 280MW, Cultana is expected to produce around 600GWh of energy per year, powering GFG’s Whyalla Steelworks and a range of key government and commercial customers.

Set to be one of Australia’s largest solar farms, Cultana will deliver a range of benefits to the local community, increasing reliability and security of the state’s electricity supply and environmental benefits. The project is set to boost local employment, with ~350 positions during construction.

“Cultana Solar Farm is an ambitious project that will deliver globally-competitive renewable energy on a large scale to power-heavy industry. It is a great step forward in our vision to revitalise industry and we look forward to working with our partners to bring our renewables projects to life,” Mr Gupta said.

GFG previously announced its ambition to invest in up to 10GW of large-scale solar and other renewables projects across Australia, supporting industry.

Securing global expertise
Experienced leader, Shanghai Electric, will provide EPC for the Cultana project. Shanghai Electric’s global expertise includes the completion of the world’s largest concentrated solar power project in Dubai.

“We are fortunate and grateful to have the global expertise of Shanghai Electric,” Mr Gupta said. “Shanghai Electric have embodied the best form of partnership, working hand in glove with our people in Whyalla to develop the project. We are confident of their performance, to deliver this project on time, and on budget, to the highest standards, supporting our commitment to the creation of hundreds of new local jobs in South Australia.”

Part of a greater vision
The Cultana project will play a key role in the development of the visionary 10 Mtpa Whyalla Next-Gen steel plant project and industry revitalisation strategy championed by GFG. “Our planned Next-Gen project will ignite a new industrial revolution in Australia. These projects are shining examples of GFG’s commitment to create a sustainable future for industry and build stronger local communities,” Mr Gupta said.

Source: GFG Alliance

EEG secures tougher conditions for waste burner

4 June

Environment East Gippsland has legally negotiated stricter conditions to the Environment Protection Authority’s approval of Australian Paper’s proposed Maryvale Mill waste incinerator.

Waste incinerator smoke stack pollution remains a serious concern, despite assurances.
“Although we still believe the proposal is a huge step backwards as a solution to deal with domestic and industrial rubbish, we are pleased that the EPA and Australian Paper have agreed to improved conditions on the design and operation of what could be Australia’s largest waste incinerator”, said Jill Redwood from Environment East Gippsland.

EEG agreed to withdraw its appeal after Australian Paper and the EPA agreed to amend the approval to respond to the group’s concerns. New conditions negotiated by EEG include:

• A new condition to make it explicit that the incinerator is only to be used to burn non-hazardous commercial waste.
• Amendments to ensure that the incinerator is designed to allow for ease of upgrades to achieve stricter emission limits in the future.
• Installation of continuous Emission Monitoring of Mercury as soon as that technology is recognised as a Best Available Technique by the European Commission.
• The monitoring of some of the most toxic and harmful pollutants, Volatile Organic Compounds (dioxins and furans), will be upgraded from 3 monthly to semi-continuous sampling.
• Loads of rubbish will now be required to be diverted out of the incineration stream if they contain ‘more than negligible amounts of recyclable material’, rather than the previous threshold of ‘mainly recyclable material’.

Another new condition incorporated into the EPA Works Approval confirms that Victoria’s native forests or plantations will not be burnt in the Incinerator, with wood waste limited to a maximum of 1% of the feedstock.

“We thank the lawyers at Environment Justice Australia for their excellent work on this extremely complex and technical challenge. The strengthened conditions should ensure that the community has better access to information about the incinerator’s emissions and should better protect both the community and environment.”

“The government recently pledged $34 million in its May budget to strengthen the recycling sector and is currently developing a circular economy action plan due to be finished by 2020. Yet this incinerator would be in direct competition for the rubbish that should be recycled” said Jill Redwood. “We are hoping that this incinerator will prove economically unviable as the Victorian community gets behind the more sustainable circular economy. This focuses on reducing, reusing and recycling, rather than incineration.”

Environment Justice Australia filed the proceedings late last year.

According to EJA lawyer Nick Witherow, “The settlement shows the importance of community groups scrutinising proposals and taking action to strengthen conditions on projects that can threaten a region’s health and well-being.”

Source: Environment East Gippsland

PROJECT NEWS

Lincoln Gap Wind Farm
The Essential Services Commission of South Australia has received an application from Lincoln Gap Wind Farm Pty Ltd to vary its electricity generation licence to include a battery with a total export capacity of 10 MW, located at Lincoln Gap. The variation request submitted by Lincoln Gap Wind Farm Pty Ltd is subject to a public consultation period closing on 5 July 2019. Interested parties wishing to make a submission on this variation application should prepare a submission which addresses the criteria noted above. On 21 November 2018, the Commission issued an electricity generation licence to Lincoln Gap Wind Farm Pty Ltd to operate 59 wind turbines with a total capacity of 212.4 MW. The Commission undertook a round of public consultation in relation to the application and received no submissions from stakeholders.
QBE Targets 100 per cent renewable electricity

4 June

Marking World Environment Day, QBE Insurance Group today announced it had joined with some of the world’s most influential companies in the RE100 initiative, committing to source 100 per cent renewable electricity across its global operations by the end of 2025.

Led by The Climate Group in partnership with the CDP, RE100 brings together more than 170 of the world’s most influential businesses committed to 100 per cent renewable electricity and accelerating change towards zero carbon grids, at a global scale.

QBE is the first Australian headquartered insurance business to join RE100.

QBE Insurance Group CEO, Pat Regan, said the shift to 100 per cent renewable electricity comes on top of QBE’s commitment to reduce overall energy use by 15 per cent by 2021 (from 2018 levels) and follows the company becoming carbon neutral in 2018.

“In 2018, we offset more than 47,000 tonnes of carbon dioxide equivalent across our operations in 31 countries around the world.

“Now, with this commitment to use 100 per cent renewable electricity by 2025, we are going a step further in our efforts to reduce QBE’s impact on the environment.

“As an international insurer, with insurance products covering a diverse portfolio around the globe, we are acutely aware of the risks and opportunities that climate change presents for our customers and our business. This decision aligns with QBE’s support for the objectives of the Paris Agreement and our efforts to support the transition to a lower carbon economy.”

Sam Kimmins, Head of RE100, The Climate Group, said: “As one of Australia’s largest insurance companies, QBE knows the financial risks of inaction on climate change. With the price of clean power continuing to fall, joining RE100 and committing to source 100% renewable electricity brings new business benefits and accelerates the shift to a clean economy – it’s a win-win.”

To support the shift to 100 per cent renewable electricity, QBE will seek to source renewable electricity locally in each of its operating divisions. Where this isn’t possible, renewable energy certificates will be purchased to achieve the 100 per cent goal.

Source: QBE

NEW PROJECT
Tenterfield Solar Farm
Location: Old Racecourse Road, Tenterfield in northern NSW
Capacity: 25 MW (AC)
Developer: Enerparc
Estimated cost: $23,550,000
Battery: Yes
Status: Development Application to be assessed by the Northern Regional Planning Panel
LGA: Tenterfield Shire Council
Description: Project to be constructed on approximately 60ha of land, approximately 2km east of Tenterfield. There is a transmission line route that is part of the proposed development along Old Racecourse Road and under the Bruxner Highway to arrive at the current substation on Bellevue Road. Fixed mounting systems on steel frames and an energy storage facility are part of the project plans.
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Managing Director
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Maoneng and CHINT partnership announcement

5 June

Maoneng Group (Maoneng) and CHINT Solar [CHINT, Listed in Shanghai Stock Market: 601877] have signed a term sheet to acquire and co-develop utility-scale solar projects in Australia.

Maoneng and CHINT have announced their partnership at an introduction ceremony on Wednesday 5 June 2019 at the SNEC expo hosted in Shanghai by signing a term sheet to acquire and co-develop utility-scale solar projects in Australia.

The parties will be establishing a joint venture company in Australia, with CHINT taking a majority 60% shareholding and Maoneng having a 40% shareholding. Maoneng and CHINT are looking to acquire and co-develop projects with an enterprise value between $60m-$200m. The parties will not be restricted to traditional project finance in developing the projects, and may seek to develop projects on a pure merchant basis. The JV aims to develop a project pipeline with combined capacity of at least 150MWac by 2019 and 500MWac by 2021.

At the conference, Mr. Morris Zhou, CEO and Chairman of Maoneng and Dr. Chuan Lu, CEO of CHINT have shared their ambition towards building a renewable future for Australia with the development of large scale renewable energy infrastructure.

“We are delighted to partner with CHINT to achieve our ambition of a renewable energy future for Australia. Maoneng has been a key player in the renewable infrastructure development Australian market for many years and CHINT has been a key player in EPC, module supply and project development in the Chinese market, and as such there are strong synergies between the two companies. We look forward to playing a big part in Australia’s transition towards a cleaner and renewable energy future,” explained Mr. Morris Zhou at the conference.

“We are very glad that our capability in production and downstream businesses has been well recognized from Maoneng. Maoneng plays an important role in Australian Solar market and the partnership between two companies also marks a new milestone for both parties. We will put more efforts together with Maoneng in developing the Australian market.” Commented by Dr. Lu, Chuan, the CEO of CHINT Solar/Astronergy.

With the execution of the definitive agreements expected to be finalised shortly, Maoneng and CHINT’s strong alliance will benefit Australia’s energy industry as a whole and keep the country on track to generate 50% of its energy consumption with renewables by 2050.

Source: Maoneng

NEW PROJECT

Teewana Solar Farm
Location: Gidgegannup, ~28km NE of Perth
Capacity: 9.9 MW
Developer: Teewana Farm Pty Ltd
LGA: City of Swan
Description: The solar farm will be comprised of approximately 31,270 PV panels on single axis, tracking frames covering an area of 17.4 ha. Associated infrastructure will consist of:
• Four inverters, four transformers and housings
• Underground cabling
• Switchgear in control room and housing
• Export cable from the control room to an existing 22 kV overhead transmission line
• Car park and lay-down area
• Fire fighting water tanks and pump
• Perimeter fence and access gates.

The export cables will connect to the South West Interconnecting System (SWIS) via an existing 22 kV overhead transmission line that terminates near the south-west corner of the development and runs to the west through paddocks. The solar farm will be controlled and monitored remotely from Perth.

Contact: Jim Litis
Director
Teewana Farm Pty Ltd
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UNSW launches ambitious plan on World Environment Day
5 June
UNSW Sydney will switch to 100% renewable electricity, expand onsite solar energy generation and improve energy and water efficiency to reduce the University's environmental footprint.

UNSW Sydney will switch to 100 per cent renewable electricity and its buildings will be greenhouse gas emissions-free by 2020 as part of a new three-year plan to build on the University's commitment to environmental sustainability.

Launching the University's Environmental Sustainability Plan (ESP) 2019-21 on World Environment Day, UNSW President and Vice-Chancellor Professor Ian Jacobs said the plan sets out a strategic roadmap towards best practice in the higher education sector.

"Our planet is currently facing a series of complex environmental challenges, from pollution of land and oceans to biodiversity loss and climate change.

"UNSW is a major investor, consumer and landholder and our Sydney campuses form part of the daily lives of some 62,000 students and more than 6700 staff. The University has the scale of a small city, so it is right that we grow and invest like any sustainable city would, with a responsible and clear plan."

Under the new plan, UNSW will increase its onsite solar energy generation through the University's world-first solar energy agreement, design new buildings to operate emissions free and introduce centralised waste collection in offices to save an estimated 1 million plastic liners annually.

Energy efficiency upgrades will target the least efficient buildings on campus, saving enough electricity to power around 400 homes by 2022. Improvements to water efficiency on campus will save 12,000 cubic metres of water per year or enough to fill five Olympic swimming pools.

UNSW has also committed to integrate best practice environmental, social and governance principles within investment activities by establishing a Responsible Investment Framework. This will allow the University to invest in solutions to climate change and align its investment portfolio emissions intensity with the Paris Agreement commitments.

Professor Jacobs said UNSW has a history of environmental stewardship across research, learning and teaching and campus operations dating back several decades.

“About 50% of the solar panels sold worldwide today use UNSW-designed technology, and our alumni are at the forefront of the photovoltaics and energy transition industries globally. Our new plan builds on these achievements while significantly raising our levels of ambition to respond to the scale of environmental challenges we face today,” Professor Jacobs said.

The ESP is designed to address UNSW’s key environmental issues and defines commitments, targets and activities across 10 focus areas, each supporting specific themes of the UNSW 2025 Strategy and United Nations Sustainable Development Goals (SDGs). It was developed following an internal review and consultation process which involved more than 350 students, professional and academic staff and government representatives during 2018.

“UNSW’s research, learning and teaching programs aim to address environmental challenges that are critical to the future of our planet. Under this plan, we will develop a set of resources that engage the student and staff community in the SDGs through learning and teaching programs, while making sure academic staff are able to decide how to include SDG thinking within their courses,”
UNSW Head of Environmental Sustainability William Syddall said.

Mr Syddall said UNSW will also establish a pathway for the University to achieve net zero emissions in the future.

“Once UNSW has eliminated greenhouse gas emissions from building energy use by 2020, our focus will turn to indirect sources of emissions such as travel, embodied emissions and purchased goods and services,” he said. “We hope this plan inspires not only our University community but the wider community to take action for a sustainable future.”

Environmental sustainability is a core element of the University’s 2025 Strategy. In 2018, UNSW became the first university in Australia to commit to having 100% of its electricity supplied by photovoltaic solar power.

The full Environmental Sustainability Plan 2019-21 is now available.

Source: UNSW

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**PROJECT NEWS**

**Yarrenlea Solar Farm**

Risen Energy has applied for a generation authority for its 134 MW [Yarrenlea Solar Farm](#), located in Yarrenlea in the Darling Downs region of South-East Queensland. The proposed generating plant will consist of approximately 54,984 panels rated at 360 watts, and 314,360 panels rated at 365 watts on a single-axis tracking system and will have 22 x 5.5 MVA inverters with a total nameplate rating of 133.9MWdc. The generating plant is expected to export approximately 254,000 MWh annually. The applicant proposes to connect to Energy Queensland’s distribution supply network via the newly constructed Energy Queensland Yarranlea North substation. The substation will connect to two existing 110 kilovolt (kV) lines that run from Powerlink’s Middle Ridge substation to Energy Queensland’s Yarranlea bulk supply substation.

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**Opera House marks World Environment Day with significant sustainability progress**

**5 June**

To coincide with the United Nations’ World Environment Day, the Sydney Opera House has announced a number of sustainability achievements and projects.

Together, the initiatives announced today represent an important step forward in the Opera House’s long-term environmental strategy, highlighting both the progress and future commitments made by the World Heritage-listed building to reduce its impact and inspire greater environmental awareness.

**Achievement of GBCA 5 Star Green Star rating**

The Opera House has been awarded a 5 star Green Star performance rating from the Green Building Council of Australia (GBCA), becoming one of the first World Heritage-listed buildings globally to achieve the certification. A number of successes including the Opera House’s recent Carbon Neutral certification, implementation of a new waste management program, efficiencies in water use and a more than 9% reduction in energy use have enabled the Opera House to achieve the certification.

**Artificial reef installed on Bennelong Point**

After first announcing the project in 2017, a series of modular artificial reefs have now been installed alongside the Opera House sea wall. The pioneering project, led by UTS Professor of Marine Ecology David Booth and funded through a NSW Government Environmental Trust Restoration & Rehabilitation grant, aims to explore new ways to increase marine biodiversity and support native species in Sydney Harbour.

The newly installed artificial reef is made up of eight pods containing three hexagonal-shaped units placed underwater around Bennelong Point. Created by Reef Design Lab, the pods are constructed from marine-grade steel and concrete and feature elements of 3D
printed design. The structures will become encrusted with seaweed and sea life, providing a home for smaller fish species. Images and video footage of the recent reef installation are available to download here.

Renewable Power Purchase Agreement (PPA) signed
The Opera House has signed an industry-leading Power Purchase Agreement (PPA) with energy retailer Flow Power to invest its annual $2.4 million electricity spend in sourcing power from renewable power projects. Under the seven-year agreement, more than 85% of the Opera House’s yearly energy consumption of 16 gigawatt hours (equivalent to 2,500 households) will be matched with available supply from NSW wind and solar projects, including Sapphire Wind Farm in Glenn Innes and the Bomen Solar Farm under construction in Wagga Wagga.

Ian Cashen, Sydney Opera House Executive Director of Building said: “The Opera House is Australia’s first heritage-listed building to commit to this innovative energy retail model, joining a growing number of high-profile organisations leading the way towards a low carbon future through investment in large-scale renewable projects.

“This deal brings us another step closer to our long-term renewable energy goals and will deliver significant savings in operational costs over its seven-year period.”

Minister for the Arts Don Harwin said: “As the symbol of Australia, it is important that the Opera House leads by example. Certifications such as the GBCA’s Green Star are setting a new benchmark for buildings to reach when it comes to environmental efficiency. By demonstrating what is possible with a World Heritage-listed building such as the Opera House, I hope this will inspire action by other buildings, old and new, to make positive changes to reduce their impact on the environment.”

Sydney Opera House Environmental Sustainability Manager Emma Bombonato added: “Each of the initiatives announced today are essential to the Opera House’s long-term sustainability strategy. The achievement of our 5 Star Green Star rating reflects the significant progress we have made in reducing our own environmental impact. At the same time, the installation of the artificial reef is an example of our broader commitment to protecting and preserving the environment in action. As we look to the future, innovative approaches such as PPAs are essential to secure long-term, sustainable renewable energy sources, so it’s exciting to be involved at the early stages of these projects.”

To celebrate World Environment Day and World Oceans Day, Sydney Opera House Tours taking place between the 5th – 8th June will include additional information on the Opera House’s latest environmental sustainability initiatives.

Source: Sydney Opera House

Take the power back, baby
Hey everybody,

Heidi here from Cloud Control with a brief note to say welcome, and thanks for checking out FEAT.

This is an invitation to all Australian artists - emerging or established - and all members of the music industry to build the clean energy system that will give humans a future on earth. We’re not a feel-good venture, we’re a platform for action, and our sole purpose is to accelerate the world-wide transition to renewable energy.

Why artists? Touring is super important for artists, but it has an enormous impact on the planet due to the extensive flights and freight involved. In all my years of touring with Cloud Control, the only option available was carbon offsetting and last year I consulted a lot of climate scientists who explained that we need much deeper solutions than this. Offsetting
won’t get us out of this mess; we needed a complete overhaul of our entire energy system, and a rapid transition to solar and wind-powered energy sources.

This is where the idea for FEAT emerged. What better way for artists to take ownership over a renewable future, than to actually build it? When you create something, you have a stake in it, skin in the game; so FEAT. is an offer for artists to build a lasting, powerful relationship with the planet we tour.

We’ve launched a company where artists can invest to own part of a solar farm and reshape the environmental legacy of our touring. These are investments, not donations. Artists will be making hardcore solar infrastructure investments and can expect to see annual returns. You could think of it like “solar royalties”, and we’ve set the minimum investment as low as possible to encourage all artists to get involved.

I spent a long time consulting experts to figure out the best way we could make a difference as artists, and I had three criteria: whatever it was it had to be super effective for cutting carbon emissions, science-approved, and highly scalable so we could make the biggest impact possible. FEAT. is the result. We’re the product of over 2 years of research, hustling and dreaming big and a whole lot of support from my artist fam and allies across a huge range of sectors - science, climate activism, environmental law, and the ethical investment world. There’ll be plenty of time to trade stories about the journey.

But for now I wanted to say thanks for being here and reading this, and I hope you reach out soon so we can get started.

More information is available at https://www.feat.ltd/feat

Source: FEAT

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**PROJECT NEWS**

**Hay Solar Farm**

Two modifications were approved for Renew Estate’s Hay Solar Farm, located 6km north east of Hay in NSW, for the project to include an on-site Battery Storage System (BSS) and to commence construction of the northern portion of the site prior to the completion of the site access point required for the southern portion of the site. Construction and operation of a Battery Storage System (BSS) on the site will allow the applicant to manage electricity output to meet demand, improve the reliability of electricity outputs, and provide frequency control and ancillary services to the electricity network. The BSS would have a delivery capacity of up to 29 megawatts (MW) and storage capacity of up to 29 MWh. The BSS (up to 2.3m high) would be located adjacent to the on-site substation, occupying an area of up to 235 metres by 132 metres.

The project was approved on 20 December 2017 by a delegate of the Minister for Planning. The development consent permits for the construction, operation, upgrading and decommissioning of a solar farm, including:

- approximately 430,000 solar panels and 50 inverter stations;
- internal access tracks, staff amenities, offices, car parking, laydown areas and security fencing;
- a switchboard building and onsite substation;
- a 2 km overhead transmission line connecting the onsite substation to the existing Essential Energy Hay Substation; and
- two new intersections, one on Sidonia Road and one on the Mid Western Highway at the site entry points.

More information is available at https://www.feat.ltd/feat
Valmec selected for first Australian hydrogen facilities

5 June

Valmec Limited (ASX: VMX) is excited to announce it has been selected by Australian Gas Infrastructure Group (AGIG) to deliver Australia’s first hydrogen production facility.

With a project value for Valmec of circa $4.5 million, Valmec will provide engineering, procurement and construction (EPC) services on this innovative energy project located at Tonsley in South Australia.

Valmec congratulates AGIG on this Australian-first initiative which will ultimately pave the way for the development of the hydrogen economy for Australia. The project allows Valmec to extend its already diverse capabilities in energy production and processing infrastructure and to support AGIG in making hydrogen a key player in Australia’s future energy mix.

Valmec’s Managing Director Steve Dropulich said, “We are delighted to be part of the AGIG team on this strategic project for the Australian energy industry. We look forward to continuing our strong relationship with AGIG and delivering Australia’s first hydrogen facility in South Australia. With the project also being the largest renewable gas project in Australia, Valmec is proud to be part of an industry making a low carbon emissions future a reality.”

Construction of the project is expected to commence immediately.

Source: Valmec

Senvion completes installations of key projects in growth markets

5 June

Senvion has successfully completed the installation of three key projects in Chile and Australia. In Chile, the Sarco and Aurora projects consist of 93 wind turbines with a total installed capacity of around 299 MW. In Australia, the Pacific Hydro Crowlands Wind Farm features 39 Senvion MM92 turbines. The commissioning of these wind farms is currently underway.

The Sarco and Aurora wind farms are owned by Aela Energía, a joint venture of Actis (60%) and Mainstream Renewable Power (40%). The Sarco project consists of 50 Senvion 3.4M114 turbines and is located in the Atacama region of Northern Chile. The Aurora project, located in the Southern Los Lagos region, features 43 Senvion 3.0M122 turbines. The Crowlands Wind Farm has an installed capacity of 80 MW and will produce enough clean energy to supply the power needs of over 50,000 homes in Victoria.

Yves Rannou, CEO of Senvion, says: "We are making solid progress in our execution. The completion of installations of these three key projects in growth markets is a significant example of our efforts. We have shown that we were able to streamline the installations - one of our key challenges and main tasks during the last months. Therefore I wish to especially thank our local teams for their effort and our customers for the successful partnerships."

Senvion installed 475 MW in first five months of 2019 against 256 MW installed in corresponding period in 2018. This corresponds to growth of around 86% year over year.

Source: Senvion
Total Eren secures financing for its 256.5 MWp Kiamal Solar Farm in Victoria, Australia

5 June

Total Eren, a leading renewable energy Independent Power Producer (“IPP”) based in Paris, is pleased to announce the Financial Close for its Kiamal Solar Farm with the support of a group of Australian and European financial institutions, namely ANZ, ING, and Natixis. Additionally, the Clean Energy Finance Corporation (CEFC) entered the project by taking a minority equity stake.

Located in North-West Victoria, the 256.5 MWp Kiamal Solar Farm (“Kiamal” or “the Project”) is a highly innovative utility-scale solar farm, leading the Australian renewable energy market as it transitions to a low carbon, high renewables economy.

Kiamal has been project-financed by ANZ (Australia), ING (Netherlands) and Natixis (France). The total value of the debt financing reaches circa USD 175 million (AUD 250 million). Total Eren is also pleased to welcome the CEFC (Clean Energy Finance Corporation) into the Project, as CEFC recently took a circa USD 35 million (AUD 51 million) minority equity stake in Kiamal Solar Farm.

For this transaction, Total Eren was advised by Ironstone Capital (Financial), Herbert Smith Freehills (Legal) and PWC (Tax and Accounting).

Currently under construction, the Project is expected to reach commercial operations later in 2019. It will be made up of over 718,000 PV panels with single-axis trackers covering over 500 hectares. When completed, the Project will be Victoria’s largest solar power plant; producing enough electricity to meet the needs of more than 133,500 Victorian homes and displacing more than 610,000 tonnes of carbon dioxide emissions annually.

Kiamal is underpinned by four Power Purchase Agreements (“PPAs”) contracted with one large food manufacturer (Mars Australia), two energy retailers (Alinta Energy and Flow Power), and a new entity, a collective of 13 leading Victorian water corporations (called “Zero Emissions Water” or ZEW).

The Project has also entered into a Large-Scale Generation Certificates (LGCs) or “renewable energy certificate” purchase agreement with Origin Energy, a leading Australian energy retailer.

The construction is led by a turnkey Consortium jointly led by Biosar Australia (“Biosar”), part of the Greek infrastructure group Aktor S.A., and Canadian Solar, one of the world’s leading solar PV technology suppliers. As a highly innovative utility-scale solar farm, the Project will contribute to the local economy during both the construction and operational phases through, among others, local investment in jobs and ongoing services.

The Project is unique in that it is working with Siemens and contractor Vinci/Electrix to install a 190MVAr synchronous condenser as part of the generating system, in order to facilitate a timely connection to the Victorian Transmission System, and in turn substantially strengthening the grid in the region and making it possible to connect even more renewables in North Western Victoria in the near future.

Total Eren is also working with TransGrid to deliver a new 220 kV Kiamal Terminal Station and Collector Substation, with the two 180MVA transformers designed and manufactured locally by Wilsons Transformers in Victoria.

In parallel, Total Eren is seeking to expand the Kiamal Solar Farm with a second stage of up to 213.5 MWp of solar PV panels, as well as exploring commercial options for the approved 270MW / 1,080 MWh energy storage system.
David Corchia, CEO of Total Eren, commented: “The successful Financial Close of Kiamal constitutes another important milestone in Total Eren’s development in Australia. With our first project in this country, we are excited to be able to contribute to the shift towards renewable energy in Australia and to local development in Victoria. I would like to thank our financing partners ANZ, ING and Natixis, as well as CEFC and our outstanding team on the ground who together enabled us to go ahead with the construction of what will be the largest PV power plant in Victoria and one of Total Eren’s largest solar assets worldwide.”

Ian Learmonth, CEO of CEFC, stated: “We are very pleased to be equity stakeholders in Kiamal Solar Farm – the project that marks the Australian market entrance of Total Eren, an experienced renewable Independent Power Producer. We see the project’s new power purchase model as an important demonstration of how a diverse range of customers can hedge their energy costs through offtake agreements.”

Jon Turnbull, ANZ’s Head of Energy, Project & Export Finance, said: “We were pleased to assist Total Eren in this strategically important project, supporting the largest Solar PV Plant in Victoria. Kiamal will be a key driver behind Victoria’s energy transition, which is closely aligned with ANZ’s support in the shift to a low carbon economy.”

Michiel de Haan, Global Head of Energy at ING, commented: “We are delighted to support Total Eren to further grow its portfolio of renewable assets in Australia. It’s ING’s second ‘green’ transaction in less than six months with Total Eren, having recently supported the financing of a solar farm in Brazil. This latest deal further strengthens our relationship with Total Eren and contributes towards ING’s ambition to align the wholesale banking’s lending portfolio with our Paris Agreements goals. Our dedicated Energy team in Sydney has proven to be critical in our ambition to grow ING’s energy business in Australia.”

Janie Wittey, Chief Executive Officer of Natixis Australia Pty Limited, said: “We are delighted to be working with Total Eren on this transaction, and to support this innovative project by combining Natixis’ expertise in renewables financing and green and sustainable finance. After the Kiamal Solar Farm, Total Eren’s broader ambition to develop renewable energy in Australia is both impressive and encouraging and is well aligned with our own commitment to supporting such projects.”

Source: Total Eren

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**Expert panel delivers report on interim emissions targets**

6 June

The Andrews Labor Government is taking the next step in achieving its target of net zero emissions by 2050, tabling expert independent advice on setting interim targets and kicking off a new round of community and industry consultation.

The consultation will inform the Labor Government’s decision on Victoria’s interim emission reduction targets for 2025 and 2030, in line with the requirements of the *Climate Change Act 2017*.


Action on climate change is crucial to growing our economy, boosting jobs, managing environmental impacts and protecting the health and wellbeing of Victorians.

The Independent Expert Panel, chaired by the Hon Greg Combet AM, undertook extensive community engagement and considered the latest evidence to inform their recommended
target range, and to identify opportunities to further reduce Victoria’s emissions.

The Panel highlighted the importance of setting environmentally and economically responsible targets and outlined a number of advantages in Victoria taking action on climate change – including new jobs and industries, improved productivity and better environmental outcomes.

Victoria’s world leading climate change legislation is ensuring all levels of government play their part in reducing emissions.

The Labor Government will undertake a wide-ranging consultation on the Panel’s report, including meeting with key stakeholders and the opportunity for people to provide input through Engage Victoria.

The community can have their say on the report and working towards achieving Victoria’s emissions reduction targets at engage.vic.gov.au/climate-change-reducing-victorias-greenhouse-gas-emissions.

Quotes attributable to Minister for Energy, Environment and Climate Change Lily D’Ambrosio

“Reducing emissions and tackling climate change will create jobs and grow our economy – we want Victoria to be first in line to benefit from the opportunities a low carbon economy will deliver.”

“The Government looks forward to working closely with industry and the wider community to deliver on our targets, create jobs and take real action on climate change.”

“We know we need to act now – that’s why we’re investing in renewable energy and putting solar on 770,000 homes across Victoria.”

Source: Victoria Government

NEW PROJECT

Chichester Solar Farm
Location: Christmas Creek, approximately 100km north of Newman in northern WA
Capacity: 60 MW
Developer: Alinta Energy
Status: Public consultation opened on electricity licence application
Description: Alinta intends to sell electricity generated from the solar farm to large-use customers in the Pilbara region. The solar farm will connect to the 220kV Roy Hill – Cloudbreak power transmission line, to be constructed by Alinta Energy Transmission. The proposed solar PV field will occupy approximately 150 ha. The proposed works includes:
• Approximately 200,000 panels mounted on a single axis tracking system supported by steel piles;
• An operations and control building;
• Switchgear and transformers to enable safe connection to the new substation to be constructed at Christmas Creek by AETC;
• Security fencing around the perimeter of the solar field; and
• Access tracks around and throughout the solar field.

Construction is scheduled to commence in June 2019. The project construction period, from site mobilisation to commissioning and completion, is anticipated to take approximately 11 months, with project completion scheduled for April 2020.
Contact: Richard Barker
Senior Development Manager
Alinta Energy
Tel: (03) 9005 9075

Low carbon gas policies proposed at gas symposium
6 June
Research released today proposes low carbon gas policy incentives that could help efforts to decarbonise the nation’s economy.

The report, by energy consultant Energetics, will be launched at the Renewable Gas in Australia Symposium, jointly hosted by Energy Networks Australia and Bioenergy Australia.
Energy Networks Australia CEO Andrew Dillon said the research was a welcome contribution to work such as the National Hydrogen Strategy, exploring how to harness existing resources and new technologies to help reduce emissions.

The Renewable Gas Symposium will explore emerging innovations and research in hydrogen and biogas.

Delegates will hear about projects and case studies underway, the drivers pushing businesses to consider utilising low carbon gas and the injection and policy mechanisms needed to support it being blended into existing gas networks.

The event will also feature international presentations showcasing the lessons Australia could learn from other countries that have capitalised on low carbon gas opportunities.

Recent advice released by Energy Networks Australia confirmed that injection of hydrogen into the gas distribution network can be done under current gas legislation.

“Hydrogen can play an important role in not only helping Australia’s gas networks decarbonise but as energy storage,” Mr Dillon said.

“Flexible hydrogen production can help soak up excess renewable electricity on sunny and windy days, then fuel cells can generate emissions-free power on still evenings.”

As demonstrated in Energy Networks Australia’s Gas Vision 2050 report, hydrogen’s scope is impressive, with potential to widen customers’ power options, improve and increase renewable generation, provide options for mobility and even create a new energy export market.

Source: Energy Networks Australia

Genex signs a $25m share subscription agreement with J-power

6 June
Genex Power Limited (ASX: GNX) (Genex or Company) is pleased to announce that it has signed a Share Subscription Agreement (SSA or Agreement) with Electric Power Development Co Ltd trading as J-POWER (J-POWER).

The Agreement provides for a conditional investment of up to A$25m by way of a subscription for ordinary shares in Genex, with the proceeds to be principally applied towards Genex’s equity funding component for the construction of the Kidston Pumped Storage Hydro Project (K2-Hydro).

Key terms of the SSA are as follows:
• Investment of up to a maximum of A$25 million;
• Subscription to occur at the higher of the 5-day volume weighted average price (VWAP) of Genex shares at financial close, or the date that is 5 days following financial close;
  o This is subject to a subscription price cap which would result in a minimum investment of 15.00% of Genex’s enlarged share capital; and
  o Subject to a maximum of 19.99% of Genex’s enlarged share capital;
• Provides for the appointment of a J-POWER nominee director to the Board of Genex;
• The Agreement is subject to several conditions precedent, including:
  o Approval of Genex shareholders at an extraordinary general meeting (EGM);
  o Execution of a Facility Agreement to be entered into between the K2-Hydro project entity and the Northern Australia Infrastructure Facility (NAIF); and
  o Financial close for K2-Hydro occurring prior to 31 December 2019.

As a further condition precedent under the SSA, Genex has also agreed to enter into a Technical Services Agreement (TSA) with J-POWER wherein J-POWER will provide certain professional technical advisory services to
Genex in relation to the development and operational stages of K2-Hydro.

As noted above, the Agreement is subject to the approval of Genex shareholders at an EGM. Full details of the SSA and TSA will be outlined in an Explanatory Memorandum to accompany a Notice of EGM to be sent to shareholders in the very near future.

Commenting on the Agreement with J-POWER, James Harding, CEO of Genex said: “Genex is pleased to announce this exciting partnership with J-POWER. J-POWER are a global expert in hydroelectric projects, including pumped storage, and as such they bring significant experience and technical expertise to Genex to support in the delivery of the K2-Hydro project.

The investment by J-POWER is an important milestone, as it secures the funding required for Genex’s equity component for K2-Hydro, which is being developed in a 50:50 partnership with EnergyAustralia. We are continuing to progress the final stages of the project financing with all relevant stakeholders, with financial close remaining on track for mid-2019.”

Source: Genex Power

Have your say on the transmission loss factor framework

6 June

Today the AEMC started consultation on two rule change requests from Adani Renewables about how marginal loss factors are calculated and how intra-regional settlement residues are distributed.

When you transport electricity across a network of poles and wires, some of it is lost as heat. Marginal loss factors are calculated so customers don’t pay for power they don’t get.

Specifically, the two rule change requests seek to:

- redistribute the allocation of the intra-regional settlement residue so it applies equally between generators and networks users.
- change the marginal loss factor calculation methodology to an average loss factor methodology.

The AEMC has consolidated these two rule change requests to enable consideration of broader issues around how the transmission loss factor framework can continue to send the most appropriate signals to investors in the face of power system restructuring.

Submissions on the consultation paper are due by 18 July 2019.

In addition, the AEMC is holding a workshop on 4 July 2019 in Brisbane to gather stakeholder views on the operation of the transmission loss factor framework. If you are interested in attending, or have any questions, please contact Andrew Splatt at andrew.splatt@aemc.gov.au or (02) 8296 0623. Final details for the workshop, including venue, time and agenda, will be provided closer to the date.

Related projects
The AEMC is currently consulting on two related projects:
- We are assessing rule change requests on ways to enhance publicly available information about new generation projects to help give investors more certainty. This may help address some current stakeholder concerns with the transmission loss factor framework by providing more information about forthcoming generation projects to allow investors to better forecast potential changes to loss factors. Read a summary of submissions to the consultation paper.
- A holistic solution to access to the national grid is being progressed through the AEMC’s Coordination of generation and transmission investment - access and charging review. This review is looking at how to deliver the right amount of new transmission infrastructure in the right place at the right time, to meet future needs. It is part of the AEMC’s broader
package of changes to the regulatory framework to support new investment in transmission networks in line with AEMO’s Integrated System Plan. A directions paper on the COGATI access reforms is due to be published later this month for stakeholder input. For more information view the COGATI project timeline.

Source: AEMO

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Update on portfolio progress – operating capacity increases 24% with Beryl solar plant

7 June
New Energy Solar today advises that the Beryl Solar Plant, seven kilometres west of Gulgong in New South Wales, has commenced commercial operations. The 110.9 MWDC plant is selling electricity under its 15-year power purchase agreement (PPA) with Sydney Metro.

The addition of Beryl’s output increases the operational capacity of the New Energy Solar portfolio by 24%. Beryl is the 15th operating asset in the New Energy Solar portfolio, a significant increase from four operating plants at the time of New Energy Solar’s ASX-listing in December 2017.

With Beryl operating at full capacity and the construction of the 199.6 MWDC Mount Signal 2 plant on track, New Energy Solar’s portfolio will be almost fully operational by the end of the 2019 calendar year. The anticipated capacity of the operating portfolio at year end will be 772MWDC compared to 454MWDC at the end of December 2018.

John Martin, New Energy Solar CEO, said “Beryl has reached commercial operations on time and on budget, even accounting for the increase in capacity. The offtake is contributing directly to the newly opened Sydney Metro Northwest rail link and we are very pleased to be a part of this major piece of transport infrastructure.

“Beryl also marks a significant step forward in bringing our portfolio to operational status. At the time of the IPO, only four solar plants were operational and now, in what has been less than two years, we have 15 operational, utility-scale solar plants. All plants are contracted to creditworthy offtakers, enabling NEW to provide investors with attractive risk-adjusted returns.”

Source: New Energy Solar