Project Update

Week ending 16 November 2018

Energy Networks Australia welcomes NSW Transmission Infrastructure Strategy

12 November

Energy Networks Australia has welcomed the NSW Transmission Infrastructure Strategy released today by the NSW Government.

The Strategy sets out to boost NSW's interconnection with Victoria, South Australia and Queensland, increase energy capacity and streamline regulation for a modernised grid.

Energy Networks Australia CEO Andrew Dillon said the NSW plan was a vital step towards a more integrated energy system that would deliver greater benefit to customers through a more resilient grid and more competitive wholesale markets.

"Around the world, modern energy systems are responding to more variable renewable generation by ensuring greater connection between generation sources and customers," he said.

"NSW sits at the centre of the National Electricity Market (NEM) and is critical to the development of a more connected energy future.

"Fast-tracking the four key projects outlined in the strategy will bolster the grid's capacity and put downwards pressure on prices – a priority for network businesses across Australia."

Mr Dillon said the sequential nature of current regulatory arrangements was slow

and unsuited to the transformation underway in electricity generation.

"By providing a funding guarantee for preliminary planning work, the NSW Government can fast-track priority projects while ensuring projects will only proceed where the benefits for consumers clearly outweigh the costs," he said.

"Networks want to keep costs as low as possible while ensuring new renewable generation can be reliably integrated into our grid. The NSW plan will help achieve this."

Source: Energy Networks Australia

PROJECT NEWS

Clarke Creek Wind Farm

Lacour Energy's proposed 877.5 MW Clarke Creek Wind Farm in Queensland has been conditionally approved by the federal Department of the Environment & Energy. These conditions include minimising impacts to EPBC Act listed threatened species and communities, with limits to clearing habitat suitable for the Koala, suitable habitat for the Greater Glider and Squatter Pigeon, and the Semi-evergreen Vine Thicket.

(Click on relevant project links to go to online Project Database)

Gannawarra and Wemen Solar Farm now operating, adding 170MW of renewable generation to the National Grid

12 November

WIRSOL adds 170MW DC of additional large-scale solar to its Australian portfolio.

- Gannawarra Solar Farm (60MW) in north-west Victoria – has reached project completion, having successfully passed all commissioning tests.
- Wemen Solar Farm (110MW) now connected and generating power during commissioning – positioning the project amongst the largest solar farms in operation in Victoria.
- The two projects will power the equivalent of approximately 52,100 Victorian homes over the course of the year with clean, sustainable electricity.

WIRSOL Energy Pty Ltd (WIRSOL), the Australian arm of the WIRCON Group, announces project completion at the Gannawarra Solar Farm. The 60-Megawatt (MW) solar farm is now operating at full capacity, having received approval from the Australian Energy Market Operator (AEMO) for successfully passing all commissioning tests.

Additionally, WIRSOL's largest solar project to date, Wemen Solar Farm, has achieved first generation in an impressive 11 months – creating over 600 jobs in various capacities during this time.

RCR Tomlinson, the EPC Contractor responsible for constructing Wemen Solar Farm, achieved the first-generation milestone on schedule and will continue commissioning with the goal of achieving completion by year end.

At 110MW DC, Wemen Solar Farm has approximately 319,000 modules installed across an area of close to 700 acres, becoming one of the largest solar farms in Victoria to be generating clean, renewable electricity.

The two projects combined will provide enough energy to power the equivalent of approximately 52,100 Victorian households with clean, sustainable electricity, whilst preventing the emission of approximately 390,000 tonnes of CO2 per year.

The Victorian government consciously committed to re-establishing the state as a front-runner in renewable energy, with targets of 25% by 2020, 40% by 2025 and 50% by 2030 if re-elected – Wemen and Gannawarra Solar Farm lead by example and signify the commitment made to provide a clean energy future.

Furthermore, Gannawarra Solar Farm's retrofitted 25MW/50MWh Tesla powerpack battery, Gannnawarra Energy Storage System (GESS), has reached its own project milestone, completing the construction phase ahead of schedule.

This is a significant milestone for WIRSOL, highlighting their position as a leading renewable energy developer within the Australian market.

GESS's owners, WIRSOL and Edify Energy, have overcome some unique regulatory and technical challenges to become the first battery storage system that has been retrofitted to an existing solar farm. The facility holds great significance and further demonstrates the great opportunity for integrating large-scale battery storage with solar projects.

Mark Hogan, Managing Director of WIRSOL comments, "We are delighted to reach two crucial milestones at Gannawarra Solar Farm. The overall project and how it has evolved is unique to the industry which in turn sets a benchmark for future projects, which enables the ability to optimise the delivery of energy at peak times supporting demand throughout the daily cycle.

We are proud to be a major contributor towards Victoria's renewable energy target, with two of the state's largest projects now operating. This also underwrites our own personal mission of deploying greater than one gigawatt of solar energy by the year ending 2020 in Australia. Mayntaining the deployment of solar, coupled with storage where appropriate, is a cornerstone in attaining sustainable and affordable clean energy, which is evidently now within reach on a global scale, specifically within Australia."

Mr Bruce James, Interim CEO and Executive Director of RCR Tomlinson said, "RCR is proud to have delivered the Gannawarra and Wemen Solar Farm projects on time and has helped add to WIRSOL's Victorian energy projects. These projects continue RCR's track record of delivering state of the art solar generation facilities."

Source: WIRSOL Energy

More power supply, lower power prices

12 November

With the cost of power now out of control, a Liberal Nationals Government will facilitate the construction of a new Victorian power station of at least 500MW to cut the cost of soaring electricity prices.

Packaging up major government services such as rail; hospitals and other major services, a Liberal Nationals Government will seek a tender for a new 500 MW contract of supply, allowing the market to best determine the mode of generation.

The government tender will also allow the winning bid to expand on this contract to beyond 500 MW.

It is clear that Daniel Andrews has lost control of electricity and gas costs. After tripling the brown coal royalty rate to grab an extra $252 million from Latrobe Valley power generators - Hazelwood closed down and power prices soared. Victorians have been suffering with out of control electricity prices ever since.

Hazelwood operator Engie faced an $87.5 million tax bill from Daniel Andrews because of the changes, forcing the power station to announce its early closure in November 2016 and shutdown within 5 months in March 2017. Hundreds of families lost their primary income as Hazelwood prematurely closed.

In discussing Daniel Andrews' brown coal royalty rate, the then owner of Hazelwood, Engie, described the increase as "surprising and disappointing" and said it would "have a detrimental impact on the region's energy sector".

On the Neil Mitchell program on 3 November 2016, Daniel Andrews said in relation to the impact of Hazelwood's closure on Victorian households: "any increase will cause pressure on household budgets, I acknowledge that. But the numbers are more in the order of 4% or 85 cents a week."

Daniel Andrews was either wrong or he lied. Either way, he can't be trusted on energy costs.

The number of Victorians to lodge complaints about disconnections form their electricity has risen by over 82% between December 2017 and June 2018.

According to research by St Vincent de Paul's, under Daniel Andrews electricity prices have risen by around $450 and gas prices have increased by around $500.

Add to that the nine new taxes that Daniel Andrews has already introduced and it's no wonder most Victorians feel they're losing control of their personal finances.

That's why a Liberal Nationals Government will put the supply of at least 500MW of new electricity generation out to tender which will secure the construction of a new power station.

This new privately owned power station will supply energy requirements of government services such as hospitals and rail networks via the 500MW contract.

The winning bid will be determined by the lowest cost for electricity subject to meeting tender requirements like security of supply. The winning bid with the lowest electricity cost could include hydro, wind, solar gas or coal or a combination of any, provided that it is new capacity and is available to supply electricity 24/7.

This extra supply of energy into the market coupled with utilising the government's buying power will drive down retail electricity prices. As part of the competitive tender process a contract price will be established to lock in the best deal for Victorian taxpayers.

Independent modelling by Frontier Economics shows the construction of a new 500MW station will save average households around $355 a year, small businesses around $860 and larger ones around $1,720 a year.

Everyone knows that Labor and the Greens want to close the Yallourn power station. Based on the modelling by Frontier Economics of Daniel Andrews' approach to energy it is their opinion that, in all likelihood, Yallourn will shut down in the next few years.

That's why a Liberal Nationals Government will work with AEMO to create a reliability standard to keep Yallourn operating until its expected closure in 2032.

Only an elected Liberal Nationals Government will get back in control of cost of living pressures.

A Liberal Nationals Government will cut household water bills by up to $100 a year, provide free school books for secondary students in government schools, put more gas supply into the market to cut prices, cut car registration by $295 for Red P Platers and cut energy costs for low income households by up to $530 a year through a special energy rate.

Comments attributable to Leader of the Liberal Party, Matthew Guy:
"Daniel Andrews has lost control of electricity and gas prices and its hurting Victorians.

Every time Daniel Andrews cuts a deal to appease the Greens, it means more taxes that costs Victorian households.

Every Victorian knows that Daniel Andrews can't win government without the support of the Greens which means more taxes and higher electricity and gas prices.

Building a new power station in Victoria will mean lower prices for the long term which is going to save households and businesses hundreds of dollars every year.

A Liberal Nationals Government will get back in control of electricity and gas prices and ease the squeeze on household budgets."

Comments attributable to Shadow Minister for Energy and Resources, David Southwick:
"Daniel Andrews has lost control of energy costs with some Victorian households now paying around $950 more.

You don't need a crystal ball to know that a vote for Daniel Andrews and Labor means a deal with the Greens which will mean even higher electricity costs for homes and businesses.

Victorians can't afford another four more years of Daniel Andrews and bigger electricity and gas bills.

Only a Liberal Nationals Government will get back in control of energy costs."

Source: Victorian Liberal Party

NSW Transmission Infrastructure Strategy

NSW is undergoing an energy sector transformation not seen for several decades, which will transform how we generate and use energy. The NSW Transmission Infrastructure Strategy is the NSW Government's plan to unlock private sector investment in priority energy infrastructure projects, which can deliver least-cost energy to customers to 2040 and beyond. The Strategy forms part of the government's broader plan to make energy more affordable, secure investment in new power stations and network infrastructure and ensure new technologies deliver benefits for consumers.

Building on existing programs to reduce household and business energy bills and secure energy supplies, the Strategy aims to:
1. Boost our interconnection with Victoria, South Australia and Queensland, and unlock more power from the Snowy Hydro Scheme.
2. Increase NSW's energy capacity by prioritising Energy Zones in the Central-West, South West and New England regions of NSW, which will become a driving force to deliver affordable energy into the future.
3. Work with other states and regulators to streamline regulation and improve conditions for investment.

By increasing our transmission capacity and access to low-cost generation, we will support an orderly transition of the energy sector over the next two decades.

To learn more about the NSW Transmission Infrastructure Strategy, please download our Strategy Overview.

Source: NSW Government

Vena Energy proud to be a founding member of the Business Renewables Centre – Australia

12 November

Vena Energy, the largest independent renewable energy company in the Asia-Pacific region, is proud to be one of the founding members of the Business Renewables Centre – Australia (BRC-A).

The BRC-A was established to bring together electricity users and suppliers, providing an opportunity for users to learn more about how to simplify, streamline and accelerate corporate purchasing of large-scale renewable energy and storage.

The BRC-A provides tools, templates and training to members seeking to secure their energy needs against market volatility. Members can draw on the experience and knowledge of other members before embarking on their own journeys toward more affordable energy prices and lower environmental impact.

The BRC-A will be supported by funding from the Australian Government over the next three years with the goal of helping Australian businesses and local governments procure 1GW of installed renewable energy by 2022 and 5GW by 2030.

"As the largest renewable energy IPP in the Asia-Pacific region, with over $1 billion of projects under construction and in development across Australia, Vena Energy is excited to have the opportunity to share our experience and knowledge with Australian electricity users seeking to take control of their costs and assure the reliability of their energy supply," said Anil Nangia, Vena Energy Country Head for Australia. "We are leveraging our regional project development track record, technical capabilities and economies of scale to deliver large-scale, low-cost clean energy, which Australia needs, as well as providing employment opportunities

and supporting economic growth in local communities."

In South Australia, Vena Energy is building the 127 MW Tailem Bend Solar Project, 100 kilometres southeast of Adelaide. The $200m project is expected to begin delivering power to the grid in Q1 2019. Vena Energy is developing more than 2,000 MW of projects across Queensland, South Australia and New South Wales.

To learn more about the BRC-A, please visit www.businessrenewables.org.au.

Source: Vena Energy

Eco Energy World reach financial close on 54 MW of merchant solar projects in Australia

12 November

Eco Energy World (EEW), an international developer of utility scale solar projects, is pleased to announce it has now reached financial close on two projects in Queensland, Australia. Both projects, 20 MW Chinchilla Solar Farm and 34 MW Brigalow Solar Farm, are on a fully merchant basis. Combined, the projects constitute nearly AUD$70m in capex.

The projects have been acquired by Impact Investment Group for their Solar Asset Fund. EPC services are being provided by Gildemeister Energy Services and senior debt for one of the projects was provided by Infradebt.

Svante Kumlin, founder and CEO of EEW, says "We are happy to announce that another milestone has been reached by EEW. It's been very challenging to develop merchant solar in Australia, but our innovative and hardworking team has delivered on our target. We believe this is the new business model for renewables and will enable subsidy free renewables to out compete carbon energy in Australia and elsewhere in the world."

EEW's other projects in Australia are progressing well and the company is expected to soon announce reaching financial close on the remainder of its 900MW ready to build solar projects.

Source: Eco Energy World

Dispatchable renewables: it's time to start planning the transition

12 November

What if the wind doesn't blow and the sun doesn't shine? This is a very familiar question for those in the renewable energy industry – and the answer these days seems to be pretty obvious: you add storage. However, the right type and amount of storage required is not so obvious, according to specialist power and water consulting firm Entura.

"As old thermal generation assets retire and as the world moves towards a lower emissions future, we need to solve the 'energy trilemma'. In other words, we need an energy future that is affordable, sustainable and reliable," says Dale Bryce, Customer Strategy & Market Development Director at Entura.

"The role of renewable generation in achieving affordable and sustainable energy is clear. Wind and solar PV now offer the lowest cost of new energy development, have low ongoing operational costs, and near zero emissions."

However, replacing coal-fired power stations with wind and solar is not a like-for-like swap in terms of availability of power when it is needed by consumers because generation from renewables varies due to the availability of the natural resource. So how can we achieve the third element of the 'energy trilemma': reliability, at the right cost?

Entura has launched this week dispatchablerenewables.entura.com – an online hub with insights and resources to help

renewable energy project developers, power utilities and investors to understand and assess the different types of storage solutions, particularly mainstream contenders such as pumped hydro and large batteries.

"We're excited about the possibilities of combining multiple forms of renewable energy generation with storage solutions, to create sustainable and fully dispatchable power from the natural resources of water, sun and wind. We call it dispatchable renewables," says Dale.

Dale explains that dispatchable renewables will be an important part of the solution to the energy trilemma, but not the only solution. "Baseload fossil fuel generation can be replaced by a combination of variable renewables, dispatchable renewables, and smart network support and planning to ensure sufficient transmission capacity."

"We know that implementing these solutions can take a long time, but if the industry is serious about solving the energy trilemma, the time to start planning for the transition is now."

Source: Entura

PROJECT NEWS

Twin Creek Wind Farm

RES Australia's proposal to develop the 185 MW Twin Creek Wind Farm at Kapunda in the Mid-north area of South Australia, including the construction of up to 51 wind turbines, access tracks and other associated infrastructure, has been declared a controlled action by the federal government and so will require assessment and approval under the EPBC Act before it can proceed. The relevant controlling provision is "listed threatened species and communities (sections 18 & 18A)".

SUSI closes first investment in Australia

13 November

SUSI Partners AG (SUSI) has closed its first investment in Australia, acquiring 100% in and providing financing to construct a 34 MW solar PV plant with storage optionality.

The solar PV plant will be built in Middlemount (Qld) Australia. The total investment to acquire and finance the construction of the project is approximately EUR 30 million (approx. AUD 50 million) and represents the first investment for SUSI in Australia. At the same time, it is among the largest investments of the firm outside Europe.

Once connected to the grid, the PV plant will generate sufficient electricity to support approximately 24,000 households and will be the largest solar plant in SUSI's portfolio, which after this acquisition will count 15 solar plants with a total installed capacity of 165MW. The plant has optionality to add a battery storage component in the future which will be considered as a potential follow-on transaction.

Marco van Daele, Chief Investment Officer of SUSI Partners, states: "This investment represents an important step in the internationalization of SUSI`s investment remit and the first investment into the Australian market, which we deem highly attractive for clean energy infrastructure investments, despite the recent energy policy uncertainties".

Matteo Zanni, Vice President at SUSI, who led the transaction, states: "This project is a high-quality and strategic investment for SUSI. It positions our funds in a market with large potential to add further decentralized, clean power generation and energy solutions including storage and it represents an important diversification factor for our growing portfolio".

SUSI Partners, through its SUSI Energy Storage Fund (SESF), is actively pursuing several

additional projects under exclusive terms in Australia. SESF had its final close in June 2018 at EUR 252 million and is in active discussions on a strong pipeline of projects globally.

Source: SUSI Partners

UTS kick-starts new $40 million solar farm in regional NSW

13 November

In summary:

- UTS has signed a major commitment to purchase solar power from Epuron's Walgett Solar Farm through a power purchase agreement (PPA)
- The university will purchase the equivalent of half its annual electricity demand, affirming a commitment to sustainability while also managing long-term energy costs

The University of Technology Sydney (UTS) has confirmed a deal that will kick-start a new $40 million solar farm in regional NSW, signing a major commitment to buy energy generated on site.

UTS has taken a revolutionary approach to energy management, in a deal that demonstrates the emerging commercial opportunities available to the renewable industry via direct links between renewable generators and users.

The commitment is via a power purchase agreement (PPA) with Walgett Solar Farm for the equivalent of half the university's annual electricity demand. As well as allowing the solar farm to proceed, the agreement means UTS will benefit from a competitive fixed ongoing energy cost, with the potential for substantial savings over the life of the contract.

The 32 MW Walgett solar farm is being developed in stages by NSW-based renewable energy company Epuron, with construction expected to begin soon and first generation to commence in mid-2019.

"For our renewable projects to be able to attract finance and get built, it's crucial to find suitable partners to become committed customers and provide certainty," Epuron Director Martin Poole said. "With the UTS commitment to purchase our clean energy output, the Walgett Solar Farm can move ahead and we look forward to commencing construction in the coming months."

UTS's campus has grown substantially over the past decade, under a $1 billion-plus Campus Master Plan redevelopment that, among other things, has delivered two 5-star and one 6-star certified Green Star buildings.

UTS has been taking responsibility for the additional load that places on the electricity grid by looking for opportunities to power more buildings and facilities with clean and sustainable sources of energy.

In an Australian first, in 2015 UTS became the first large energy customer to contract directly for offsite solar. It has also been investing heavily in on-site solar on its campus. It has installed six solar systems on building rooftops and has plans for further solar development in 2019 and beyond.

"We are committed to finding sustainable solutions to reduce our environmental impact," UTS Vice-Chancellor Attila Brungs said. "But we don't just want to create improvement for ourselves, we want to change whole systems to enable others to also improve their sustainability. UTS has spent the last couple of years researching and creating an effective energy model to help reduce emissions while also supporting the continued growth of the renewable energy sector."

"We are proud of the systemic changes that we have made as this model can be adopted by other universities and organisations to create more sustainable solutions to energy usage."

UTS Green Infrastructure Project Manager Jonathan Prendergast said: "Walgett Solar

Farm is a fantastic project. The area has high levels of sun exposure, even in winter, so it will generate consistently across the year.

"While much of Australia's rooftop solar capacity is on houses, and therefore in population centres, projects like Walgett Solar Farm spread our solar capacity geographically, providing more consistent solar generation that's less subject to local weather patterns."

By entering into a long-term agreement, UTS will better manage its long-term energy costs and cap its exposure to price rises, Mr Prendergast said.

The Walgett Solar Farm will produce about 63,000 MWh a year of electricity once fully built, enough to power 9,600 NSW homes. Currently solar farms supply around 1 per cent of annual NSW electricity demand, with distributed rooftop solar providing an estimated 4 per cent annually on top of that.

"This is a long-term investment in the Walgett region," Professor Brungs said. "UTS already has several regional initiatives, in terms of support, scholarships and research projects. We look forward to visiting Walgett and meeting with the community to further understand the opportunities for building partnerships."

Source: University of Technology Sydney

NSW transmission plan the missing link for state clean energy projects

13 November

The clean energy industry says the New South Wales Government's new Transmission Infrastructure Strategy provides much-needed political leadership which will ultimately lead to cheaper power and maximise access to the state's exceptional clean energy resources.

Clean Energy Council Chief Executive Kane Thornton said improved transmission would help to unlock new energy projects worth billions of dollars which are currently hindered by both network constraints and some regulatory obstacles such as the Regulatory Investment Test for Transmission.

"The strategy should lead to more flexibility across the National Electricity Market (NEM), making power available at the lowest cost wherever it is most needed. The focus on servicing designated Energy Zones will ensure that new investment in poles and wires will be undertaken more efficiently to areas where significant clean energy resources are located," Mr Thornton said.

"The renewable energy projects either underway or about to start in NSW add up to more than $4.2 billion and almost 2000 direct jobs. A carefully implemented transmission infrastructure strategy will ensure that these projects are just the beginning of a new wave of investment in renewable energy.

"Planning for transmission is a critical and often-overlooked part of the move to a 21st century energy system, and the New South Wales Government should be congratulated for making this a priority," he said.

The New South Wales Government has released its Transmission Infrastructure Strategy, which aims to improve the flexibility of the National Electricity Market by improved connections with South Australia, Queensland and Victoria, given NSW's integral location in the NEM.

Mr Thornton said NSW has some of the best energy resources in the world, from the Snowy Hydro project which was completed 50 years ago to the dozens of new wind, solar and storage projects that are now planned across the state.

Source: Clean Energy Council

Execution of HOA with GrainCorp to develop solar PV facilities on GrainCorp properties

13 November

Highlights

• ReNu Energy executes Heads of Agreement (HOA) with GrainCorp Operations Limited (GrainCorp), for the evaluation and development of solar PV projects within GrainCorp's east coast facilities network.

• ReNu Energy to build, own, operate and maintain solar assets on GrainCorp properties under power purchase agreements with GrainCorp.

• Exclusivity period to 30 June 2019 to identify three pilot project solar PV sites, one in each of Queensland, NSW and Victoria.

ReNu Energy Limited (ASX: RNE) is pleased to announce the execution of a HOA with GrainCorp for the evaluation and development of solar PV projects by ReNu Energy upon GrainCorp properties within eastern Australia.

GrainCorp is one of Australia's leading grain exporters and owns eastern Australia's largest integrated grain storage and transport network.

During the exclusivity period, ReNu Energy and GrainCorp will work together to evaluate and develop three pilot project solar PV sites which will be built, owned operated and maintained by ReNu Energy and provide GrainCorp with the benefits at each site of:

• power cost savings;

• improved energy security;

• reduced exposure to energy market cost volatility; and

• enhanced corporate sustainability outcomes by reducing GrainCorp's environmental impact in the area of energy and emissions.

Any subsequent solar PV projects will be developed under separate agreements between ReNu Energy and GrainCorp, after development of the pilot projects.

Commenting on the execution of the HOA, ReNu Energy's CEO Craig Ricato said, "We are very pleased to have the opportunity to work with GrainCorp on the evaluation and delivery of the first three solar PV projects within their extensive network of properties in eastern Australia. We are looking forward to assisting GrainCorp as they continue to evaluate their future energy requirements and the benefits of the broad adoption of renewable energy within their property portfolio.

Our agreement with GrainCorp to develop these three pilot projects is well aligned with our strategy of delivering behind the meter solar PV installations, which are supported by long-term power purchase agreements. The Australian agribusiness sector represents significant opportunities for the delivery of solar and bioenergy projects for ReNu Energy, and we look forward to demonstrating the significant positive impacts that solar can have on a company's operations through the deployment of these three projects in GrainCorp's portfolio."

Source: ReNu Energy

Building begins on City's solar farm

13 November

Construction on the region's biggest solar farm has begun after Lord Mayor Nuatali Nelmes turned the first sod today on a disused landfill site at the Summerhill Waste Management Centre facility.

The City of Newcastle's single largest investment in a renewable energy project follows eight other solar installations at its Waratah Works Depot, Art Gallery, City, Wallsend and New Lambton libraries, No.1 and No.2 Sportsgrounds and Newcastle Museum.

The five-megawatt solar arm will increase the City's renewable energy generation capacity tenfold and save rate payers around $9 million over its 25-year lifespan.

"Today's sod turning is a major milestone for this City and another exciting step forward in the delivery of renewable energy for our region," the Lord Mayor said from Summerhill today.

"The solar farm will produce enough energy to run the equivalent of all the City of Newcastle's facilities during the day, which represents significant environmental returns for ratepayers and millions of dollars in savings."

Covering an area of around five football fields on a capped landfill once part of the Wallsend Borehole Colliery, the solar farm's 14,500 photovoltaic solar arrays will help dramatically reduce the city's $4m annual electricity bill.

The City of Newcastle secured a $6.5 million loan from Australia's Clean Energy Finance Corporation (CEFC) to help build the farm, which will comprise solar panels and infrastructure built by international property and infrastructure group Lendlease and EMC.

The new facility builds on one of Australia's most advanced renewable energy setups at a waste facility -- with a 2.2megawatt landfill gas generator and a small wind turbine already located at Summerhill.

The solar farm and the other rooftop installations already installed by the City are part of actions endorsed by the Cities Power Partnership, a Climate Council program in which cities and towns pledge key actions to reduce their climate impact.

"We are building sustainability into everything we do after reiterating our commitment last year to generate 30 per cent of our electricity needs from low-carbon sources and cut overall electricity usage by 30 per cent by 2020," Cr Nelmes said.

Source: City of Newcastle

Commonwealth Bank of Australia becomes first Australian company to join global business push for renewable electricity

13 November

Renewable energy is good for the environment and good for the economy – that's the message from Australia's largest bank today as Commonwealth Bank of Australia (CBA) pledged to source 100% renewable electricity globally by 2030 to help lower its emissions.

CBA becomes the first Australian company to join RE100, the global corporate leadership initiative on renewable power led by The Climate Group in partnership with CDP. By making the RE100 commitment, CBA is building corporate demand for clean energy in Australia and overseas, while demonstrating it is a financially sound investment.

Also today, CBA announced a 12-year power purchase agreement (PPA) from a new 270 MW wind farm, now the largest wind farm in New South Wales. This will see CBA source 65% of its national electricity needs from renewables by January 2019 – further reducing its carbon emissions in Australia by as much as 60%.

Sam Kimmins, Head of RE100, The Climate Group, said: "Around the world forward-thinking companies want access to clean, cheap power that lowers emissions and increases competitiveness. As the first Australian business to join RE100, Commonwealth Bank will achieve exactly that, while helping to lead Australia's transition to a clean energy future.

"Long-term renewable energy purchasing agreements like this support the development of new energy infrastructure and actively bring more renewables online. We're confident that other major Australian companies will follow Commonwealth Bank's lead."

Kylie Macfarlane, General Manager of Corporate Responsibility, CBA, said: "Commonwealth Bank has made significant progress on our climate commitments and to be the first Australian company to join RE100 is a great achievement for us.

"We continue to build on our track record of reducing energy use, and subsequent emissions, across our branches and offices. Since 2009 we have halved our direct emissions in Australia and we've installed solar panels at more than 50 branches across the country.

"This power purchasing agreement will see Commonwealth Bank use renewable energy for 65 per cent of our Australian electricity needs which is a significant step towards our transition to 100 per cent renewable electricity use by 2030."

The author and sustainability expert Jon Dee, who is helping The Climate Group with the development of RE100 in Australia, said: "Reducing emissions can mean reducing electricity bills. By signing this substantial wind deal and sourcing clean power, Commonwealth Bank will save money compared to the conventional energy it has been buying. This approach sets a positive role model for other Australian companies to follow."

CBA already operates on-site solar projects at more than 50 of its branches. Its new PPA will see the company receiving 96,000 megawatt hours (MWh) of renewable energy annually from the 270 MW Sapphire Wind Farm. The wind farm will generate enough clean energy to power 115,000 homes and displace 700,000 tonnes of carbon dioxide every year.

CBA's commitment comes three weeks after the first Australian RE100 meeting with speakers including members Fujitsu, Mars and Unilever. Organized and hosted by Arup, the meeting brought together companies and market stakeholders to send a strong demand signal for renewable energy in Australia.

In total, 155 RE100 companies have now committed to 100% renewable electricity.

Source: RE100

PROJECT NEWS

Gunnedah Solar Farm

The NSW Department of Planning and Environment has now completed its evaluation of the Gunnedah Solar Farm and referred it to us – the Independent Planning Commission NSW – for determination.

The three-member Panel appointed by Chair of the Commission, Professor Mary O'Kane AC, to determine this state significant development application comprises Mr Andrew Hutton (Panel Chair), Ms Annelise Tuor and Mr Tony Pearson.

Because there's been so much interest in this proposal, we're holding a public meeting to listen carefully to the community's views. This is your last chance to comment on the Department's assessment report before our independent experts make a final decision.

The meeting will be held at Gunnedah Town Hall, 152 Conadilly Street, Gunnedah NSW 2380, on Thursday, 29 November 2018, at 9:30am to hear from as many people as possible.

If you wish to apply to speak at the public meeting, you must complete an expression of interest form and return it via email to ipcn@ipcn.nsw.gov.au so that it is received by no later than 5:00pm on Tuesday, 27 November 2018.

And if you can't make it or just don't like public speaking, that's not a problem! You can make a written comment up to one week after the meeting. Written comments are weighed the same as spoken presentations.

Source: NSW Department of Planning and Environment

Vestas wins largest project in Victoria's Renewable Energy Auction with the first V150-4.2MW turbines in Australia

14 November

Vestas has received its first Australian order for the largest turbine in its product line, the V150-4.2MW. The turbines, ordered by long-term customer Tilt Renewables for the 336 MW Dundonnell Wind Farm, feature the latest Vestas technology, proven to optimise asset performance and lower the cost of energy. This played a crucial role in the customer securing the project under the Victoria Renewable Energy Auction Scheme.

Located 23 km north-east of Mortlake in the Western District of Victoria, Dundonnell Wind Farm will feature 80 Vestas V150-4.2 MW turbines with a 114-meter hub height tower design to maximise performance under the site's specific wind conditions. Towers will be partially sourced from local Victorian suppliers.

The project is the largest of six successful bids under Victoria's 928 MW Renewable Energy Auction Scheme, and the second winning project backed by Vestas' customised solutions.

Clive Turton, Vestas Asia-Pacific President said "Two Vestas-backed projects have been awarded under Victoria's Renewable Energy Auction Scheme, which underlines Vestas' ability to offer customers customised solutions that ensure the lowest cost of energy, highest quality of technology, and optimal park performance".

"Vestas is a long-term trusted partner of Tilt Renewables, with a proven track record in the market and the capabilities to support this project's successful auction outcome," said Tilt Renewables CEO Deion Campbell. "Together, we are proving that wind energy is a critical part of the solution to meet Victoria's energy needs".

The Dundonnell Wind Farm will also facilitate and take advantage of the Vestas Renewable Energy Hub in Geelong, a Vestas initiative to support the state government's ambitious renewable target, creating local jobs and boosting local businesses. The Hub involves several local partnerships to help Victorian industry build capabilities within turbine assembly, subcomponent supply, wind park maintenance, logistics and advanced materials and manufacturing science.

"Together with our partners, Vestas is fully committed to the Victorian Renewable Energy Target, and we support the state government's approach to secure competitively-priced renewable energy while maximising the positive impact on the community", said Clive Turton.

The contract includes the supply, installation and commissioning of the wind turbines, electrical balance of plant infrastructure, as well as a minimum 15-year Active Output Management 5000 (AOM 5000) service agreement, designed to maximise energy production of both the wind turbine and Balance of Plant assets.

Commercial operations at Dundonnell Wind Farm are scheduled to commence in the third quarter of 2020.

Source: Vestas

Zenviron secures Dundonnell Wind Farm contract

Zenviron Pty Ltd ("Zenviron"), full-service balance-of-plant specialist, has been awarded a contract with Vestas – Australian Wind Technology Pty Ltd ("Vestas"), a global leader in wind energy solutions, for the delivery of balance-of-plant civil and electrical works for the Dundonnell Wind Farm in regional Victoria.

It is expected that Zenviron will perform approximately $100 million of works under the contract.

Zenviron General Manager Carl Keating said the award marked the Company's third package of work with Vestas, highlighting the strength of its customer relationships and capability to deliver.

"Zenviron continues to grow with Australia's renewable energy market. Dundonnell Wind Farm is our fifth contract award for 2018, demonstrating our leadership position in the renewable energy market delivering balance-of-plant works," said Mr Keating.

Dundonnell Wind Farm is Tilt Renewables' second project in Victoria having been successful in the recent Victorian Renewable Energy Targets (VRET) auction process, and follows the completion of Tilt's Salt Creek Wind Farm delivered in consortium by Vestas and Zenviron earlier this year.

The 336MW Wind Farm, located 23km north-east of Mortlake in Victoria, will consist of 80 turbines connected to the Mortlake Terminal Station. It will produce enough clean energy annually to power 244,800 homes and reduce carbon emissions by approximately 1,328,400 tonnes.

Works will commence in November 2018, with completion expected in August 2020.

The Wind Farm will create up to 200 jobs during the construction period, and provide financial support to the local community through a community benefits program.

Source: Zenviron

NEW PROJECT

Energy Estate partners with MirusWind on the Walcha Energy Project

15 November

Energy Estate is excited to announce its partnership with MirusWind to develop the Walcha Energy Project. The Walcha Energy Project is the largest single renewable energy project being developed in the NEM. The project will combine wind and solar energy generation with pumped hydro storage and other storage options to provide up to 4,000MW of new clean generation. The co-location of wind and solar combined with the storage options means that the Walcha Energy Project will deliver dispatchable power into the system and assist with NSW's transition from fossil fuels.

The project is situated around the town of Walcha, located approximately 55km south of Armidale on the New England Tableland, in New South Wales, Australia. It is ideally located with excellent wind resources and land well suited for large scale solar. Additionally, the site is close to the backbone of the NSW transmission system and the coal-fired power plants in the Hunter Valley which are scheduled to be retired from 2022 onwards. The potential of the region has been recognised by its inclusion in AEMO's Integrated System Plan as the New England Renewable Energy Zone.

A unique feature of the Walcha Energy Project is the high level of the local community participation from the outset. The development team has worked closely with Walcha and the surrounding community and has designed innovative arrangements that seek to balance the interests of the landholders, the community and the other stakeholders.

The project will be completed in stages with the construction of the first phase expected to commence in 2020, supplying energy to NSW consumers in 2022.

A key feature of the Walcha Energy Project is the proposal to develop a major substation at Uralla as a renewable energy hub. Currently, the renewable energy projects to be developed in New England REZ exceed the capacity of the existing grid. This proposed substation aligns with Transgrid's 2018 Transmission Annual Planning Report and the NSW Transmission Infrastructure Strategy that was released this week. This gives the Walcha Energy Project and other developers in the REZ a new connection point which is aligned with the future development of the NSW transmission grid. The hub solution has been designed by Aurecon, the leading engineering consultancy and grid specialists. It could support the development of a new transmission line from the Hunter Valley to the New England REZ and facilitate a second double circuit interconnector between NSW and Queensland.

"The Walcha Energy Project is a leading example of how integrated renewable energy generation and storage zones are the next stage of Australia's clean energy transition. Unlocking the clean energy potential of areas like Walcha means delivering clean and dispatchable electricity generation when needed, and enabling new economic development opportunities in regional NSW," Chief Advisor to Energy Estate, Simon Corbell said.

Mark Waring, Founder of MirusWind, said "MirusWind is pleased to have Energy Estate join the development team. Their skill set and successful track record in accelerating projects and innovation will bring a depth of expertise to what will truly be a state significant NSW energy project. We look forward to working with the community and region to bring this project quickly to fruition."

Vincent Dwyer, Principal of Energy Estate, stated "We are delighted to join MirusWind in taking this strategically located project forward in one of the identified renewable energy zones (REZ) under AEMO's Integrated System Plan. This multi-technology opportunity will supply low cost, firmed, renewable energy to NSW customers. The recent dramatic falls in the cost of new wind and solar generation means this is now the right time to move ahead with a project of this size and impact in NSW. "

For more information visit http://www.walchaenergy.com.au

AEMO's summer energy outlook report

16 November

The Australian Energy Market Operator (AEMO) has today released its 2018/19 summer readiness report which highlights the plans and actions both AEMO and the industry have taken to prepare Australia's power system for the summer ahead.

"Findings from AEMO's 2018 Electricity Statement of Opportunities (ESOO) projected a heightened risk of involuntary load shedding in Victoria and South Australia for the upcoming summer, in the absence of further action. Our summer readiness plan outlines the actions we have taken to achieve our objective of delivering reliable, secure and affordable energy to all Australians," said AEMO Managing Director and Chief Executive Officer Audrey Zibelman.

"The Bureau of Meteorology is forecasting a hotter and drier summer which, coupled with other risks we have identified, suggest we have a challenging summer awaiting us. But while we know that unexpected events can and do happen, particularly when the power system is under pressure and most prone to failure, AEMO is confident the plans we have made and the targeted actions we have taken in collaboration with the wider energy industry and governments, have appropriately equipped us to tackle any unforeseeable events the upcoming summer might bring," said Ms Zibelman.

These actions have led to the sourcing of up to 930 megawatts of off-market reserves

through the Reliability and Emergency Trader (RERT) mechanism. This initiative enables AEMO to have sufficient resources to manage potential high risk scenarios that typically occur in summer, such as extreme or extended heatwaves, bushfires and/or unplanned infrastructure outages.

"As highlighted at the end of last summer, AEMO continues to look at all avenues to reduce the costs of strategic reserves for Australian consumers.

"Our continued operational efficiencies and refinements in our forecasting methodologies, together with the increased capacity of approximately 2,100 megawatts of new generation capacity, means we did not need to procure the same level of strategic reserves as last summer. We will continue to engage in discussions with industry to ensure additional reserves are available to us should unforeseen circumstances arise," said Ms Zibelman.

AEMO's 2018-19 summer plan also focused on undertaking extensive emergency preparedness exercises and hosting information sharing sessions with a wide range of industry stakeholders and all government jurisdictions.

Beyond this summer, AEMO is expecting almost 6,000 megawatts of new wind and solar to be operational in the next two years, which will alleviate the short-term risk of involuntary load shedding during summer peak periods. However, mid to longer term strategic planning and resource investment, such as those outlined in AEMO's Integrated System Plan, will be necessary to not only manage the power system during peak summer periods, but also to ensure ongoing reliability and stability of Australia's power system throughout the year.

AEMO will continue to work closely with fellow market bodies, industry and governments to progress developments that will enable an affordable, reliable, and secure energy system for Australian energy consumers now and into the future.

AEMO will continue to use our Energy Live online media portal to provide the community with live updates on events as and when they occur throughout summer.

Source: AEMO

NEW PROJECT

Yongala Solar Farm

Location: Yongala, South Australia
Capacity: 2.66 MW DC/2 MW AC
Developer: SSE Australia
LGA: District Council of Peterborough
Description: SSE Australia applied for a generation licence for a grid-connected solar farm consisting of:

- 1 SMA 2200KVA MVPS (Central Inverter and Step-Up Transformer)
- 8,064 330W Seraphim panels
- The module mounting structure is from SMS and is a fixed tilt 10-degree east-west facing structure, made from galvanised steel and mounted to posts with concrete foundations.

The connection to the electrical network will utilise the SMA MVPS step-up transformer at 33kV. This will be connected to an ABB RMU 33kV with revenue metering.
Contact: Steve Phillips
Principal Consultant
Renewable Age
Email: sphillips@renewableage.com