



Project Updates

Week ending 6 October 2017

PROJECT TALLY (October)

Number of projects = 451

- 210 Generating

- 241 In Development

Total Capacity = 60,821.7 MW

- 21,450.97 MW Generating

- 39,370.73 MW In Development

Cimic's UGL awarded \$133m Bannerton Solar Park contract

2 October

CIMIC Group company, UGL has been awarded a contract by Foresight Solar Australia to design and build stage one of the Bannerton 110MWDC Solar Park, near Robinvale in Victoria.

The contract will generate revenue to UGL of approximately \$133 million, over a three-year term.

UGL will undertake the engineering, procurement and construction of stage one of the solar park, including associated substation and Powercor Australia grid connection.

The contract is due to commence in late 2017, and is expected to be generating power to the grid from July 2018.

Once operational, UGL will provide operation and maintenance services for a two-year period.

CIMIC Group Chief Executive Officer Adolfo Valderas said: "CIMIC and UGL are pleased to be delivering this significant solar project and supporting the growth of the renewable energy market in Victoria."

UGL Managing Director Jason Spears said: "UGL has strong expertise in the renewable energy sector, with nine current and past solar projects around Australia. We are pleased to have this opportunity to contribute

to the further expansion of the renewable energy market."

UGL has delivered five solar projects and currently has four solar projects under construction: Emu Downs in Western Australia, Kidston and Collinsville in Queensland and White Rock in New South Wales.

Source: CIMIC Group

CEFC finances largest solar park in Victoria to power trams with cost competitive clean energy

3 October

CEFC finance for Victoria's largest solar farm will help bring stability and diversity to the state's energy supply, demonstrating solar's increasing cost competitiveness, while supporting a low emissions transport future.

Construction is about to begin on the 88 MW (AC) 110MW (DC) Bannerton Solar Park, at Almas Almonds in Victoria's Sunraysia district, following confirmation that the CEFC is committing approximately \$98 million in debt finance towards the project.

CEFC CEO Ian Learmonth said the CEFC had invested as the sole debt financier to accelerate the project which, due to the rapidly falling cost of constructing solar in Australia, is being developed without any grant support.

"Previously it wasn't viable to construct solar of this scale in Victoria, which has good insolation rates, but not as high as the northern states. We have witnessed rapidly improving economic conditions that now make this project commercially viable without the need for grant funding," Mr Learmonth said.

"What's more, through the recent agreement struck with the Victorian Government, Bannerton Solar Park will effectively help power Melbourne's iconic tram network, reducing the city's public transport emissions, making an important contribution to decarbonisation of the economy."

The project is being developed by a joint venture between independent global infrastructure and private equity investment manager Foresight Group and Syncline Energy, a Victoria-based developer.

Equity investment in the project will be provided by the UK-listed Foresight Solar Fund Limited (FSFL), Korean government-owned Korean Infrastructure Asset Management Company KIAMCO (each of whom are taking a 48.5 per cent stake) and Korea's Hanwha Energy (3 per cent).

Syncline Energy spokesperson Phil Galloway said the project was being built on almond orchard land that isn't suitable for planting. The almond farm benefits from leasing the land around its orchards, generating an additional revenue stream for its business.

Construction is expected to involve around 180 jobs and is targeting a connection date of July 2018.

The 320,000-panel plant is expected to generate enough power to supply around 30,000 homes with solar energy, and a significant proportion of its projected output has been contracted in separate agreements with Alinta Energy and the Victorian Government.

Ricardo Pineiro, Partner of Foresight Group, said: "We are pleased to have completed FSFL's first overseas acquisition in Australia, alongside the prestigious financial institutions and investors KDB KIAMCO and Hanwha, with support from the CEFC, growing the fund's portfolio to 20 assets with a net capacity of 528MW. We're particularly proud that Bannerton has been successful in the tender to provide clean power to the Melbourne Tram network, supporting the Victorian State's target of 40 per cent renewables by 2025."

The Bannerton project is helping build diversity in Victoria's evolving renewable energy mix, as the state embraces renewable energy alternatives to replace its aging coal-fired generators.

It will see the construction of new powerlines to connect the solar farm to the grid. The project's inverters, which convert the solar DC electricity to AC electricity for export to the network, will also help provide voltage support on the grid, so the project meets AEMO's continuous uninterrupted operations requirements in the event of grid faults.

Bannerton is the CEFC's second investment in a solar farm in Victoria. In March this year, the CEFC announced its first solar farm in Victoria, committing finance to Edify Energy's 50MW (AC) Gannawarra Solar Farm, west of Kerang. Earlier, the CEFC also committed \$67 million in senior debt financing to the Ararat Wind Farm, as well as \$73 million to finance the final stage of the Portland Wind Farm in south west Victoria.

About Foresight Solar Fund Limited
FSFL is the largest of the solar focused renewables infrastructure companies listed on the London Stock Exchange in terms of operational assets. Having raised £150 million at IPO in October 2013, FSFL has since raised a further £274.2 million from institutional investors and private investors, and continues to deliver its target dividend return which, for calendar year 2017, is 6.32p per share (inflation adjusted from 6.17p in 2016). The

Company invests in ground-based predominantly UK solar power assets with the objective of delivering a sustainable and increasing index-linked dividend to shareholders with the potential for capital growth over the long-term. Of the Company's 528MW portfolio 475MW is operational and fully accredited, with the remaining capacity under construction.

Source: CEFC

Link to AltEnergy project database: [Bannerton Solar Farm](#)

Nectar Farms confirms site shift

3 October

The Northern Grampians Shire community will see the economic on-flow of the Nectar Farms development ahead of schedule, with the company announcing its intentions to shift its focus solely to the Bulgana Green Power Hub site.

Nectar Farms today announced plans to shift its full 40-hectare development to the Bulgana Green Power Hub site - which it will share with a 63-turbine wind farm set to be built by renewable power company, Neoen - and move its focus away from the original Phase One site in Leviathan Road.

CEO of Nectar Farms, Stephen Sasse, said the decision for the company to shift its focus to the Bulgana site has been driven by a number of factors, including a reduction in capital expenditure and operating expenses, with plans to maintain a hold on the Leviathan Road site until construction at the Bulgana Green Power Hub has sufficiently progressed.

“This decision will produce savings in capital expenditure and operating expenses, largely arising from establishing a single construction site (as opposed to two) simpler construction, no duplication of facilities and the ability to operate solely off the BGPH electricity supply,

obviating the need for natural gas and grid energy,” Mr Sasse said.

“We propose to hold the Phase One site in reserve until such time as construction of the windfarm and the glasshouse is underway, and then dispose of the Phase One land.”

Mr Sasse said a masterplan for the Bulgana development is currently being completed, with construction set to begin in March 2018, pending planning approval.

Northern Grampians Shire Council Mayor, Cr Tony Driscoll, welcomed Nectar Farms’ announcement, and the expedited delivery of employment and contractor opportunities for the NGSC community.

“We have worked closely with Nectar Farms on this major investment in our region, and we welcome the news that soon, our community will be able to reap the benefits of that hard work in the form of a number of employment opportunities,” Cr Driscoll said.

Representatives from NGSC and Nectar Farms yesterday conducted information sessions with neighbouring landholders and contractors yesterday in order to give a complete oversight of the change in plans.

“We are committed to keeping our community abreast of any and all changes to this major project, and together with Nectar Farms, we will continue to supply as much information as possible for the duration of the construction phase,” Cr Driscoll said.

Source: Northern Grampians Shore Council

Link to AltEnergy project database: [Bulgana Green Power Hub](#)

ElectraNet awards contract to build Yorke Peninsula battery

3 October

The construction of ElectraNet's 30 MW large-scale battery at Dalrymple substation on the Yorke Peninsula has been awarded to Adelaide company Consolidated Power Projects (CPP).

CPP will work with international power company ABB and battery provider Samsung to deliver the project.

The battery, which will deliver both regulated network services and competitive market services, is part funded by up to \$12 million from the Commonwealth Government through the Australian Renewable Energy Agency (ARENA). ElectraNet has been working on this project for the past three years.

ElectraNet Chief Executive, Steve Masters said the project demonstrates an exciting turning point for the company and industry.

"The South Australian energy mix and landscape has significantly changed in recent years and this project will help the State to adapt to this change," Mr Masters said.

"The battery will demonstrate how energy storage can strengthen the grid and improve reliability for the lower Yorke Peninsula.

"It will work with AGL's existing 90 MW Wattle Point Wind Farm and rooftop solar PV to provide back-up power in the event of any interruption to supply from the grid until the grid is restored. These learnings will be applicable in the future to other potential grid locations.

"In addition, the fast frequency response of the battery will improve power system security across the state by quickly injecting power into the grid following a disturbance," Mr Masters said.

The battery will be constructed from this month and is expected to be ready for full

operation in the National Electricity Market by May 2018.

Following construction, ElectraNet will lease operation of the battery to energy retail operator AGL who will use the battery to provide competitive market services.

CPP's Regional Manager (SA/Vic), Lloyd Bentley welcomed the partnership.

"As an industry leader in integrating and constructing battery energy storage systems, we are delighted to have been selected to deliver this significant project," Mr Bentley said.

Doug Jackson, AGL's Executive General Manager, Group Operations said, "We're pleased to be part of a project that will demonstrate how a battery of this scale can help firm renewables and provide more dispatchable power for South Australian energy consumers."

Source: ElectraNet

New "Tasmania-first" energy vision

4 October

New Energy Minister Guy Barnett has today outlined his "Tasmania-first" vision for energy.

"Under my watch, our energy policy will be Tasmania-first", Mr Barnett said.

"This means secure supply for Tasmania, and the lowest possible electricity prices for Tasmanians will be my number one priority.

"Following the energy crisis, our energy supply is now the most secure in the nation, with storage reaching 47.5 percent this week, the highest level since December 2013.

"But I know that many people are worried that the errors of the former Labor-Green Government in draining our dams in order to

make money from the carbon tax by exporting energy to the mainland, could be repeated.

"I understand this concern, and I want to make sure it never happens again.

"We will continue to pursue increases to our energy capacity, including the Battery of the Nation – firstly to ensure a secure, cheap and reliable supply for Tasmania, and secondly to deliver a return on any excess energy. However, the needs of Tasmanians will always come first.

"Tasmanians deserve to have the lowest possible power prices, and this must always come ahead of higher dividends, or the needs of the mainland."

Mr Barnett said that while he was still being briefed and working through the many complexities of the energy portfolio, he hoped to be able to make concrete announcements supporting the new "Tasmania-first" approach in coming months.

Source: Tasmania Government

CLARIFICATION: First Solar lodged recently a standard EPBC referral to fulfil its federal duty of care on environmental clearances in relation to threatened species for the up to 2000 MW solar farm Bulli Creek Solar Farm in Queensland.

Record year for renewables charges on

5 October

Another wave of large-scale renewable energy projects is resulting in record levels of investment in renewable energy in Australia, according to industry peak body the Clean Energy Council.

Clean Energy Council Chief Executive Kane Thornton said 41 renewable energy projects

have now been committed in 2017, creating an unprecedented wave of investment worth over \$8 billion and creating approximately 4680 new direct jobs and massive economic benefits for local businesses across the country.

"These 41 projects will deliver over 4330MW of new capacity, which is crucial to increasing supply in the energy market, replacing old coal-fired generation that continues to close and ensuring downward pressure on power prices," Mr Thornton said.

"Private investors have committed to 26 projects currently under construction, with another 14 securing finance and expected to commence construction in 2017. It is incredible to see the shift in conversation and action around and in the industry. In addition, there is strong uptake of rooftop solar systems from Australian homes and businesses, expected to deliver over 1000 MW of capacity worth over \$2 billion during 2017. This combined investment will deliver an unprecedented level of private sector investment in power generation in this country's history.

"Initiatives by many state and territory governments in support of these projects, combined with the strong role of the Australian Renewable Energy Agency and Clean Energy Finance Corporation now puts the 2020 Renewable Energy Target well within reach. In addition to the 4330 MW of committed projects, there are additional projects that have secured Power Purchase Agreements or are likely to be delivered through the Victorian and Queensland renewable energy programs.

"We have already seen six times the investment value in 2017 of what we saw in 2016, and the new capacity will also help with energy security. In 2016, the combined capacity from all projects completed stood at 264.1 MW. This year 2210.2 MW of projects have been committed and 1881.2 MW are in construction with a whole financial quarter still to go.

“States like Queensland and NSW are leading the charge, with \$5403.5 million being invested in these parts of Australia alone.”

“This level of industry momentum risks slowing down without a long-term energy policy, such as a Clean Energy Target that will incentivise new investment far beyond 2020. It’s time to lock in a long-term policy and get on with the job.

Source: Clean Energy Council

Jim's Plain Renewable Energy Park moves forward

UPC Renewables submits EPBC Act referral for its Jim's Plain Renewable Energy Park, which will involve the construction and operation of a wind farm in north western Tasmania. The Project is to be developed to an estimated capacity of 160 MW, involving the installation of up to 40 wind turbine generators.

Provide an estimated start and estimated end date for the proposed action:

Start date 01/2020

End date 06/2021

Contact:

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Senator James Mcgrath officially launches the Century solar power generation project

5 October

- Innovative modular solar system, fast deployment & pre-engineered for expansion
- Initial solar facility the basis for roll out of large scale solar power generation
- Initial facility to offset ~70,000 litres of diesel consumption per annum
- Assistant Minister to the Prime Minister, Senator the Hon James McGrath, officially launched the Century Solar Power Generation Project
- Solar facility to compliment base load gas power from existing grid connection

New Century Resources Limited (ASX: NCZ) is pleased to announce that the first stage of a planned roll out of renewable energy generation within the mix of energy supply for the Century Zinc Mine has begun, with the engagement of SunSHIFT to provide a modular Solar PV array.

The successful integration of this initial system will be used to form the basis for development and roll out of a substantial solar power facility on site.

The initial solar facility will offset approximately 70,000 litres of diesel per annum, reducing both operating costs and the site’s environmental impact.

Launching the Century Solar Power Generation Project at the Mine was Senator the Hon James McGrath, Assistant Minister to the Prime Minister. Senator McGrath said the Project illustrated New Century Resources’ commitment to improving its environmental footprint as well as sourcing reliable, sustainable and affordable sources of power to support the Mine’s restart of operations now with expansion into the future.

“It is great to see companies adopting new technology and looking for opportunities to

establish long-term environmentally friendly power solutions.” Senator McGrath said.

Commenting on the project award, New Century Resources Utilities Manager, Michael Pitt stated: “The deployment of solar power into the energy generation mix at Century aligns perfectly with our company ethos of economic rehabilitation. The solar resource available at the Century Mine provides the opportunity to reduce the overall cost of power whilst supporting the environmental objectives of the Company.

Source: New Century Resources

CS Energy signs 10 year agreement with Kennedy Energy Park

5 October

Another page in Queensland’s renewable energy boom story has been turned with Queensland Government-Owned generator - CS Energy - entering a 10 year-agreement with the 60 megawatt Kennedy Energy Park near Hughenden in North Queensland.

Treasurer Curtis Pitt said the agreement means CS Energy will purchase the electricity output and a proportion of the large scale generation certificates from the planned hybrid generation facility.

“The Kennedy Energy Park is an innovative grid connected wind, solar and storage hybrid project that will provide enough electricity to power more than 30,000 homes,” Mr Pitt said.

“This \$150 million project is part of a wave of renewable energy investment occurring in North Queensland that will revitalise communities and create jobs for the future.

“Since January 2016, Queensland has seen an unprecedented level of renewable energy investment activity in North Queensland, with over 830 megawatts of large-scale projects

commencing construction or finalising commercial arrangements.”

Minister for Energy, Biofuels and Water Supply Mark Bailey said the Palaszczuk Government had kick started the renewable energy boom after not one large scale renewable energy project was built under the previous LNP government.

“Tim Nicholls and the LNP are continuing to stick their head in the sand with their anti-renewables stance – choosing instead to back a dirty new coal-fired power station that will be bad for bills and bad for the environment,” he said.

“Under the Powering Queensland Plan and Powering North Queensland Plan, the Palaszczuk Government is committed to growing the state’s uptake of renewable energy,” Mr Bailey said.

“As at 30 August, 2017 – there are 20 financially committed large scale renewable projects in the pipeline state wide worth \$3.4 billion, with a generating capacity of 1781 MW, supporting 2,773 construction jobs.

“Of those financially committed projects, 14 are in North Queensland and involve investment of nearly \$2 billion. They have a generating capacity of 1001 MW and are supporting 1,873 construction jobs.

“The Palaszczuk Government is committed to achieving a 50 percent renewable energy target by 2030 which has the potential to deliver broad benefits to the economy, particularly in regional Queensland.”

Kennedy Energy Park will comprise a 15 megawatt (MW) solar photovoltaic plant, 43.5 MW wind plant and 2MW/4MWh of battery storage and is being developed by Windlab and Eurus Energy Holdings. This innovative approach of combining world class wind and solar resources, which peak in their generation at different times of the day, with battery storage will allow the Kennedy Energy Park to supply energy to the grid even when

the sun doesn't shine or the wind doesn't blow.

CS Energy CEO Martin Moore said the agreement was part of CS Energy's strategy to facilitate renewable energy development in Queensland while continuing to provide reliable baseload electricity through its existing portfolio of power stations.

"CS Energy is looking to the future and making strategic investments that will provide a sustainable future for the company and support Queensland's transition to a clean energy future," Mr Moore said.

Kennedy Energy Park Director Rob Fisher welcomed the agreement with CS Energy.

"The agreement with CS Energy means that this industry leading project can commence construction later this year and be generating in 2018," he said.

"The project will prove up many key concepts and technologies necessary for the ongoing rollout of high penetration renewable energy around the world."

The Kennedy Energy Park will connect to the national grid via existing transmission infrastructure, with a maximum export capacity of 50 MW.

The project expects to be fully operational in the second half of 2018 and is a catalyst project for the much larger Kennedy Wind Farm, which will form a key part of the Clean Energy Hub under the Powering North Queensland Plan.

Source: Queensland Government

Link to AltEnergy database: [Kennedy Energy Park](#)

Carnegie Clean Energy wins \$16 million grant from WA Government for Albany Wave Energy Project

6 October

- Carnegie Clean Energy Limited (ASX: CCE) wins \$15,750,000 in Western Australian Government's competitive tender to deliver a Wave Energy Project at Albany.
- An additional \$3.75m has been awarded to the University of Western Australia to establish an associated national Wave Energy Research Centre co located in Albany, WA
- The Australian Renewable Energy Agency (ARENA) Board has conditionally approved the transfer of Carnegie's \$11.7m undrawn CETO 6 Project funding from Garden Island to Albany subject to the signing of the detailed documentation.
- Carnegie will commence work on the Project immediately with upcoming activities to include project design, wave buoy deployment, site surveys, community consultation and approvals.

The Western Australian Government's Department of Primary Industries and Regional Development has awarded \$15.75m grant funding to Carnegie's CETO technology and Albany Wave Energy Project following the completion of a globally competitive tender process for wave energy developers that attracted submissions from around the globe.

In addition, the WA Government has awarded \$3.75 million to the University of Western Australia to establish and manage an associated Wave Energy Research Centre in Albany, Western Australia. The Wave Energy Research Centre will elevate Western Australia to the forefront of offshore renewable energy research and technology and bring together more than 30 researchers to support Carnegie's ongoing research into wave, tidal and offshore wind energy.

Carnegie's Managing Director, Dr Michael Ottaviano, commented:

"Carnegie is delighted to be chosen as the recipient of the WA government grant to

establish the Albany Wave Energy Project. With wave energy, we have the potential to take advantage of our local technology and resource advantage to build an industry we can commercialise and export globally. Having a globally recognised Wave Energy Research Centre in Western Australia will also attract national and international interest from research and industry participants.”

In parallel, the Australian Renewable Energy Agency (ARENA) Board has conditionally approved Carnegie’s request to move ARENA’s CETO 6 Project funding from Garden Island to Albany, subject to the signing of the detailed documentation. Accordingly, the remaining \$11.7m grant funding from ARENA’s CETO 6 Project funding will also be available to deliver the Albany Wave Energy Project. Carnegie will continue to use its Garden Island site for its own wave energy research and prototype testing as well as working with other wave energy developers at the site.

The Albany Wave Energy Project will involve the design, manufacture and install of a CETO 6 unit in Carnegie’s existing licence area offshore from Torbay and Sandpatch in Albany during the 2019/2020 summer weather window.

In addition to demonstrating Carnegie’s WA developed and owned technology, the Project will also deliver common user infrastructure at the Albany site which Carnegie will make available for other wave energy industry developers once the CETO 6 project is complete.

The Albany Wave Energy Project

Carnegie has been working on plans for a wave farm in Albany for over 5 years with activities including site studies, surveys, wave resource mapping, licensing and site design. Now that the Albany Wave Energy Project has secured WA State funding, and conditionally transferred the existing ARENA CETO 6 Project funding, Carnegie will immediately commence the project design and development process, including consideration of environment,

Native Title, planning consent and grid connection studies and approvals. As part of the Project, further consultation will be undertaken with the local community, industry and other stakeholder groups.

The project aims to demonstrate Carnegie’s commercial prototype, the CETO 6 unit, as well as the potential for WA and Australia to tap into a highly consistent renewable resource; delivering 24/7 clean power into the electrical grid at a time when recognition of the importance of reliable, clean energy in Australia has never been higher. The initial project phase involves delivery of a 1MW CETO 6 unit. Carnegie plans to follow this initial stage with a 20MW expansion which in could in turn lead to a 100MW CETO wave farm at the site. Further details of the latest CETO 6 design will be released in the coming weeks.

The Albany Project also represents an opportunity for Australia to develop world leading industrial capacity in the design and development of wave projects. Carnegie’s wave energy team and its CETO wave technology are already recognised as a world leading.

Wave Energy Research Centre

Associated with Carnegie’s Albany Wave Project is the establishment of the national Wave Energy Research Centre to be run by the University of Western Australia’s Oceans Institute and UWA’s Albany Campus. The local Western Australian investment will apply WA’s existing unique offshore energy capability to the development of a wave energy industry, creating domestic and export opportunities.

Carnegie will play a significant role in the Wave Energy Research Centre through close collaboration with UWA and all of the Research Centre partners. This will include sharing the Project’s site-specific surveys and common user data. In addition, Carnegie intends to transfer the common user infrastructure to the State following the

completion of the Project's operational period. Carnegie will also be working with the Research Centre to facilitate access for industry partners to Carnegie's wave energy research facility in North Fremantle and Carnegie's Garden Island demonstration site.

Carnegie will also provide value to the Research Centre through its existing research project portfolio representing over \$11 million of wave energy research projects with leading local and global research institutions;

including the University of Western Australia, Curtin University, Murdoch University, the CSIRO, Swinburne University, University of Adelaide and international institutions including Wave Energy Scotland, University of Edinburgh, Plymouth University in the UK and University College Cork in Ireland.

Source: Carnegie Clean Energy

Link to AltEnergy project database: [Albany Wave Energy Project](#)