



Project Updates

Week ending 11 August 2017

PROJECT TALLY (July)

Number of projects = 370

- 156 Generating

- 214 In Development

Total Capacity = 49,985.56 MW

- 17,688.63 MW Generating

- 32,296.93 MW In Development

Queensland recharges efforts to boost local energy security and jobs

7 August

The Palaszczuk Government's focus on boosting energy security and jobs for Queenslanders is stepping up, with progress on a key plank of its Powering Queensland Plan announced today.

Launching 'Renewables 400', Treasurer and Acting Energy Minister Curtis Pitt said the Palaszczuk Government was committed to continuing the unprecedented momentum in new renewable energy investment and energy storage in Queensland.

"Renewables 400 is one of the initiatives of my Government's \$1.16 billion Powering Queensland Plan and a natural follow on from the success of our Solar 150 program," the Premier said.

"Under this new initiative, we will support companies wanting to build the next generation of large-scale renewable and battery storage projects in Queensland, with priority given to projects that support local jobs and businesses.

Visiting Century Batteries' factory in Carole Park today, the Premier said the Government's focus was on a diversified energy mix, and attracting new investment and technologies to delivery long-term energy security and put downward pressure on electricity prices.

"As part of the Renewables 400 program, the Palaszczuk Government will undertake a specific process to secure up to 100 megawatts of energy storage prior to 2020.

"Energy storage will play an important role in the transition to higher levels of renewable energy and this process will support the accelerated deployment of this important technology."

Treasurer and Acting Energy Minister Curtis Pitt said that under the reverse auction process, companies would bid for Queensland Government support for both renewable generation and storage projects – most of which will be situated in the regions.

"Successful bidders will be awarded financial contracts with the Government for some or all of the electricity they generate which will provide them with long-term certainty allowing them to secure the financing required to deliver their project," he said.

"The 'reverse' nature of the auction process means that companies are encouraged to bid for the lowest price necessary to support their project.

"The criteria to select successful bidders will include not only price but also support for local businesses and jobs and with a view to creating a diverse mix of renewable energy generation and storage to support a secure, reliable and affordable supply of electricity into the future."

Companies wanting to be considered need to register via the DEWS website www.dews.qld.gov.au.

“This early registration provides adequate time to ensure they are ready to hit the ground running when the process opens,” Minister Pitt said.

“When the Palaszczuk Government was elected, there was not one large scale renewable energy project commissioned in Queensland.

“In just 18 months, we’ve kick-started the renewable energy boom and there are now 17 projects financially committed in Queensland bringing strong benefits to regional Queensland, including \$2.3 billion of investment and 2,200 construction jobs, with many more on the way.

“Energy is undergoing a transformational change in the way it is generated, transported and used and as a government you have to plan for that and not stick your head in the sand and pretend our only option is expensive coal-fired power stations anymore.

“We’re committed to transitioning to a clean energy future in a responsible, achievable and sustainable way – with affordability always front and centre.”

For more information on the 400MW Reverse Auction, or to access the register of interest visit www.dews.qld.gov.au

Source: Queensland Government

Equis to Develop 1,000 MW Solar Project in Queensland, Australia

7 August

Equis Energy (Equis), Asia-Pacific’s largest renewable energy IPP, has received approval from the Western Downs Regional Council in Queensland, Australia to develop the 1,000

MW Wandoan South Solar Project (WSSP), one of the largest solar projects in Australia and the world.

WSSP will involve a capital investment of approximately A\$1.5 billion, with a significant amount to be spent locally. Construction of the project is expected to begin in 2018, and to begin delivering power in 2019.

The project, covering 1,424 hectares of land, will be connected to Powerlink’s Wandoan South substation, and will have the ability to add battery storage when commercially feasible. This will allow energy to be stored and will facilitate the generation of power into the evening.

David Russell, Equis Chairman, said, “As Asia-Pacific’s largest renewable energy IPP, Equis is excited about leveraging its economies of scale in the growing Australian market to deliver low-cost renewable energy. Equis is committed to developing large-scale solar generation in rural areas to provide employment opportunities and support economic growth in local communities.”

Western Downs Regional Council Mayor Paul McVeigh said, “We are serious about cementing the Western Downs as the Energy Capital of Australia and securing the enormous economic and community benefits that will bring to our region. Equis has expressed their desire to be proactive in their consultation with neighbours of this project site, and that aligns with the business model we are promoting for renewable energy projects. The timeframe in which Council has processed this application highlights the message we are open for business, and I think it is important to reiterate that although our approval process is rigorous, it is efficient.”

WSSP brings to 1,276 MW the total generation capacity for which Equis has received approval in Australia, involving an aggregate investment cost of A\$1.9 billion, positioning Equis as one of the country’s largest and lowest cost solar developers.

The WSSP project will incorporate up to 3 million solar PV panels and have a generation output of approximately 1,800,000 megawatt hours per year (MWh/year), collectively supplying power equivalent to the annual needs of 255,000 homes, and saving over 1.7 million tonnes of CO₂ annually compared to same generation from coal-fired power.

Source: Equis

Impact Investment Group funds new 19MW Solar Farm in Swan Hill, Victoria

8 August

This project will be our largest investment in a single solar farm, and is expected to be one of the highest capacity solar farms in Victoria on completion.

The Swan Hill Solar Farm is expected to produce 37,700 MWh in its first year of operation, enough to power the equivalent of approximately 6,300 Australian homes.

Over its 25-year expected lifetime, the solar farm will avoid approximately 1 million tonnes of carbon emissions and save approximately 14,300 Australians from pollution related diseases, according to modelling by IIG. It will have more than 50,000 solar panels operating on a single axis tracking system.

The project has a total expected cost of approximately \$32 million and to directly create 60 jobs during construction, and the same number again through indirect employment in the supply chain and through managing Australia's transition towards renewable energy.

Regional Victoria is set to experience a boom in the development of renewable energy generation, with more than eleven large-scale solar farms currently committed or proposed for the state.

"It is great to be a prominent part of this new wave of construction and investment in Victoria's solar energy economy," says IIG CEO Chris Lock.

"This project demonstrates that IIG can create investment opportunities in solar assets even during times of policy uncertainty for Australian energy markets. Many sophisticated investors recognise that the world is shifting to renewable power such as wind and solar.

"Investing in solar power stations can deliver investor returns, create jobs and provide cleaner, safer, healthier energy options."

The Swan Hill Rural City Council has strongly encouraged the project through the early phases.

Mayor of Swan Hill Rural City Council, Cr Les McPhee said north west Victoria was primed to be a centre for clean energy generation.

"Investments like this one from the Impact Investment Group are game-changers for our move to a renewable energy economy, and Swan Hill is proud to have secured one of the first large-scale solar farms in Victoria. Council has been an early supporter of solar energy and has enjoyed a great relationship with the developers and investors of this solar farm at what is locally known as Blackwire Reserve."

The developer for this project is Australian Solar Group, with RCR Tomlinson Ltd being awarded the engineering, procurement, construction and maintenance contract. Construction for this project is expected to commence in late August 2017.

RCR's scope of work includes engineering, procurement, construction and commissioning including associated substations and grid connection works. Once commissioned, RCR will undertake maintenance services for an initial period of two years.

On completion of this project the Swan Hill Solar Farm is expected to become one of the seed assets in a new IIG solar fund, the details of which will be released in due course.

Source: Impact Investment Group

Work underway to make Tasmania the renewable energy battery of the nation

8 August

Work is well underway to revitalise Tasmania's iconic hydro generation system and cement Tasmania's place as the renewable energy battery of the nation.

Today I visited Hydro Tasmania's Cambridge workshop and saw what Tasmanian ingenuity and hard work can achieve, with the refurbishment of components of the Cluny Power Station.

Hydro Tasmania's Cambridge workshop is a vital part of our Plan to make Tasmania the renewable energy battery of the nation. Employing 12 staff, including two apprentices – with that number likely to grow in the near future - the workshop is vital to Hydro Tasmania's future as a leader in energy and developing and retaining important technical skills in Tasmania.

Hydro Tasmania is investing \$275 million upgrading the entire Derwent system, which includes a \$28.5 million investment in the Cluny Power Station. Currently, one of the turbine runners is being modernised to make it more efficient, increase energy output from the Station and reduce environmental risks.

Following the completion of work on the Cluny Power Station, Hydro Tasmania will then begin upgrades to the Repulse Power Station.

This work underpins our Plan to make Tasmania the renewable energy battery of the nation.

Hydro Tasmania is currently identifying a shortlist of sites for pumped hydro that have the potential to generate up to an extra 2,500 MW of power – enough to power 500,000 homes right around the nation. Last week, the Australian National University announced that it had identified over 2,000 potential pumped hydro sites in Tasmania. The research indicated that Tasmania has: "...a combined (pumped) energy storage potential that is about ten times larger than required to support a 100% renewable electricity grid for the whole of Australia."* This is an incredibly exciting opportunity for Tasmania and the Hodgman and Turnbull Governments are working closely to ensure we make the most of the opportunity.

Work is also underway to improve two of our major power generators - the Tarraleah and Gordon Power Stations. We are working hard to breathe new life into these stations and make them a significant part of our plan for the future.

Tasmania is one of the few places on Earth that is almost entirely powered by renewable baseload energy. We do it better than anyone else, anywhere else and the Hodgman Government is committed to making Tasmania the nation's renewable energy battery.

Source: Tasmania Government

Uleybury Landfill Solar Farm

The Northern Adelaide Waste Management Authority (NAWMA), in partnership with Joule Energy Pty Ltd, is pleased to announce the development of a 1.15MW solar farm at the Uleybury Landfill. This exciting new project, an Australian first, will generate approximately 2000 mega-watt hours of renewable electricity each year, enough to power more than 345 homes in the local community.

As landfills have very little use once closed due to issues of land settlement and landfill gas, they are ideal locations for solar

development. Solar generation systems on landfills, and neighbouring buffer zones, provide an economically viable reuse for sites that may have significant clean-up costs and little potential for commercial or residential development. Considering this, NAWMA took the opportunity to partner with Joule Energy to develop the solar generation facility to be situated on the Uleybury Landfill.

The 1.15MW solar farm will consist of 11,000 solar PV panels and utilize local technology and manufacturing as well as local labour during the construction process. The solar frames to be used in the project for example have been manufactured by Salisbury based company, IXL Solar.

The location of the solar farm has been selected to ensure there is minimal disturbance to the visual amenity of the local area and extensive research has been undertaken to ensure there are no negative environmental impacts.

The solar farm is designed to integrate with the landfill gas renewable energy facility situated at the Uleybury Landfill and supplement its output. Therefore combining base-load and solar PV technologies that will produce renewable energy 24 hours a day, 7 days a week. The collective electricity generated from both energy sources will be over 11,000 mega-watt hours per annum, which is enough to power more than 1,800 homes. A project of this scale has never been undertaken on an Australian landfill and will be the first of its kind in the country.

This ambitious project underlines NAWMA's commitment to sustainable practices and will deliver significant environmental benefits. When compared to a traditional coal-fired power station generating the same amount of electricity, the NAWMA renewable energy facility will save approximately 24million litres of water each year and prevent 63,500 tonnes of carbon (CO₂-e) from being emitted into the atmosphere annually.

Source: NAWMA

Work to start soon on new Queensland solar farm after Origin PPA

10 August

Construction on what will be one of Queensland's largest solar projects will be underpinned by a power purchase agreement (PPA) with Origin.

The 150 MW Daydream Solar Farm will be located on a 1,070-acre site north of Collinsville in northern Queensland and will generate approximately 380,000 MWh of electricity a year – enough to power more than 53,000 homes with clean energy.

Origin has signed a PPA to buy all the output and renewable energy certificates from Daydream solar farm until 2030. Daydream forms part of the 1,200 MW of new renewable generation Origin has committed to since March 2016.

Origin CEO, Frank Calabria said, "We are accelerating our transition to renewables with more than 25 per cent of Origin's generation mix to come from renewables by 2020, up from 10 per cent today.

"Australia has abundant solar resources which are strongest in Queensland and Origin is proud to be playing our part helping the nation to better tap this renewable energy source.

"Daydream will be the latest solar farm to get the go-ahead after being backed by a PPA with Origin, following similar agreements with Australia's largest solar development, Bungala in South Australia, as well as Moree in New South Wales and Darling Downs solar farm in Queensland.

"Renewables are now the lowest cost new generation and with the rapid increase in renewable supply not just by Origin but the broader market, we expect to see this start to put downwards pressure on prices for customers," Mr Calabria said.

Daydream solar farm is being developed by leading Australian renewables company Edify Energy and will utilise a single-axis tracking system with panels that track the sun to maximise generation capacity throughout the day.

Construction on Daydream is expected to commence shortly and is expected to start generating electricity in mid-2018.

Edify Energy chief executive John Cole said the Origin PPA was a milestone for Edify's growing business.

"Supported by the PPA with Origin, Daydream Solar Farm will be another step forward in the decarbonisation of Australia's energy sector. We look forward to making the project a reality and working closely with Origin."

Source: Origin Energy

Click here to go to online project datasheet:
[Daydream Solar Farm](#)

RCR awarded \$315m for Daydream and Hayman Solar Farm projects

11 August

Diversified engineering and infrastructure company RCR Tomlinson Ltd (ASX: RCR), is pleased to announce that it has been awarded two contracts, totalling approximately \$315 million for the Engineering, Procurement and Construction ("EPC") and Operation and Maintenance ("O&M") for the 150MWac Daydream Solar Farm and the 50MWac Hayman Solar Farm, developed and maintained by Edify Energy Pty Ltd.

RCR's scope of work includes engineering, procurement, construction and commissioning of the Solar Farms, including interface works to the project substations. Once commissioned RCR will provide O&M services for both Solar Farms for an initial

period of 10 years, with an option for a further 5 year term.

The projects will start immediately, with construction scheduled to commence in Q3 2017.

The Daydream and Hayman Solar Farms are both located in Collinsville in Northern Queensland.

RCR Managing Director & CEO, Dr Paul Dalgleish said "We are very pleased to continue our strong relationship with Edify Energy to deliver these two large-scale solar energy projects generating a combined 200MWac.

RCR now has over half a Gigawatt of large-scale solar projects in our order book and more than a Gigawatt currently being developed or progressed under early contractor involvement processes.

RCR has firmly positioned itself as one of Australia's leading developers and EPC providers of large-scale solar and other renewable energy infrastructure. Our experience and application of Engineering Intelligence to renewable projects provides RCR with a significant competitive advantage.

RCR is currently preferred on a number of additional renewable energy projects that will support our further growth in FY18 and into FY19. Over the mid to long-term we expect to see the large-scale solar market continue to grow", said Dr Dalgleish.

Source: RCR Tomlinson

Click here to go to online project datasheet:
[Daydream Solar Farm](#)

EOI open for NQ Clean Energy Hub

11 August

A key part of the \$386 million Powering North Queensland Plan will commence today with an Expression of Interest (EOI) process for the proposed 2,000MW North Queensland Clean Energy Hub feasibility study.

Treasurer and Acting Minister for Energy Curtis Pitt said the Palaszczuk Government had allocated \$150 million towards the development of strategic electricity transmission infrastructure as part of the North Queensland Clean Energy Hub, subject to a feasibility study.

“This is all part of our plan to unlock a wave of energy projects to power the North Queensland economy and support 5000 jobs,” Mr Pitt said.

“Our plan will not only deliver investment and jobs to North Queensland but will also help to secure energy supply and drive down energy costs for consumers.”

Mr Pitt said Powerlink was conducting the EOI from today on behalf of the Queensland Government.

“The four week EOI process will seek market information on a range of aspects, including potential generation interest, storage options and significant load requirements and will be open from 11 August until the 8 September,” Mr Pitt said.

“We encourage all companies with an interest in the North Queensland Clean Energy Hub to flag their potential involvement and provide us with the latest market information via the EOI process.

“The information received as part of this process will be treated confidentially and will inform the options for potential routes for the transmission infrastructure and project timing.

“This is an important project which will drive cost savings by generating economies of scale through multiple generators and loads sharing transmission infrastructure rather than seeking individual network connections.”

Minister Assisting the Premier on North Queensland and Member for Mundingburra Coralee O’Rourke said the Clean Energy Hub would play a key role in diversifying North Queensland’s energy supply and supporting the 50 per cent by 2030 renewable energy target.

“We know people in the North are really concerned about power prices. An important part in stabilising prices is making sure we invest in local, North Queensland infrastructure,” Mrs O’Rourke said.

“Excitingly, the transmission line will support an Energy Hub that will generate North Queensland energy for North Queensland businesses and families.”

Queensland’s Energy Security Taskforce Chair Terry Effeney said this infrastructure was another part of the strategy to guide the state’s robust energy security for both the short and long-term.

“The Clean Energy Hub has the potential to unlock more of this region’s renewable resources by providing high voltage transmission infrastructure to allow existing projects to expand, as well as providing more infrastructure for more renewable projects.” Mr Effeney said.

“Powerlink’s EOI process will provide the essential research to identify the optimal form of the Clean Energy Hub.”

Powerlink Chief Executive Merryn York said the EOI was part of a feasibility study into the North Queensland Clean Energy Hub due for completion by December 2017.

“The feasibility study will involve a number of technical assessments including economic,

environmental, social and regional considerations,” Ms York said.

Member for Townsville Scott Stewart and Member for Thuringowa Aaron Harper welcomed the announcement.

Mr Stewart said: “The \$386 million Powering North Queensland Plan is a vital, economy-growing investment and underlines the Palaszczuk Government’s ongoing commitment to North Queensland, renewable energy and jobs.”

Mr Harper said: “This plan will power North Queensland’s communities and its industries with energy and jobs for the future and it will help further stabilise electricity prices.”

Information about the EOI will be available on Powerlink’s website (external site) at www.powerlink.com.au (external site).

Source: Queensland Government

First NT community to reach 50 % renewable energy

11 August

Naiyu (Daly River) will be the first remote Aboriginal community in the Northern Territory to reach the Territory Labor Government’s 50 per cent renewable energy target - powered by solar and battery.

Minister for Essential Services Gerry McCarthy today inspected the solar and battery site and said Government was acting on climate change to protect our unique natural environment, economy, lifestyle and quality of life.

“We are investing in renewable energy to do what’s best for the Territory now and for future generations – it will see fewer emissions and more jobs,” Mr McCarthy said.

“Today is another step towards achieving our target of 50 per cent renewable energy by

2030. We made this promise and we are acting on it.”

Mr McCarthy said good environmental policy is smart economic policy and will result in more jobs for Territorians and greater power reliability.

The Solar Energy Transformation Program (SETuP) will be completed in Daly River next month (September) and will provide 100 per cent of the community’s daytime electricity needs, enabling the community’s diesel engines to be turned off.

The Daly River site will deliver cutting edge technology that will guide the installation of future renewable energy in the bush.

The battery will be charged by 3200 solar panels, which will save 400,000 litres of fuel every year, meaning half as many fuel trucks on the road.

“Once the site is commissioned, the diesel generators will only operate at night, leading to improved local air quality and a cleaner, greener community,” Mr McCarthy said.

“As battery costs rapidly reduce over the next few years, we expect solar and battery technology to become more economically viable – which is great news for the Territory environment.

“I congratulate the Australian Renewable Energy Agency (ARENA) for their investment in small-scale renewable energy innovation and thank them for their critical contributions to renewable energy in the Territory.”

The Energy Storage System comprises Samsung 2MWh lithium-ion battery, inverters for converting battery DC energy to AC, a cooling system and a control system to allow integration with the existing diesel power station.

SETuP is a \$55 million program equally funded by the ARENA and the Territory Government, managed by Power and Water. The Daly River

project investment will be approximately \$6.2 million upon completion.

Under SETuP, another 10 remote Aboriginal communities in the Territory recently had 3.325 MW of solar photovoltaic (PV) plants commissioned, reducing the reliance on diesel by 15 per cent.

Source: NT Government