



# Project Updates

Week ending 8 September 2017

## PROJECT TALLY (September)

Number of projects = 390

- 158 Generating

- 232 In Development

Total Capacity = 53,285.56 MW

- 17,828.63 MW Generating

- 35,456.93 MW In Development

## Solar eclipses coal at council waste centre

1 September

A 5MW solar farm at the Summerhill Waste Management Centre will increase Newcastle City Council's renewable energy generation capacity tenfold.

The proposed solar farm will cover an area of around five football fields on a capped landfill site that was once part of the Wallsend Borehole Colliery.

Made up of around 16,000 photovoltaic solar arrays, it will help reduce the city's \$4m annual electricity costs after the yearly bill doubled in the past two years.

The project will also help council achieve its 30 per cent renewable energy target -- under its 2020 Carbon and Water Management Action Plan -- and follows recent climate action pledges made as part of the Cities Power Partnership.

"With energy costs soaring and the cost of solar photovoltaic technology falling, the business case is now clear for councils to increase renewable energy use and take control of their energy costs," said Newcastle City Council Interim CEO Jeremy Bath.

"We are seeing a boom in construction of solar farms across Australia and local councils will be one of the key beneficiaries from the experience the solar sector has developed.

"It's also important for our community that we build sustainability into the way we do things, which is why we have moved quickly to increase renewable energy capability and find smarter, more energy-efficient solutions for our city's needs. With the recent adoption of Council's Smart City strategy, this latest project continues to chart the course for Newcastle as a smart, liveable and sustainable city."

A tender will be issued to eight shortlisted respondents for the design, construction and operation of the solar farm after a feasibility study and expression of interest process last year.

Following the tender, the project will be reported to council for approval and funding.

The solar farm continues development of one of the most advanced renewable energy setups at a waste facility -- with a 2.2MW landfill gas generator and a small wind turbine already located at Summerhill -- and paves the way for battery storage and electric garbage trucks.

Electricity generated will flow into the nearby Ausgrid substation and help offset usage at other Council facilities, providing predictable electricity costs and millions of dollars in savings, even with construction and operating costs factored in.

Newcastle recently joined the Cities Power Partnership, a Climate Council program in which cities and towns pledge key actions to reduce their climate impact.

Summerhill's solar farm and eight existing solar installations - on the rooftops of public buildings including the art gallery, museum, works depot and libraries - form part of the actions endorsed by Council.

Others include promoting more sustainable ways to travel, by providing cycling infrastructure and electric-vehicle chargers, and installing energy-efficient LED lighting.

Source: City of Newcastle

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## **Kidston solar project (phase one 50MW) update**

5 September

Genex Power Limited (ASX: GNX) (Genex or Company) is pleased to provide shareholders with this latest update regarding the construction program for the Company's Phase One 50MW Kidston Solar Project (KSP1 or Project).

Genex is pleased to report that the construction of KSP1 continues to remain on-budget, for anticipated first generation in Q4 2017 and Practical Completion in Q1 2018. Key activities since the last update (refer ASX announcement 03 August 2017) include:

- Continued installation of solar modules across the KSP1 site;
- Continued installation of solar pilings;
- Continued installation of trackers; and
- Successful hand-over of transferrable assets to Ergon allowing cutover works for the 132kV line into the newly constructed Ergon-Kidston substation.

Commenting on this month's progress of the Company's 50MW Solar Project, Managing Director of Genex, Michael Addison said:

"Genex's project team continues to deliver construction milestones, enabling the Project to remain on budget for first cash flow in Q4 2017. Key milestones during the reporting period include completion of the Ergon-Kidston substation connection work and an acceleration of panel installation and cabling.

Genex's focus on delivering KSP1 brings the Project another step closer to Practical Completion in Q1 2018. Importantly, success to date on the delivery of Phase One provides an important project track record as the Company progresses financing and partnering discussions for Phase Two (270MW Solar and 250MW Pumped Hydro)."

The Federal Government, through the Australian Renewable Energy Agency has provided \$8.9 million of funding to support the construction of Genex's \$126 million Phase One 50MW Kidston Solar Project.

Source: Genex Power

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

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## **Submissions invited on a market mechanism for inertia**

5 September

The Australian Energy Market Commission today published a consultation paper seeking stakeholder feedback on a proposed approach for introducing a market mechanism for inertia. This mechanism is being considered through a rule change request from AGL for an inertia ancillary services market.

The changing generation mix, with a higher share of wind and solar, means the power system has less inertia. Less system inertia means frequency may become volatile. If frequency changes too fast then the system is at high risk of going black.

Today's paper builds on our recent draft rule to place an obligation on Transmission Network Service Providers to procure the minimum levels of inertia, or alternative frequency control services, needed to maintain system security in all regions of the national electricity market.

While this draft rule provides for a minimum level of inertia, the AEMC considers that the

introduction of a market to obtain and pay for inertia above this minimum level would provide additional benefits. For example, additional inertia could allow for higher interconnector flows between regions, which could improve reliability and reduce overall costs.

The introduction of a market based mechanism to realise the benefits of inertia was one of the key recommendations in our final report on the System security market frameworks review, published in July 2017. A market-based mechanism would offer an open and transparent approach that would best facilitate competition in the provision of inertia. It would also be flexible in that it would allow the level of the service to vary over time to adapt to changing market conditions.

The mechanism outlined in our consultation paper features an inertia price paid to inertia providers based on the value they provide in relieving rate of change of frequency (RoCoF) constraints between regions.

Stakeholders are encouraged to provide input on the proposed mechanism, including the various funding options for paying providers of inertia. Submissions are due by Tuesday 3 October 2017.

Source: AEMC

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## **Aligning dispatch and settlement – draft rule to move to five minute settlement**

5 September

The Australian Energy Market Commission today made a draft rule to change the settlement period for the electricity spot price from 30 minutes to five minutes.

AEMC Chairman John Pierce said moving to five minute settlement would align the physical electricity system – which matches

demand and supply of electricity every five minutes – with the price signal provided by the market for that five minute period.

“Price signals that align with physical operations lead to more efficient bidding, operational decisions and investment,” said Mr Pierce.

“Over time, this flows through to lower wholesale costs, which should lead to lower electricity prices than in a market with 30 minute settlement. Wholesale costs make up around one third of a typical electricity bill.”

More accurate price signals also encourage more efficient investment in flexible technologies such as aggregating distributed storage, new generation gas peaker plants and rapid demand response. These technologies, which can back up the system in real time when the wind stops blowing and the sun stops shining, are becoming increasingly important as more wind and solar generation enters the market and thermal generators retire.

The draft determination proposes a transition period of three-and-a-half years.

“Moving to five minute settlement would be a fundamental change to the way the wholesale electricity market operates in Australia, including the hedge market that operates alongside the spot market,” said Mr Pierce.

“Three-and-a-half years is the shortest possible timeframe to capture the benefits of five minute settlement without posing unacceptable risks to system security or the operation of the spot market.”

The transition period allows time for most existing hedging contracts to roll off, while enabling new contracts to accommodate a future with five minute settlement.

The market also needs time to make major upgrades to IT systems and metering. The Australian Energy Market Operator has developed a high-level implementation plan,

also published today, setting out the technical changes which AEMO and the industry would need to make.

The need for a staged transition to new settlement arrangements in the wholesale electricity market over multiple years is consistent with the approach taken internationally.

For example, changes to settlement arrangements in the New Zealand electricity market have been under consideration by the NZ Electricity Authority since 2013. The Authority recently proposed an implementation period of four years.

Submissions on the Five Minute Settlement draft determination close on 17 October 2017.

Source: AEMC

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## Unprecedented renewables investment powering North Queensland

5 September

North Queensland's renewable energy sector is booming with \$5 billion in projects currently in the pipeline to create more than 5,000 Megawatts of electricity and support 3,200 jobs.

Premier Anastacia Palaszczuk this morning told Queensland Parliament that the Australian Solar Council and Battery Storage Council estimates represented a vote of confidence in Queensland and her government's policies, which are facilitating unprecedented renewable investment in Queensland.

"From the 5 Megawatt Scouller Energy solar farm near Normanton, to the 180 Megawatt Mt Emerald Wind Farm and the 250 Megawatt Genex Kidston Pumped Hydro project, these projects represent an extraordinary amount of investment in an

industry that barely existed two and a half years ago," Ms Palaszczuk said.

"They also represent an extraordinary vote of confidence in my government's policies, including our commitment to a 50% renewable energy target by 2030.

"Through our \$386 million Powering North Queensland Plan, we are also committed to working closely with industry to develop new projects that mean more jobs, more energy production and more downward pressure on electricity bills.

"The Plan will reinvest \$150 million in dividends from our electricity assets – which we own – to build the transmission infrastructure necessary to connect these renewable projects to the grid."

The Premier said the Powering North Queensland Plan also included:

- a \$100 million reinvestment of Stanwell dividends to help fund the proposed hydro-electric power station at Burdekin Falls Dam, supporting up to 200 jobs; and
- a further \$100 million equity injection and reinvestment of dividends to ensure that the Burdekin Falls Dam continues to meet design standards, also supporting the proposed hydro-electric power station.

"The injection of investment and jobs in renewable energy across this state is almost exclusively devoted to regional and rural areas where additional economic activity is amplified," the Premier said.

"The investment ensures we can offer secure and affordable electricity for Queensland homes and Queensland businesses far into the future."

Source: Queensland Government

## **AGL Energy statement on Liddell Power Station**

6 September 2017

AGL Energy (AGL) notes speculation in relation to a potential sale of the Liddell Power Station, or extension of the operating life of the power station, following comments made by the Prime Minister yesterday.

AGL has committed to the closure of the Liddell Power Station in 2022, which is the end of its operating life. AGL provided this advance notice in April 2015 to avoid the volatility created by the sudden exit from the National Electricity Market of other coal-fired power stations.

AGL recognises community and government concerns in relation to energy security, as highlighted in the Australian Energy Market Operator's 2017 Electricity Statement of Opportunities published yesterday, and continues to assess the capacity that will be needed post 2022 to replace Liddell.

AGL will continue to engage with governments, regulators and other stakeholders to deliver appropriate outcomes but notes that the company has made no commitment to sell the Liddell Power Station nor to extend its life beyond 2022.

Source: AGL Energy

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## **Long-term energy policy essential to underpin new investment**

6 September

New investment in Australia's electricity system can keep costs down and improve reliability but bipartisan national energy policy is increasingly urgent, the Clean Energy Council said today.

Clean Energy Council Chief Executive Kane Thornton said prolonged under-investment in the electricity system over the last decade had

resulted in reduced supply, higher wholesale power prices and increasing risks to energy security.

"A decade-long political debate has created a policy vacuum and spooked investors. We need to accept that the energy system is in transition and long-term policy is now essential to ensure private investment in the most efficient new energy technology and solutions," Mr Thornton said.

"It is time to accept all 50 of the Chief Scientist's recommendations to improve energy security. The recommendations from the Finkel Review provide a coordinated approach to delivering an affordable, reliable and cleaner energy system.

"This will involve a suite of new technologies and solutions, including more wind, solar, bioenergy and battery storage. Australia's existing hydro has an important role, complemented by new pumped hydro as well as potential to use existing generation more flexibly," he said.

Mr Thornton said all but one of the Finkel Review's recommendations are in the process of being implemented, with market reform finally accelerating the modernization of the entire system and enhancing its ability to better manage a suite of renewable energy and storage solutions.

"AEMO is taking a range of important and practical steps to ensure our energy security as the power system transitions to clean energy. The Australian Energy Market Commission (AEMC) is in the process of working to build a resilient market that no longer leans on ageing coal for synchronous services, something which is essential to ensure we continue to work toward a clean energy future," he said.

"The AEMO report yesterday revealed that the new projects added to the system under the Renewable Energy Target will help to improve reliability over the next few years. More than \$8 billion of new clean energy

projects are underway in 2017, creating thousands of jobs and building critical infrastructure to keep the lights on and reduce power prices over the next few years.

“Last summer’s heatwaves highlighted the contribution of renewable energy, which essentially saved New South Wales from a blackout when some thermal gas and coal generators went missing in action on 10 February this year.

“The shining light over the past year has been the new investment driven by the 2020 Renewable Energy Target. But without the long-term policy confidence driven by a mechanism such as a Clean Energy Target, we are unlikely to see sufficient new generation from private investors to meet our future energy needs.”

Source: Clean Energy Council

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## Renewable deal cuts power prices in half

6 September

Today marks the announcement of Australia’s first ever large-scale Renewable Corporate Power Purchase Agreement (PPA); a deal that secures long-term, low-cost renewable energy for Australian businesses.

A landmark deal has been struck between the country’s fastest growing electricity retailer, Flow Power and Australia’s third largest wind farm, Ararat Wind Farm

Renewable PPAs are already at the heart of many corporate energy strategies in Europe and North America, with companies like Google, Amazon and Facebook recognising the fact that they offer both long term price security and are one of the fastest ways to reach sustainability goals. As a disrupter in the local energy market, Flow Power is the first retailer to offer large energy users in Australia these same benefits within a volatile power

market that has seen energy prices increase by up to 300%.

The introduction of Renewable Corporate PPAs allows local businesses to tap into a global trend that will bring costs down and benefit both the environment and the economy.

Renewable Corporate PPAs contribute to meeting the Renewable Energy Target of a 25% reduction in emissions by 2020, but also make economic sense by providing Australian businesses with direct access to secure, low-cost energy supply at rates up to half the current retail rates, saving businesses hundreds of thousands of dollars in energy costs. Ultimately, that means more jobs and investment in Australia for the long term.

Matthew van der Linden, Founder of Flow Power, will be discussing the deal at ‘Disruption & The Energy Industry’ in Sydney on Thursday. He comments: “The power market is changing, and this agreement with Ararat Wind Farm marks a line in the sand for the energy sector in Australia. Renewable Corporate PPAs are the key to keeping business power costs down, and our aim is to be able to offer these savings to all large energy users across the country.”

“Corporate PPAs have proven successful internationally over the past decade, and we are proud to bring the model to Australia in partnership with Ararat Wind Farm. We are actively working with customers to get agreements signed in the coming months,” Mr van der Linden said.

For more information on our Renewable Corporate PPA deals visit [flowpower.com.au/renewables/](http://flowpower.com.au/renewables/)

Source: Flow Power

## **AEMO reports prove our energy plan is working**

6 September

Energy Minister Tom Koutsantonis today said that two reports by Australia's national energy market operator prove the State Government's energy plan is working.

AEMO's Electricity Statement of Opportunities, released late yesterday, found that without the energy plan there would be heightened risk of a power supply shortfall this summer.

The report states that "The South Australian Energy Plan will help alleviate risks to consumer supply in South Australia by acting to provide additional supplies to consumers at times of identified USE risks."

A second report, commissioned by Federal Energy Minister Josh Frydenberg, recommended that the Federal Government implement 1000MW of 'strategic reserve' prior to this summer – exactly what the State Government is doing in South Australia by procuring a state-owned power plant and grid-scale battery, to be in place by December 1.

That report also outlined the problem of a lack of new investment in the National Electricity Market, which is causing tight supply and potential load-shedding across the country.

Source South Australia Government

### **NEW PROJECT**

#### **Brewongle Solar Farm**

Photon Energy planning 146 MW Brewongle Solar Farm in NSW and have begun community consultation. The project will be built on a 203 hectare site with construction scheduled to start in Q4 2018.

## **NSW sunshine to power 94,000 more homes**

7 September

NSW continues to lead the way in harnessing sun to power the state, with the approval of the 250 megawatt Limondale Solar Farm just south of Balranald in the Riverina.

Minister for Planning and Housing, Anthony Roberts, said the Limondale Solar Farm could power 94,000 homes and would provide a boost to the local economy.

"Our focus on developing clean energy sources is supporting state and national environmental targets and generating employment and benefits to families and businesses in our regional communities," said Mr Roberts.

"During peak construction Limondale will employ about 200 workers, the flow on effects to business in Balranald and surrounding communities will be significant.

"Limondale is NSW's sixth solar farm approval this year and will help us achieve the national renewable energy target of 23.5 per cent by 2020. This is a \$150 million investment in NSW renewable energy development – we are truly leading the way in building clean energy solutions for our state," Mr Roberts said.

Minister for Energy and Utilities, Don Harwin, said the Limondale Solar Farm will be next to the recently approved Sunraysia Solar Farm. "We are getting on with the job of providing the supply needed in the future to power NSW," Mr Harwin said.

"Together these two new solar farms in the State's south-west will have the capacity to supply 450 megawatts of energy to the grid, the potential to power 170,000 homes. These solar farms represent a \$425 million investment in renewable energy in an area fast becoming one of the solar power generation hubs of Australia."

The Department of Planning and Environment has applied strict conditions to ensure economic, environmental and social impacts are carefully managed.

This includes a requirement for the proponent to work with Balranald Shire Council to maximise the employment of local workers and use of local accommodation, and to develop a strategy to manage the accommodation of the construction workforce.

Source: NSW Government

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

#### **WA State Budget**

The Western Australian Government's 2017-18 State Budget released this week "includes a focus on projects that will assist in diversifying the economy and creating jobs in the Goldfields, including: Funding to commence a feasibility study for a major solar project to secure the Goldfields as a renewable energy centre in the future" and "\$19.5 million investment in the Albany Renewable Energy Project".

## **Haughton Solar Farm referral**

Pacific Hydro submitted an EPBC referral for its planned 500 MW capacity Haughton Solar Farm, including battery storage, to the federal Department of the Environment & Energy. The project's development area is located approximately 17km from the township of Clare in North Queensland and falls within the Burdekin Shire Council area. The selected development area for the Project is an area of approximately 1181ha of currently vacant / grazing rural land.

The north-eastern corner of the development area directly adjoins the existing 275kV Ross to Strathmore ETL, which is managed by Powerlink.

The project has allowed for potential for battery storage capabilities to be installed on site.

#### **Contact**

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Source: Pacific Hydro

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