



Project Updates

Week ending 1 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

Australia's first Renewable Energy Index launched

28 August

The new Australian Renewable Energy Index, launched on Monday by market analysts Green Energy Markets and advocacy group GetUp, will track each month the amount of renewable energy Australia relies on, the jobs it creates and the environmental benefits.

Key findings from the 2016-17 Report

Renewable energy is on the way to producing as much power as Australian households consume. In fact, between July 2016 to June 2017:

- Australia produced enough renewable energy to power 7.1 million homes, or 70% of all households in the country;
- Renewables made up 17.2% of the electricity generated in Australia (in the National Electricity Market and Western Australian Electricity Market);
- The amount of renewable energy used last financial year avoided an amount of carbon pollution equal to removing 8.1 million cars from the road. This is more than half of all the cars in Australia. The recent boom in construction of large-scale renewables is employing thousands of people:
 - 46 large-scale renewable energy projects were under construction at the end of 2016-17;
 - These projects are estimated to create enough jobs to employ 8,868 people full-time for a year (in other words, 8,868 job-years of employment);

- NSW is in the lead, gaining the largest number at 3,018, mostly from the construction of new wind farms;

- Queensland is in second place with 2,625 job years, with 70% flowing from solar farm construction and the remainder from wind farms. Rooftop solar is making a big impact:

- Almost 150,000 small-scale rooftop solar systems were installed in the year to June 2017;

- These systems generated enough energy to power over 226,000 homes;

- The systems installed last year will deliver around \$1.6 billion in power bill savings over the next 10 years to the households and businesses that installed them — almost \$10,000 per system ;

- Installing these solar systems supported 3,769 full-time jobs (across installation, design and sales).

Source: Green Energy Markets

ESCOSA received an application from Bungala Two Operations Pty Ltd for an electricity generation licence. The applicant is seeking to operate a generation plant consisting of solar photovoltaic cells with a total maximum capacity of 110 megawatts (MW).

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

NEW PROJECT

Hay Solar Farm

OVERVIEW

OVERLAND Sun Farming is proposing to develop the Hay Sun Farm, a large-scale solar photovoltaic (PV) generation facility near Hay. The Hay Sun Farm will be located on land close to the Essential Energy electrical substation and will connect to the 132 kV electricity distribution network. The sun farm will be made up of approximately 300,000 panels and cover an area of up to 660 hectares which is similar in size to around 920 football fields.

Description: Development of a large-scale solar photovoltaic (PV) generation facility and associated infrastructure with an estimated capacity of 110 megawatts (MW).

Capital Investment Value: \$129,000,000.00

Construction jobs: 100

Operational jobs: 5

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Queensland Premier publicly supports the Townsville Lithium-ion Gigafactory

28 August

- Strong support from Premier Anastacia Palaszczuk, along with ongoing assistance from Local and State governments
- Funding discussions ongoing with both government bodies and the private sector
- Pleasing progress being made on the technical development of the project, including budget pricing
- Land valuation complete

Magnis Resources Limited (“Magnis” or the “Company”) (ASX: MNS) is pleased to provide

this update on the Townsville Lithium-ion battery Gigafactory.

Queensland Premier Anastacia Palaszczuk has publicly expressed support for the project following the submission of a scoping study that demonstrates the project’s positive economic impact. The consortium also continues to receive strong support and assistance from local government and State Members of Parliament.

Pleasing progress is being made in funding discussions with relevant State and Federal government bodies, along with private enterprise including local and overseas groups within the energy sector.

As part of the funding discussion process, land valuation work has been completed on the 400-hectare site in Woodstock, Queensland that has been selected as the location for the Townsville Gigafactory.

In parallel, strong progress is being made on the technical development of the project, including qualification of manufacturing input materials and budget pricing. Engagement with major equipment vendors is ongoing and budget costs received to date have been consistent with scoping study estimates.

Pilot testing of manufacturing processes and production of prototype battery products for potential customers has begun. This work is part of a process package that is being developed for the next phase of the feasibility study.

The Townsville Battery plant consortium consists of Imperium3, Eastman Kodak Company and C&D Assembly. The global consortium Imperium3 is comprised of Boston Energy and Innovation, Charge CCCV and Magnis.

All parties are committed to transforming Australia’s energy security by pledging the new batteries will be cost competitive, better performing, a sustainable supply chain, environmentally friendly and an alternative to current major energy suppliers.

Chairman of Magnis Resources Frank Poullas commented: “We are thankful for the strong support we have received from Premier Palaszczuk, the Queensland State Government, Townsville City Council and other government agencies in getting this vital project underway.

“We are continuing to make very strong progress across a number of fronts in advancing this major project, both in terms of securing funding and technical development. This work is crucial in laying the foundations for the Townsville Lithium-ion Gigafactory.

“The Townsville Lithium-ion Gigafactory will be a vitally important piece of economic infrastructure for the Queensland economy, which will secure Townsville as a leading international hub for technology and innovation.”

Source: Magnis Resources

Snowy Hydro 2.0 powering ahead

28 August

Snowy Hydro 2.0 is already employing 350 people and will create more than 5000 new jobs during the construction phase of the development.

The game changing project, will have enough capacity to provide 350,000 MW/h of power for a week, enough to meet peak demand continuously for 500,000 homes.

Snowy Hydro 2.0 will help safeguard the energy security of the eastern seaboard, particularly on hot summer days and cold winter nights, while providing a jobs bonanza during the construction phase.

The Turnbull Government today confirmed a new \$8 million accelerated agreement between the Australian Renewable Energy Agency and Snowy Hydro had been reached to drive planning for the construction of the

project and insight for future pumped hydro projects into the future.

ARENA is finalising details on the injection of funding with Snowy Hydro Ltd.

The total spend on the planning phase will be \$29 million and be completed before the end of the year.

Extensive drilling and analysis is already underway on the western side of the mountains around Tumut.

In its first stage of construction, the project will see a 2000MW of underground generation and 29 km of tunnels between existing reservoirs in the Snowy Mountains region.

Under the agreement with ARENA, Snowy will provide information on future trends for pumped hydro and energy demand, as well as the latest information on technology such as reversible pumps or variable load generation.

This information will help the potential next wave of pumped hydro projects, such as the nine pumped projects being examined in Tasmania.

The Australian Government’s support for pumped hydro is part of our commitment to ensure reliability and affordability in the energy system and to build an energy network we can rely upon while reducing emissions.

Source: Federal Government

Click here to go to online project datasheet: [Snowy Mountains Scheme 2.0](#)

South Australia takes next step as world leader in renewable energy technology

28 August

The State Government has issued three calls for the next generation of renewable energy projects as part of the \$150 million Renewable Technology Fund.

Investment Guidelines have been released and calls are now open for projects that will deliver clean, reliable and affordable power in the following categories:

- Firming renewable generation - e.g. incorporating storage or other equipment into existing or pending wind or solar developments for increased inertia and system stability
- Bulk energy storage - e.g. pumped hydro, compressed air, thermal storage or virtual power plants
- Bioenergy - e.g. energy produced from agricultural wastes or by-products

Applications are open until 5pm on Thursday 28 September 2017, with successful applicants expected to be advised before summer. The Investment Guidelines and call documents are available at ourenergyplan.sa.gov.au/opportunities

Background

In March, the State Government announced its \$150 million Renewable Technology Fund as part of the energy plan South Australian Power for South Australians.

The fund comprises \$75 million in grant funding and \$75 million in loans or other forms of investment or assistance for eligible projects, to support private innovative companies and entrepreneurs.

A portion of the fund has already been allocated towards the grid-scale battery storage project currently being built by Tesla and Neoen near Jamestown.

Source: SA Government

'Renewables 400' program charging ahead with huge interest

28 August

The Palaszczuk Government is bringing the next wave of renewable energy investment to Queensland through its 'Renewables 400' program, with over 200 businesses registering their interest so far.

Acting Energy Minister Curtis Pitt said the 400 megawatt (MW) large-scale renewable energy reverse auction was part of the Government's commitment to continuing the unprecedented momentum in new renewable energy investment in Queensland.

"There has already been significant interest in our Renewables 400 program, with 201 businesses registered so far including project developers, investors and local small businesses," Mr Pitt said.

"Under this new initiative, we will support companies wanting to build the next generation of large-scale renewable and energy storage projects in Queensland.

"Industry have until 5pm today to register their interest and be a part of the continued renewable energy boom.

"An expression of interest process will open this week, on Thursday 31 August."

Mr Pitt said the program included a focus on energy storage. "As part of the Renewables 400 process, and to support the accelerated deployment of this technology, the Queensland Government is undertaking a specific process to secure up to 100 megawatts of energy storage prior to 2020," he said.

"We all agree that energy storage technology will play an important role in the transition to higher levels of renewable energy and we are keen to see the benefits of this new investment flow into the Queensland economy.

“Not only are we encouraging investment in Queensland, but we’re also supporting diversity in renewable generation supply which is an important for our future energy security.

“Renewables 400 is one of the initiatives of the Palaszczuk Government’s \$1.16 billion Powering Queensland Plan and a natural follow on from the success of our Solar 150 program.

“The first large-scale solar projects in Queensland have now come on-line and there are another 20 projects either commencing construction or finalising commercial arrangements.

“These projects will have an installed capacity of almost 1800 megawatts and importantly, will create around 2800 direct construction jobs in regional Queensland and boost investment by \$3.4 billion.

Mr 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.”

Expressions of Interest for the Renewables 400MW process open on Thursday 31 August. For more information on the or to submit an EOI visit www.dews.qld.gov.au

Source: Queensland Government

Genex secures generation authority for Kidston Solar Stage 1

29 August

Genex Power Limited (ASX: GNX) (Genex or Company) is pleased to advise that Queensland’s Department of Energy and Water Supply (DEWS) has issued Genex’s wholly owned subsidiary, Genex (Solar) Pty Ltd, a Generation Authority for the 50 MW Kidston Solar Stage 1 (KS1). The Generation Authority is a critical regulatory requirement to enable any new power station to connect to the National Electricity Market (NEM).

Commenting on the issuing of the Generation Authority, Genex’s Managing Director Michael Addison said: “Genex continues to work constructively with Queensland’s Department of Energy and Water Supply to develop KS1. The Generation Authority is a critical regulatory requirement and Genex is pleased to have secured this milestone. By securing the Generation Authority, Genex is now one step closer to energisation and first revenue in December 2017 with Practical Completion in Q1 2018.”

Source: Genex Power

Click here to go to online project datasheet:
[Kidston Solar Project 1](#)

Exporting Pilbara sunlight to the world

29 August

- Pre-Feasibility Study finds exporting solar energy from the Pilbara to the ASEAN region is technically viable
- A large-scale solar export project could create up to 2,000 jobs in the Pilbara, helping to diversify the region's economy

Sending solar power from the Pilbara to the ASEAN region could be the next big energy export for Western Australia, with a Pre-Feasibility Study finding a project would be technically viable.

The Pilbara has one of the highest levels of direct solar irradiance on the planet and was identified by the International Energy Agency's Task 8 Committee as one of the top six locations in the world to develop large-scale solar farms.

The Pilbara's other competitive advantages, such as land availability, industrial infrastructure, proximity to Asia and existing investment links, see the region well-placed to supply an efficient and reliable power source to meet rapidly growing demand from South-East Asia.

The Pre-Feasibility Study develops a scenario detailing the cost to build a three-gigawatt solar farm and transmission subsea cable from the Pilbara to Indonesia.

The scenario found a solar export project of this scale could potentially create up to 2,000 permanent jobs in the Pilbara, and more than 12,000 across Western Australia.

Regional Development Minister Alannah MacTiernan launched the release of the study at the New Pilbara Economic Development Conference in Perth today.

For more information, visit <http://www.pdc.wa.gov.au/Pilbarasolar>

Source: WA Government

NEW PROJECTS

Suntop Solar Farm

29 August

Photon Energy has announced details on a further large-scale solar power plant under development in Australia. The 253 MWp (220 MW AC) project in Suntop, New South Wales, is part of the previously announced 1 GWp development pipeline, for which Photon Energy has mandated advisory firm Pottinger to advise on the raising of development capital. The project is being co-developed with a local joint venture partner.

Through its 51%-owned project company Photon Energy AUS SPV 8 Pty Ltd. the company has secured options on approximately 400 ha of land and is progressing with the New South Wales government State Significant Development process. Photon Energy has also signed a grid connection process agreement with Transgrid, the operator of the major high voltage transmission network in New South Wales and the Australian Capital Territory, for the design of a substation for approximately 220 MW AC (253 MWp) to be connected to Transgrid's 330 KV network.

Photon Energy expects to complete the project development process to the ready-to-build stage and to commence construction in 2019. Once connected, the Suntop project is estimated to produce 453 GWh of clean energy each year, contributing significantly to Australia's Renewable Energy Target.

Carrick Solar Farm

Photon Energy is proposing to construct the 166 MW Carrick Solar Farm on 143 hectares of land in Marulan, NSW. Construction is expected to start in Q4 2018.

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Delta Electricity engages Entura to support Vales Point solar farm

29 August

Specialist power and water consulting firm Entura has been appointed by Delta Electricity to provide engineering services to support the development of the proposed Vales Point power station solar farm.

Located near the Vales Point coal power station, on the southern shores of Lake Macquarie, in New South Wales' Central Coast, the solar photovoltaic facility is expected to be established on approximately 70 hectares of rehabilitated land. An initial solar capacity assessment indicates the potential for up to 45 MW of renewable energy to be generated by 170,000 solar panels.

Entura will deliver specialist consulting services related to functional design, EPC specifications and grid connection studies to advance the developmental work undertaken so far, and support Delta Electricity with progressing towards achieving financial closure for the project.

"Entura's renewable energy credentials and expertise makes them the ideal partner to help us with advancing the development of the Vales Point solar farm and preparing it for financial closure," said Delta Electricity Company Secretary Steve Gurney.

"This is an exciting project for Delta Electricity in terms of its scale and the potential for expansion down the track providing a significant contribution to state and federal government renewable energy targets."

The proposed solar project is expected to involve a capital investment in excess of \$30 million and generate 100 construction jobs over 18 months. Once environmental and development approvals are obtained, a final investment decision will be made and construction could commence in 2018.

Commenting on the appointment, Entura's Director Customer Strategy and Market Development Dale Bryce said: "We're pleased to be selected to work on this exciting project that will contribute to the transition of regional New South Wales to a cleaner, renewable energy generation future."

Entura has significant renewable energy development experience from pre-feasibility right through to commissioning, optimising operations and asset management of utility-scale solar farms and wind farms.

Source: Entura

Strategic review of Australian hydro generation assets

30 August

Trustpower announces strategic review of Australian hydro generation assets

Following the successful demerger of Tilt Renewables from Trustpower in October 2016, Trustpower's Board has focussed its strategy on the core New Zealand business, whilst ensuring New Zealand and Australian assets are efficient, cost effective, and fit for purpose.

In light of the New Zealand focus, Trustpower has decided to begin a strategic review of its Australian hydro generation acquired in 2014. Trustpower has appointed Forsyth Barr to assist with the review process.

We will update the market with any material results of the strategic review, and currently expect any decisions regarding the assets to be finalised by the end of the 2017 calendar year.

Source: Trustpower

Review of Queensland's state-based energy legislation

31 August

What are we doing?

The Department of Energy and Water Supply is undertaking a review of the Electricity Act, Gas Supply Act, and Energy and Water Ombudsman Act and associated regulations. The purpose of the review is to assess how well our state-based energy legislation serves our expectations, needs and interests as they relate to energy today and into the foreseeable future.

Queensland's state-based energy legislation regulates the state's electricity and gas supply industries. It covers matters including:

- who can generate and import electricity into the grid
- who can supply electricity and gas
- rights to install and maintain work on private and public lands
- technical requirements and standards
- dispute resolution arrangements
- emergency powers.

Why we are reviewing the legislation?

Since the legislation was introduced, the energy sector has undergone, and will likely continue to undergo, rapid and disruptive change. New products such as energy storage systems (e.g. home batteries), digital metering and smart appliances are becoming more prevalent with advances in technology and falling costs. This has also resulted in new energy services and innovative business models such as power purchase agreements, solar leases, off-grid arrangements, and remote control and management of home energy.

Changes that have taken place were not contemplated at the time the state-based energy legislation was first introduced and they are challenging how the electricity and gas supply industries should be regulated. A key concern is whether the state-based energy legislation has kept up with these changes that have occurred in the electricity and gas supply industries.

Milestones and events

The review will be undertaken over 3 stages.

Stage 1: Consultation

Key milestone: Release of issues paper for public comment and targeted workshops.

Timing (anticipated): September to October 2017

Stage 2: Options development

Key milestone: Release for public comment a consultation regulatory impact statement (RIS), which outlines the options for reform based on outcomes of Stage 1.

Timing (anticipated): June 2018

Stage 3: Decision

Key milestone: Release a decision RIS outlining the government's decision and rationale for implementing a preferred option.

Timing (anticipated): November 2018

Have your say

This review is an opportunity for consumers, industry and government to work together to ensure the right regulatory framework is in place to best support the contemporary expectations, needs and interests of Queenslanders as they relate to energy.

Contact us

For more information, email: energyreview@dews.qld.gov.au

Source: Queensland Government

Limondale Solar Farm approved

31 August

Overland Sun Farming's planned 250 MW Limondale Solar Farm in Balranald NSW approved by Department of Planning & Environment. The project site is 2,049 hectares (ha) and is located off Yanga Way, approximately 14 kilometres south of the town of Balranald, which is approximately 230 km west of Griffith.

The development footprint within the project site is 1,025 ha. It is relatively flat in nature and consists mostly of cleared agricultural land that has been used for cropping and grazing over several decades.

There are very few landowners in close proximity to the site. The nearest residence is located approximately 2.9 km north of the site (see Figure 2), while a further 5 residences are located up to 6 km from the site.

The project adjoins the recently approved Sunraysia Solar Farm to the south. The Department has assessed the potential cumulative impacts of both projects if construction occurred at the same time, including traffic, accommodation and employment considerations.

Balranald has recently been identified as a 'region of interest' for renewable energy projects because it has good solar resources and spare capacity on the electricity network.

Key data

- Approximately 868,000 solar panels mounted on single axis-tracker frames (up to 2 m in height);

- Up to 100 inverter stations (up to 2.3 m in height), each containing an inverter and a 33 kilovolt (kV) transformer, and an onsite substation containing a transformer and associated switchgear;
- Internal access tracks, staff amenities, offices, car parking, laydown areas, security fencing; and
- A 220 kV underground power line connecting to the existing Balranald substation (500 m east).
- Approximately 90 full time equivalent workers would be required during construction, rising to 200 during the peak construction period.
- The project would provide 4 to 7 full time equivalent operational jobs.
- Capital investment value of \$150 million

Source: NSW Department of Planning & Environment

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