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Recent clean energy deals a step towards emission reduction targets

The Arnott's Group, AMP Capital, and Lion are embracing the transition to renewables with clean energy deals, helping households and businesses play a role in protecting the environment.

With the transition towards a clean energy future under the Queensland Energy and Jobs Plan, more and more businesses want to decarbonise their operations and offer consumers products made with lower emissions.

The exciting eight-year renewable energy partnership between publicly owned **Stanwell Corporation and The Arnott's Group** for over 68 gigawatt hours (GWh) of renewable energy will see the iconic biscuit maker using 100% renewable energy by 2029.

This deal covers Arnott's 40,000 square metre manufacturing site in Brisbane, running eight product lines and three packaging lines, and employing more than 600 people.

Another landmark deal between publicly owned **CS Energy and AMP Capital** will see CS Energy source all of AMP Capital's electricity needs from renewable energy for the next seven years.

This yearly 94 GWh deal covers several retail shopping centres including Pacific Fair, Indooroopilly, Gasworks and Brickworks, as well as commercial buildings Milton Green, 199 Grey Street and Stanley House, and industrial buildings Acacia Gate and Industrial Park.

CS Energy has an offtake agreement for 100% of the output of the 162 megawatt (MW) Columboola Solar Farm, which it is on selling to AMP Capital and other large commercial and industrial customers.

To add to this, XXXX beer is now being brewed with Queensland sunshine. The **Milton XXXX Brewery**, through its owner Lion, signed a new Power Purchase Agreement to procure 100% renewable electricity from the **Lightsource bp solar farm** in Woolooga.



Columboola Solar Farm.

With the 144-year-old brewery producing up to 250 million litres of beer annually, this agreement will stop around 138,000 tonnes of carbon emissions from entering the atmosphere.

With more consumers demanding action on the climate, these businesses are leading the way in emissions reduction.



Queensland launches first neighbourhood batteries

Neighbourhood batteries are the latest technology soon to be rolled out in a \$10 million Queensland Government initiative to help deliver the state's renewable energy transformation.

A partnership between publicly owned Energex and retailer Origin will deliver 35 neighbourhood batteries across Ipswich as part of the Queensland Energy and Jobs Plan.

Thirty-five batteries will be rolled out in Goodna, Booval and Redbank Plains, helping to increase energy reliability, lower energy costs and produce a cleaner energy supply.

The batteries will store excess energy generated from close to 600 rooftop solar systems during the day, providing cheaper electricity supply during peak evening periods.

The batteries will be installed, owned and maintained by Energex and will complement the large-scale, network-connected batteries being rolled out across regional Queensland.

The project has been approved by the Australian Energy Regulator.



Minister for Energy, Renewables and Hydrogen Mick de Brenni and Energy Queensland Graduate Engineer Emily Shawsmith inspecting two batteries on display.



Japan further invests in Queensland's green hydrogen

Queensland is well on its way to becoming a hydrogen powerhouse with Japan's largest oil company starting green hydrogen production near Brisbane.

Japanese energy company ENEOS opened its demonstration plant at its Bulwer Island site in January, which will have the capacity to produce up to 20 kilograms of green hydrogen a day, while creating 30 specialist jobs.

ENEOS will produce green hydrogen using its patented electrolysis technology (Direct MCH[®]), powered from renewable energy generated by an onsite 250 kilowatt solar system.

The hydrogen will be produced in the form of methylcyclohexane so it can be stored and transported to Japan as a liquid before being refined back to hydrogen.

It is the first project supported by the Japanese government's \$24 billion Green Innovation Fund, which aims to make Japan carbon neutral by 2050.

ENEOS is also building a 204 megawatt solar farm at Edenvale near Chinchilla, supporting 400 construction jobs.



Delegates from the ENEOS Corporation with Minister for Energy, Renewables and Hydrogen Mick de Brenni.





Work begins on SuperGrid link between Cairns and Townsville

Construction has begun on a 275 kilovolt (kV) Queensland SuperGrid Link between Cairns and Townsville as part of the Queensland Energy and Jobs Plan.

Powerlink, backed by \$40 million Queensland Government funding, will upgrade part of the 132 kV coastal transmission line to permanently operate at 275 kV capacity.



The upgraded capacity between Cairns and Townsville will improve reliability, security and affordability of energy supply to North Queenslanders, and provide extra reliability in extreme weather events like storms and cyclones.

The SuperGrid link will also unlock up to 500 MW of additional renewable energy capacity in Far North Queensland, opening up new jobs in the energy system.

This grid link is also essential in supporting the \$373 million Kaban Green Power Hub in North Queensland.

The Kaban project has supported 250 jobs, and once complete this year, will generate enough clean energy to power tens of thousands of Far North Queensland homes.



Hydrogen skills study underway at Kogan Creek

Delivering on a \$4 million Queensland Government commitment towards supporting energy skills, a new study is underway in the Darling Downs to gather vital industry workforce intelligence on the hydrogen skills needed in the Toowoomba, Western Downs, Maranoa districts, and across the state.



Artist impression of Kogan Renewable Hydrogen Demonstration Plant.

The study, being carried out by Toowoomba and Surat Basin Enterprise (TSBE) at CS Energy's Kogan Renewables Hydrogen Demonstration Plant, aims to prepare a job-ready workforce for the hydrogen industry's expansion.

As the demonstration plant is built and operated, a dedicated Skills Officer will work to understand the skills and training needed and will connect local suppliers with hydrogen manufacturing opportunities.

This key action of the *Hydrogen Industry Workforce Development Roadmap 2022-32* will support the wider supply chain to invest in upskilling and training opportunities to enable them to transition to emerging energy industries.

The TSBE project is a \$161,000 investment from the VET Emerging Industries' Hydrogen Skills Fund, which aims to ensure we have the workforce to meet the anticipated growth of the industry by \$19 billion and 4,350 jobs by 2040.



Queensland's renewable energy targets



50%
renewable energy
by 2030



70%
renewable energy
by 2032



80%
renewable energy
by 2035



NET ZERO
emissions
by 2050

Queensland energy snapshot



3,025 MW
large-scale solar



4,350 MW
rooftop solar



731 MW
hydro and
pumped hydro



846 MW
wind



8,119 MW
coal



3,121 MW
gas



473 MW
bioenergy



419 MW
other (including diesel)

Large-scale renewable energy in Queensland (operational and committed since 2015)



50
projects



\$10+ billion
invested



8,000
estimated
construction jobs



5,700+ MW
capacity

Renewable energy in Queensland



8,500+ MW
renewable capacity
(large-scale and small-scale
currently operational)



22.7%
from renewable
sources

*All figures except 'renewable sources' current as at 30 November 2022. 'Renewable sources' figure current December 2021 to November 2022. Construction jobs figure is an estimate.



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