

### RENEWABLE ENERGY & STORAGE AND THE INSPIRE AUSTRALIAN INVESTMENT IN GENEX POWER

#### CLIMATE CHANGE AND THE DRIVE TO DECARBONISE

Holding global warming to the Paris Agreement target of 1.5 °C will require global net anthropogenic CO<sub>2</sub> emissions to decline by 45% from 2010 levels by 2030, and reach net zero by 2050. According to the IPCC, fossil fuels and industrial processes contribute to 65% of global greenhouse gas emissions.

Currently, Australia’s 2030 climate change target is to reduce emissions to 26–28 % on 2005 levels by 2030, far below the needs of the 1.5 °C target. According to ClimateWorks (April 2020), Australia needs to reduce its net annual emissions by 69% on 2020 levels by 2030 to meet the 1.5 °C target or 37-43% to meet a 2 °C target. We recognise whilst the Federal Government has not committed to a net Zero Target, the Australian States and Territories have all committed to targets, and significant investments in solar and wind are actively being made. Now that the US under President-elect Biden is looking rejoin the Paris Climate Agreement and advance the US efforts to decarbonize their economy, there could be further pressure on Australia to lift its targets ahead of the November 2021 climate talks in Glasgow.

#### INVESTMENT IN RENEWABLES

To meet Australia emission reduction targets it is critical that investment in renewable energy, storage and efficiency continues and accelerates. At Inspire Impact, we actively seek renewable energy, energy storage and energy efficiency investment opportunities in these sectors, and the fund has a specific exclusion on fossil fuel mining, energy generation, transmission, funding and insurance.

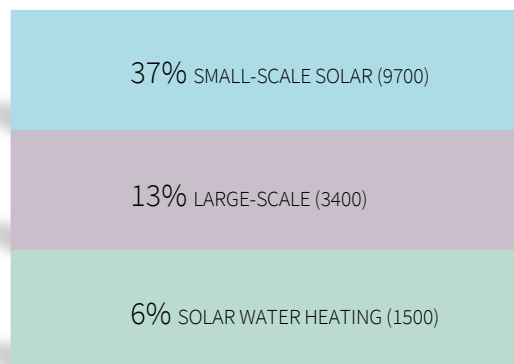
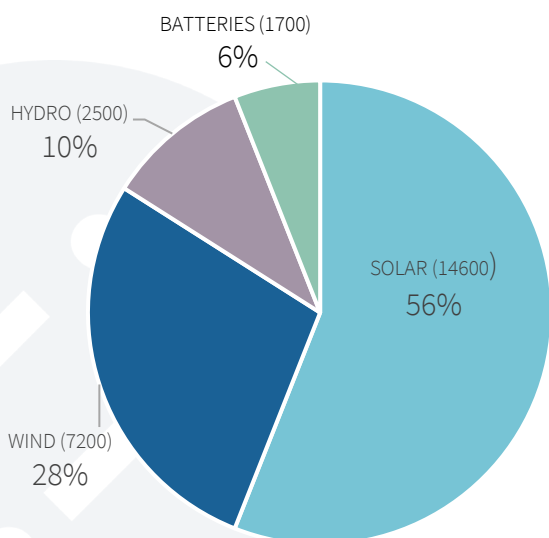
Given the amount of sunlight Australia receives, it has been described as a “solar paradise, abundant with opportunity”. According to RepuTex, a leading provider of modelling services for the Australian electricity, renewable energy and emissions markets, state schemes and rooftop solar installations have resulted in a surge of renewable energy, and this is forecast to reduce wholesale electricity prices from \$80 per MWh to \$70 over the next three years.

In recent years, rooftop solar PV generation has increased by around 20% annually to form over 7.5% (17.4 TWh) of total electricity supply. The capital costs of large-scale renewable generation in Australia have now fallen below costs for new-build fossil fuel generation, making it a more commercially viable solution and many plants are now being established across the country, striking Power Purchase Agreements (PPAs) with large users of this energy.

Investment in renewables also creates significant amount of new jobs. The Clean Energy Council research show the renewables sector currently employs over 25,000 people, and that the sector could potentially employ 44,000 Australians by 2025, with some 70% of these jobs in regional areas

(source: <https://assets.cleanenergycouncil.org.au/documents/resources/reports/Clean-Energy-at-Work/Clean-Energy-at-Work-The-Clean-Energy-Council.pdf>).

#### RENEWABLE ENERGY JOBS BY TECHNOLOGY, 2020



### WIND AND SOLAR INTERMITTENCY, CAPACITY AND GRID STABILITY DRIVE THE DEMAND FOR TENERGY STORAGE

Given the intermittent nature of renewable energy, the development of energy storage capacity is required, along with more energy efficient products and services. Battery costs per kilowatt hour have dropped by more than 85% since 2010 (from \$1,100/kWh to \$156/kWh) and are expected to fall by more than half (\$100/kWh) by 2023 (BNEF).

Batteries are being installed for both home/business storage as well as for Grid use. The well publicized Tesla Big Battery in South Australia has proven financially successful and given the grid significant security and stability. South Australia is developing several other large batteries to support storage and system stability, as well as actively promoting home battery installations.

South Australian consumers can get \$3,000 rebates (previously c. \$6,000) on purchases for home-based battery storage which typically costs \$7,000-15,000 depending on size and type (<https://homebatteryscheme.sa.gov.au/about-the-scheme>). Further, the transmission of power from home and business renewables and storage devices (including vehicles) to other electrical infrastructure is being trialed and used by way of Virtual Power Plants (VPPs) in South Australia and the ACT.

### CASE STUDY: PUMPED HYDRO: IAE FUND INVESTEMENT IN GENEX POWER (<https://www.genexpower.com.au/>)

Pumped hydro energy storage has been used in Australia since the 1970s – including schemes at Talbingo, Shoalhaven and Wivenhoe. The Federal government’s Snowy 2.0 Pumped Hydro storage is currently under construction which will provide 350,000MWH of storage capacity to the grid. Additional opportunities are increasingly being identified across Australia, including Genex’s Kidston plant in Queensland which is due for development and which the Inspire Australian Impact fund has invested in since its inception in January 2017.

Genex is building the Kidston Renewable Energy Hub in Australia’s solar red zone in far north Queensland, where the country receives the most sunlight. The project is in effect transforming a disused gold mine into a renewable energy hub – the area is set to be a world-first solar and pumped-hydro storage facility, able to provide renewable energy 24/7. See how it works here: <https://youtu.be/egBJHR6xmiw>

Utilizing an existing energy transmission line from Townsville that previously powered a gold mine, Genex has built a 50MW solar plant, reversed the transmission line, and is now powering 26,500 houses in Townsville.



Genex’s 50MW solar plant providing clean energy to Townsville



Genex’s Kidstone mines sites for planned pumped storage

Genex is currently working to finance and develop a 250 MW pumped-hydro storage facility that will also repurpose the existing mine structures.

The third leg of the total 770MW development pipeline is multi-staged, comprising a Solar Project of up to 270MW (K2-Solar with 3 million solar panels) and the Kidston Stage 3 Wind Project of up to 150MW. In addition, the Company has acquired the 50MW Jemalong Solar Project (JSP), located near Forbes in NSW, which is currently under construction and is expected to be operational in late 2020. More recently, Genex is developing the 75MWh Bouldercombe Battery which will provide a further 40 jobs.

### PLANNED GENEX SOLAR, WIND AND PUMPED HYDRO ROLL-OUT

	KIDSTON-2 SOLAR PROJECT	KIDSTON STAGE 3 WIND PROJECT	JEMALONG SOLAR PROJECT	PUMPED HYDRO 2000MWH	KIDSTON STAGE 1	BOULDERCOMBE BATTERY 75MWH	TOTAL
<b>GENERATION CAPACITY</b>	270MW	150MW	50MW	250MW	50MW	50MW	820MW
<b>STATUS</b>	Feasibility	Feasibility	Construction – completion Q4 2020	Construction to start early 2021	Operations	Development	-
<b>HOMES POWERED</b>	119,178	80,000	19,589	111,111	26,000	4,166	359,000
<b>CO2/PA OFFSET (TONS)</b>	648,000	434,979	106,510	604,137	120,000	22,655	1,936,282
<b>GENERATION MWH/PA</b>	783,000	525,600.00	128,700	730,000.00	145,000	27,375	2,339,675
<b># JOBS</b>	~250	~150	~80	~500	170	~40	1,190

This project will make clean energy available to 350,000 households, create 1,190 construction jobs and help stabilise the grid in Far North Queensland. Kidston Renewable Energy Hub demonstrates that solar energy, wind and hydro storage can bring life, and jobs, back into small towns while reducing pollution and increasing energy independence from fossil fuels.

Genex has a strong local engagement policy. The local township of Kidston is made up of approximately 10 people. Anybody within the town who wanted a job were employed directly by Genex or by the EPC contractor developing the project.

As part of Genex' agreement with NAIF (Commonwealth Government lender for K2-Hydro), Genex has an Indigenous Engagement Plan. As part of the plan, the EPC contractor for the project and all subcontractors will give preference to Indigenous stakeholders seeking employment with a focus on local indigenous participation. Further to this, the EPC contractor and Genex have set an Indigenous employment target of 5% for the K2-Hydro Project and will use best endeavours to exceed this 5% target.

The Jemalong Solar Project (being built by Boen Energy Solutions for Genex) in Forbes in central-west NSW, is providing a boost to female representation in the renewable energy industry, with women now making up more than 20% of the workforce (33 jobs).

Through innovation, the company has continued to build its business delivering more and more renewable energy, and as such, is having several layers of impact including directly by providing clean energy, reducing CO2, regional construction and permanent jobs, community building and local business and economic development (GDP) in Townsville, Kidston, Einasleigh and surrounding areas.

#### IMPORTANT INFORMATION

*This report was prepared by Inspire Australian Equities Pty Limited (Inspire) (ABN 56 635 773 974) as promoter of the Fund. The Fund was launched as an unregistered managed investment scheme on 31 January 2017 and registered with ASIC as a retail scheme on 6 March 2018. Equity Trustees Limited (Equity Trustees) (ABN 46 004 031 298, AFSL 240 975) is a subsidiary of EQT Holdings Limited (ABN 22 607 797 615), a publicly listed company on the Australian Stock Exchange (ASX:EQT). Equity Trustees was appointed Trustee of the Fund on 31 January 2017 and responsible entity on 6 March 2018. This document has been prepared for the purpose of providing general information only, without taking account of your particular investment objectives, financial circumstances or needs. It is not intended to take the place of professional advice and we do not express any view about the accuracy or completeness of information that is not prepared by us and no liability is accepted for any errors it may contain. You should consider the Product Disclosure Statement ("PDS") in deciding whether to acquire, or continue to hold, the product. A PDS and application form is available at [www.inspireimpact.com.au](http://www.inspireimpact.com.au). Neither Equity Trustees nor Inspire guarantees the performance of the Fund or the repayment of any investor's capital. To the extent permitted by law, neither Equity Trustees nor Inspire including their employees, consultants, advisers, officers or authorised representatives, are liable for any loss or damage arising as a result of reliance placed on the contents of this report. Past performance is not indicative of future performance. [www.inspireimpact.com.au](http://www.inspireimpact.com.au)*