The Kidston Clean Energy Hub
Stage 3 Wind Project

Careers for Net Zero

Genex Power and J-Power are co-developing the Kidston Clean Energy Hub (Energy Hub) which is a multi-stage development of up to 560MW of solar, hydro, and wind. The Energy Hub is located ~280km north-west of Townsville City. Stage 3 consists of a 258MW wind farm (K3-Wind) with construction scheduled to commence in 2025. Existing infrastructure from earlier stages will be leveraged to accommodate workers associated with the Energy Hub, including a worker's camp in Kidston.

Genex as the project developer, along with our contractors, a joint venture of Consolidated Power Projects and Nacap (CNJV), who are delivering the stage 3 electrical and civil aspects of K3-Wind, are delighted to be part of the Career's for Net Zero roadshow. We aim to provide you with insightful information about who we are and what we do, while showcasing the exciting career pathways and employment opportunities that the K3-Wind project offers. We are excited to collaborate with you and our industry peers, as we work together to build a sustainable, and clean energy future. Our goal is to provide you with a valuable experience that supports your professional aspirations to be part of the rapidly growing renewable energy industry.

TAFE Qld Trade Training Centre
763 Ingham Rd, Bohle QLD

Wednesday, 14 August 2024
9:00am – 3.30pm

Scan QR code for more information or contact us below at:

02 9048 8850

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Stage 3 Wind Project
Frequently Asked Questions

Project Overview

What is the Kidston Clean Energy Hub?

Genex has been developing the energy hub since acquiring the Kidston Gold Mine in 2014. Our strategy is to complete the energy hub by developing a large-scale 258MW wind farm expected to begin construction in 2025. As one of Australia's largest and most innovative hybrid energy hubs, this facility is a key player in the country's thriving green energy market. The energy hub features a diverse mix of cutting-edge renewable energy generation and storage technologies, including large-scale solar, pumped storage hydro, and wind power. The innovative trio of renewable sources will distribute electricity to the National Electricity Market through a 186-kilometre transmission line connecting the Aurumfield Substation in Kidston to the Guybal Munjan Substation in Mount Fox.

Where is the Energy Hub Located?

The energy hub is located on the site of the disused Kidston gold mine in Far-North Queensland, approximately 280km north-west from Townsville city.

Access to the wind farm is approximately a 10km drive from the existing Kidston Pumped Storage Hydro Camp.

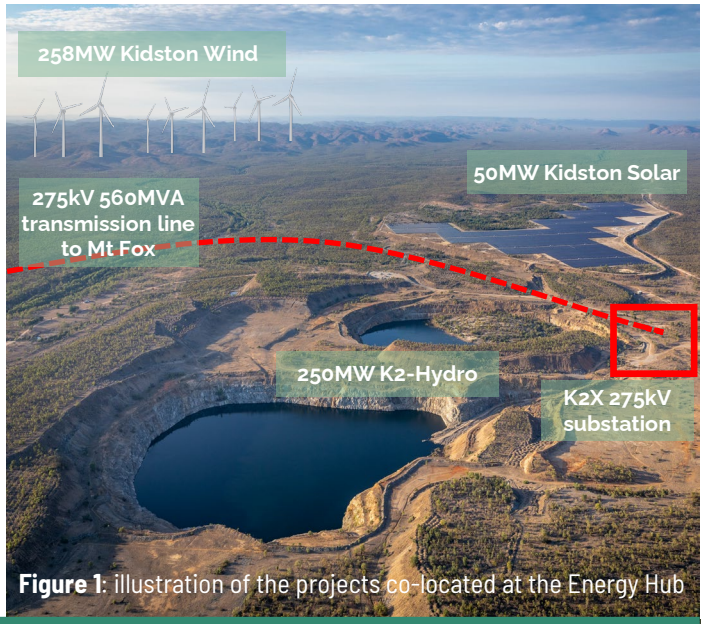


Figure 1: illustration of the projects co-located at the Energy Hub

Figure 2: Energy Hub location in relation to Greenvale

Stage 3 Wind Project
Frequently Asked Questions

What is the timeline of the Energy Hub?

Stage 1: 50MW Kidston Solar Project (KS1)

- In full operations and generating power for Queensland homes since 2017

Stage 2: 250MW Kidston Pumped Hydro Storage Project (KPSH)

- Under construction with energisation targeting H1 CY2025

Stage 3: 258MW Kidston Wind Project (K3-Wind)

- Final Investment Decision targeting CY2024
- Construction scheduled to commence in CY2025
- Energisation/operations scheduled to commence in H2 CY2027

What existing infrastructure will K3-Wind leverage at the Energy Hub?

- Workers and contractor accommodation;
- Onsite office;
- Public road infrastructure;
- Airstrip for FIFO services; and
- Will connect into the 275Kv transmission line being constructed by Powerlink Queensland once this is completed in CY2025

What additional infrastructure will K3-Wind integrate into the Energy Hub?

- Turbine components including towers, nacelles, and blades;
- Road upgrades;
- Foundation and Turbine Pads;
- Electrical Infrastructure such as substations, transformers and power lines;
- Meteorological masts;
- Crane pads; and
- Security measures.

What is the benefit of integrating wind into the Energy Hub?

As part of the Queensland Government *Energy and Jobs Plan*, the state has firm targets for renewable energy generation with a target of **70% renewable by 2032.** The Energy Hub, through the development of large-scale solar, wind and pumped storage hydro, will be crucial in assisting the Government meet these ambitious targets.

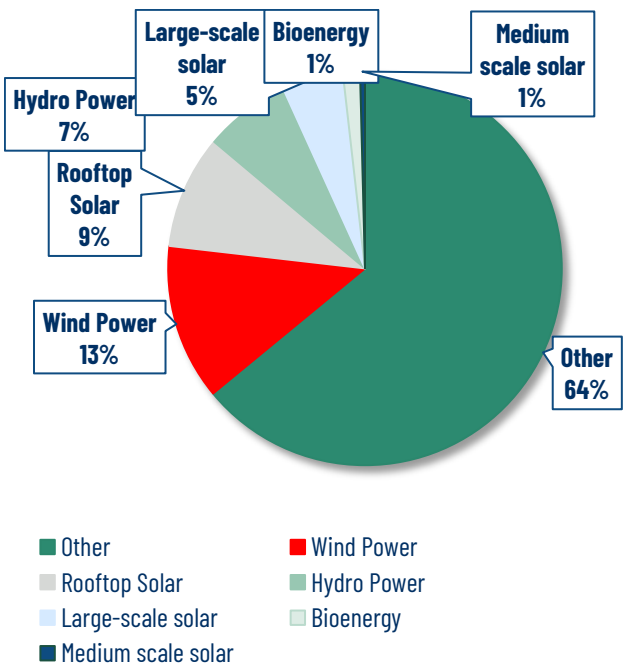
Integrating a wind farm into the Energy Hub enhances the optimisation of our existing solar and hydroelectric power assets, creating a robust energy powerhouse. This diverse energy mix reduces dependency on a single energy source, thereby increasing resilience and stability for the grid. Wind is an inexhaustible resource with a minimal physical footprint, making it a highly sustainable long-term solution that can coexist with agricultural land and wildlife habitats.

K3-Wind will further job creation and stimulate economic health of the local community. Since 2016, Genex has engaged closely with the Indigenous group in the Kidston region, being the Ewamian People. As part of its community engagement strategy, Genex has prioritised local job creation and support for local projects, including the Talaroo Hot Springs as the lead financial sponsor. We also engaged in the Indigenous Engagement Strategy with Genex committing to achieving a minimum of 5% Indigenous employment for the Kidston Pumped Hydro Project. Genex is working with Ewamian to achieve similar outcomes for the K3-Wind project.

Stage 3 Wind Project
Frequently Asked Questions

How does wind energy work?

Wind is a natural and unlimited resource that is constantly replenished, making it a sustainable energy option. Wind turbines generate electricity by harnessing the kinetic energy of the wind. As wind flows over the turbine's rotor blades, it creates lift, causing the blades to spin. This rotation turns a generator attached to the rotor, converting mechanical energy into electrical energy through electromagnetic induction. The generated electricity is then transmitted via power lines for distribution or storage. Wind turbines typically consist of rotor blades, a nacelle, a tower, and a generator, and they are strategically positioned to capture the most consistent and strong winds. Wind energy is the most significant renewable generation contributor in Australia, making up 13% of the total energy generation mix.



Source: The Clean Energy Council Report 2023

What is the status of K3-Wind?

K3-Wind is currently in development and expected to commence construction in 2025 with the aim to be fully operational in late 2027. K3-Wind has already achieved several key development milestones which include:

- Signed two Power Purchase Agreements for the energy generated by the project;
- Selection of preferred suppliers and contractors to build the project;
- Declared a Prescribed Project by the Queensland State Government pursuant to section 76E of the State Development and Public Works Organisation Act 1971;
- The transport routes for wind turbine components to site have been determined;
- A comprehensive site design has been developed.

Who are the key contractors building K3-Wind?

Genex has appointed Goldwind Australia as the wind turbine supplier for the K3-Wind Project. The CNJV has been appointed as the balance of plant contractor to design and construct the civil and electrical works.

What is the size and scale of K3-Wind?

K3-Wind consists of 43 x 6.0MW Wind Turbine Generators on a 130m tower, for a total 258MW installed capacity.

Stage 3 Wind Project
Frequently Asked Questions

What are the procurement and work packages available for the K3-Wind?

There are up to 350 jobs during construction and 10 during operations.

- **Civil and Electrical Construction** from H2 CY2025
- **Wind Turbine Construction and O&M** from H2 CY2025
- **Workers Camp Occupation** from H1 CY2025

What are the key transportation routes for the turbine components?

- **Route 1** via Charters Towers, Greenvale, and then the Gregory Highway across the Einasleigh and Copperfield River. Nacelles, hubs and blades will use this route.
- **Route 2** via Hervey Range, Greenvale, and then the Gregory Highway across the Einasleigh and Copperfield River. Tower sections, generators and other heavy components will use this route.

When do turbine deliveries take place and how will they be transported?

Turbine deliveries set to commence following the balance of plant construction commencement.

Due to the sheer size and weight of the wind turbines components, they require oversize and/or overmass (OSOM) vehicles to transport to site.

Each turbine has ~13 OSOM loads, resulting in 559 OSOM deliveries for the Project over a ~30-week period with the relevant pilots and police escorts.

What changes along the routes will be implemented to ensure no disruptions to the community, environment, and power supply?

There will be modifications to overhead signs and signals, side tracks to avoid structures, modification to traffic islands, vegetation trimming and powerline lifting.

Where is the workers camp located and what facilities and amenities are at the camp?

K3-Wind will utilise the existing Oaks Rush Accommodation Camp that underwent significant refurbishment and expansion to accommodate contractors and employees involved in the construction of the Kidston Pumped Storage Hydro Project. The camp has 450 beds, a mess hall, commercial grade kitchen, cafeteria, bathrooms, showers, laundry, parking, transport, and a common room with recreational and game facilities.

Stage 3 Wind Project
About Genex and J-POWER

About Genex

Genex Power is a company focused on developing a portfolio of renewable energy generation and storage projects in Australia. Genex's diverse portfolio includes large-scale batteries, pumped storage hydro, wind and solar across Qld and NSW. The Company's flagship Kidston Clean Energy Hub, located in north Queensland, will integrate large-scale solar generation with pumped storage hydro and wind energy. The Kidston Clean Energy Hub comprises the operating 50MW stage 1 Solar Project, the 250MW Kidston Pumped Storage Hydro Project currently under construction, and the up to 258MW Kidston Wind Project currently in development.

About J-Power

J-POWER is a Japanese power company listed on the Tokyo Stock Exchange with a market capitalisation of approximately JPY 410Bn (as of 30 June 2022, A$4.4 billion). J-POWER owns 18.3GW of power generation assets such as hydroelectric, coal-fired, and wind power in Japan. It is the largest provider of coal-fired power, and the second largest provider of hydroelectric and wind power in Japan. J-POWER also owns and maintains a nationwide network of distribution facilities covering over 2,400km of transmission lines.

What is Genex's contribution in Australia?

KIDSTON CLEAN ENERGY HUB

Kidston Pumped Storage Hydro (250MW/2,000MWh) (GNX:100%) (K2H)

Status:	In construction, energisation Q1 CY2025
Capex:	$790m
Funding:	$610m NAIF debt $47m ARENA grant $133m equity

Kidston Stage 1 Solar (50MW) (GNX:100%) (KS1)

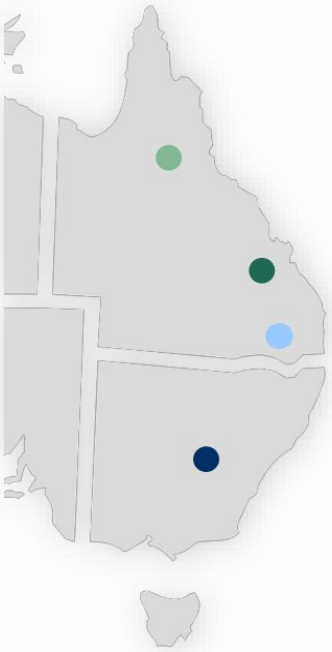
Status:	In operation since Dec-17
Capex:	$128m
Funding:	Portfolio financed with Jemalong $152m senior debt o/s (31.12.2023) $11m subordinated debt o/s (31.12.2023)

Kidston Stage 3 Wind (Up to 258MW) (GNX:50%) (K3W)

Status:	In development, targeting FID CY2024
Capex:	TBC
Funding:	TBC, 50:50 joint venture with J-POWER

Jemalong Solar Project (50MW) (GNX: 100%) (JSP)

Status:	In operation since Jul-21
Capex:	$108m
Funding:	Portfolio financed with KS1



Bouldercombe Battery Project (50MW/100MWh) (GNX: 100%) (BBP)

Status:	In operation since Nov-23
Capex:	$59m
Funding:	$35m Infradebt senior debt (+$7m LC facility) $24m equity

Bulli Creek Stage 1 Solar (450MW to 775MW) (GNX:50%) (BCS)

Status:	In development, targeting FID CY2024
Capex:	TBC
Funding:	TBC, 50:50 joint venture with J-POWER

Bulli Creek Stage 1 BESS (~400MW/1,600MWh) (GNX:50%) (BCB)

Status:	In development, targeting FID CY2025
Capex:	TBC
Funding:	TBC, 50:50 joint venture with J-POWER

Further Pipeline Opportunities

Bulli Creek Solar (GNX: 50%)	Capacity for subsequent stages of up to 825MW
Bulli Creek BESS (GNX: 50%)	Capacity for subsequent stages of up to 825MW
BBP 2 (GNX: 100%)	Expansion opportunity for further 50MW/100MWh

Contact us

If you have questions about the Kidston Wind Farm, please reach out to us.

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