Kidston Clean Energy Hub Factsheet

April 2025

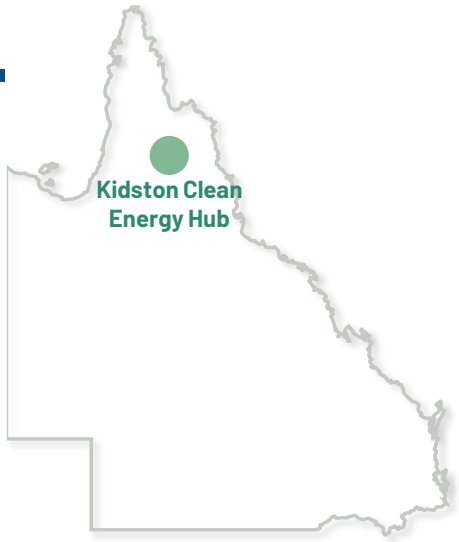
The Kidston Clean Energy Hub is a unique, multi-technology renewable energy precinct combining solar, pumped storage hydro, wind, and BESS assets in far-north Queensland.

It is being developed by Genex, a power generation development company focused on innovative clean energy generation and electricity storage solutions across Australia.

Kidston Clean Energy Hub Project Overview

The Kidston Clean Energy Hub is uniquely located on the site of the former Kidston gold mine in North Queensland. It brings together major clean energy technologies including large-scale solar, and pumped hydro energy storage - in a single, integrated precinct. In addition to these, Genex is developing an innovative hybrid renewable model that combines wind energy with a Battery Energy Storage System (BESS) to optimise dispatchable power supply.

A dedicated transmission line has unlocked the potential of the Kidston Clean Energy Hub, and the power generated will be sold directly into the NEM, whilst the synchronous operation of the pumped hydro plant will add much needed system strength to the weak North Queensland grid.



FAST FACTS & KEY BENEFITS - KIDSTON PUMPED STORAGE HYDRO

- The world's first to **repurpose an abandoned gold mine** for hydroelectric power generation
- **First pumped storage hydro** project in Australia for 40 years
- **Third largest** electricity storage device in Australia
- Adds much needed **system strength** to the weak North Queensland grid
- **900 direct jobs** created
- Unlocks the **renewable generation potential** of North Queensland
- Over **$500 million in public benefits** due to reduction in wholesale electricity prices
- Strong financial support from **Federal and State Government**

50MW Kidston Solar Project (KS1) is a 50MW solar farm which has been generating power for Queensland homes since 2017 and is connected to existing 132kV distribution network. It's a consistently high performing solar farm located on the old tailings storage facility at the former Kidston gold mine.

250MW Kidston Pumped Storage Hydro Project (K2-Hydro) construction commenced in April 2021 and it is on track for energisation in the second half of CY2025. When operational, it will generate 250MW of power for up to 8 hours for North Queensland.

270MW Kidston Hybrid Project (K3-Hybrid) formerly the 258MW Kidston Wind Project has been reconfigured to optimise performance, boost energy reliability, and reduce environmental impact. The revised design includes 120MW of wind generation paired with 150MW/600MWh BESS. K3-Hybrid marks the exciting, final phase of the Kidston Clean Energy Hub which is aimed for financial close in early 2026 and will connect into the newly developed transmission infrastructure.

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How does it work?

The K2-Hydro Project is truly unique because it reuses existing mining pits as the upper and lower reservoirs for the Project. The significant difference in water levels of the two pits enables the generation of power when water flows from the higher pit to the lower pit via underground turbines and generators. The system then operates in reverse to store water (or energy) by pumping from the lower reservoir to the upper reservoir in times of low electricity demand.

The vast quantity of water the pits can hold, means the Project has a high electrical efficiency and can support 2,000MWh of continuous power generation in a single generation cycle (250MW of peaking power generation over an 8-hour period).

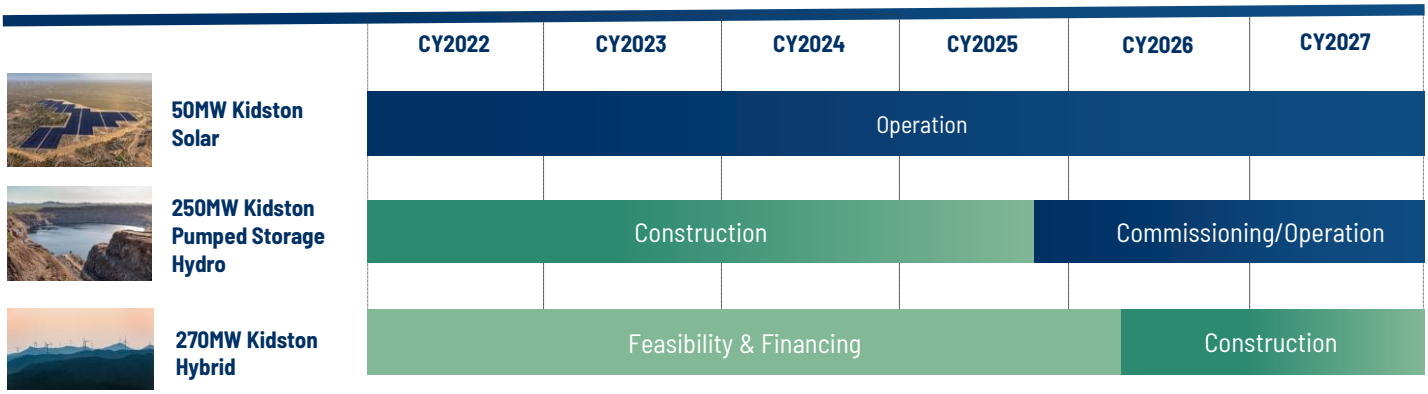
People, communities and the environment

- Extensive consultation through the life-cycle of projects to ensure communication and responsiveness with our communities, endeavoring to always act honestly and fairly
- Indigenous Engagement Strategy to promote Indigenous employment and procurement for K2-Hydro
- Strict focus on minimising disturbance, commitment to conserving and protecting the environments as illustrated by the "Recycling And Reuse Programme"
- K2-Hydro converting disturbed mine site to new long term industrial use for sustainable energy generation
- Focus on job creation in our local communities: 900 jobs created at Kidston and along the transmission route
- Lead financial sponsor for the Talaroo Hot Springs (Indigenous enterprise)

Project Partners

McConnell Dowell · John Holland · entura · GHD · Mott MacDonald · ANDRITZ ENGINEERED SUCCESS · beon Energy Solutions · Powerlink Queensland · WSP

Kidston Clean Energy Hub Project Timeline



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