

## European Solar and Energy Storage Solutions

# Hydropower energy storage Papua New Guinea



## Overview

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Is Papua New Guinea a good place for hydroelectric power?

Papua New Guinea's rugged mountainous highlands are ideal for hydroelectric power generation, and the government has been keen to capitalise on its abundant hydro resources as it develops new renewable energy projects.

How complete is the Papua New Guinea hydropower project?

The penstock is about 60% complete. You can see the massive scale of this project by looking the size of the person walking on the weir crest. This area after the crest will be completely full of water by the time this project is complete. AG Investment and its development partners are proud to contribute this hydropower plant to Papua New Guinea.

What is the largest hydro project in PNG?

The largest hydro project currently under development in PNG is the 1800-MW Karimui project in Simbu Province. The dam will be located upstream from the confluence between the Waghi and Asaro Rivers, with its layout including an area of rockfill dam, two 130-km power tunnels and a powerhouse area.

Does PNG have hydropower?

In addition to hydropower, the country is making steady progress towards launching new solar and geothermal projects, with rising investor interest in renewables development expected to support a robust mid-term capacity growth in production. PNG's challenging geography has given it significant hydroelectric potential.

Where is the new Papua New Guinea hydropower plant located?

Located in Papua New Guinea's Morobe province, the new hydropower plant involved the design and construction of several bespoke components including: A low-height diversion weir connected to a 33m high concrete surge tank A power station containing two 5.6 MW Pelton turbines.

How much power does Papua New Guinea have?

Given the relatively small population size, low access to electricity, commercial and technical challenges of hydropower, Papua New Guinea today has an installed capacity of less than 250 Mega Watts (MW). However, this is likely to increase over the coming decade with several projects under development.

## Hydropower energy storage Papua New Guinea



### Africa hydropower regional profileAfrica

Towards the end of 2023, power company Suomen Voima, which already owns five hydropower plants in Norway, announced its intention to develop a new energy storage project: Noste, in Northern Finland. They will construct up to three small-scale PSH plants, for a total capacity of more than 100MW and a total investment of up to EUR300 million.

### Papua New Guinea

With wind, water, geothermal resources, and an abundance of sunshine, PNG is ideally positioned to become a leader in renewable energy. A recent study by the International Finance Corporation highlighted the enormous potential for wind power in PNG.



### Papua New Guinea National Energy Access Transformation

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The Government of Papua New Guinea (GoPNG) has requested support from the World Bank for the Papua New Guinea National Energy Access Transformation Project (NEAT or the ZProject). The Project will be implemented by the National Energy Authority (NEA) and PNG Power Limited (PPL). The Project

## Papua New Guinea National Energy Access Transformation

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Papua New Guinea National Energy Access Transformation Project (P173194)  
ENVIRONMENTAL AND SOCIAL MANAGEMENT  
HPP Hydro Power Plant HV High Voltage IFC International Finance Corporation (PV) plus Battery Energy Storage System (BESS) as a clean energy source.



## Hydropower leads renewable energy push in PNG

Papua New Guinea's rugged mountainous highlands are ideal for hydroelectric power generation, and the government has been keen to capitalise on its abundant hydro resources as it develops new renewable energy projects. A large number of hydropower projects are under the management of Kumul Consolidated Holdings (KCH), the statutory body responsible for ...

## SMEC to provide feasibility study for 18-MW Pilikambi Hydropower

"The development of the project will ensure the availability of reliable renewable energy throughout the grid connected areas, particularly as the Enga Provincial government is constructing a new hospital and other government facilities in Wabag town," said Tilak Battharai, SMEC manager, Hydropower & Dams Southeast Asia.



## Purari Hydropower Project

The renewable hydropower project was being

investigated within the Purari River catchment in Gulf Province, PNG, approximately 350 kms NW of Port Moresby. If proven feasible, the project could provide electricity for local and industrial purposes in PNG.



## Edevu (54MW): PNG's Largest Commercial Hydropower Station

Edevu Hydropower Station will be Papua New Guinea's largest commercial hydropower station, generating 54MW of electricity and will be supplementing the capital's 140MW electricity demand. It is AG Investment's biggest project up to date and we are happy to announce it is nearing its final stages of competition.



## Hydropower leads renewable energy push in PNG

The Baime Hydropower facility will increase power supply and reliability in the Morobe, Madang and Highlands provinces of PNG. Connecting into the Ramu Network, the project will improve livelihoods for local communities whilst ...

## SMEC to provide feasibility study for 18-MW Pilikambi Hydropower

SMEC to provide feasibility study for 18-MW Pilikambi Hydropower Project in Papua New Guinea Hydropower - Renewable Energy World.

Solar. Commercial and Industrial; Community Solar; DOE is offering \$300,000 to innovators working on nascent or emerging energy storage solutions that address less conventional use cases....



## Energy storage updaters , Papua New Guinea

Tunisian utility planning 600MW pumped hydro energy storage plant. Tunisian utility STEG is planning to build a 400-600 MW pumped hydro energy storage plant, for a 2029 commissioning date. The French Development Agency (AFD), the European Investment Bank (EIB) and the German Development Bank (KfW) are all contributing to the cost of the studies

## K650-M Edevu Hydro Power Plant Launches

The recent Edevu Dam impounding Ceremony Launched by Chinese investment firm PNG Hydro Power Ltd kicked off the opening of the Hydroelectric Power plant in Edevu on Friday 21 April, with a view to delivering accessible energy and power supply to local communities to the country's Capital and surrounding areas.



## SMEC chosen to provide tender design for Baime Hydropower

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SMEC recently announced it has been appointed to provide tender design and documentation for

the next phase of the 12-MW Baime Hydropower project in Papua New Guinea, being developed by PNG Forest Products (PNGFP).



## Designing Rural Electrification Solutions Considering Hybrid

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Papua New Guinea (PNG) is amongst the least developed countries in the world and has an unusual topography. About 90% of its population lives in rural areas and has little or no access to electricity.



## International Journal of Energy and Environmental Research ...

1, 2, Papua New Guinea University of Technology, Private Mail Bag 411, Lae, Morobe Province, Papua New Guinea ABSTRACT: This policy paper investigates and analyses current and proposed levels of energy development and access in Papua New Guinea, with regards to the country's Vision 2050 and the United Nations' SDG Number 7.

## Hydropower leads renewable energy push in PNG

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it develops new renewable energy projects.



## Purari Hydropower Project

PNG Energy Developments Limited (PNG EDL), a 50/50 joint venture of the PNG Sustainable Development Program (PNGSDP) and Origin Energy Ltd of Australia, evaluated the potential development of a renewable hydropower project on the Purari River in Papua New Guinea (PNG). The renewable hydropower project was being investigated within the Purari River catchment in ...

## SMEC to conduct feasibility study for Pilikambi project in Papua New Guinea

Energy storage services agreement signed for Australia's Kidston Stage 2 project. April 1, 2020; Hydropower & Dams; Australia's Genex Power has finalized offtake agreements for its 250 MW Kidston Stage 2 pumped-storage hydropower project (K2-Hydro) in the northeastern state of Queensland, marking a significant step towards achieving financial close.



## Power Sector Transition in Papua New Guinea

Renewables in Papua New Guinea Renewable Targets. By 2030, PNG aims to increase



renewables to 78% of the national energy mix. Papua New Guinea aims to transition its energy sector to carbon neutrality by: Increasing renewables in the national energy mix from 30% in 2015 to 78% in 2030 (decreased from the goal of 100% renewables by 2030, as written in PNG's ...

## Baime Hydropower Project Set to Be Commissioned in Papua New Guinea

The 11.6GW Baime hydropower project in Morobe Province in Papua New Guinea is scheduled for commissioning this month. The project, which will be able to produce 81GWh of hydroelectric energy annually, is a part of PNG Power Limited's Fifteen Year Power Development Plan (2016- 2031) which aims to replace energy production from diesel and ...



## Hydro Power Plants in Papua New Guinea

Hydro Power Plants in Papua New Guinea. Papua New Guinea generates hydro-powered energy from 6 hydro power plants across the country. In total, these hydro power plants has a capacity of 165.0 MW. Name Capacity (MW) Type Other Fuel Commissioned Owner; Lake Hargy: 1.5 ...

## Edevu (54MW): PNG's Largest Commercial Hydropower ...

Edevu Hydropower Station will be Papua New Guinea's largest commercial hydropower station, generating 54MW of electricity and will be

supplementing the capital's 140MW electricity demand. It is AG Investment's ...



## **SMEC to study feasibility of 15 MW Kuat I hydropower in Papua New Guinea**

SMEC announced it has secured the contract to conduct the feasibility study for the 15 MW Kuat I Hydropower Project in Morobe Province, Papua New Guinea. This project is expected to produce around 100 GWh of clean, renewable energy annually, providing a reliable power source for the region's burgeoning industrial and mining sectors.

## **Contact Us**

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