

EDEVU HYDROPOWER

AG GROUP (AG INVESTMENT | AG ENERGY)

AG Airport Portfolio

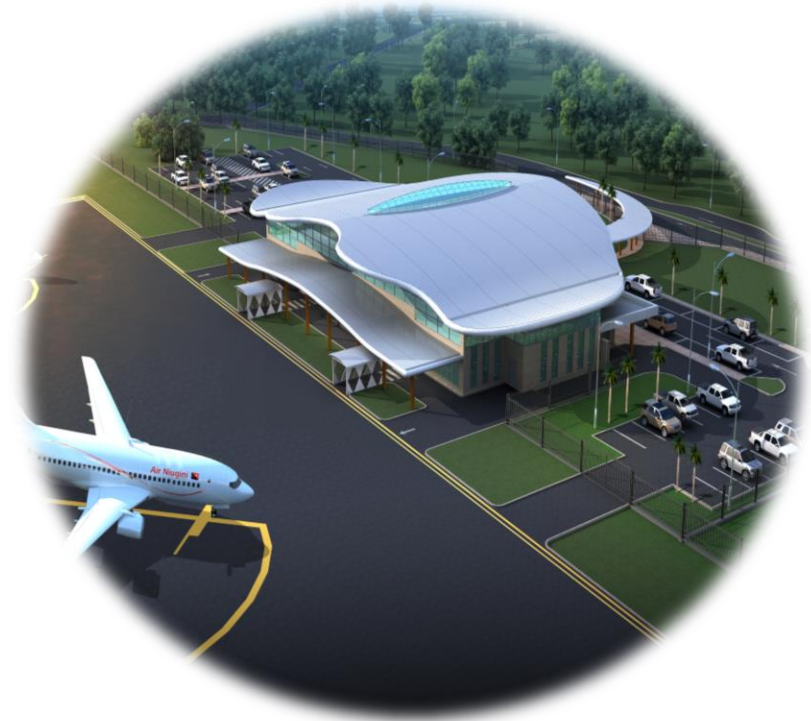
Kagamuga Airport
Hagen



Goroka Airport
Goroka



Momote Airport
Manus



Kagamuga Airport

Mt. Hagen



Goroka Airport

Goroka



Momote Airport

Manus





Upper Baiyun Hydropower

Total Capacity: 9.4MW

Scope: EPC

Clients: PNG Forest Products

Completion: Dec 2012

Location: Bulolo, Morobe Province



Divune Hydropower Project

Total Capacity: 3MW

Scope: EPC

Clients: PPL & ADB

Completion: June 2021

Location: Kokoda, Oro Province





Warrangoi Hydropower Upgrade

Total Capacity: 12MW

Scope: EPC

Clients: PPL & ADB

Completion: Nov 2021

Location: Warrangoi, ENB

YTOD Hydropower Plant Upgrade

Total Capacity: 18MW

Scope: EPC

Clients: PPL & ADB

Completion: Aug 2021

Location: Yonki –EHP



Ramu I Hydropower Upgrade

Total Capacity: 5x15MW

Client: PPL & DFAT

Completion: Ongoing from 2022

Location: Ramu, Eastern Highlands Province





Baime Hydropower Project

Total Capacity: 12MW

Client: PNG Forest Products

Completion: Nov 2022

Location: Bulolo, Morobe Province





Bapa Hydropower Project

Total Capacity: 12 MW

Scope: Power Tunnel

Clients: AG Energy Ltd.

Status: In progress

Location: Bulolo, Morobe Province



Bapa Hydro Power Tunnel Breakthrough

- Breakthrough Ceremony, 20th August, 2023
- Prime Minister Visit, 9th November, 2023





A Case of Green Energy Edevu Hydropower Project

54MW

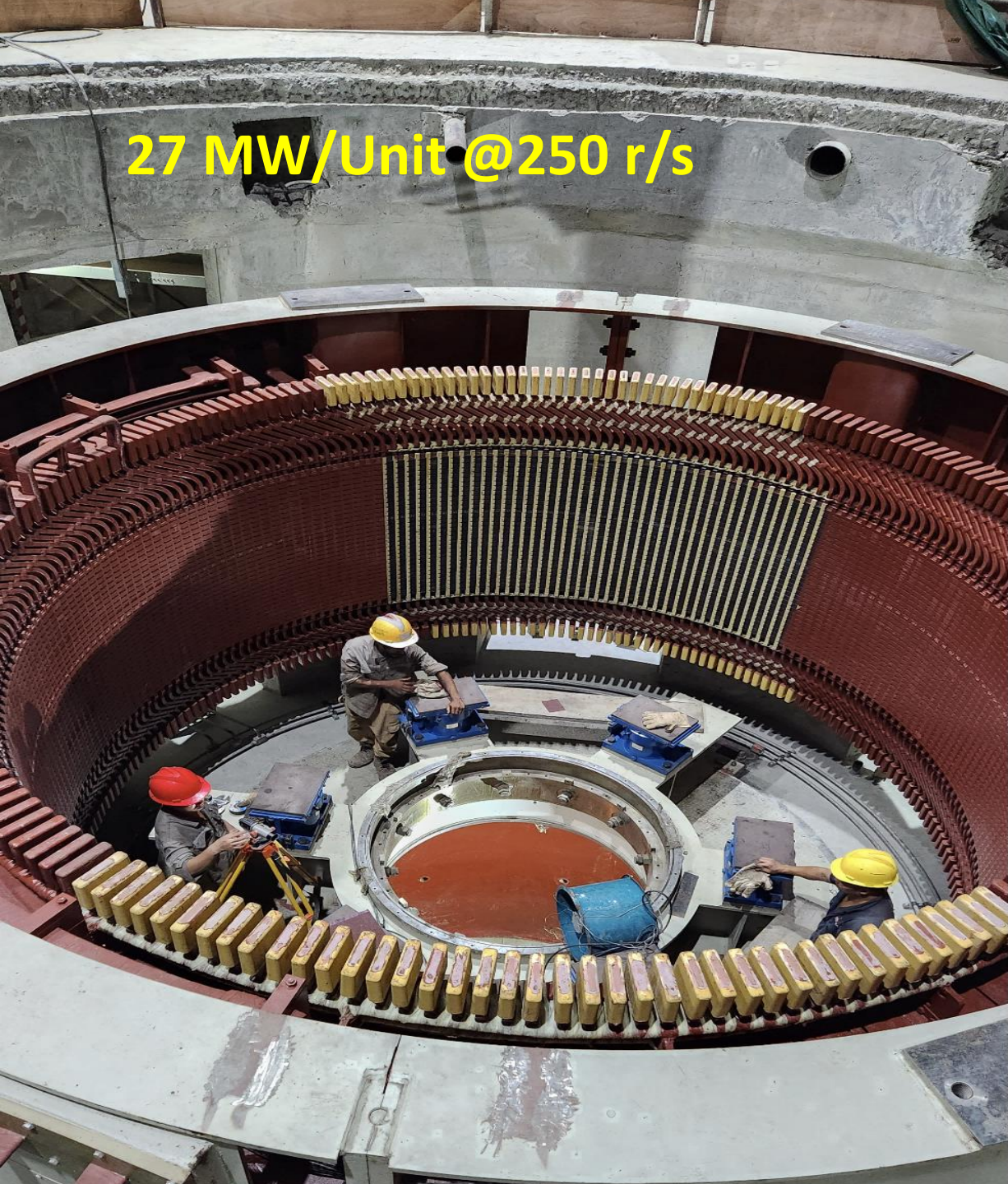
PGK650 Million

14 Years

**Practical Developer + Landowners + Government
= Success**



27 MW/Unit @250 r/s



Edevu Hydro Pioneering renewable Solar Energy

- 1MW floating solar being installed
- 5MW total planned





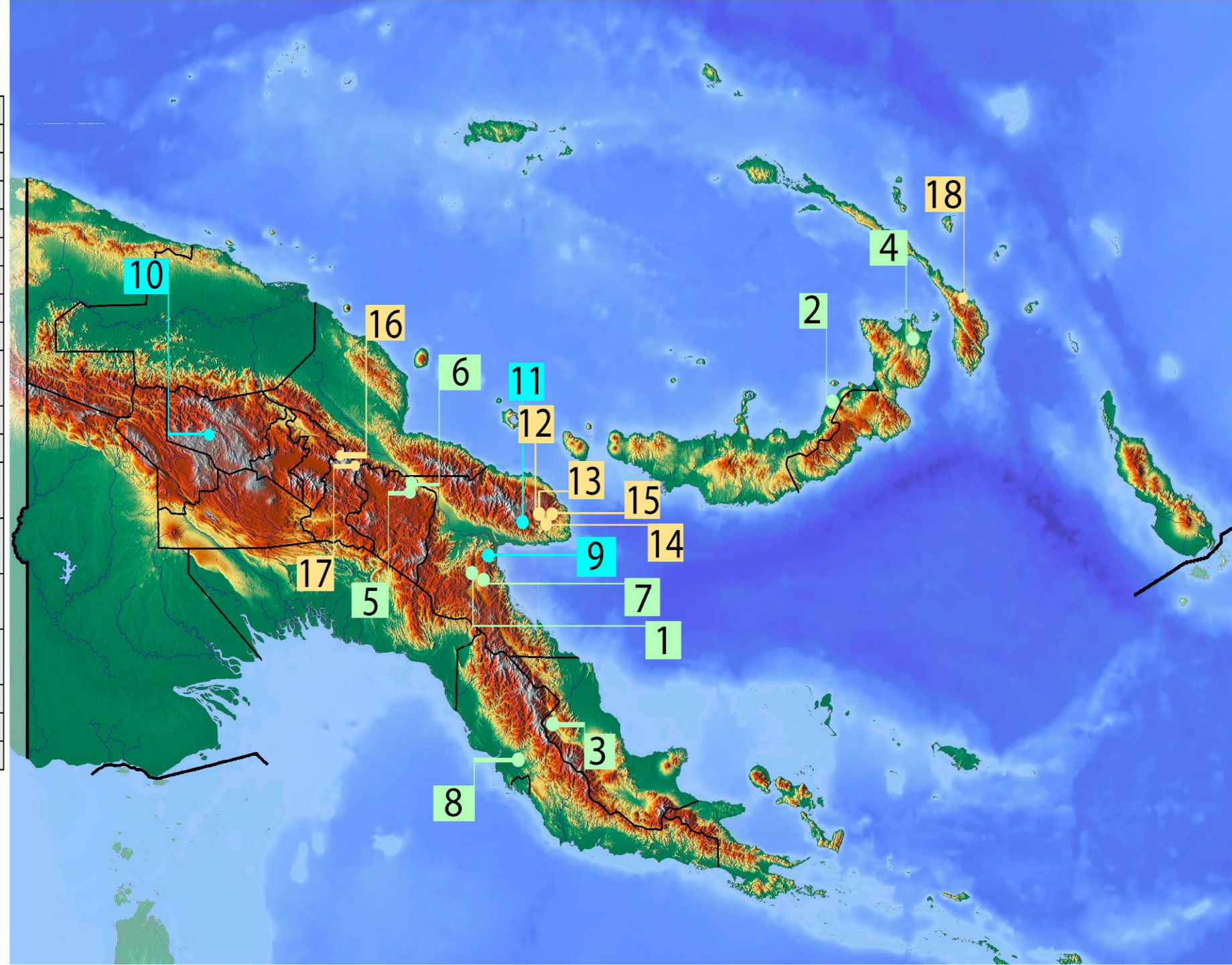
Edevu – Moitaka Transmission Line

- **132 KV Double Circuit**
- **2 Substations**
- **35 Km**
- **Completion 2023**



	Project Area(s)	Capacity	Notes
1	Upper Baiune	9.4MW	2012
2	Lake Hargy	1.4MW	2019
3	Divune HPP	3MW	2020
4	Warrangoi HPP	10MW	2021
5	Yonki TOD	18MW	2021
6	Ramu I repair	30 MW	2021
7	Baime HPP	12MW	2023
8	Edevu HPP	54MW	2023
9	Bapa HPP	12MW	Tunnel Breakthrough
10	Pilikambi HPP	20MW	Pre-construction
11	Burum II HPP	20MW	Pre-construction
12	BURUM Cascades 1+3 to 5 (4)	100-120MW	FS/Finschhafen
13	KUAT Cascades 1 to 4 (4)	45-65MW	FS/Finschhafen
14	MONGI Cascades 1 to 7 (7)	400-465MW	FS/Finschhafen
15	MAPE Cascades 1 to 2 (2)	20-30MW	FS/Finschhafen
16	Gembogl HPP	6 MW	FS/Kundiawa
17	Simbu HPP	18MW	FS/Sinesine
18	Dalum HPP	7MW	FS/Namatanai

- Completed
- In Progress
- Feasibility Study





Hydropower Potential

World Bank Report (1994)

Estimate

- Gross Potential – 20,000 MW
- Technically Feasible – 14,000 MW
- One of the highest hydropower potential per head in the world
- To date total generation is just 2% of potential

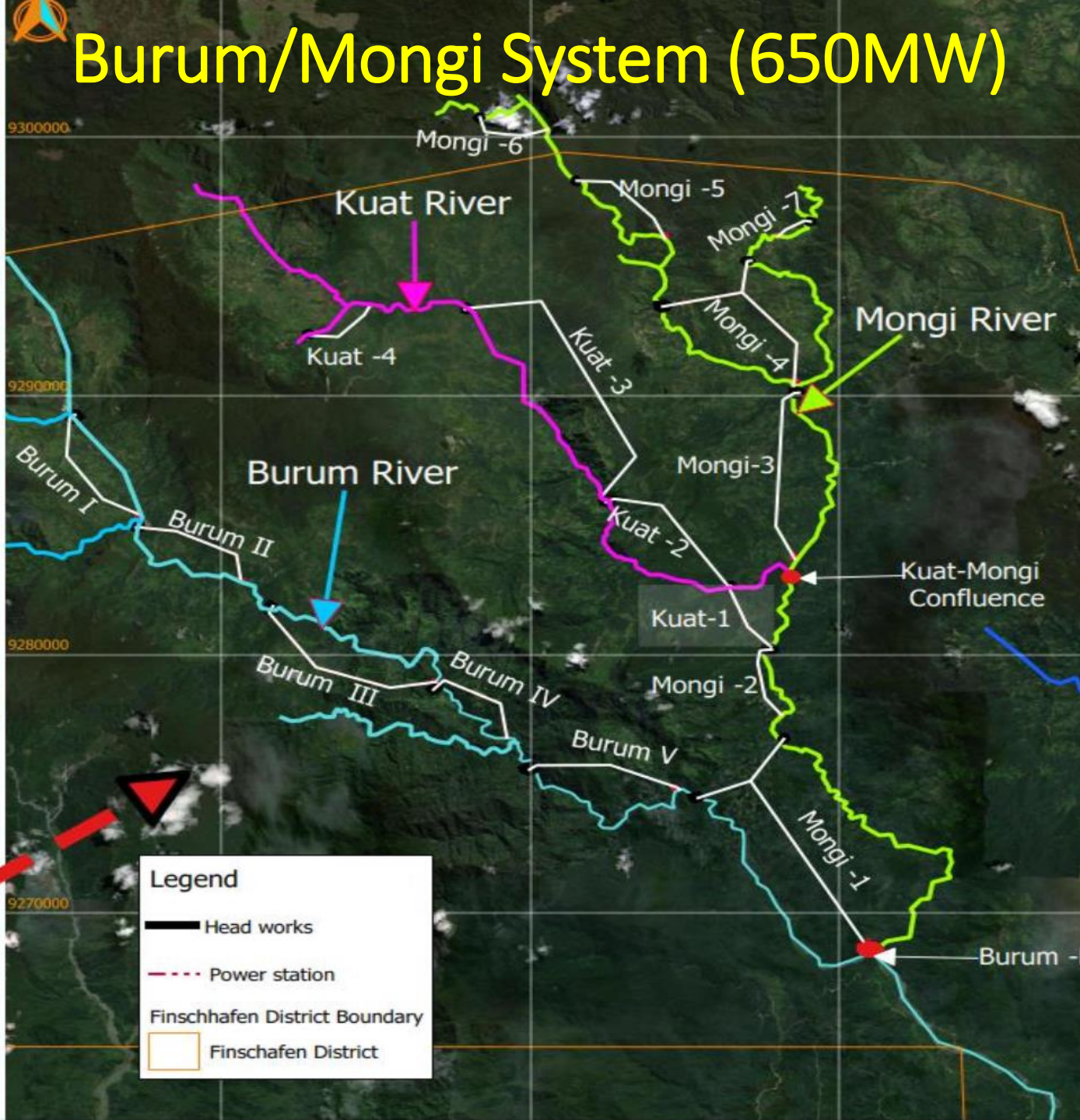
Large Potential Hydros		
Purari	2500MW	Gulf
Waghi/ Karamui	1800MW	Simbu
Ramu II	180MW	Eastern Highlands
Narou Brown	120MW	Central
Burum Mongi	650mw	Morobe



PNG Blessed with Abundant Hydropower

- Good heads due to mountainous terrain
- Plenty rainfall due to tropical weather
- Natural reservoir due to big forest cover

Burum/Mongi System (650MW)

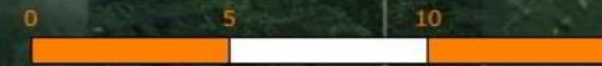


Estimated Hydropower Potential in
Burum, Kuat, Mongi and Mape River Basin

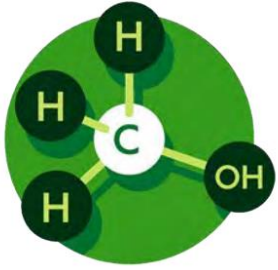
Hydropower project(HPP)	Estimated Capacity (MW)
Burum - I	15 to 20
Burum - II	20
Burum - III	35 to 40
Burum - IV	20 to 25
Burum - V	30 to 35
Burum River Basin	120 to 140
Kuat - 1	15 to 20
Kuat - 2	15 to 20
Kuat - 3	10 to 15
Kuat - 4	5 to 10
Kuat River Basin	45 - 65
Mongi -1	60 to 65
Mongi -2	45 to 50
Mongi -3	40 to 50
Mongi -4	130 to 150
Mongi -5	55 to 60
Mongi -6	55 to 70
Mongi -7	15 to 20
Mongi River Basin	400- 465
Mape -1	15 to 20
Mape -2	5 to 10
Mape River Basin	20 to 30
Total (Approximate)	585 to 700

Legend

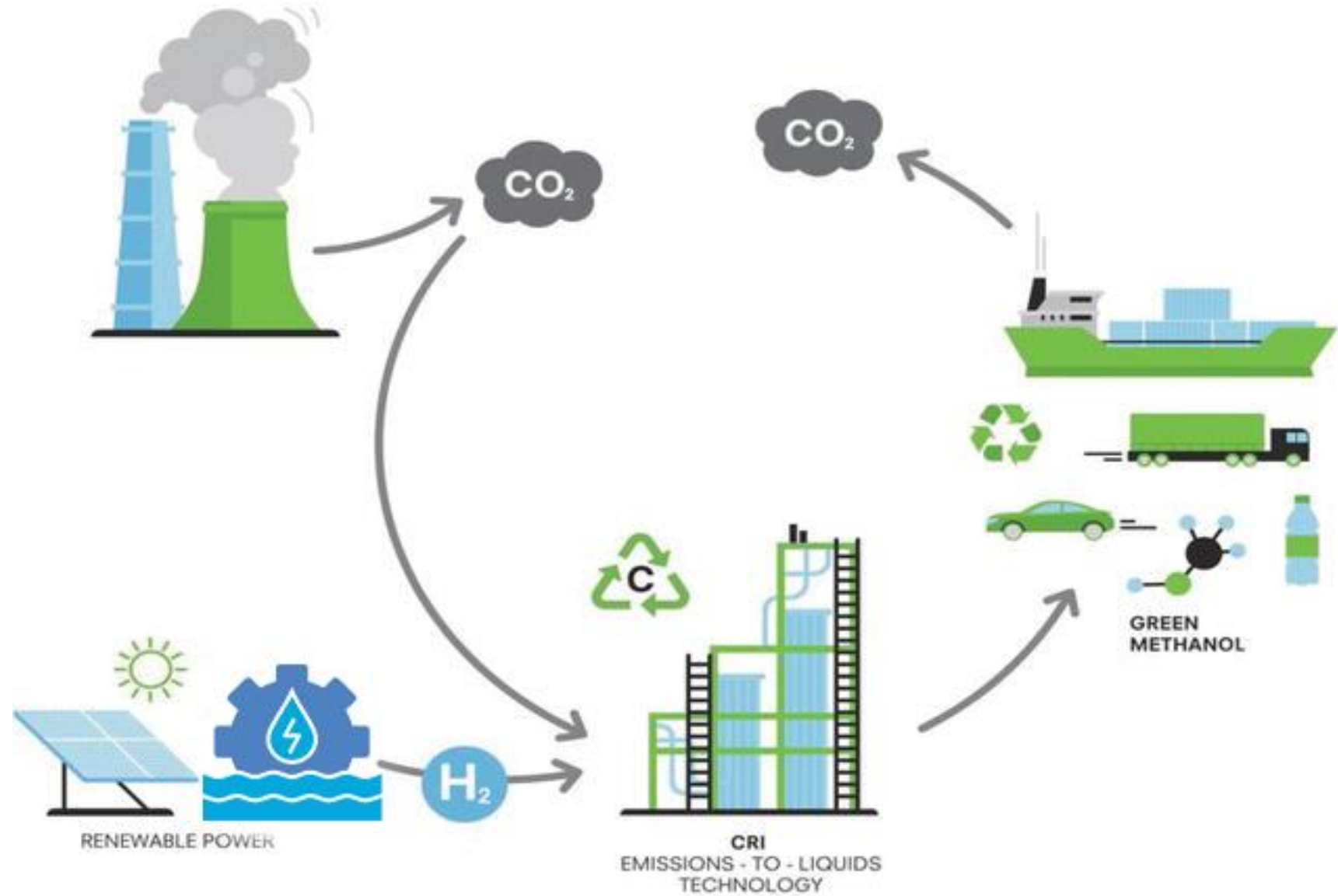
- Head works
- Power station
- Finschhafen District Boundary
- Finschhafen District



Hydro Energy & E- Methanol A Net Zero Pathway



- Back in 2011, commercial scale production process of methanol out of CO₂ and hydrogen was established.
- Our zero carbon hydro energy can produce green hydrogen to react with captured CO₂ for E methanol
- COP28 UAE of United Nations Climate Change Conference will definitely achieve firm commitments for green energy.
- The Era of PNG is coming as a key **hydrogen & E methanol** provider



- Green methanol is 100% carbon neutral and can power our decarbonized future
- In 2021 shipping giant Maersk ordered the global first methanol enabled vessels and in 2023 fresh order of bigger vessel was again placed.
- By now **over 100** methanol fueled ships are on order (CMA CGM ,COSCO, MSC and HMM etc)

- With the government commitment and gigantic green energy potential PNG is an investment paradise of green energy, be it hydro, hydrogen or methanol.



PORT & CEMENT FACTORY

PHASE 2

PNG CEMENT LTD



CEMENT & CO₂



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Green Energy, we can make it!



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