

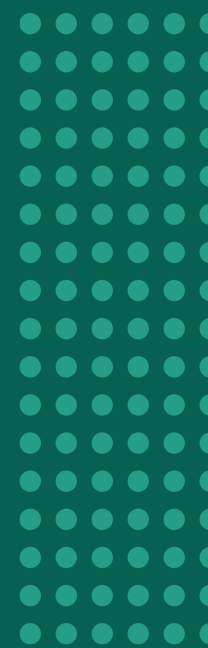
2026 CTCN Learning Visit on Energy Storage System

Papua New Guinea's Progress in Energy Storage System and Energy Transformation

Presented by:

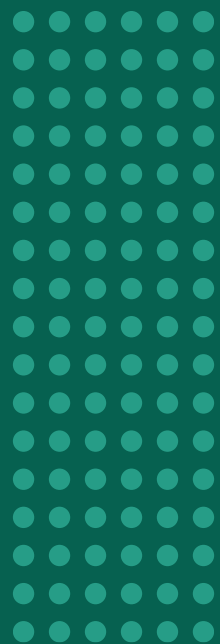
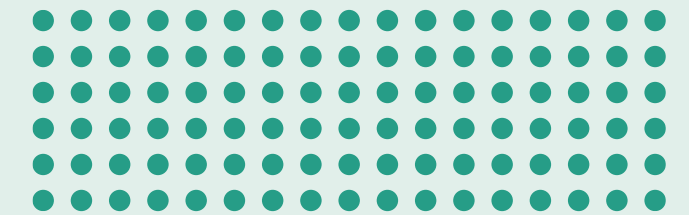
Mrs. Emily Mulina- Pomoh

*Jeju, South Korea
September 2026*



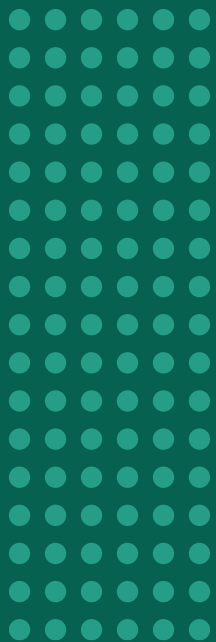
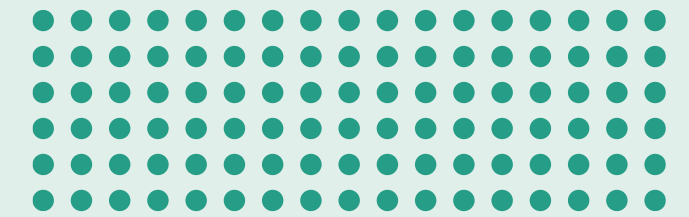
OUTLINE

1. Objectives of Presentation
2. Country Overview
3. Energy Sector Overview
4. Energy Policies
5. Electricity Sector in PNG
6. Electricity Projects in Progress
7. Conclusion



OBJECTIVES OF PRESENTATION

1. To share PNG'S status on ESS / energy transformation.
2. To seek partnership/support for ESS development/ energy transformation in PNG.



COUNTRY OVERVIEW

01 | PEOPLE & CULTURE

Young, diverse and predominantly rural population

- 11 million people
- 850+ local languages
- 85% live in rural areas
- Strong community and cultural identity

02 | ECONOMY & RESOURCES

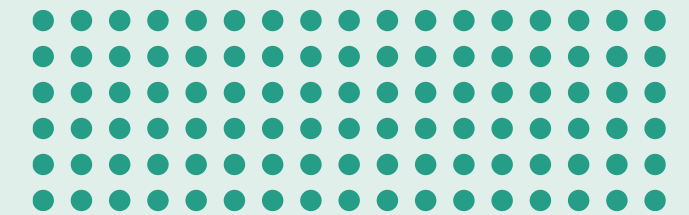
Resource-rich economy with significant growth potential

- LNG, gold, copper and other minerals
- Agriculture, forestry and fisheries support livelihoods
- Strong opportunity to diversify beyond natural resources

03 | INFRASTRUCTURE & CONNECTIVITY

Geography creates major connectivity challenges

- Mountainous terrain, islands and dispersed settlements
- Significant gaps in roads, electricity and digital connectivity
- Infrastructure is critical to unlocking private investment and jobs



COUNTRY OVERVIEW

04 | PEOPLE, JOBS & SERVICES

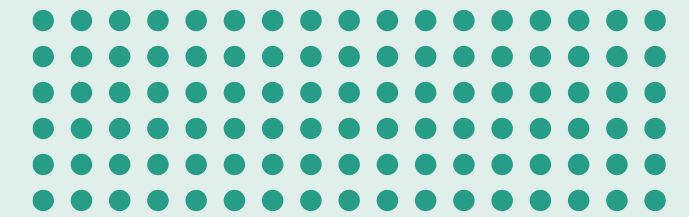
Human capital and employment are key national priorities

- Fast-growing working-age population
- Limited formal employment opportunities
- Need for greater investment in education, skills, health and inclusive services

05 | RESILIENCE & SUSTAINABLE DEVELOPMENT

Exceptional natural capital, but high exposure to climate and economic risks

- Vast forests, biodiversity, freshwater and marine resources
- Vulnerability to climate change and extreme events
- Need to translate resource wealth into inclusive and resilient development

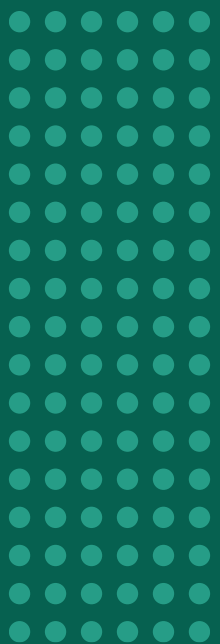
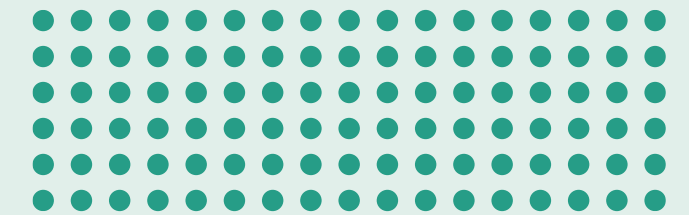


ENERGY SECTOR OVERVIEW

The energy sector currently accounts for 14% of the country's GDP and is a critical enabler for all other sectors for building a modern PNG economy.

The Energy Sector includes assets related to three (3) key energy resources:

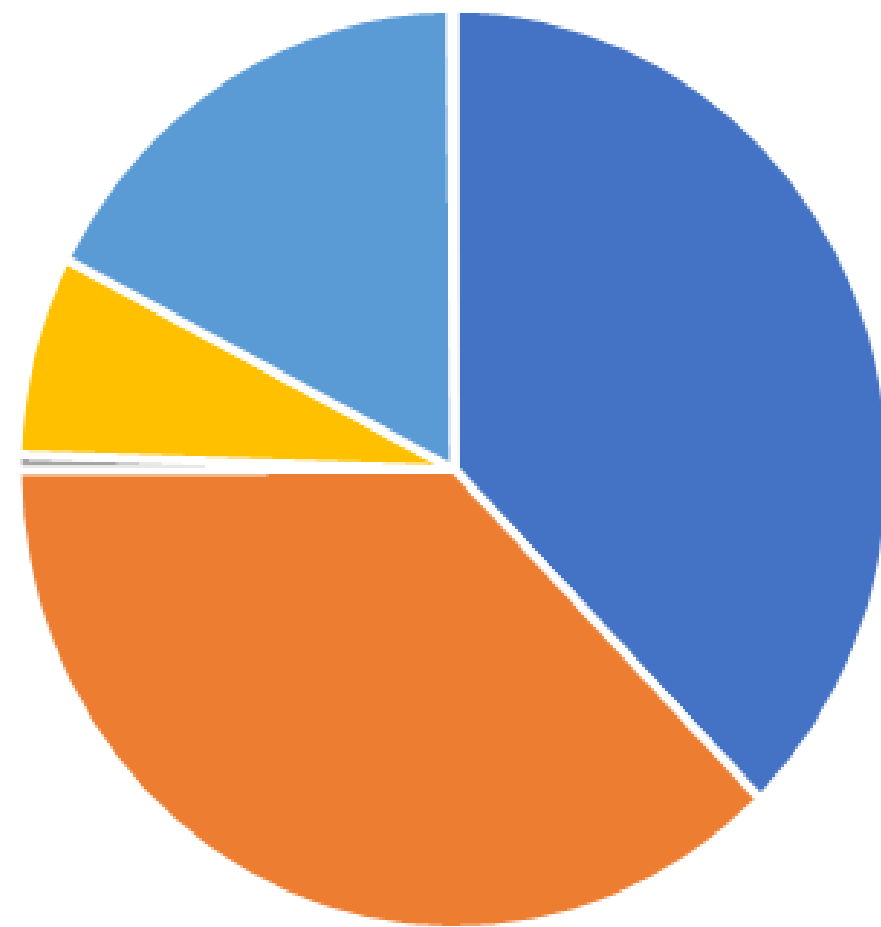
- (i) electric power,
- (ii) fossil fuels (including petroleum, natural gas and coal); and
- (iii) renewable energy including hydro, biomass, geothermal, solar, wind, tidal waves, ocean currents and biofuel.



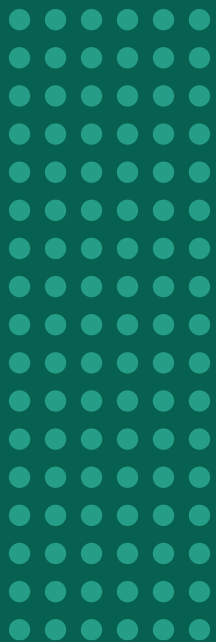
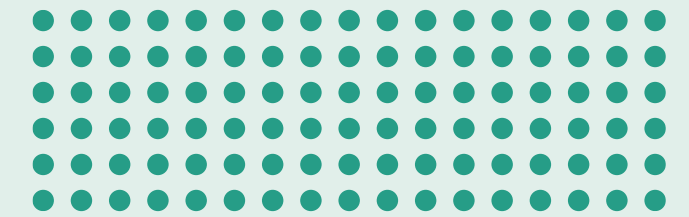
ENERGY SECTOR OVERVIEW

Generation Mix

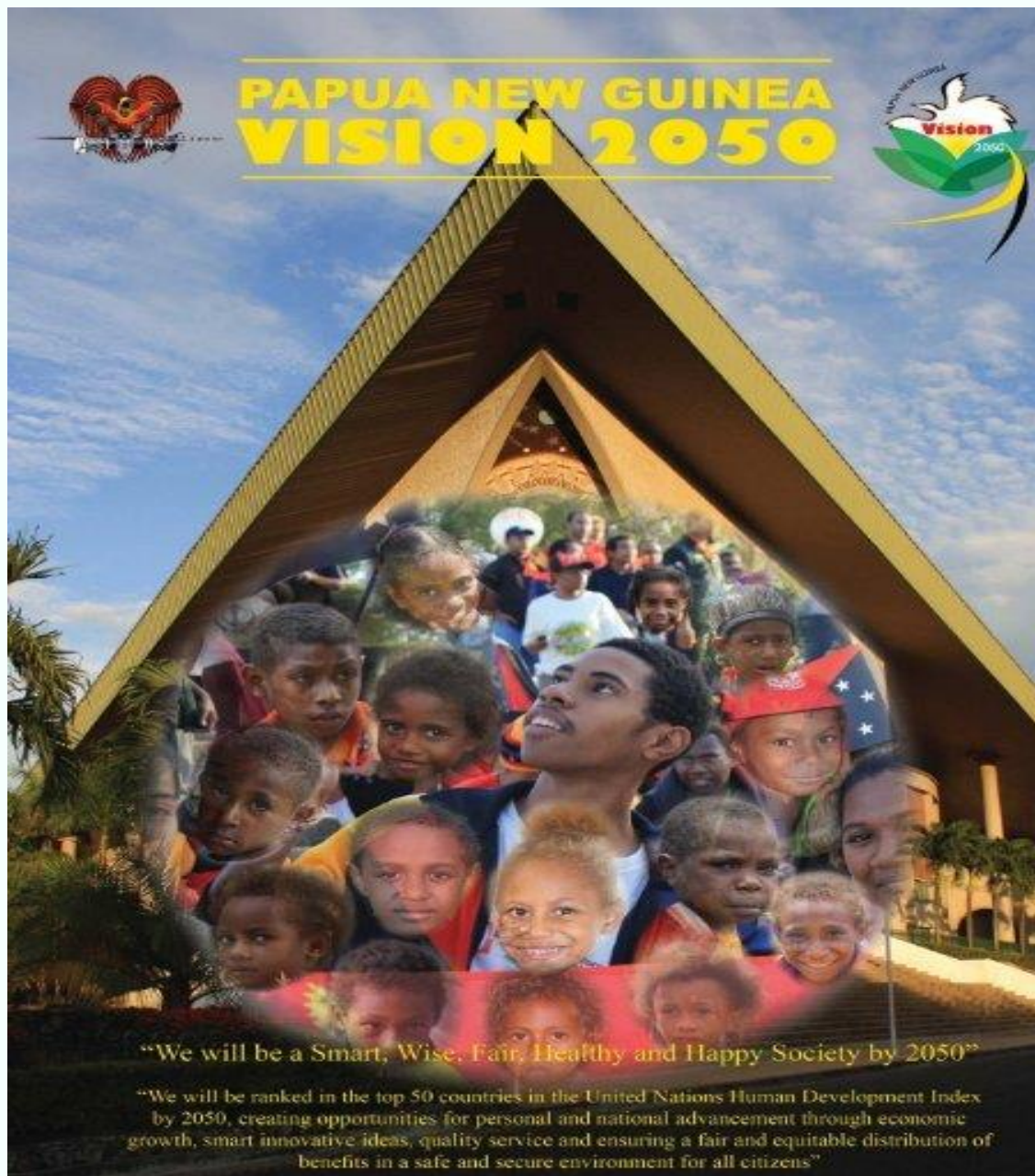
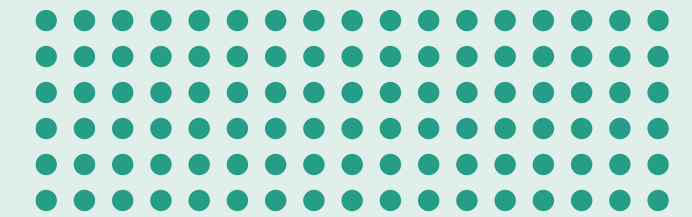
Installed capacity (MW)



■ DIESEL ■ HYDRO ■ BIOMASS ■ GEOTHERMAL ■ NATURAL GAS ■ SOLAR

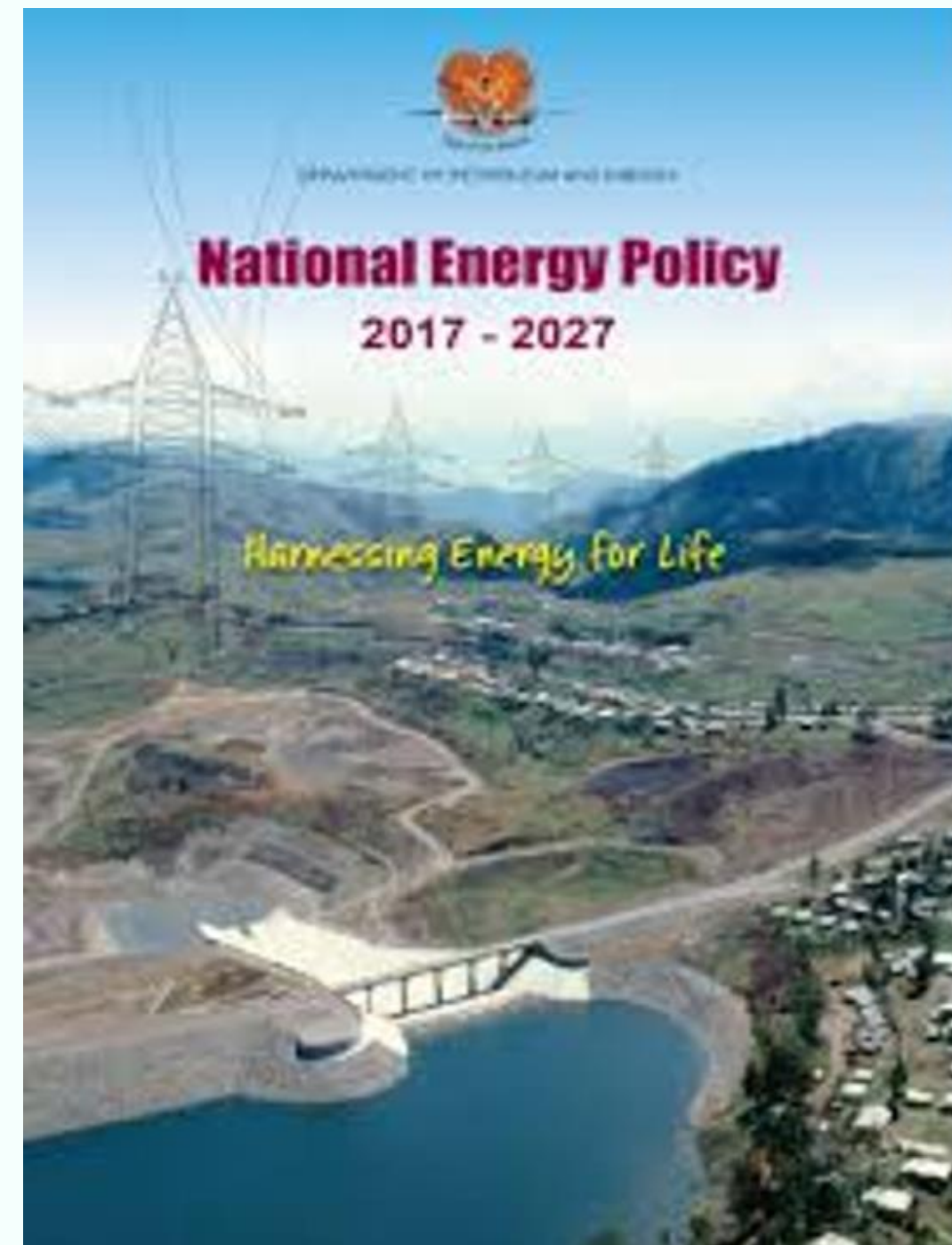


ENERGY POLICIES



Pillar 5: Environmental Sustainability & Climate Change

“100% power generation from renewable energy sources”



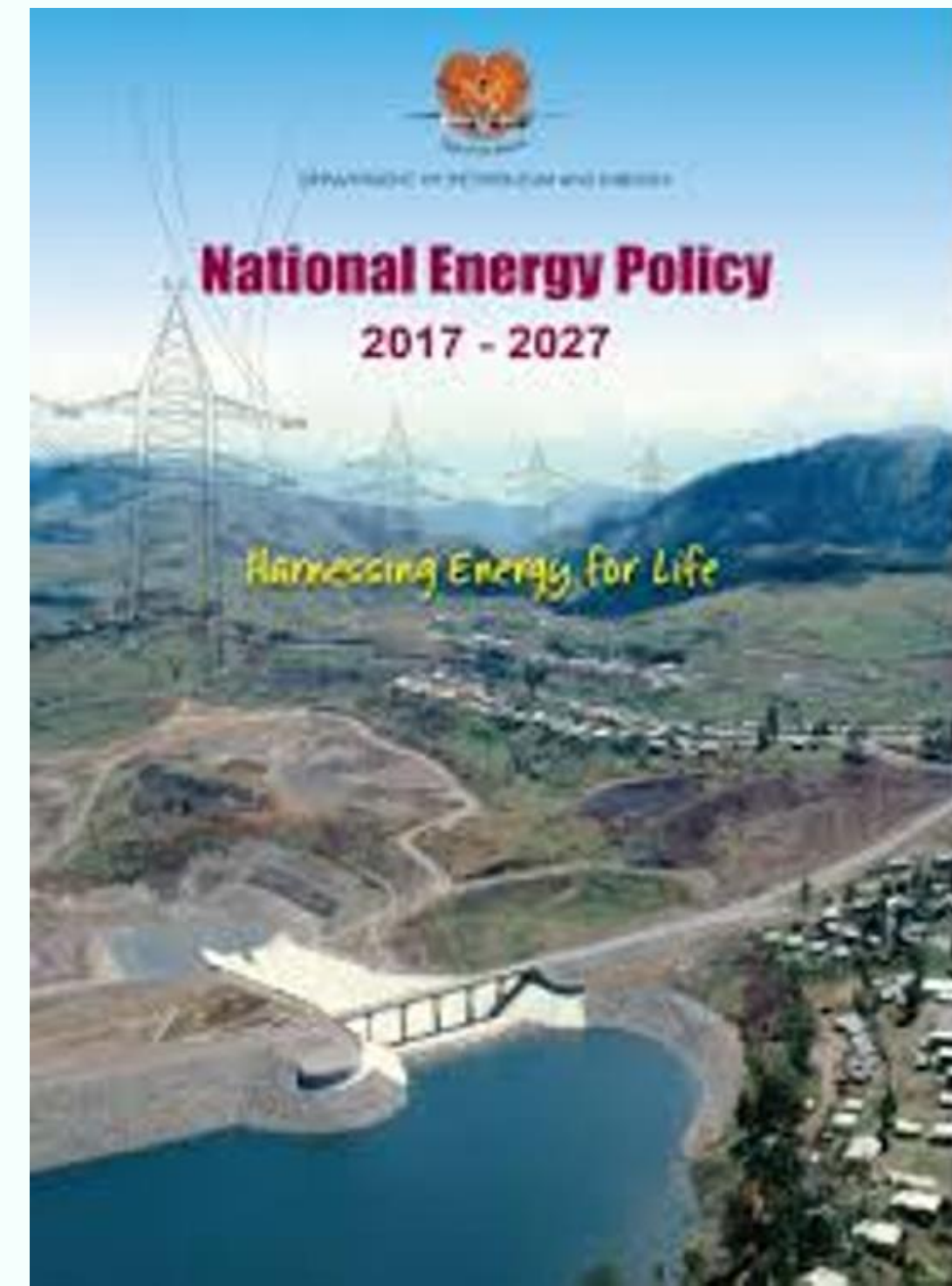
ENERGY POLICIES

The National Energy Policy is developed by the National Energy Authority (NEA).

NEA is a Government authority responsible for National Energy Policies and Regulatory functions of the country's Energy Sector.

Main function of NEA is to ensure that everyone in PNG has access to **affordable, reliable, and environmentally sustainable energy**.

The **National Energy Policy 2017-2027** aims to expand rural electrification, increasing renewable energy usage and boost private sector involvement to drive long-term economic growth



NATIONAL ENERGY POLICY 2017 -2027

KEY OBJECTIVES:

- **Affordable Access:**

- Lower the cost of electricity for homes and businesses.

- **Clean Energy Transition:**

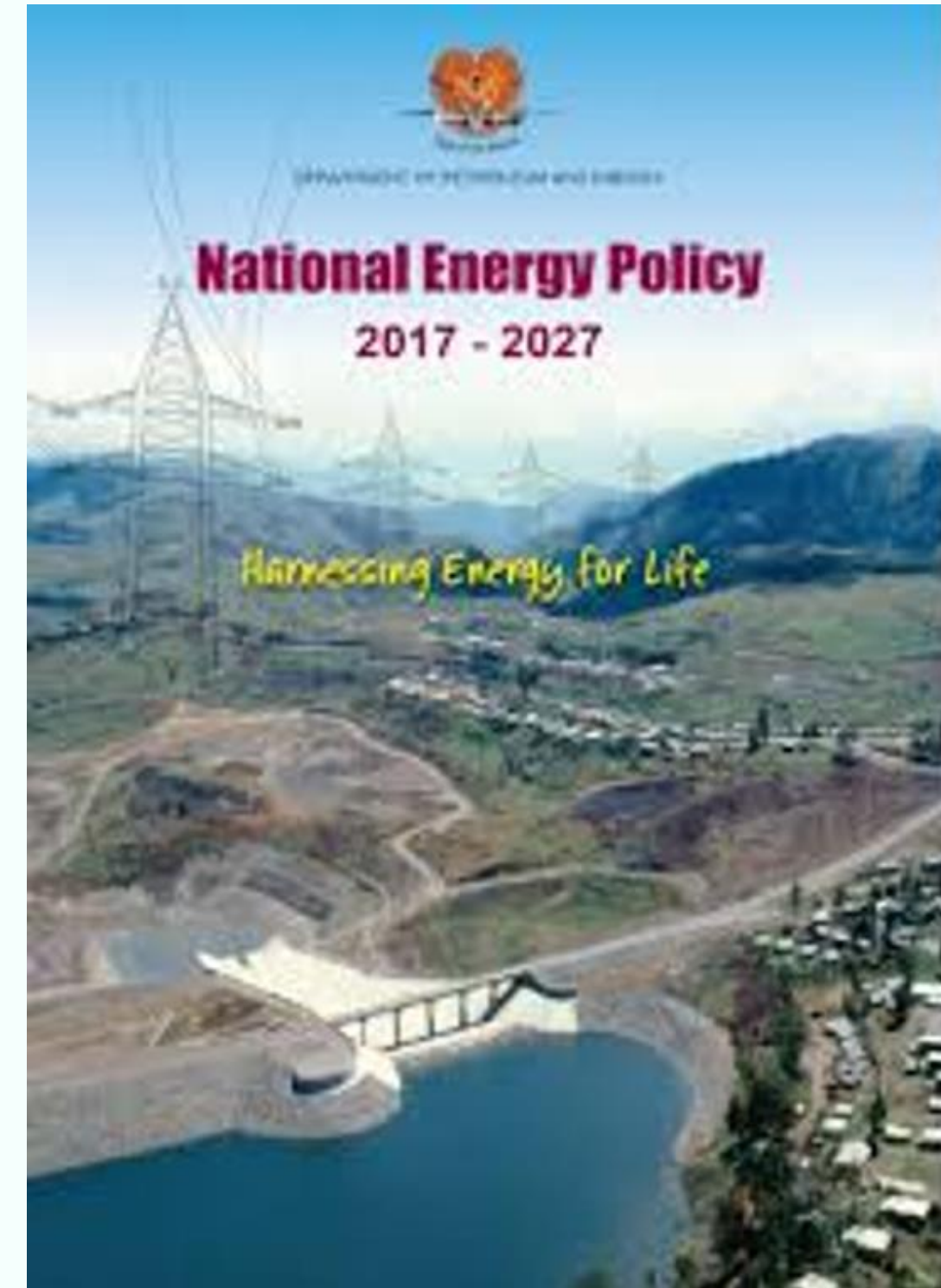
- Scale up hydro, solar, wind, and geothermal power.

- **Reliable Infrastructure:**

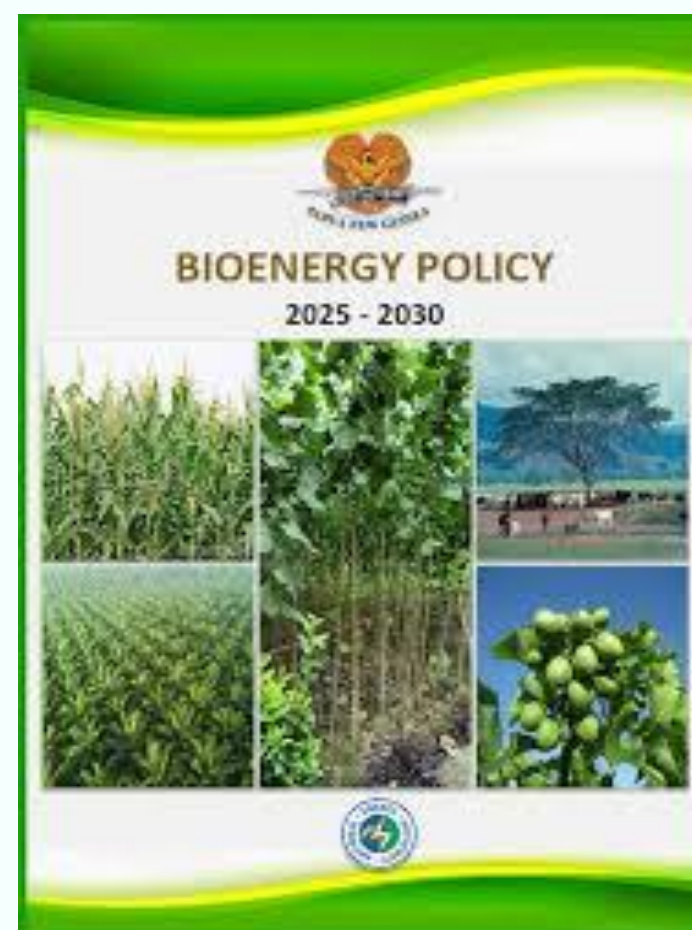
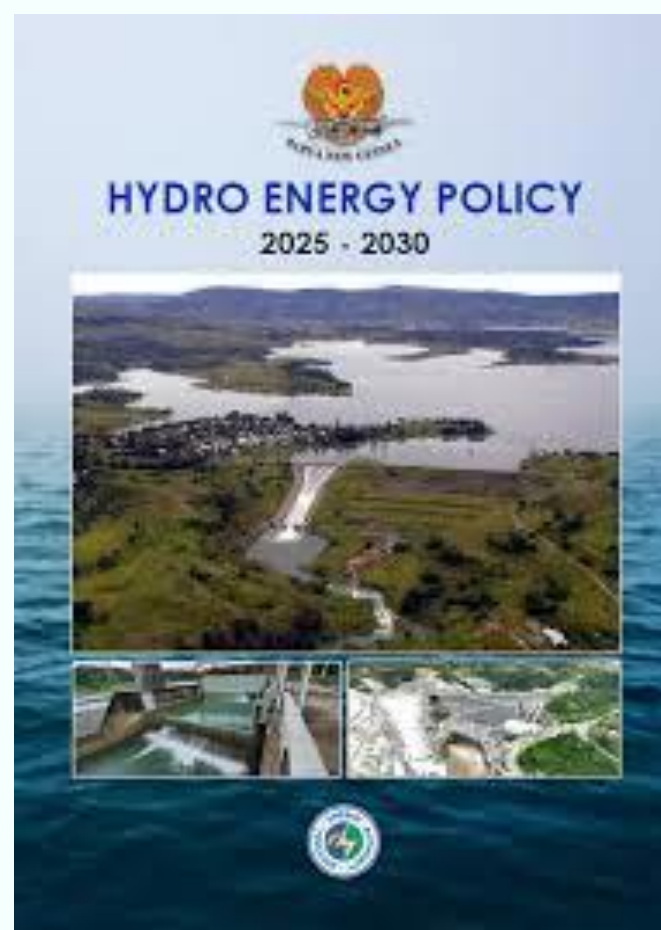
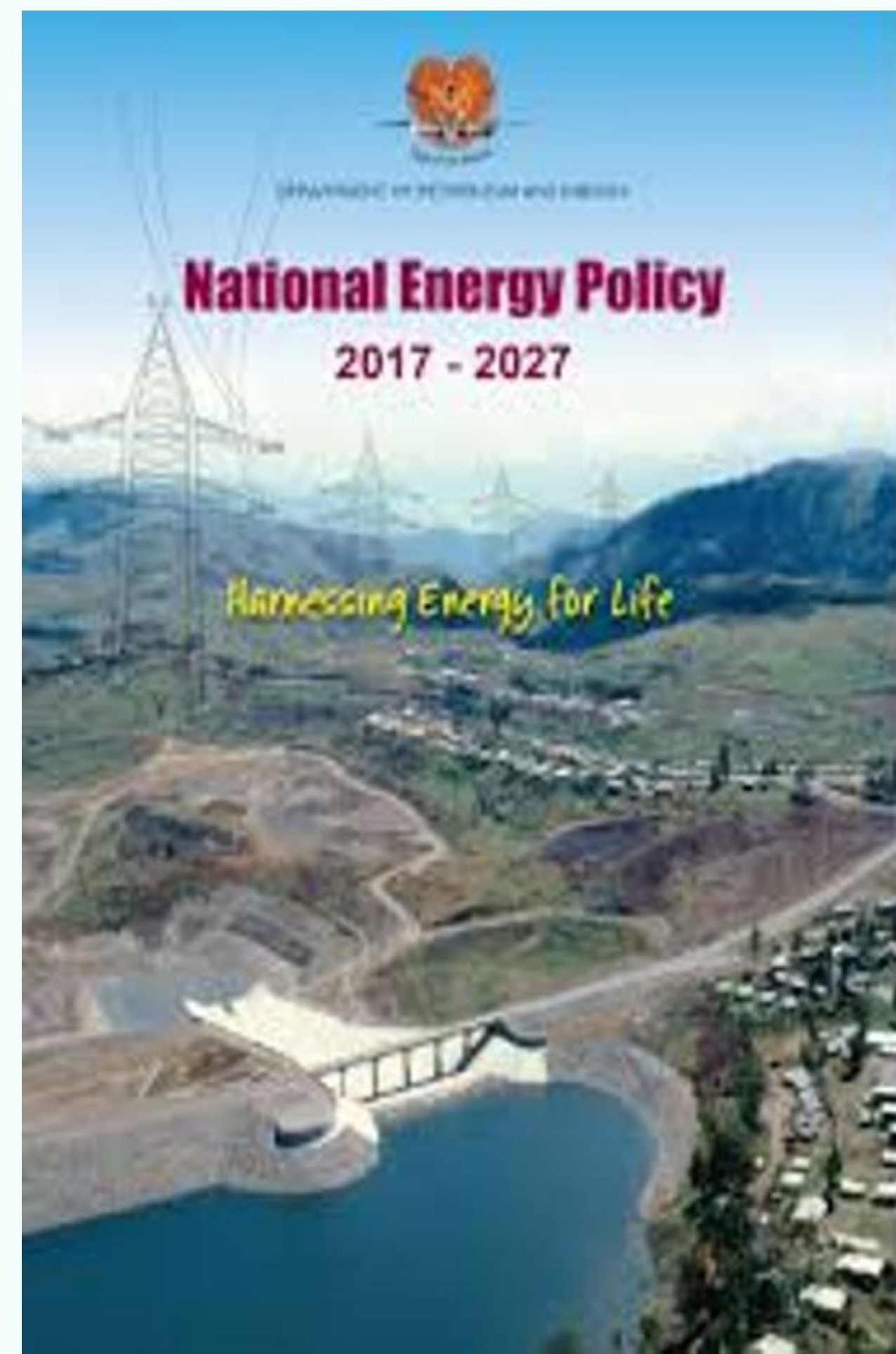
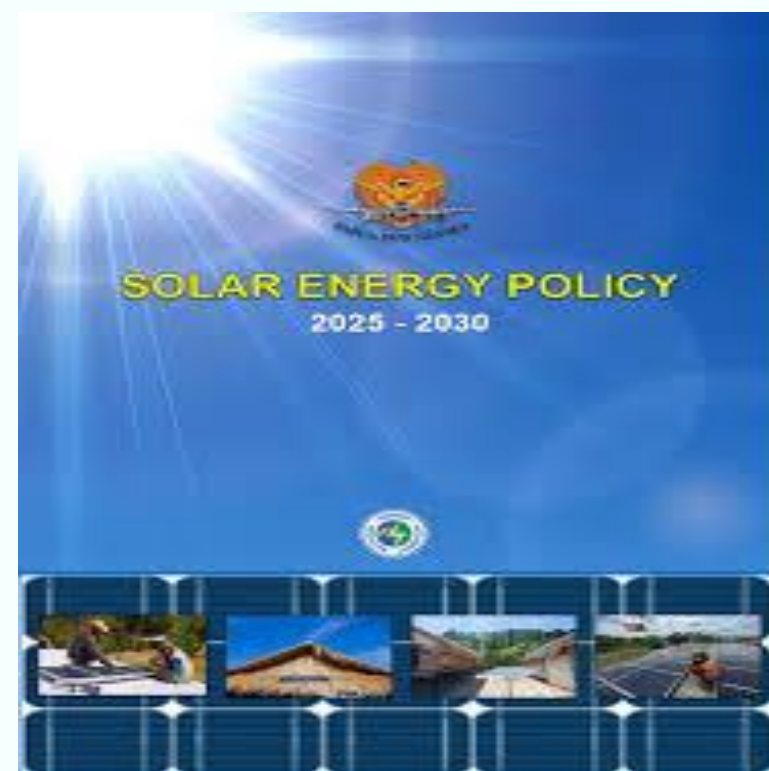
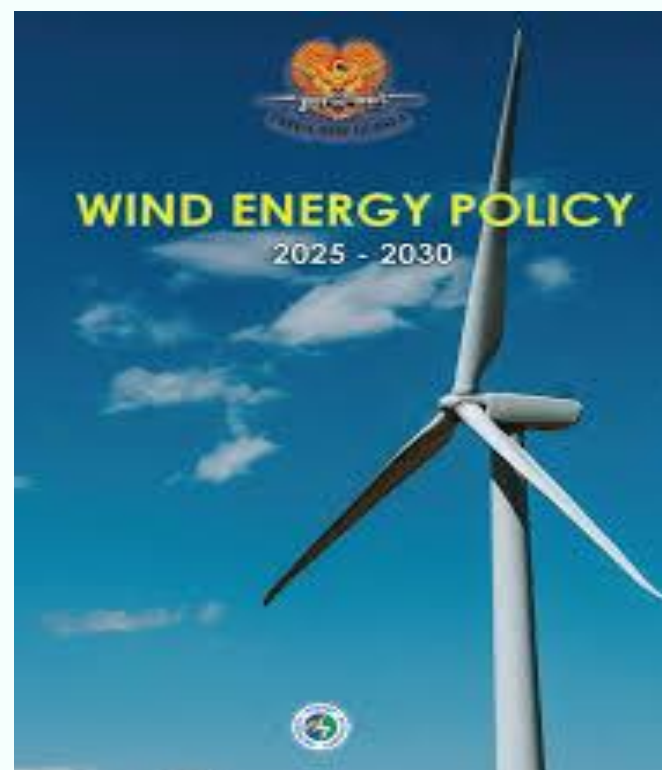
- Improve grid stability and support off-grid power systems.

- **Resource Management:**

- Ensure state guidance and environmental protection in energy development.



ENERGY POLICIES



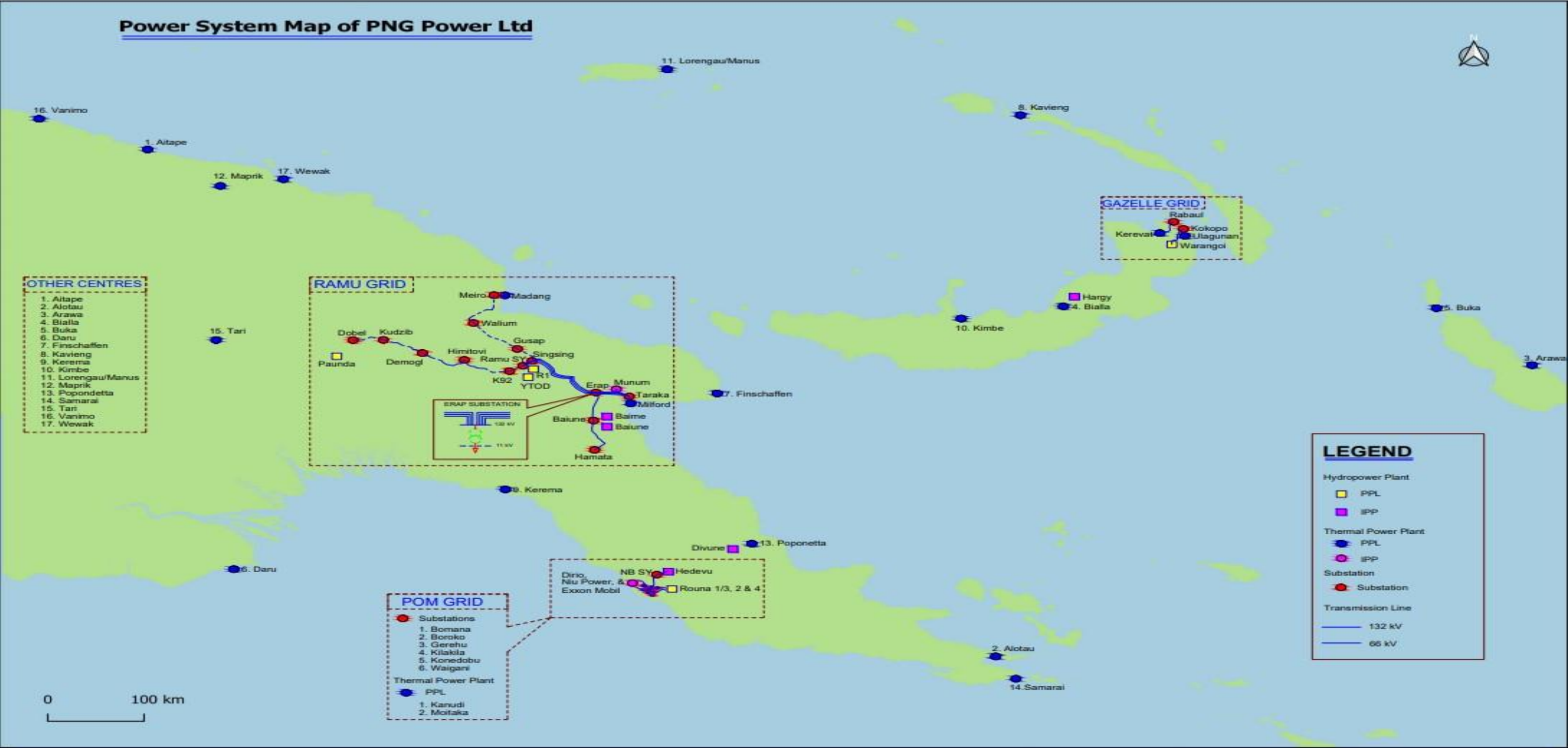
ELECTRICITY SECTOR IN PNG

The electricity portion of the Energy Sector includes the generation, transmission, and distribution and retail of electricity.

- PNG Power Limited is the only Electricity utility in the country and it is owned by the state.
- It generates, transmits, distributes and retails the electricity throughout PNG.
- The Power utility has three main Power grids and 17 isolated grids scattered across the country



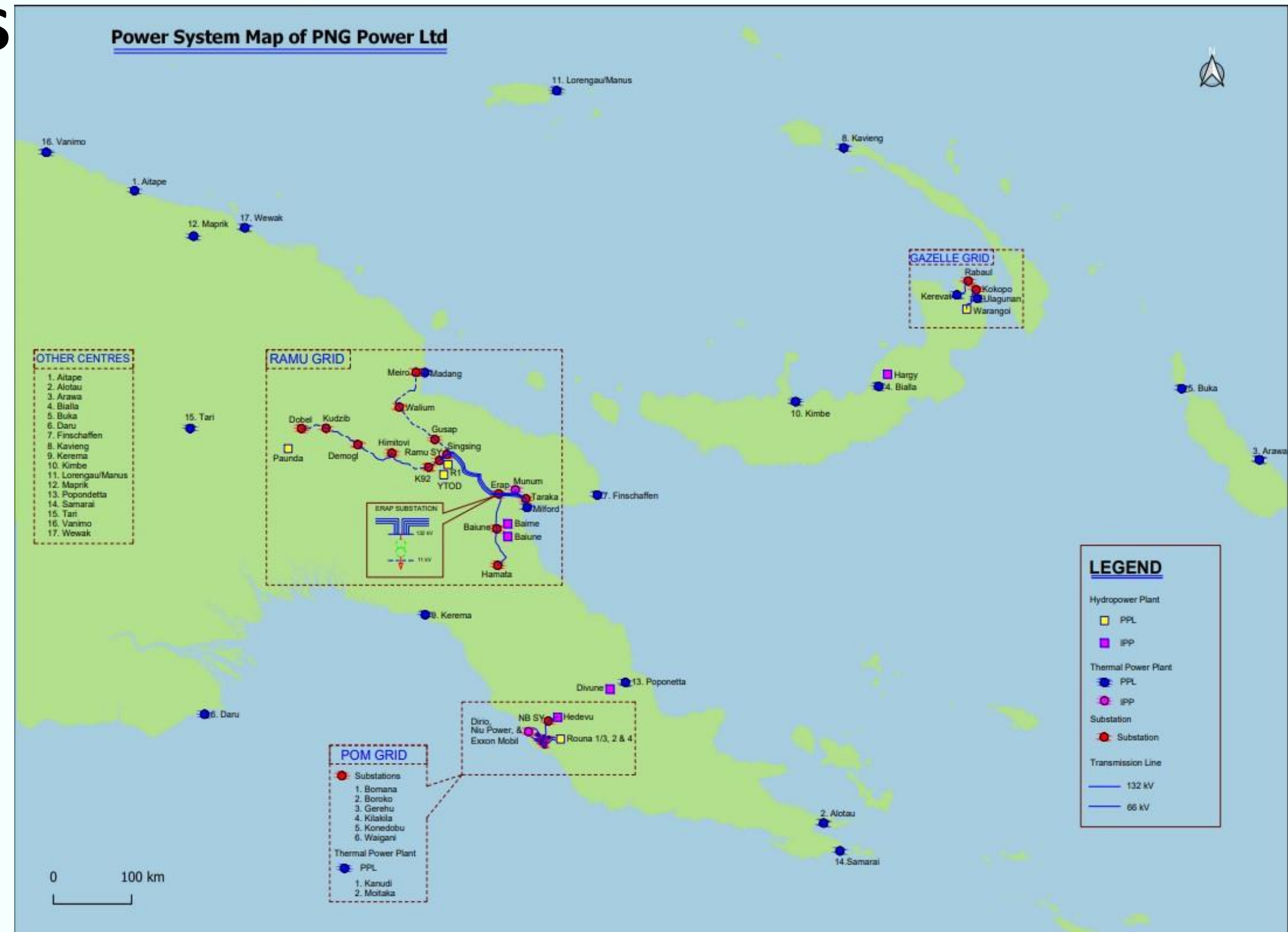
ELECTRICITY SECTOR IN PNG



ELECTRICITY SECTOR IN PNG

- 797 megawatts (MW) of installed generation capacity,
 - hydro power (297 MW or 37%)
 - diesel (300 MW or 38%),
 - gas-fired (138 MW or 17%)
 - geothermal (56 MW or 7%)
 - biomass (4.5MW or 0.6%).
 - solar Power (1MW or 0.1%)

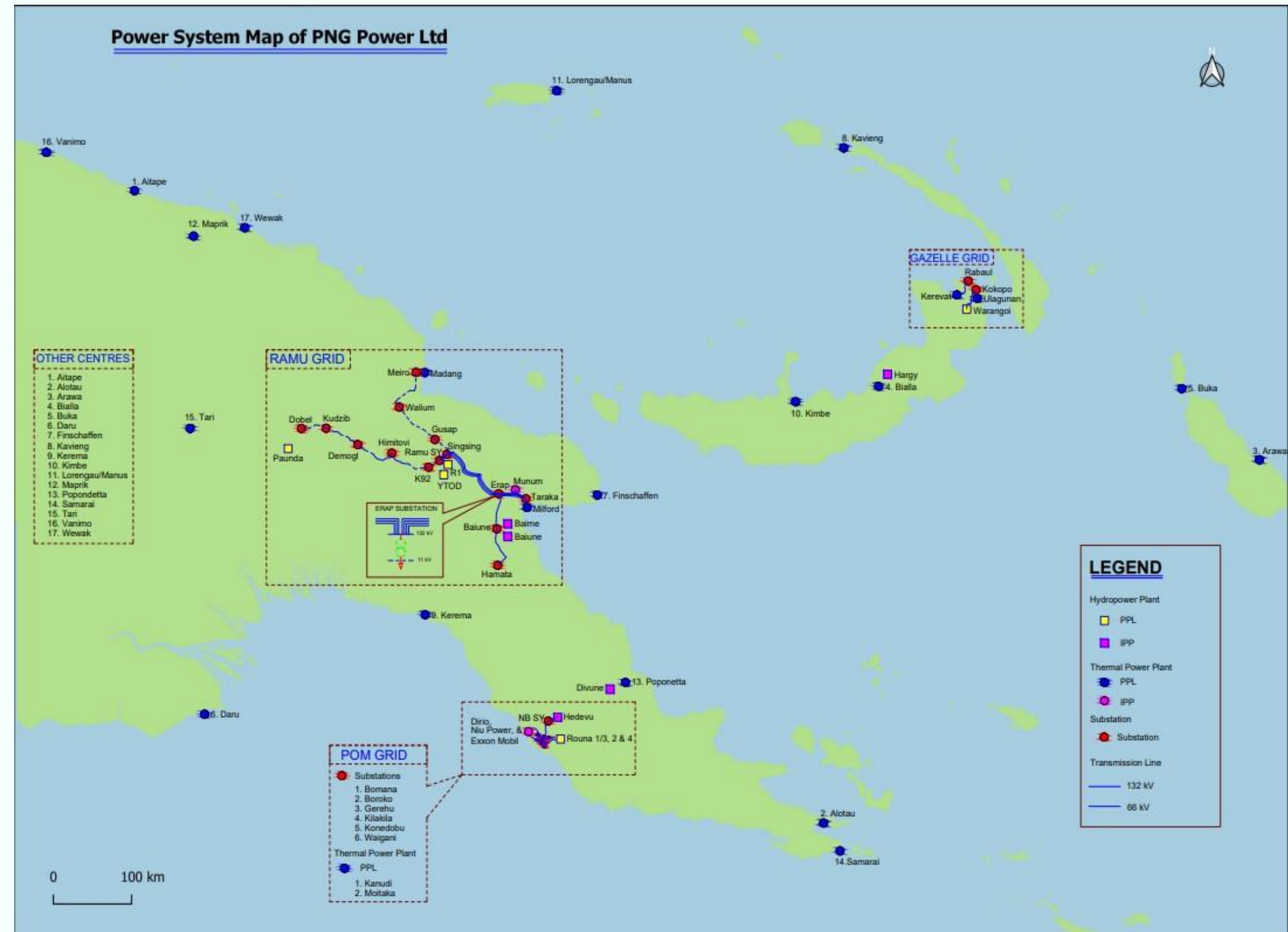




PROPOSED AND IMPLEMENTED ELECTRICITY PROJECTS IN PNG.

PROJECTS UNDER CONSTRUCTION (SOLAR)

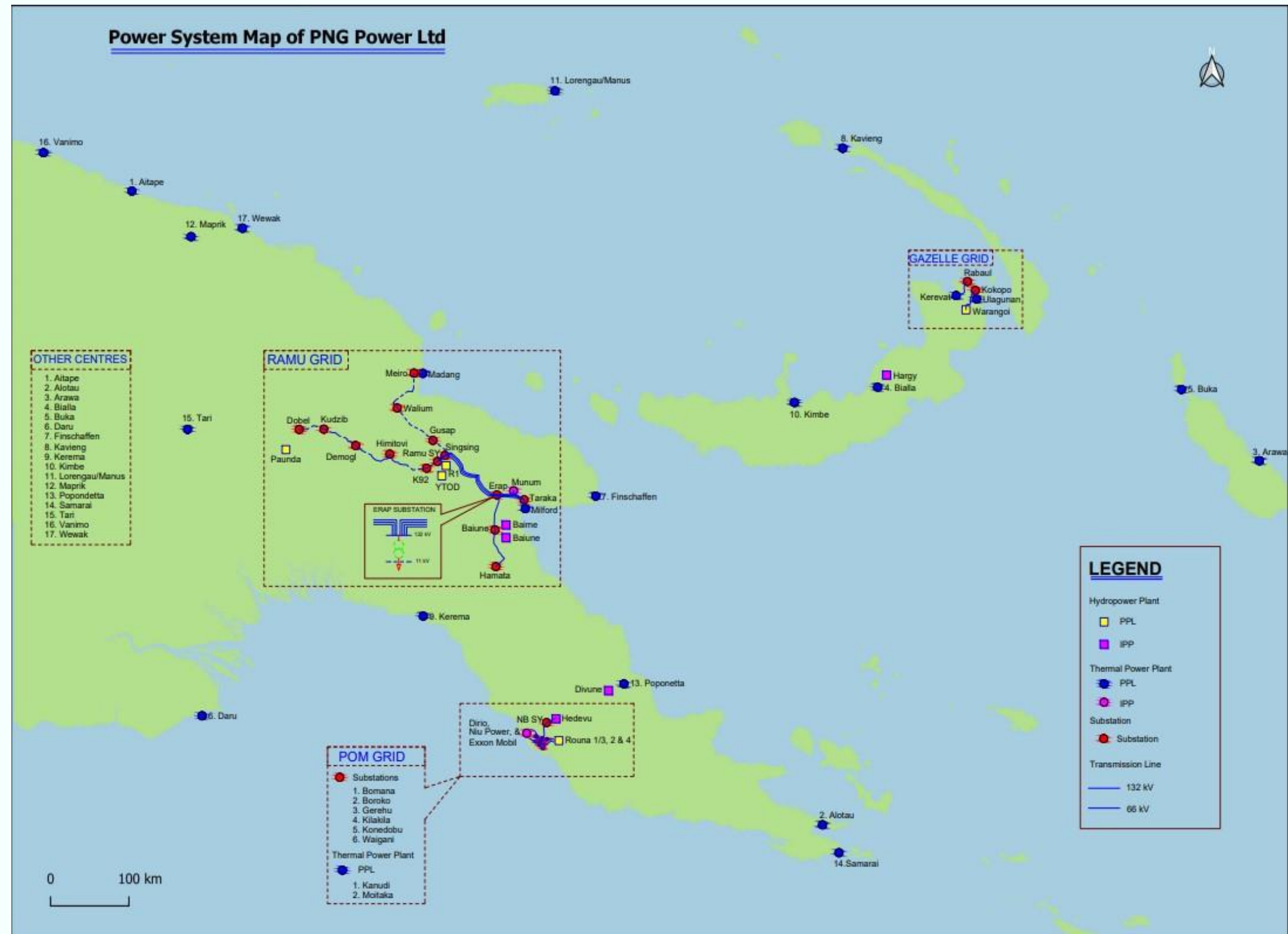
- ARAWA PHASE # 2 – 0.5 MW
- AITAPE PHASE #2 – 0.3MW
- BUKA 10MW
- BAYA 3MW



POTENTIAL ELECTRICITY PROJECTS IN PNG.

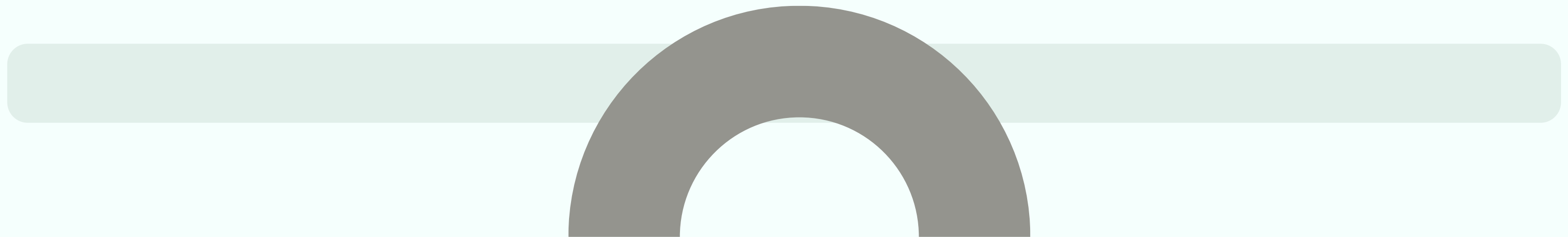
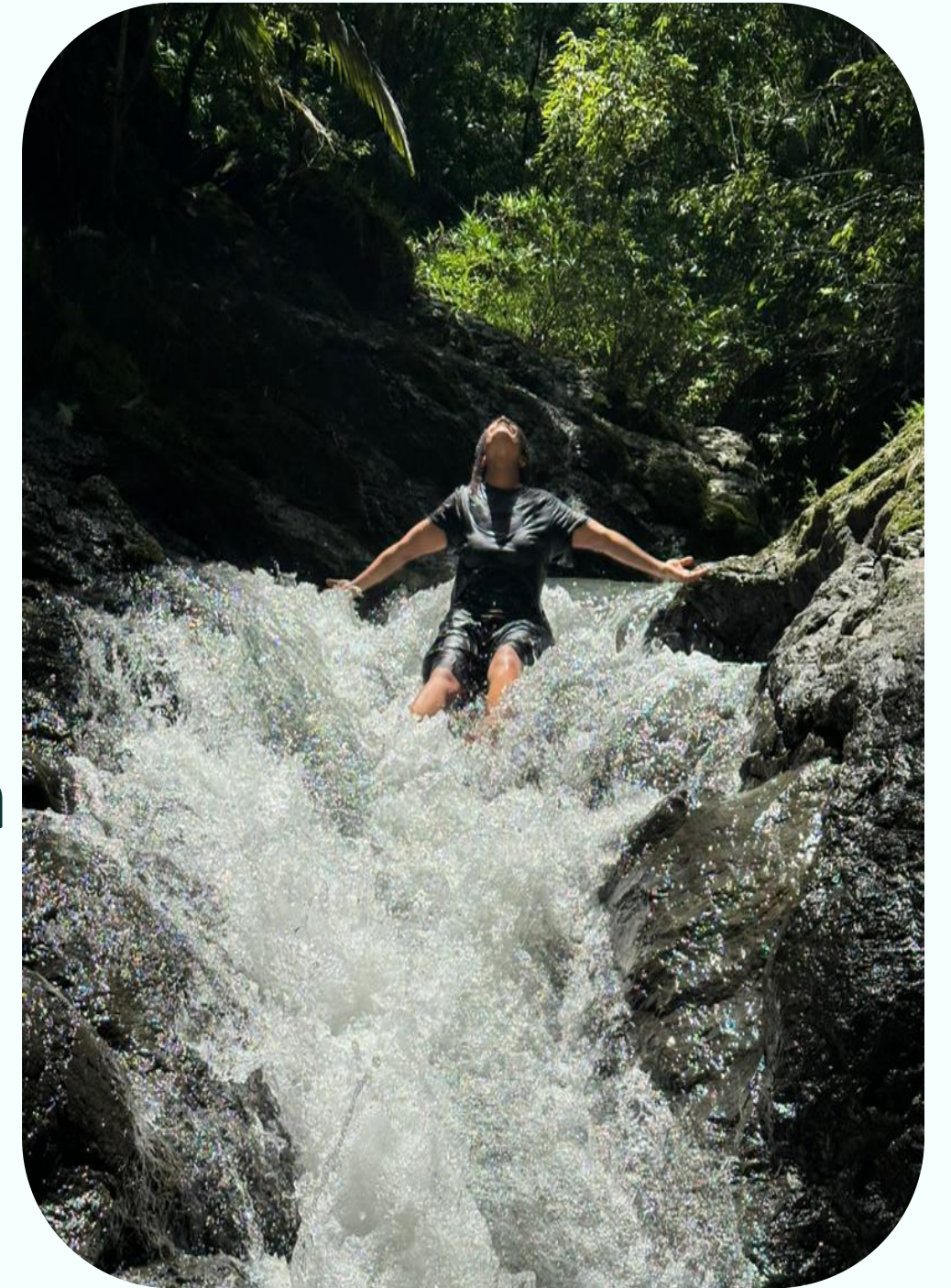
Ocean Energy Focusing on Salinity Gradient Energy and Electrochemical Ocean Energy Conversion

- Prefeasibility study conducted in 2025
- Proposal Drafting for GCF submission 2026



CONCLUSION

- Scaled and simplified climate finance access
- Technology partnerships (mini-grids, storage, waste systems)
- Capacity building (MRV, mitigation tracking, adaptation monitoring)
- Private sector engagement in renewable energy



감사합니다

gamsahabnida!

