



PLN

The Potential of Renewable Energy at Kalimantan (RUPTL 2021-2030)

Energy Talk Series #13

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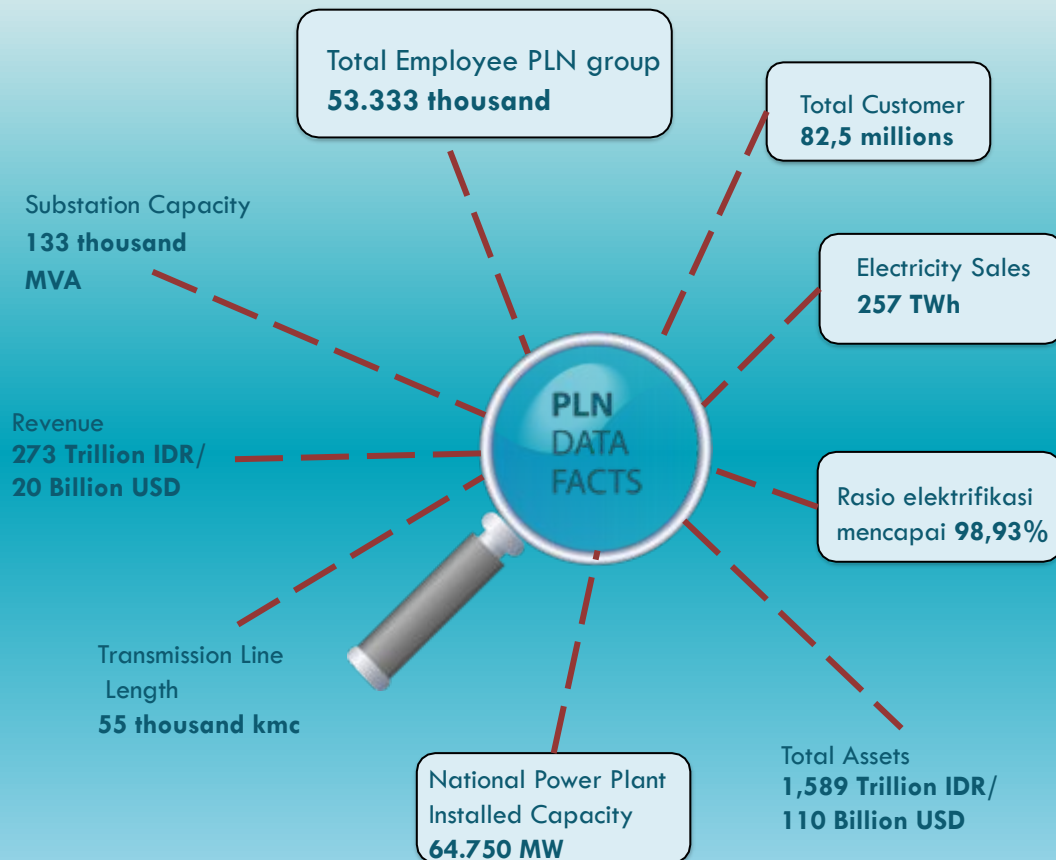
www.pln.co.id



PLN Profile

BUMN UNTUK INDONESIA

#PowerBeyondGeneration



PLN Power Generation Capacity Profile

Capacity per Generation Type

Total Capacity
Power Generation
(PLN & IPP) in
operation
64.750 MW



32.998 MW
Coal Power Plant



12.429 MW
**Combine
Cycle**



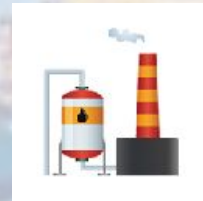
4.848 MW
Hydro



4.219 MW
Gas Turbine



4.178 MW
Diesel



2.686 MW
Gas Engine



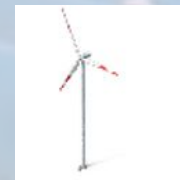
2.533 MW
Geothermal



475 MW
Mini Hydro



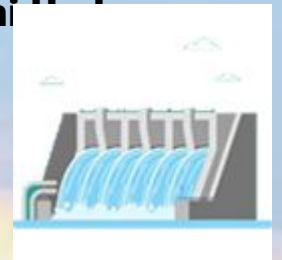
135 MW
Biomass



131 MW
Wind Turbine



82 MW
Solar



34 MW
Micro Hydro

#TransformasiPLN

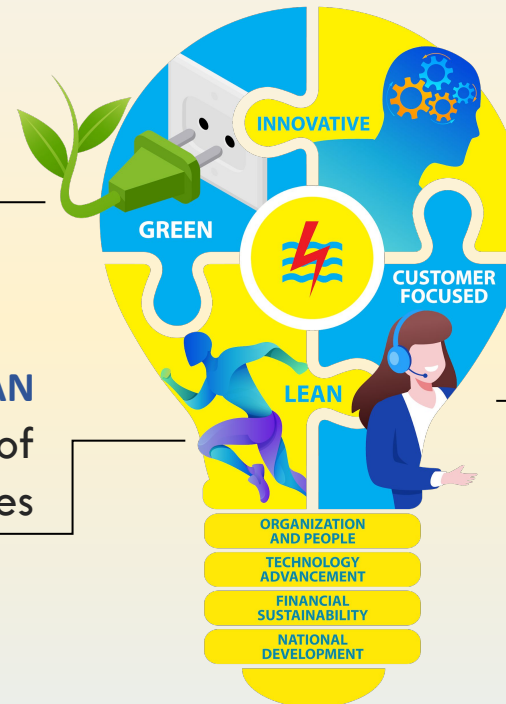
Electricity Champion of **South-East Asia**
and **#1 customer choice**
for energy solutions

GREEN
Leading Indonesia's energy transition
through rapid and efficient
scale-up of renewables

LEAN
Lean, reliable and least cost provider of
electricity to home, business and industries

INNOVATIVE
Stimulating growth
through innovative business models &
services

CUSTOMER FOCUSED
Delighting customers
through world class quality and services



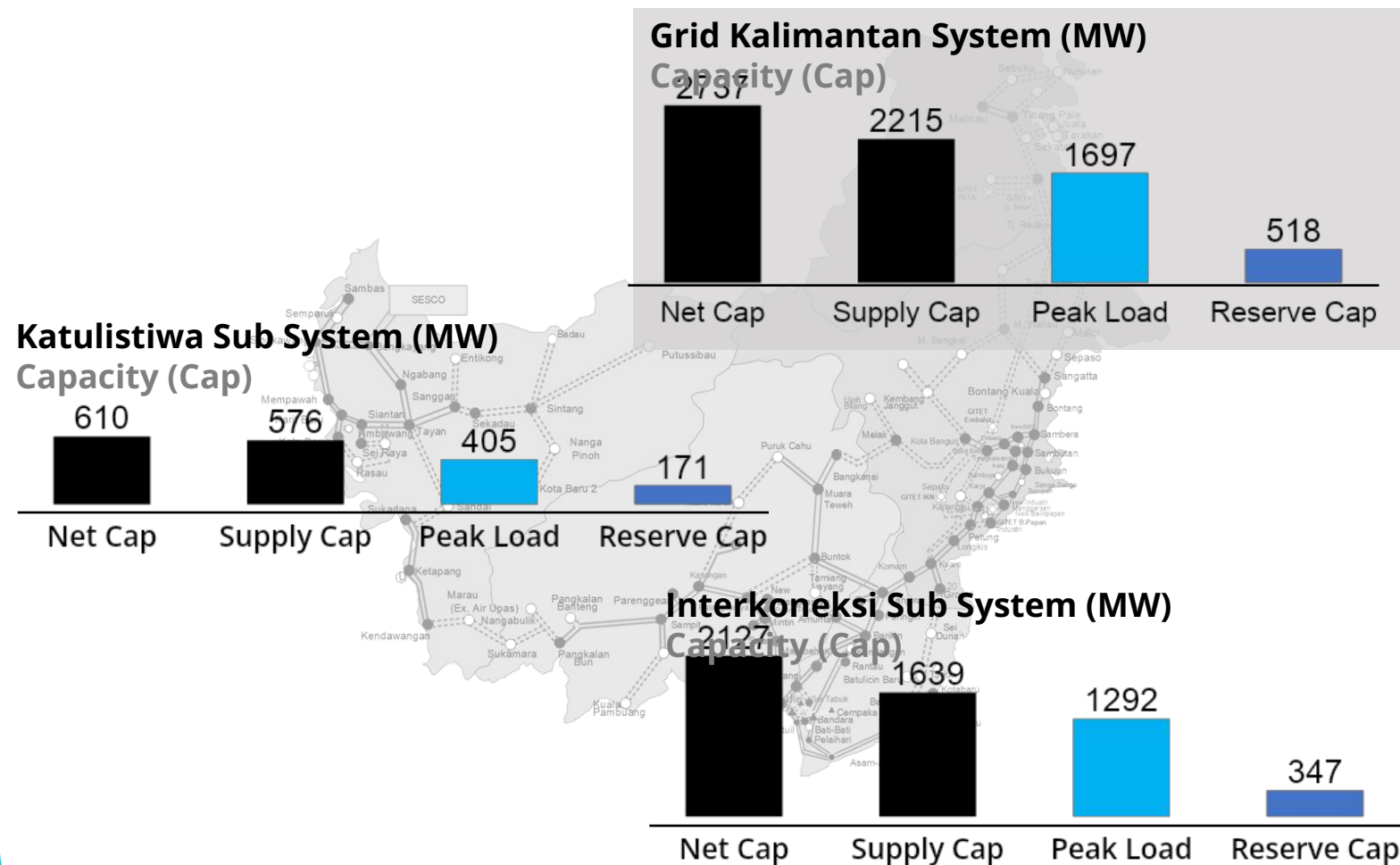
PLN memiliki visi untuk menjadi perusahaan listrik terbaik di Asia Tenggara dan menjadi pilihan utama para pelanggan



Overview of The Current Kalimantan Electricity

Katulistiwa Sub System, Interkoneksi Sub System

- 1 In general, electricity in Kalimantan is currently in **normal status**
- 2 The Katulistiwa sub system cover west kalimantan area
- 3 The interconnection sub system covers part of South Central Kalimantan, East Kalimantan and part of North Kalimantan

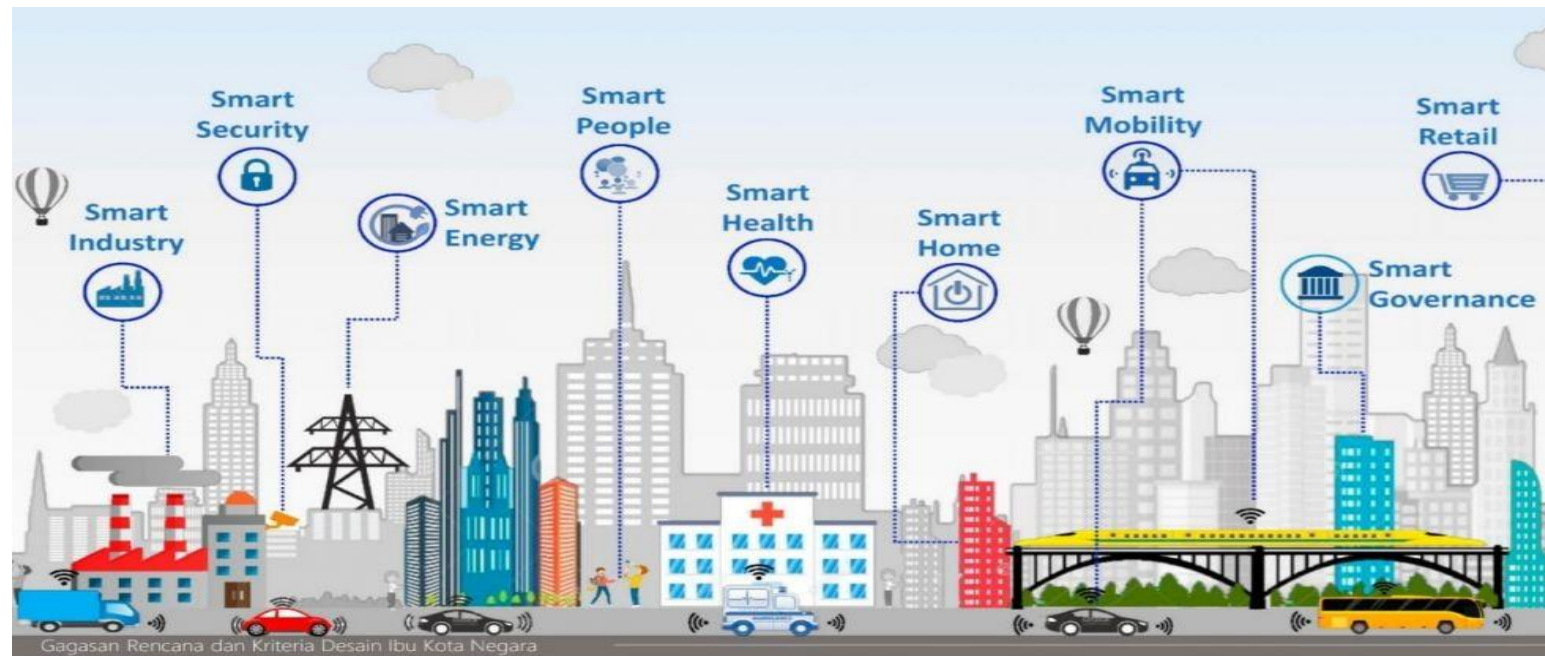




Concepts of Electricity Ibu Kota Negara (IKN)

Smart, Green, Beautiful & Sustainable

“Ibu Kota Negara
Baru sebagai
Representasi
Identitas Bangsa”



- 1 The New of the **Ibu Kota Negara (IKN)** marked a transformation of **culture, work system, and economic base.**
- 2 The development of the Ibu Kota Negara (IKN) which is modern and with international standards is accompanied by the **concept of smart, green, and beautiful.**
- 3 PLN ensuring the **availability of reliable, efficient, clean and environmentally friendly electrical energy.**



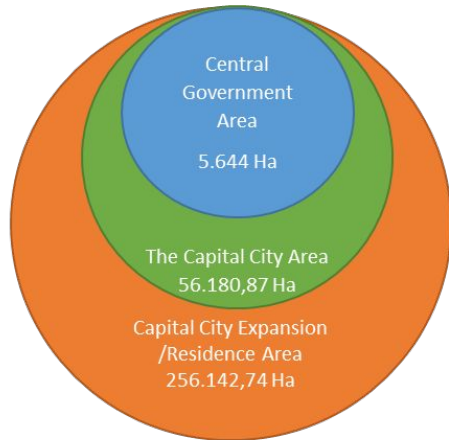
PLN Strategic Initiative for Electricity Ibu Kota Negara

Plan of Development Model, Design & Business Scheme, Master Plan

(IKN)



Demand Forecasting



Zonation Plan of New Capital City

Based on RUPTL 2021-2030 the estimated electricity demand at IKN is approximately 900 MVA which will be prepared in stages by PLN.



Plan Design & Criteria Electricity in the New Ibu Kota Negara



Based on ASIDI Curve and Reliability Index on German Power System

Based on RUPTL 2021-2030 several concepts are implemented **Zero Down Time, Circular configuration grid and Smart Grid, Under Ground Cable and Green Energy**

1

Smart :

- Zero Down Time (ZDT)
- Distribution Automation System (DAS)
- Smart Grid
- Smart Meter

2

Green :

- Renewable Energy
- Less Emission
- Electrical Vehicle Charging Station

3

Beautiful :

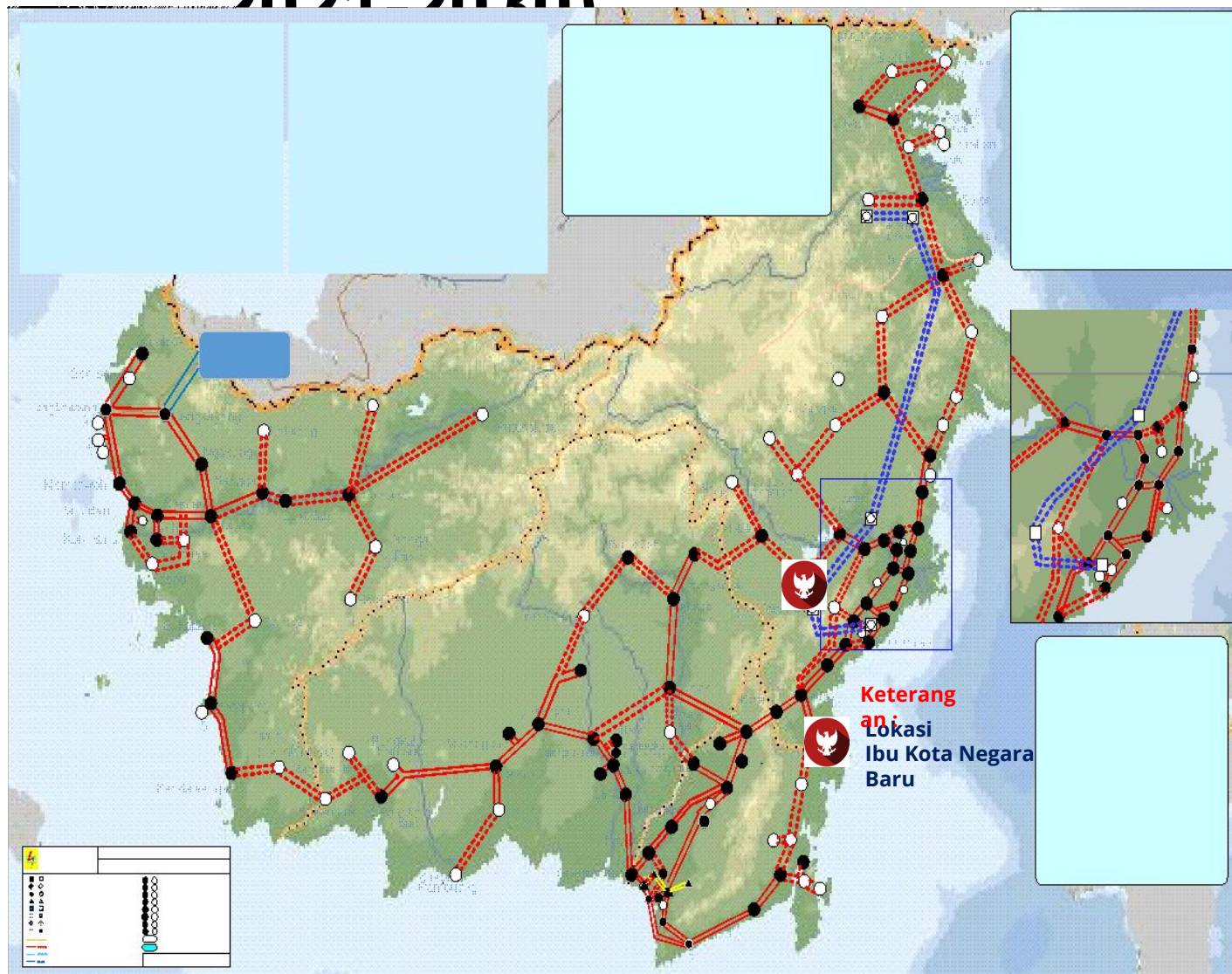
- Underground cable
- Futuristic design substation



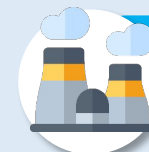
Kalimantan Electricity Development Map (RUPTL

Power Plant Capacity, Energi Mix, Transmission line, Sub Station, Growth Estimation.

2021-2030



RENCANA PENAMBAHAN INFRASTRUKTUR TAHUN 2021 S/D 2030



KAPASITAS PEMBANGKIT

2.803,61 MW



BAURAN ENERGI (2025)

• Batubara 62,19 % • GAS 18,12 %
• EBT 19,29 % • BBM 0,40 %



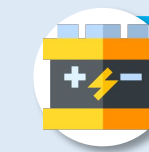
JARINGAN TRANSMISI

11.027 KMS



GARDU INDUK

6.310 MVA



PERTUMBUHAN LISTRIK

7,4 %

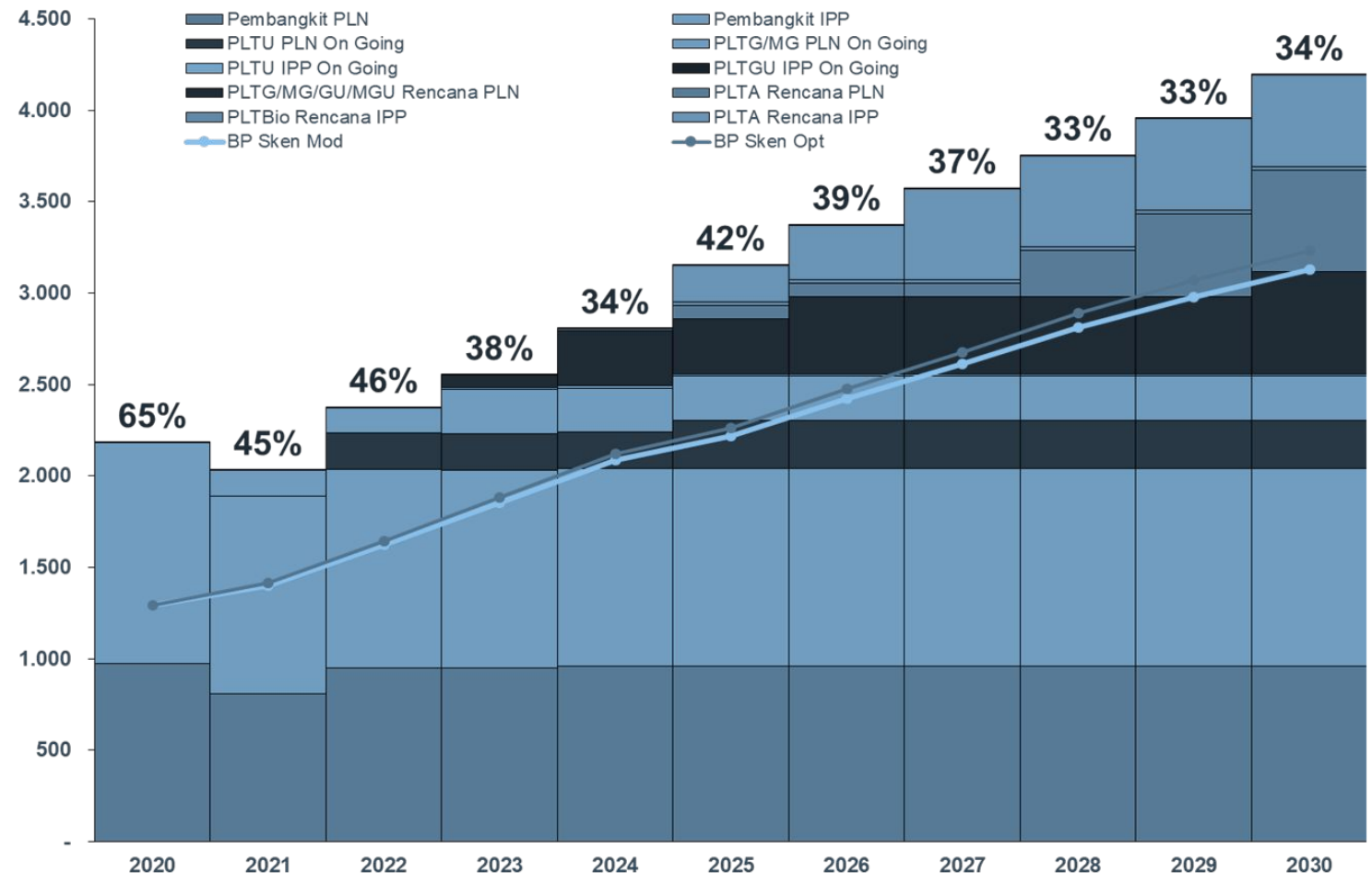


Kalimantan Interconnection System Power Balance (Neraca Daya RUPTL 2021-2030)

1 Peak Load average growth 7,74 % with Average reserve margin 1.064 (34%)

2 The additional power plant that dominates is hydropower with a total of 1,053 MW

3 Composition Power Plant portion PLN 72% (3.097,3 MW) and IPP 28% (1.094,4 MW)





**Mari Bersama –sama Menyambut Era Baru Pembangkit Listrik
Di Indonesia yang Terjamin secara Kualitas serta Didukung Dengan Harga
Yang Efisien dan yang Terpenting adalah ramah Lingkungan**





**Sekian dan
Terima Kasih**