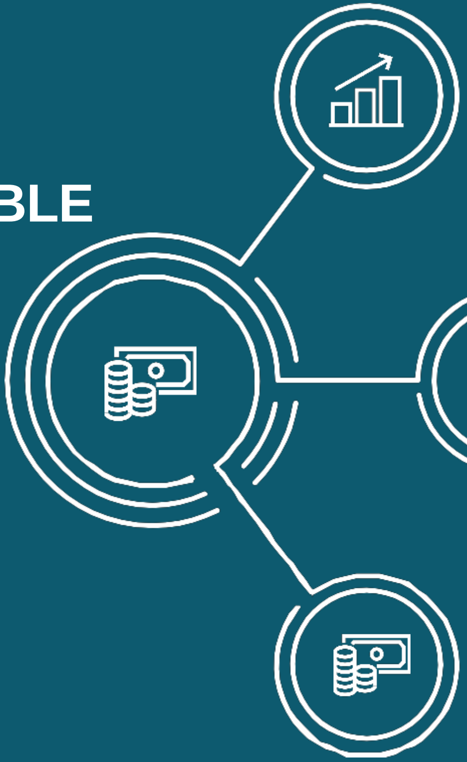
STRATEGY TOWARDS FUTURE UTILITY 3.0

JAKARTA, OCTOBER 2020

PLTU Tanjung Jati B • PLTU Paiton Unit 1 - 2 • PLTGU Gresik
PLTDG Pesanggaran • PLTP Kamojang Darajat

CEO MESSAGES

SUSTAINABLE GROWTH



GROWTH IN REVENUE

Company ensure that the revenue has to grow through intensification programs (e.g. increase the consumption of existing customer) **and extensification programs** (e.g. increase the number of new customer)

FUTURE GENERATIONS ORIENTED

Provide clean energy, committed to innovation, adaptive and creative to seek for opportunities

PARADIGM SHIFTING

from **Distributed** to **Centralized** Planning, from **Supply Driven** to **Demand Driven**, from **Vertical-Horizontal Fragmented** to **Vertical-Horizontal Integration,** from **Non-Renewable (dominant)** to **New & Renewable Energy**

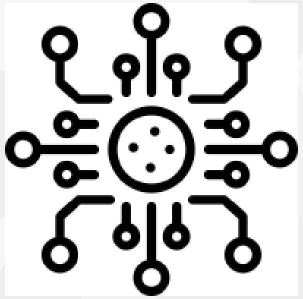
Facing the challenges of Industry 4.0 era, PLN response by showing its character, dedication, loyalty and adaptability which grow into aspirations to transform and become a company which has a vision beyond generation.

4D MAIN DRIVERS ON 4.0 ERA

Deregulation/ Democratization

- Digital Procurement
- Investment Prioritization
- Regulatory and Sector Structure

Digitalization



- Digitally enabled distribution excellence
- Digitally enabled execution machine (including operation command center, capex war room and dashboards)
- PLN Mobile relaunch

Decentralization

- Billing and collection optimization
- Outage management
- Distributed Energy Resources (DERs)
- Energy storage
- Demand response

Decarbonization

- Power plant of the future
- Launch ‘green boosters’, (e.g, Biomass co-firing, Diesel replacement, floating PV)
- Electric vehicles infrastructure

PLNs 2024 ASPIRATIONS

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

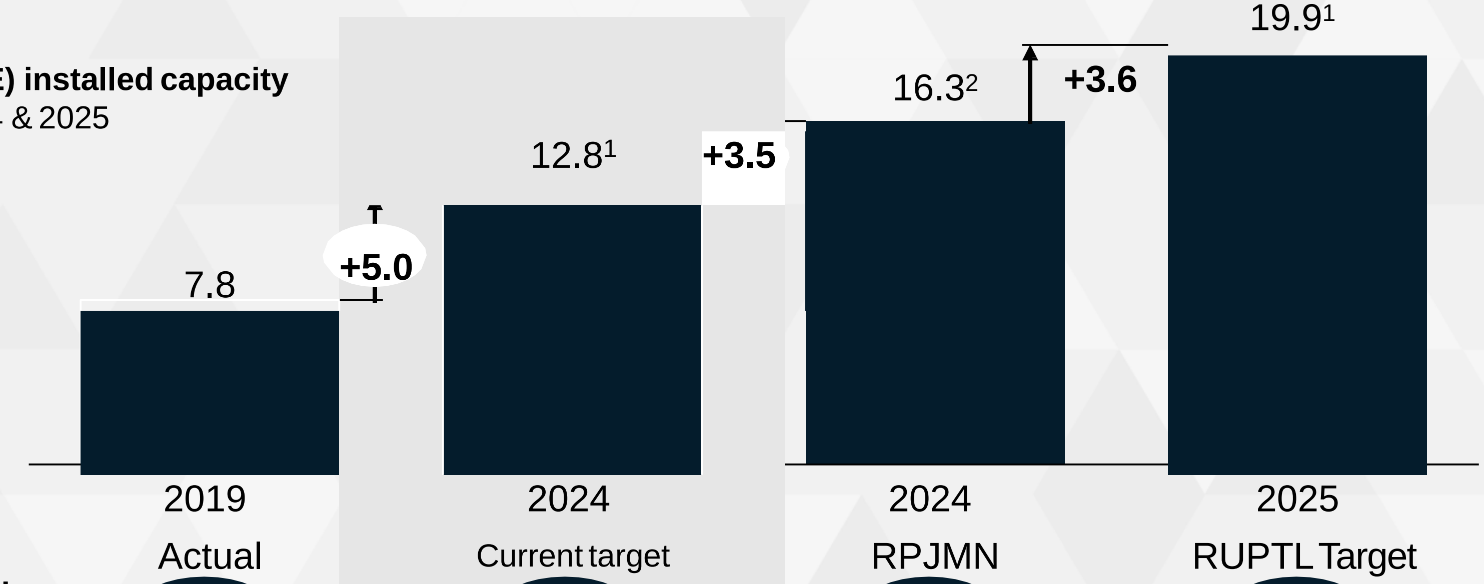
INNOVATIVE
Stimulating growth through innovative business models and services

CUSTOMER FOCUSED
Delighting customers through world class quality and services

ENERGY DEVELOPMENT TOWARDS INDUSTRY 4.0

The Indonesian Government through a National Energy Policy, is committed to achieve renewable energy target of 23% by 2025. Based on RUPTL 2019 – 2028, the national energy mix composition by 2025 consists of 23% renewable energy, 22% gas, 0,40% fuel and 54,60% coal.

Renewable (RE) installed capacity
GW, 2019, 2024 & 2025



	2019 Actual	2024 Current target	2024 RPJMN	2025 RUPTL Target
RE proportion in production, %	11%	16%	20%	23%
CO_2 emission, mn tons/annum	177.3	229.8	218.8	220.2
CO_2 emission, kg/kWh	0.65	0.64	0.62	0.59

1 Deliver Current Target 2020-24

2 Launch "Green boosters"

3 Launch large scale renewables

1. 1st Draft RJPP 2020-2024 (in revision process)
2. Using 46% Renewable CF and RJPP low scenario as a total market demand for 2024 (355TWh) and 2025 (374TWh)

Source: PLN SILM 2019

Current PLN RE target is **12.8 GW in 2024 (+5.0 GW vs today)**

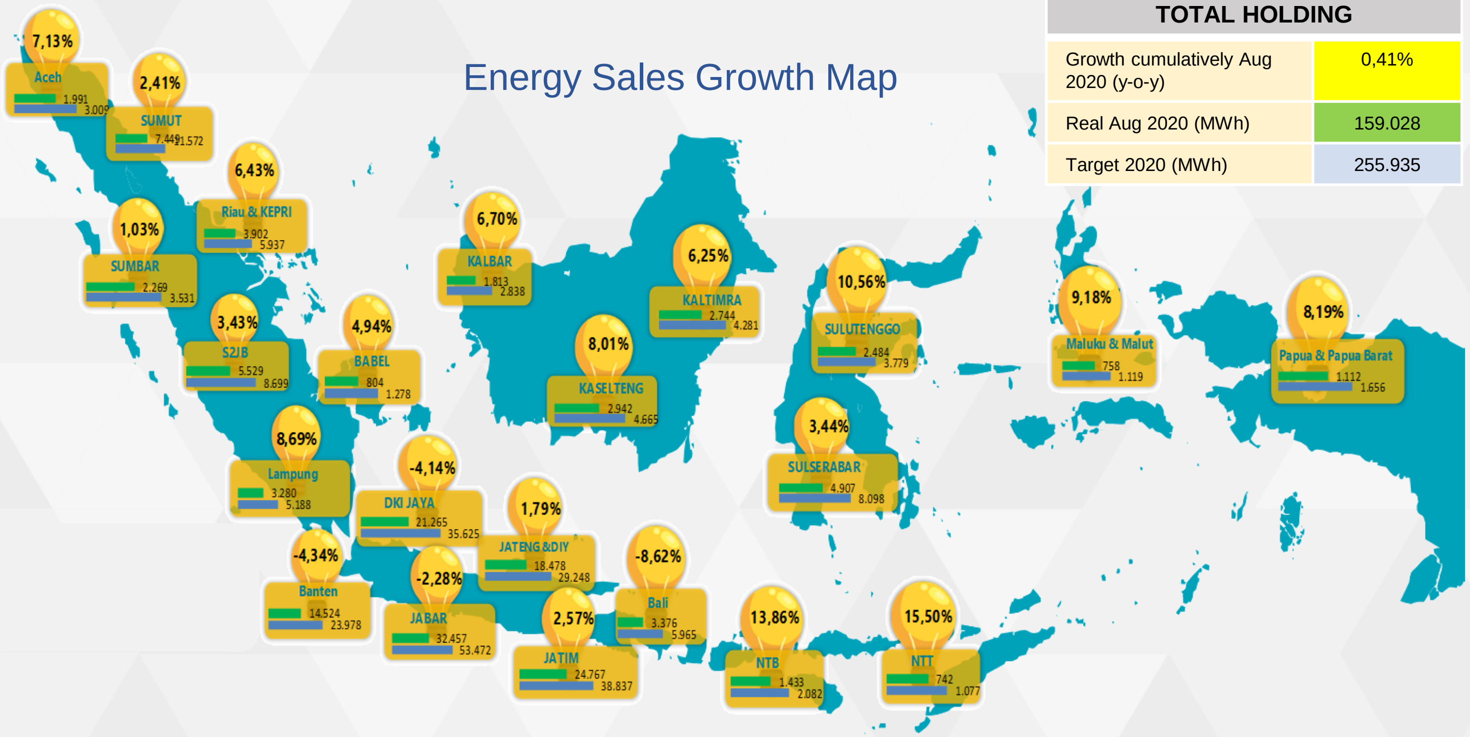
Achieving the national mandate will **require initiatives for additional 3.5 GW by 2024 (RPJMN target) and 7.1 GW** by 2025 (RUPTL target)

PLN has **identified three sets of initiatives** to achieve RE aspirations: deliver current target, launch green boosters and build large Renewables:

1. Deliver current target (5.0GW)
2. Launch 'green boosters', (e.g, Biomass co-firing, Diesel replacement, floating PV)
3. Launch large scale renewables (e.g. hydro for REBID, geothermal, LSS)

CHALLENGE & MITIGATION DUE TO COVID-19

Energy Sales Growth Map



TOTAL HOLDING	
Growth cumulatively Aug 2020 (y-o-y)	0,41%
Real Aug 2020 (MWh)	159.028
Target 2020 (MWh)	255.935

Energy Sales Growth (y-o-y) Holding & Regional

	Apr'20	Mei'20	Juni '20	Juli 20	Agt 20	Cum. Agt 20
HOLDING	**-1,67%**	**-10,73%**	**5,46%**	**-2,01%**	**-0,26%**	**0,41%**
REG JMB	**-4,39%**	**-14,65%**	**4,70%**	**-4,01%**	**-2,11%**	**-1,47%**
REG SUMKAL	5,27%	**-0,77%**	**7,32%**	**2,89%**	**3,92%**	**4,95%**
REG SUL, MPNT	7,63%	2,53%	**7,86%**	**6,12%**	**7,88%**	**7,75%**

COVID-19 pandemic, slow the energy sales growth, especially in Java-Madura-Bali region which has negative growth (year-on-year). However, other regions shows a positive growth. Thus, despite the realization are still far from the target, on corporate scale, the sales still shows a positive growth.

PLN response to the COVID-19 impact by characterizing the projects in several priorities, which are:

- Priority 1: Mandatory project (e.g. high legal risk/implication; financed by government, take-or-pay projects)
- Priority 2: Projects which gives the highest IRR
- Priority 3: Shifting from supply driven to demand driven
- Priority 4: Stimulant to increase revenue (e.g. discounted price to upgrade household capacity)
- Priority 5: dispatch optimization and primary energy optimization,

BUSINESS OPPORTUNITY

PLN's next steps & Stakeholders contribution

Centralize end-to-end project execution for big renewable projects (e.g. more than 10 MW)

Set-up smart grid and smart meters for strategic cities, including the development of New Capital City of Indonesia

Launch dual FS/Feed with cluster strategy for diesel replacement with renewables

Set up long term strategic partnership with potential **biomass suppliers** (e.g., PTPN, Perhutani)

Develop **REBID** scheme for large-scale renewables linked to industrial estate (with government support)

Distribution of Industrial Estate

PLN is widely open for any discussions and knowledge sharing regarding electricity development in Indonesia. Partnership and risk sharing is necessarily needed to find the best solution for further development.

Thank You