

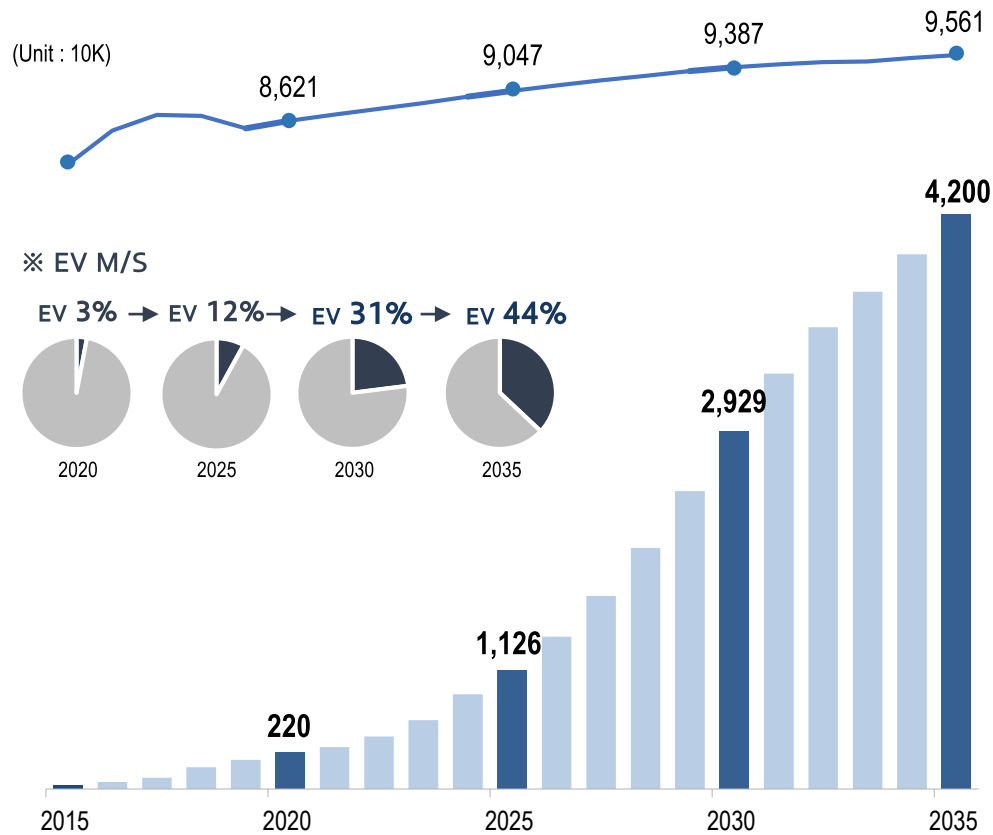
Battery Electric Vehicle Industry in Indonesia

July 14, 2021



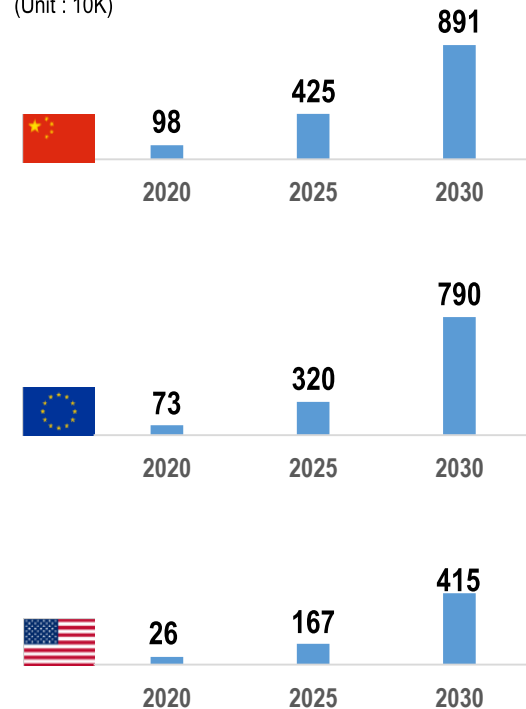
□ Global EV sales forecast

- Global EV market expected to grow **13rd times** in the next decade
 - EV sales : '20 2.2Mn (M/S 3%) → '30 29.3Mn (31%)
- Accelerating sales of EVs through strengthening environmental regulations and government support policies



Regional EV Sales

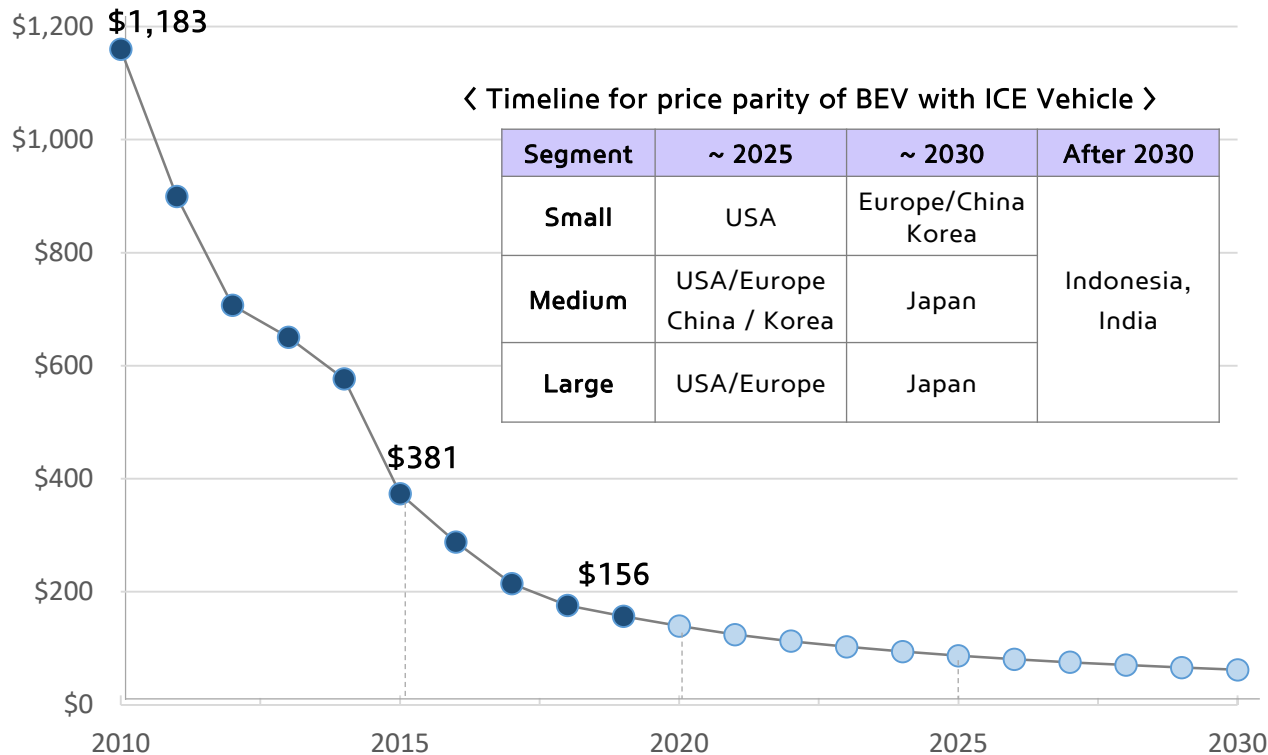
(Unit : 10K)



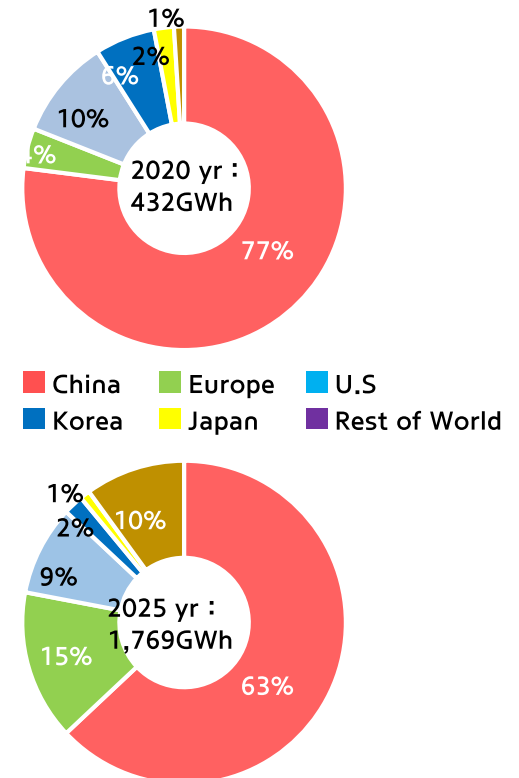
□ Global Battery Forecast

- The price of battery packs to drop **below \$100/kWh in 2024**
 - EV demand is expected to grow rapidly after the parity of BEV with ICE vehicle
- Total battery capacity will grow **more than 4th times from 432GWh/year in 2020 to 1,769GWh/year by 2025**

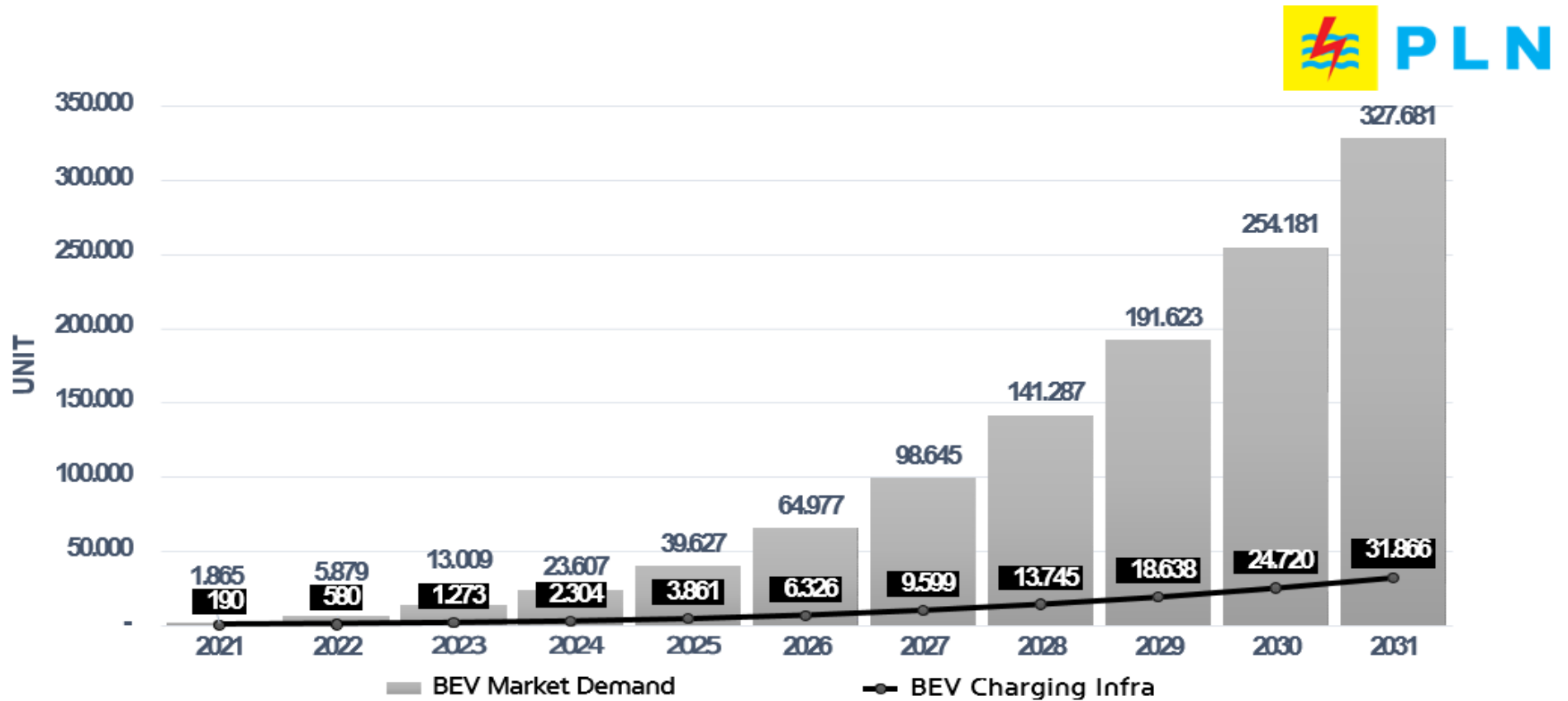
Battery Price (\$/kWh)



Battery Capacity



□ Expected BEV Market Demand by PLN



□ PP74/2021 (New Vehicle Luxury Tax)

- Regarding **luxury-goods sales of tax** on motor vehicles (ICE and EV, Since the regulation of government of Indonesia No.73 of 2019 has been revised as its revision (**No.74 of 2021, dated on 2 July 2021yr**). It is expected to boost ecosystem of EV in Indonesia.

- 1st Stage : From 16 Oct 2021

- 2nd Stage : EV Ecosystem Investment and Start of BEV Commercialization

Below 3,000cc	km/l		CO2 (g/km)	Current	New	
	Gasoline	Diesel			1 st Stage	2 nd Stage
Hybrid / Mild Hybrid	> 23	> 26	< 100	2%/8%	6% (+4) / 8%	10% (+4) / 12% (+4)
	23 – 18.5	26 – 21	101 – 125	5%/10%	7% (+2) / 10%	11% (+4) / 13% (+3)
	18.4 – 15.5	20.8 – 17.5	126 – 150	8%/12%	8% / 12%	12% (+4) / 14% (+2)
PHEV	> 28		< 100	0%	5% (+5)	8% (+3)
BEV/FC				0%		

- Condition for 2nd Stage : **EV Ecosystem Investment (5,000,000,000,000Rp)**

- After a period of 2 (two) years after the realization of Investment **Or**
- When Automotive industry using *battery electric vehicles* technology starts commercial production.

BEV TKDN	'19yr	'22yr	'24yr	'30yr
	35%	40%	60%	80%

□ Proposal of EV support policy

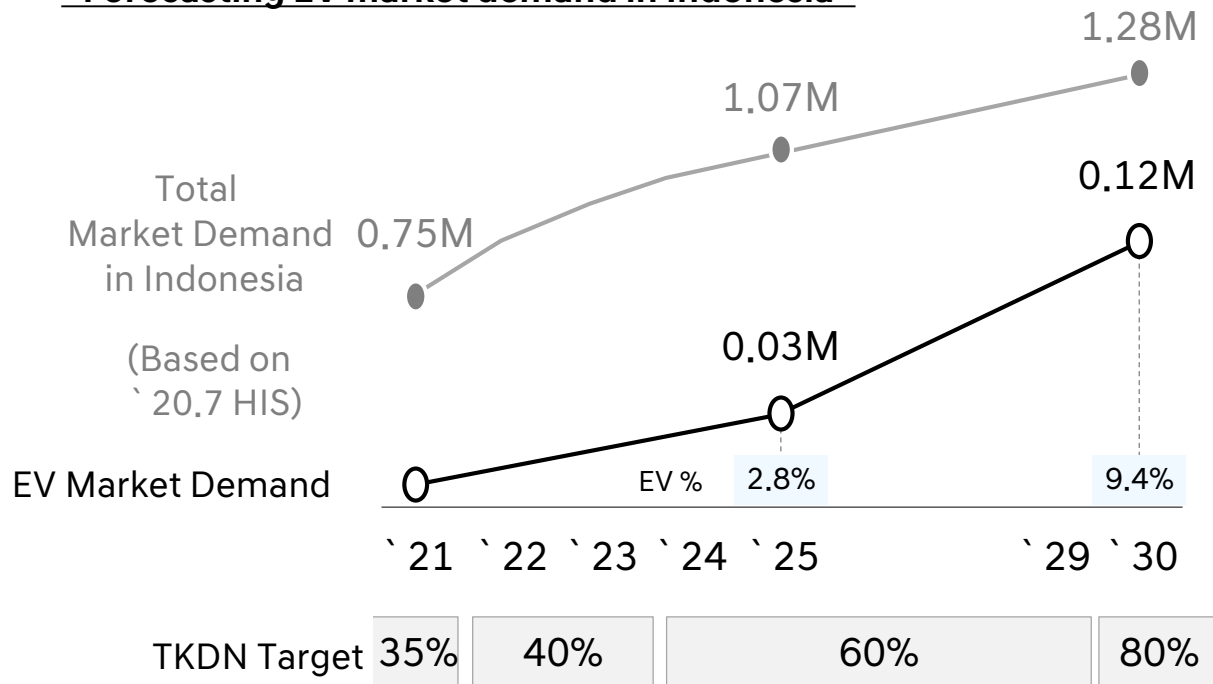
- **The exemption of taxes (BBNKB and PKB of BEV) to a national level in Indonesia**
 - Kementerian Negeri Nomor 1 Tahun 2021 (maximum 10% of PKB Imposed but still not applied to a national level in Indonesia)
 - Gubernur Provinsi Ibukota Jakarta Nomor 3 Tahun 2020 (Only Jakarta applied the exemption of BBNKB 0% for BEV)
 - **Subsidy support from a government regarding BEV purchases for increasing price competitiveness compared to ICE in a market**
 - **Adoption of law to require incentivize the BEV purchases for B2G and B2B fleet vehicles including the requirement for the government to replace all vehicles from ICEs to BEVs which will be manufactured in Indonesia by 2025**
 - **Require draft budget with regard to B2B fleet sales for changing from existing ICE vehicles to EV vehicles**
 - **Require to legislate that install certain amount of EV chargers in new building such as residence and office**
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□ Proposal to revise EV TKDN (Regulation of MOI. 27 of 2020)

- Indonesia is in **early stage of forming EV market**. It will take a **long time to make EV ecosystem** like company of EV core component, a charging Infra, manufacturer and the others for EV popularization of its usage
- To **shorten a period of formation of EV market**, it is critical to secure cost **competitiveness of EV core parts(Battery, Motor and etc)** accounting for high % of material cost.
- **If setting excessive TKDN target** when market is not formed, it will act as **an entry barrier to EV production**.

Forecasting EV demand

<Forecasting EV market demand in Indonesia>



□ Adjustment of standard method of EV TKDN

■ Right stages on right time for TKDN

- To increase EV demand **at formation period of market**, it requires to **readjust the standard of TKDN method**
- Considering level of building production parts/facilities in Indonesia, **government promotes adjustment of the criteria TKDN score by each phase.**
 - Calculation of TKDN score based on parts that can be supplied in Indonesia

