

Indonesia

Country Report on :

- Vehicle Type Approval
- Decarbonization

The Republic of Indonesia

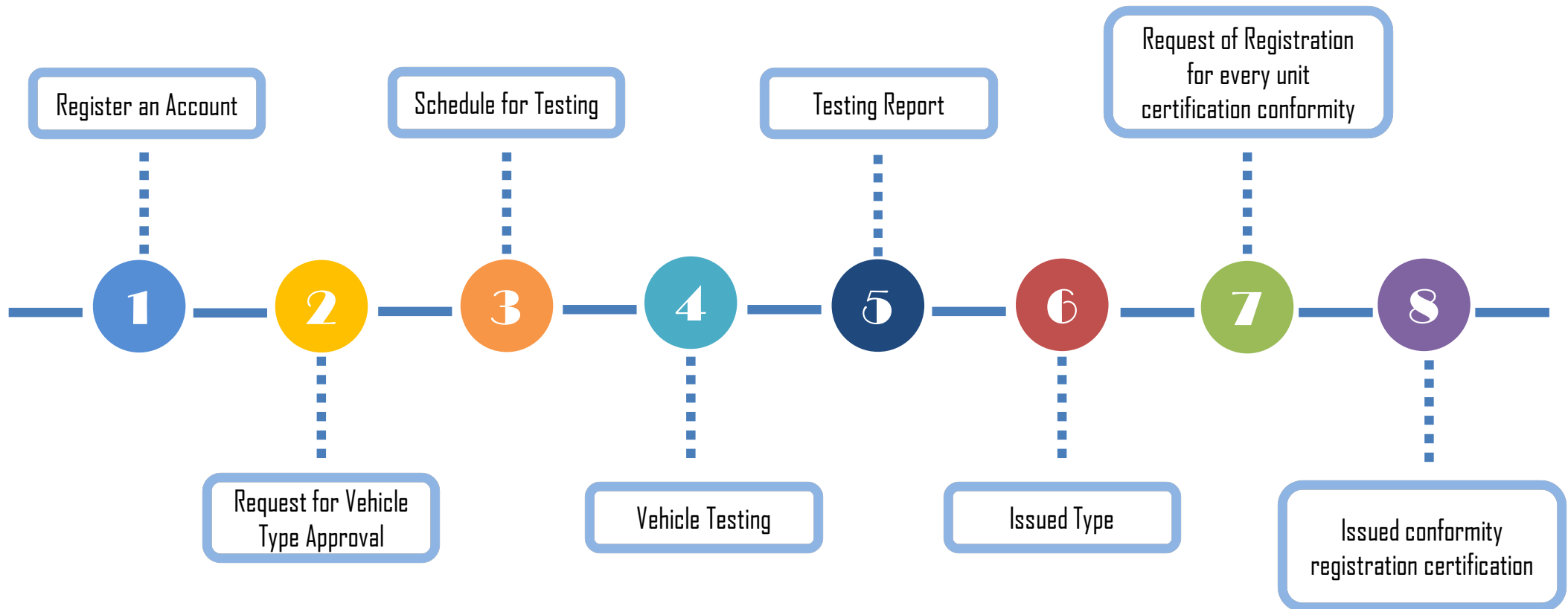
29th November 2023

LEGAL REFERENCES

1. Law No. 22 of 2009 on Traffic and Road Transportation
2. Government Regulation No 55 of 2012 on Vehicle
3. The Minister of Transportation Regulation No. 33 of 2018 on Vehicle Type Testing
4. The Minister of Transportation Regulation No. 30 of 2021 on Amendment to the The Minister of Transportation Regulation No. 33 of 2018 on Vehicle Type Testing
5. The Minister of Transportation Regulation No. 23 of 2021 on Second Amendment to the The Minister of Transportation Regulation No. 33 of 2018 on Vehicle Type Testing
6. The Minister of Transportation Regulation No. 87 of 2020 on Electric Vehicle Type Testing

VEHICLE TYPE APPROVAL FLOW

<https://vta.dephub.go.id/>



AUTOMOTIVE COMPONENT STATUS

No	UNRs	Description	Test Facility	National Standard	Mandatory
1	R25	Head Restraint	Not Available	X	X
2	R28	Audible Warning Device	Not Available	X	X
3	R46	Rear View Mirror	Not Available	On Process (Voluntary)	X
4	R16	Seat Belt	Not Available	On Process (Voluntary)	X
5	R30	Pneumatic tyre (passenger vehicle)	B4T Bandung	O	O
6	R43	Safety Glazing Material	BBK Bandung	O	O
7	R54	Pneumatic tyre (commercial vehicle)	B4T Bandung	O	O
8	R75	Pneumatic tyre (motorcycle)	B4T Bandung	O	O

Ministry of Industry are still on process regarding:

- voluntary national standards: air filter, rear view mirror, clutch pads, seat belt
- mandatory national standards: accumulator, brake pads

VEHICLE TEST ITEMS

1. Dimension Test;
2. Contruction Test;
3. Efficiency Main Brake Test;
4. Scaling Weight Test;
5. Sideslip Test;
6. Horn Test;
7. Speedometer Test;
8. Headlight Test;
9. Emission Test (Gasoline idle and Diesel smoke);
10. Turning Radius Test;
11. Emission Test UN-R83;
12. Emission Test UN-R40;
13. Emission Test UN-R49;
14. CO₂ / Fuel Consumption Test UN-R101;
15. Electric Vehicle Test UN-R100;
16. Electric Vehicle Test UN-R136;
17. Noise Test UN-R 41 (development)
18. Noise Test UN-R51 (development)



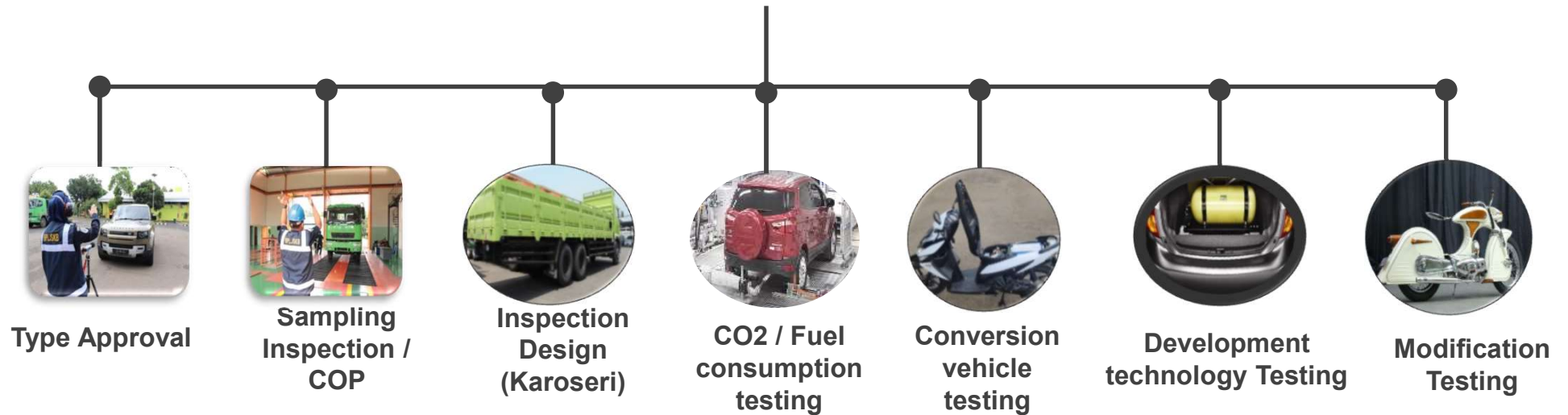
RECAP OF STANDARDIZATION RELATED TO ELECTRIC VEHICLES

Category		Description	Standard SNI/ISO/IEC	
			4 Wheeled Vehicle (Car)	2 Wheeled Vehicle (Motorcycle / Moped)
Umum	Umum	Terminology	SNI ISO/TR 8713:2017 (ISO/TR 8713:2012, IDT)	SNI 8608:2018 (ISO/TR 13062:2015, IDT)
Vehicle system	Safety	Electrification safety (vehicle)	SNI ISO 6469-1: 2009 (Ditetapkan oleh BSN tahun 2019)	SNI 8613:2018 (ISO 13063:2012, IDT)
			SNI ISO 6469-2: 2018 (Ditetapkan oleh BSN tahun 2019)	
			SNI ISO 6469-3:2011 (Ditetapkan oleh BSN tahun 2019)	
		Electrification safety (post-impact)	SNI ISO 6469-4:2015 (Ditetapkan oleh BSN tahun 2019)	
Performance		Electricity consumption	SNI IEC 8714:2002 (ditetapkan oleh BSN tahun 2020)	SNI 8614-1:2018 (ISO 13064-1:2012, IDT)
		Vehicle performance	SNI ISO 8715:2001 (ditetapkan oleh BSN tahun 2020)	SNI 8614-2:2018 (ISO 13064-2:2012, IDT)
EV Vehicle Component	Battery	Cell size	ISO/PAS 16898	
		Cell testing & safety	SNI IEC 62660-1:2017 (IEC 62660-1:2010, IDT)	
			SNI IEC 62660-2:2017 (IEC 62660-2:2010, IDT)	
			SNI IEC 62660-3:2016 (ditetapkan oleh BSN tahun 2020)	
		Battery pack Performance	SNI ISO 12405-4:2018 (ditetapkan oleh BSN tahun 2020)	ISO 18243
		Battery pack safety	SNI 8871:2019 (ditetapkan oleh BSN tahun 2020)	SNI 8872:2019 (ditetapkan oleh BSN tahun 2020)
		Non Li-Ion Battery	IEC 61982	
	Li-Ion + Lead Acid Battery	ISO 18300		
	Recycle Li-Ion + Non Li-Ion	N/A		
	Motor, Inverter & converter	Motor, Inverter & converter	ISO 21782 (Part 1 s.d 7)	ISO 23280 (Under development)

RECAP OF STANDARDIZATION RELATED TO ELECTRIC VEHICLES

Category		Description	Standard SNI/ISO/IEC	
			4 Wheeled Vehicle (Car)	2 Wheeled Vehicle (Motorcycle / Moped)
Infrastructure	Charging System	Conductive charging system	SNI IEC 61851-1:2017 (Ditetapkan oleh BSN tahun 2019)	IEC 61851-3 (series) (under development)
			SNI IEC 61851-23:2014 (Ditetapkan oleh BSN tahun 2019)	
			SNI IEC 61851-24:2014 (Ditetapkan oleh BSN tahun 2019)	
		Safety for household battery charger	SNI IEC 60335-2-29:2012	
		Wireless power transfer	IEC 61980-1	
			IEC 61980-2	
			IEC 61980-3	
			ISO 19363	
		Connection to an external electric power supply	ISO 17409	ISO 18246
		EMC (On-board)	SNI IEC 61851-21-1:2017 (Ditetapkan oleh BSN tahun 2019)	
	EMC (Off-board)	IEC 61851-21-2		
	Swap battery system	IEC 62840-1	SNI 8927:2020 dan SNI 8928:2020	
		IEC 62840-2		
	In-cable control	IEC 62752		
	Charging cable	SNI IEC 62893-1:2017 (Ditetapkan oleh BSN tahun 2019)		
		SNI IEC 62893-2:2017 (Ditetapkan oleh BSN tahun 2019)		
		SNI IEC 62893-3:2017 (Ditetapkan oleh BSN tahun 2019)		
	Charging Connector	Charging Connector	SNI IEC 62196-1:2014 (Ditetapkan oleh BSN tahun 2019)	IEC TS 62196-4
SNI IEC 62196-2:2016 (Ditetapkan oleh BSN tahun 2019)				
SNI IEC 62196-3:2014 (Ditetapkan oleh BSN Tahun 2019)				
Communication Interface	Interface	IEC 62831 (under development)		
	Vehicle to grid	ISO 15118 (bagian 1 s.d 8)		
	Roaming service	IEC 63119-1:2019		

TESTING SERVICES AT VTCC



HOMOLOGATION : FACILITY IN INDONESIA

No.	Description	Facility					
		Present			Future (ASEAN MRA by 2025 & Others)		
		UNRs	Vehicle (VTCC)	Component	UNRs	Vehicle	Component
1	Braking System	Apart of R13	O	-	R13-11	O	-
2	Braking System (Passenger Car)	Apart of R13H	O	-	R13H-00	O	-
3	Audible Warning Device	R28	O	-	R28-00	O	O
4	Speedometer	Apart of R39	O	-	R39-01	O	-
5	Noise Emission	R51	O	-	R51-02	O	-
6	Pneumatic tire (passenger vehicle)	R30 / SNI	-	O (B4T)	R30-02	-	O
7	Pneumatic tire (commercial vehicle)	R54 / SNI	-	O (B4T)	R54-00	-	O
8	Safety Glazing Material	R43 / SNI	-	O (BBK)	R43-01	O	O
9	Exhaust emission with reference mass > 2610 kg	R49	O	-	R49-05	O	-
10	Exhaust emission with reference mass ≤ 2610 kg	R83	O	-	R83-05	O	-
11	Battery Electric Vehicle	R100	O	O (Test/Report)	←	O	O
12	Fuel Consumption (CO2 Test)	R101	O	-	←	O	-
13	Seat	-	O	-	R17-08	O	-
14	Head Restraint	-	O	-	R25-04	-	O
15	Rear View Mirror	-	O	-	R46-04	O	O

HOMOLOGATION : FACILITY IN INDONESIA

No.	Description	Facility					
		Present			Future (ASEAN MRA by 2025 & Others)		
		UNRs	Vehicle (VTCC)	Component	UNRs	Vehicle	Component
16	Steering System	-	0	-	R79-01	0	-
17	Anchorage of Seat Belt	-	0	-	R14-06	0	-
18	Seat Belt	-	0	-	R16-06	0	0
19	Crash Test (Front)	-	0	-	R94 (voluntary)	0	-
20	Crash Test (Lateral)	-	0	-	R95 (voluntary)	0	-
21	Rollover Test	-	0	-	R66	0	-
22	Quiet Road Transport Vehicle	-	0	-	R138	0	-
23	Idle Smoke	Indonesia Unique Regulation	0	-	STUDY TO HARMONIZE WITH UNRS	-	-
24	Side slip		0	-		-	-
25	Head lamp		0	-		0	0
26	Turning Radius		0	-		-	-
27	GVW Measurement		0	-		0	-
28	Construction (Karoseri)		0	-		0	-




GENERAL LAYOUT PROVING GROUND



AUTOMOTIVE PRODUCT



INDONESIA'S COMMITMENT ON CONTROLLING CLIMATE CHANGE




- Commitment to reducing global GHG emissions
- Adaptation to climate change and loss & damage
- Transparency framework
- Means of implementation (Funding, technology, capacity building)

PARIS AGREEMENT
(Desember 2015)

New York: the Signing of the Paris Agreement at High-level Signature Ceremony for the Paris Agreement held at the United Nations Headquarters



THE SIGNING
(April 2016)



Submission of the instrument of ratification of the PA (Law 16/2016) along with First Indonesia's NDC document to UNFCCC

RATIFICATION PA and NDC
(November 2016)



Indonesia will be able to contribute more quickly to the world's Net-Zero Emission. In addition, carbon markets and carbon prices must be part of efforts to address the issue of climate change. A transparent, integral, inclusive, and fair carbon economic ecosystem must be created." (President of the Republic of Indonesia at the World Leaders' Summit on Climate Change, Glasgow, November 1, 2021)

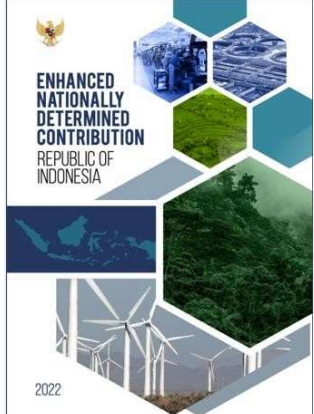


Submisi Updated NDC & LTS-LCCR 2050 to UNFCCC

UPDATED NDC & LTS
(Juli 2021)

Presidential Regulation No 98 of 2021 on the Implementation of Carbon Economic Value (NEK) for Achieving NDC Targets and Controlling Greenhouse Gas Emissions in National Development has been enacted

PRESIDENTIAL REGULATION No 98 of 2021
(29 Oktober 2021)



ENHANCED NDC
September 2022

MITIGATION ACTION OF LAND TRANSPORTATION

<p>1</p>  <p>DEVELOPMENT OF THE URBAN ROAD-BASED TRANSPORTATION</p>	<p>2</p> <p>UTILIZATION OF AREA TRAFFIC CONTROL SYSTEM (ATCS)</p> 	<p>3</p>  <p>TRANSIT ORIENTED DEVELOPMENT (TOD)</p>	<p>4</p> <p>NON MOTORIZED TRANSPORT IN JABODETABEK AREA</p> 	<p>5</p>  <p>UTILIZATION OF EV & CHARGING STATION</p>	<p>6</p> <p>IMPLEMENTATION OF LDF (LONG DISTANCE FERRY)</p> 	<p>7</p>  <p>PUBLIC TRANSPORT RENEWAL</p>
<p>8</p>  <p>UTILIZATION OF SOLAR-POWERED STREET LIGHTING</p>	<p>9</p> <p>UTILIZATION OF SOLLAR CELL FOR TRANSPORT INFRASTRUCTURE</p> 	<p>10</p>  <p>UTILIZATION OF ALTERNATIVE FUELS IN ROAD-BASED PASSENGER AND CARGO TRANSPORTATION</p>	<p>11</p> <p>UTILIZATION OF NAVIGATIONAL MEANS</p> 	<p>12</p>  <p>IMPLEMENTATION OF REGULATION ON PERIODICAL TESTING VEHICLE</p>	<p>13</p> <p>DEVELOPMENT OF BUS POOL</p> 	<p>14</p>  <p>IMPLEMENTATION OF ELECTRONIC ROAD PRICING (ERP)</p>



Electric Vehicles Becomes Indonesia's National Program to Support the Zero Emissions

“The government will always support any kind of investment in order to develop Electric Vehicles in Indonesia and expanding the upstream industry especially battery industry” President Jokowi (March 16, 2022)

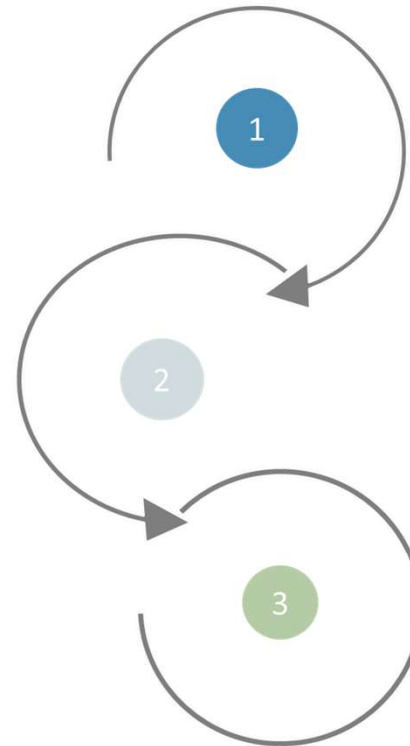
“In the future Electric Vehicles must become our main transportation mode, making this as the basis on enhancing our sustainable transport in the Capital City”

PRESIDENTIAL REGULATION NO 55 OF 2019

Improving the energy efficiency, energy security, and energy conservation on the transportation sector, including the realization of clean energy, clean air quality also environmentally friendly, along with Indonesian commitment to reduce the greenhouse gas emissions;



Encouragement in order to master the technology in industrial sector as well as vehicle's design along with making Indonesia as the production base and exporter of motor vehicles.



Giving direction, foundation, as well as legal certainty in the implementation of acceleration of battery electric vehicle program for road transportation;








ACCELERATION OF EV PROGRAM FOR ROAD TRANSPORTATION

Indonesia's Commitment to Addressing Climate Change in the Paris Agreement Framework

“Reducing Greenhouse Gas (GHG) emissions by 31,89% by 2030 (with own efforts) and by 43,2% (if receiving international assistance)”

GOVERNMENT REGULATIONS

1.  **Presidential Decree Number 55/2019:**
the Acceleration of the Battery Electric Vehicle Program for Road Transportation
2.  **Government Regulation Number 73/2019 JO 74/2021:**
concerning Luxury Tax (PPnBM) of Motor Vehicles
3.  **Minister of Home Affairs Regulation Number 6/2023:**
Exemption of Motor Vehicle Tax based on Renewable Energy
4.  **Presidential Instruction Number 7 tahun 2022:**
Use of BEV as Operational Service Vehicles and/or Individual Vehicles for Central Government and Regional Governments
5.  **Minister of Finance Regulation Number 38 tahun 2023:**
Value Added Tax Borne by the Government



MOI REGULATIONS

- **Minister of Industry Regulation Number 36/2021:**
Development and requirements for the Low Carbon Emission Vehicle (LCEV)
- **Minister of Industry Regulation Number 6/2022:**
Specifications, Development Roadmap, and Calculation of Domestic Component Level for Battery Electric Vehicles
- **Minister of Industry Regulation Number 28/2020 and 7/2022:**
Battery Electric Vehicles In CKD and IKD
- **Minister of Industry Regulation Number 6/2023 JO 21/2023:**
Guidelines for Provision of Government Assistance for the Purchase of Two-Wheel Battery-Based Electric Motorized Vehicles
- **Minister of Industry Decree Number 1641/2023:**
Value Added Tax Borne by the Government

MINISTRY OF TRANSPORTATION IN SUPPORTING THE ACCELERATION OF BATTERY ELECTRIC VEHICLES PROGRAM

1

PM 39 OF 2023

The Minister of Transportation Regulation No 39 Of 2023 On Conversion Of Motorcycle Powered By Combustion Engine Into Battery Electric Vehicles;

2

PM 87 OF 2020

The Minister of Transportation Regulation No 87 Of 2020 On The Physical Type Approval Of Battery Electric Vehicles;

3

PM 92 OF 2021

The Minister of Transportation Regulation No 92 of 2021 on the Amount, Requirements and Procedure on the Types of Non-Tax State Revenues till Rp. 0,00 (Zero Rupiah) or 0% (Zero Percent) of the Electric Vehicle Type Approval Certificate and Type Approval Registration Certificate Issuance and 10% of the Cost of Conversion Test from the Regular Type Approval;

4

PMK 138 OF 2021

The Minister of Finance Regulation No 138/Pmk.02/2021 on Types and Tariffs on Types of Non-Tax State Revenues Categorized as Volatile and Urgent Needs for the Ministry of Transportation;

5

PM 15 OF 2022

The Minister of Transportation Regulation No 15 of 2022 on the Electric Vehicle Conversion Other Than Motorcycle with Internal Combustion Engine into Battery Electric Vehicle.

6

IM 2 OF 2023

The Acceleration of the Implementation of the Utilization of Battery Electric Vehicle as Operational Service Vehicles and/or Service Individual Vehicles within the Ministry of Transportation

EV ECOSYSTEM

QUANTITATIVE TARGETS AND LOCAL CONTENT MOI Regulation No 6 YEAR 2022







Four-Wheeler Electric Vehicles

Year	Quantity	CO2 Emissions	Local Content	
2025	400.000	5 million barrel/ 1.84 million ton CO2	2024-2029	2030-on ward
2030	600.000	7.5 million barrel/ 2.76 million ton CO2		
2035	1.000.000	12.5 million barrel/ 4.6 million ton CO2		
			Min 60%	Min 80%

Two-Wheeler Electric Vehicles

Year	Quantity	CO2 Emissions	Local Content	
2025	6 million	9.43 million barrel/ 3.450 million ton CO2	2024-2025	2026-on ward
2030	9 million	14.15 million barrel/ 5.175 million ton CO2		
2035	12 million	18.86 million barrel/ 6.900 million ton CO2		
			Min 60%	Min 80%

INDONESIA ELECTRIC VEHICLE INDUSTRY FIGURES

	 Number of Manufacturers	 Production capacity	 Total Investment
 e-Bus	5 companies	2.480 Units/ year	Rp 0.36 Trillion
 e-Car	4 companies	37.000 Units/year	Rp 2,684 Trillion
 E-2&3 Wheeler Vehicle	53 companies	1.451 million Unitss/year	Rp 0,831 Trillion
TOTAL INVESTMENT :			Rp 3,875 T

Presidential Regulation No 55 Year 2019

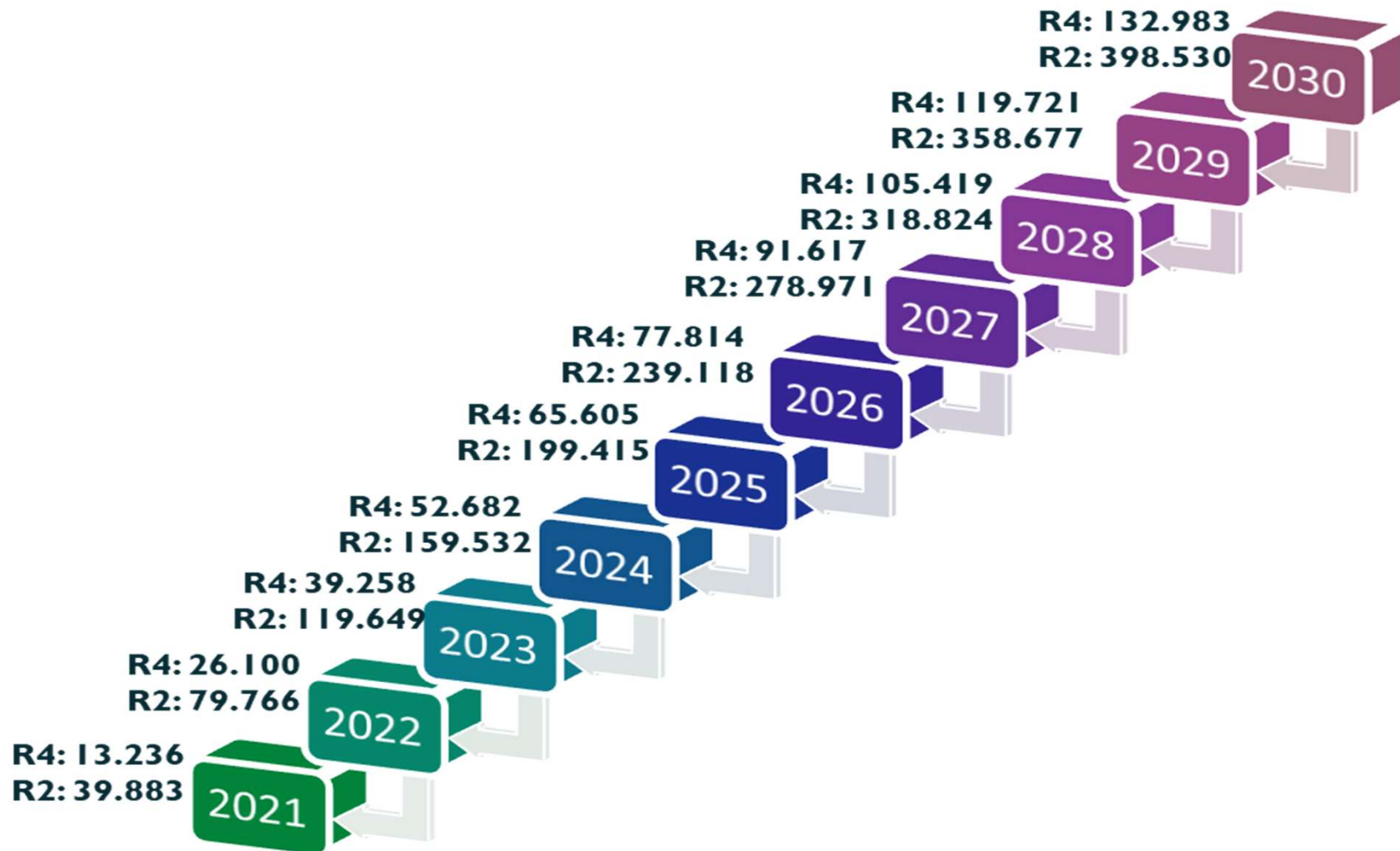
Consumer

- 0% PPnBM DTP and PPN DTP (Sales Tax on Luxury Goods and Value Added Tax Borne by Government)
- BBN & PKB max 0% of tax base
- Low interest rates and 0% down payment
- Discount on added electricity
- Special number plate
- Incentives to Purchase Two-Wheeler EV

Manufacture

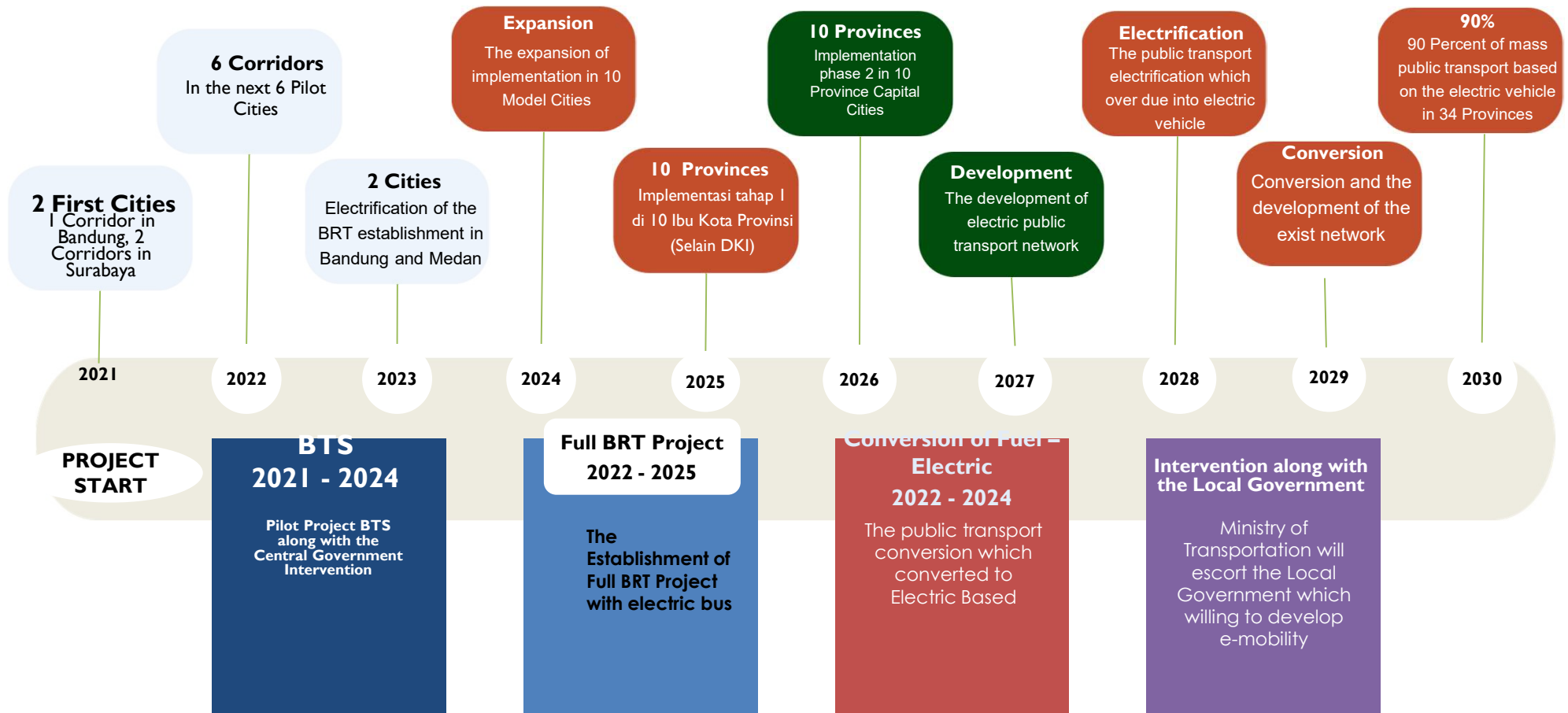
- Tax holiday
- Mini Tax Holiday
- Tax Allowance
- Import Duty Facility (Master List)
- Import Duty Borne by Government (BMDTP)
- Super Deduction Tax

MILESTONE SIMULATION ON THE NEEDS OF 4W AND 2W BEV AS GOVERNMENT'S OPERATIONAL VEHICLES



IMPLEMENTATION TARGET OF THE ELECTRIC URBAN TRANSPORTATION

Implementation aside from Transjakarta along with the intervention of Central or Local Government in order to develop public transport outside DKI Jakarta. Intervention using the scheme of buy the service.



IMPLEMENTATION TARGET ELECTRIC VEHICLES AS TRANSPORTATION IN TOURISM AREAS

11 National Tourism Strategic Areas (KSPN) or
10 “New Bali”



Charging Infrastructures and the insufficient availability of electric power in the tourism areas, herewith the target of electrify vehicles in 2025.

THE TOTAL ROUTES & BUSES OF KSPN (2020)
37 trayek | 110 Bus

Tourism getting better after Covid-19 in 2022 Assumption and started with the transportation armada with the exact amount as in 2020.

	2022	2023	2024	2025	2026	2027	2028	2029	2030
Diesel Armada of KSPN	110	120	130	140	150	160	180	190	200
Electrify	0	0	0	10	20	30	40	50	60

Average Visitor Target : 500k - 1 million per Destination (1.300 – 1.700 people per day). The potential of increasement of tourists at the minimum 10% per year (based on the history data of Statistics Indonesia).



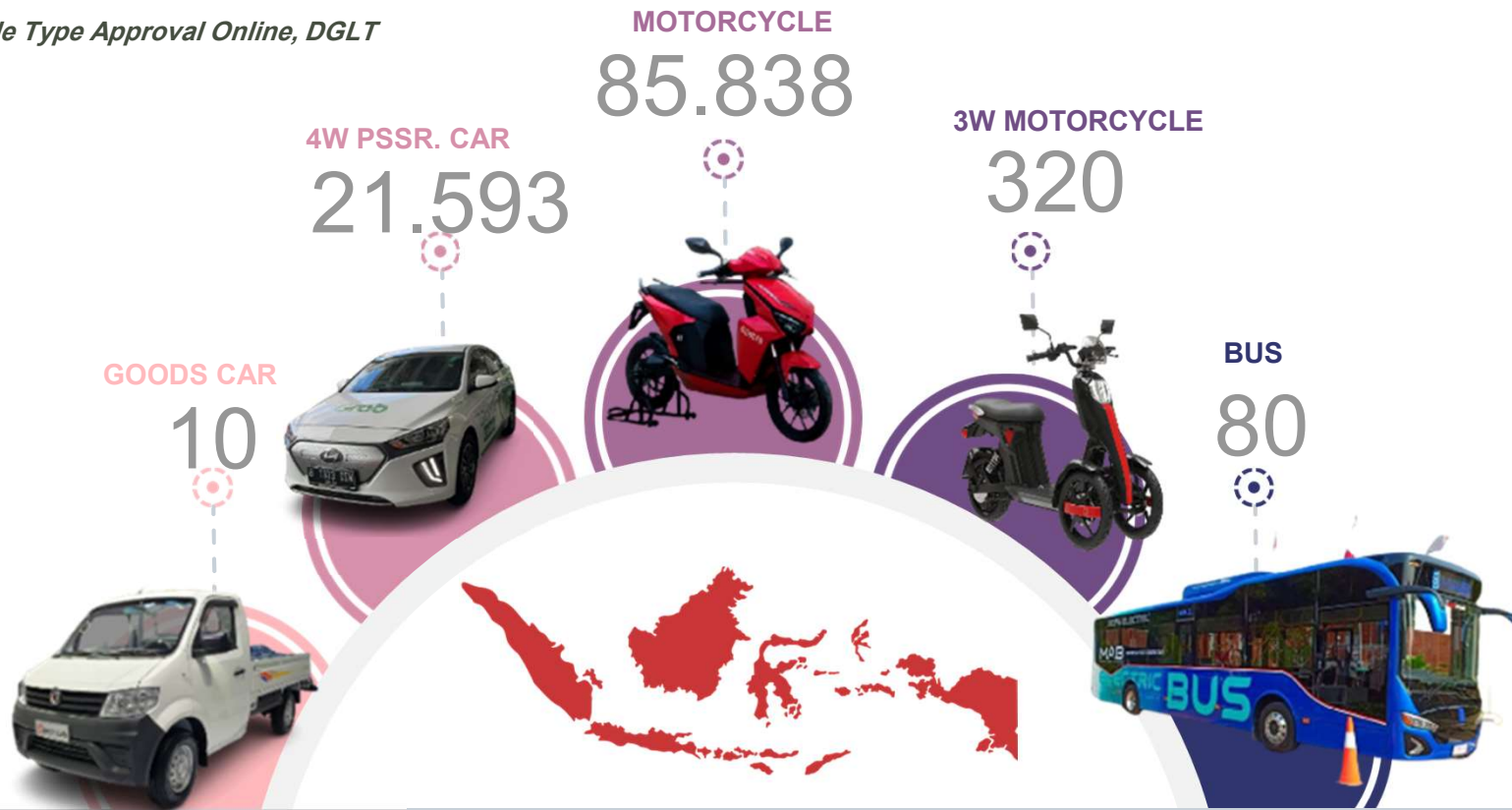


ELECTRIC VEHICLES POPULATION IN INDONESIA

Per 24th November 2023

Total : 107.841 unit

Sumber : *Vehicle Type Approval Online, DGLT*



Based on the amount of the issued Type Approval Registration Certificate

THANK YOU

THE REPUBLIC OF INDONESIA