

Enhancing Readiness for the Transition to Electric Vehicles in Indonesia

(ENTREV)

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Utilization of BEV On The CO2 Emission Reduction on Transportation Sectors

	ICE (Internal Combustion Engine)	BEV (Battery Electric Vehicle)
Source of Energy	The Fossil Fuel is used 70% imported * * MEMR	The Electricity Sources is 100% from domestic Power Plant
CO2 Emissions per Vehicle	<p>1 liter Fuel = 10 km distance *</p> <p>CO2 emissions for 1 liter fuel = 2.4 kg CO2 **</p> <p>CO2 emissions for ICE = 1 liter x 2.4 kg CO2 = 2.4 kg CO2/10 km</p> <p>* Average ** Assumption for MPV/SUV Source: hijauku.com, PT PLN (Persero), and others</p>	<p>1.3 kWh = 10 km distance*</p> <p>Electricity CO2 emissions for 1 kWh = 0.85 kg CO2 **</p> <p>EV CO2 emissions = 1.3 kWh x 0.85 kg CO2 = 1.3 kg CO2 /10 km</p> <p>* Average EV Operation in Indonesia, Source: GridOto,OtomotifTempo,PT.PLN(Persero) and others ** Source PT.PLN (Persero)</p>
Energy Cost	Energy Cost (Fuel Price) = IDR 13,000 / liter * * Pertamina RON92	Energy Cost (Electricity Price) = IDR 2,466/kwh x 1.3 kwh/liter * = IDR 3,206/liter equivalent * Source: PT PLN (Persero)
Energy Consumption per Vehicle	<p>Energy Consumption = 125 liter / month *</p> <p>Energy Cost = IDR 1,625,000 / month **</p> <p>* Assumption distance 1,250 – 1,400 Km/month ** Assumption Fuel Price Pertamina RON92 IDR 13,000/liter</p>	<p>Energy Consumption = 162.5 (kWh/month) *</p> <p>Energy Cost = IDR 400,725 / month **</p> <p>* Assumption distance 1,250 – 1,400 Km/month ** Assumptions of Maximum charging tariff of special services for Fast Charging is IDR 2,466/kWh</p>

E-Mobility Adoption in Indonesia

Challenges

1. The purchase of Electric vehicles is still perceived as expensive
2. Second hand battery market is not in place
3. Secondary market of EV is not in place
4. The financial industry is still wait and see with regard to financing to end user customer as well as financing the charging industry provider (EVCS and BSS)

Opportunity:

1. Government is focuses on policies to ease all regulations to boosting EV ecosystem to grow exponentially
2. Various incentives have been given to consumers to obtain 2-W and 4-W
3. Indonesia has huge mineral resources, in order to produce local battery, so it could bring EV prices more affordable
4. The private sector works hand-in-hand with PLN a state-owned enterprises to install charging stations nationwide, with additional price rates for chargers

Collaboration of all the stakeholder GLOBALY is the KEY to SUCCES of E-Mobility adoption

THANK YOU!

[E-Mobility Webinar Series: Lessons From an E-Mobility Readiness Project in Indonesia](https://www.youtube.com/watch?v=gtpBrZgHtSw&t=460s)
([youtube.com](https://www.youtube.com)) – (ADB Transport Youtube)
<https://www.youtube.com/watch?v=gtpBrZgHtSw&t=460s>

