

TUMI E-Bus Mission on Tour in Indonesia

Rohan S. Modi: 17th – 19th October 2022

After a successful tour to India, during the third week of October 2022 the TUMI tour arrived in Jakarta. Between 17th – 19th October, the TUMI E-Bus Mission partners led by WRI Indonesia, and ICLEI co-organized the **TUMI E-Bus Roadmap & Financing Workshop**.

1. TUMI E-Bus Roadmap and Financing Workshop in Jakarta



Photo: WRI Indonesia

The workshop aimed to bring all e-bus experts, relevant stakeholders (OEMs and financing agencies) and local governments to engage closely and discuss the strategy on e-bus adoption within the seven Network Cities and address two of the most common sectoral challenges i.e:

- E-Bus projects roadmap development / vision setting
- Long-term financing strategy

The workshop was opened with an opening address from Dr. Gede Pasek Suardika, Head of Transport Policy – *The Ministry of Transportation Indonesia*. In his opening remarks, Dr. Suardika emphasized that public fleet electrification is the fundamental area where the Government will be working to accelerate the EV transition across the country. Further, he elaborated on the current and near-term approach of the Ministry of Transportation and ensured to give complete support

to all e-bus stakeholders at policy and regulatory level for the upstream as well as downstream aspects of e-bus projects.



Photo: WRI Indonesia

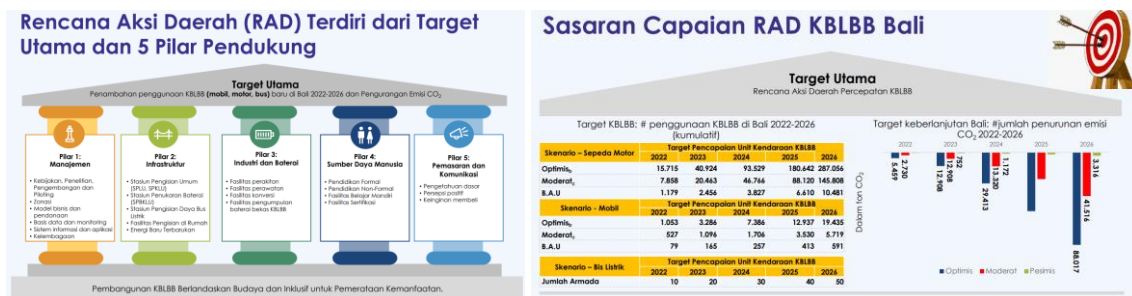
1.1. Day 1

The first day focused on the peer-to-peer learning / city dialogue with an objective to provide a platform to Jakarta and seven other Network Cities (Bandung, Bogor, Denpasar, Medan, Palembang, Pekanbaru and Semarang) to share their experience and discuss on the potential local

government roles in accelerating the public bus fleet electrification. Further, UITP facilitated a guided discussion between the cities and the private sector.

The day progressed with three thoughtful presentations from city & federal government and was followed by a panel discussion.

- i. **Bali Transport Agency** informed on:
 - a. five strategic pillars to accelerate e-mobility in Bali.
 - b. launch of the E-Mobility Regional Action Plan 2022–2026.
 - c. the provincial level targets of 50 e-buses, 145.000 E2Ws and 5000 e-cars by 2026.
 - d. how could the effects of pollution created by tourists be mitigated using EVs?
 - e. budget of Regional Action Plan and need to figure out how to better raise and optimally distribute funding.
 - f. possible effect of EVs on tax revenue.

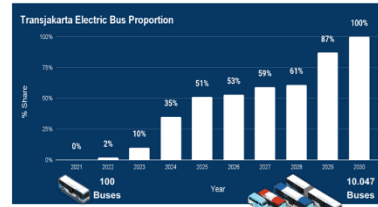


- ii. **Jakarta Transport Agency** elaborated on:
 - a. how the local government is working towards changing the current city paradigm from car-oriented city towards a more positive i.e. transit-oriented city.
 - b. learnings from the pilot project of 30 e-buses.
 - c. monitoring and evaluation practices.
 - d. introduction of 30 different type incentives to support e-buses.
 - e. E-bus project business models and charging strategies.
 - f. some key technology centric as well OEMs/operator centric contractual challenges.

Transjakarta Overview



Electrification Roadmap



- 2022 - 2023**
- Low Entry Buses
 - Electrification Bus Low-Entry 12-meter
 - On-depot charging station (overnight charging)
 - Medium Low-Entry Buses
 - Electrification medium of 8-meter
 - On-depot and on-Terminal charging station
- 2023 - 2025**
- High-Floor BRT Buses
 - Electrification High-Floor BRT 12-meter per corridor
 - On-depot and on-Terminal charging station
 - Microtransit
 - Electrification microbuses of 5 meter
 - On-depot charging station
- 2025 - 2030**
- Retrofitting Existing Buses
 - Retrofitting plan for existing diesel/CNG Transjakarta buses

iii. Ministry of Transport – Indonesia presented on:

- how are private vehicles creating serious air quality problems for metropolitan cities?
- Presidential regulation no. 55/2019 to accelerate EV adoption in the country.
- Government targets for e-bus deployment in 10 cities.
- details of pilot projects in the cities of:
 - Bandung: 1 corridor | 14 e-buses
 - Surabaya: 2 corridors | 39 e-buses

Finally, the panel discussion led by WRI Indonesia on the topic of *E-Bus Procurement and Financing Options* witnessed the participation of Indonesian Ministry of Finance, *Indonesia Infrastructure Guarantee Fund (IIGF)*, *PT Sarana Multi Infrastruktur (PT SMI)*, *Millenium Challenge Corporation (MCC)*, *International Finance Corporation (IFC)*, *Kreditanstalt für Wiederaufbau (KfW)* and *Institute for Transportation and Development Policy (ITDP)* Indonesia.



Photos: WRI Indonesia



In the second half of the first day, UITP facilitated an engaging discussion between the cities, OEMs and e-bus operators. The discussions were initiated with three presentations from PT.

Industri Kereta Api (INKA); PT. Mobil Anak Bangsa (MAB); PT TRANSISI Enjining and was followed by a Q&A round. The companies shared about their:

- products
- collaborations between industry, government and academia
- offerings of different e-bus operations models
- potential EV markets apart from the public transport sector

1.2. Day 2

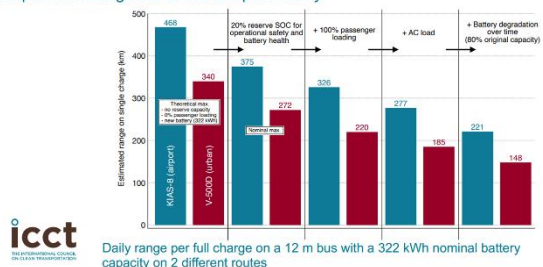
The second day of the workshop was co-led by the experts from TUMI #eBusMission partners WRI, ICCT and C40 cities. The day focused on themes like how to develop long-term E-Bus Roadmap and identify the financing needs for the projects/program.

The day started with presentations of key topics like:

- a. How to Adopt E-Bus?
By Dan Welch, Manager Global E-Mobility | WRI
- b. E-Bus Business Models & Innovative Finance
By Margarita Parra, Director of Transport and International Programs – Clean Energy Works
- c. Route Level TCO Analysis
By Adhi Triatmojo, Researcher – ICCT
- d. E-Bus Legal Aspects
By Lusanda Madikizela, Senior Programme Manager – C40 Cities

Factors that influence electric bus range should be considered when determining route deployment

Example from Bangalore E-bus adoption study



Business Models

Actors/ Roles and Responsibilities	Operators (public or private)	Public sector	Bus Manufacturer	Energy Company	Other private actors
Ownership of the vehicles/batteries	X	X	X	X	X
Maintenance	X		X		X
Operation	X				
Depot	X	X			X
Ownership of Charging infrastructure	X	X	X	X	X
Maintenance of charging infrastructure	X	X	X	X	X

The second half the day shifted to a World Café Discussion format. Here based on the e-bus adoption progress, the seven cities were grouped in four teams. Each group, supported by a facilitator, undertook an exercise to formulate a mini roadmap related to e-bus implementation in their respective cities by describing the existing conditions, gaps, root causes, and solutions for

each root cause. Post the exercise/discussion session, each group presented the results in front of all workshop participants.

The exercise highlighted and recommended that a strong political will, awareness among stakeholders & authorities and training related to e-bus financing are some of the key topics for a successful e-bus roadmap development.



Photos: WRI Indonesia

1.3. Day 3

On the final day, the TUMI E-Bus Mission partner ICLEI led a study trip to Transjakarta e-bus depots, and the participants also hopped on to an e-bus on BRT and non-BRT routes. They

learned about the Transjakarta Electrification program in detailed and about e-bus operations and maintenance practices from Mayasari Bakti, one of the e-bus operators for Transjakarta.



Photo: WRI Indonesia

Thank you to the contributions of WRI Indonesia.

Thank you to our TUMI E-Bus Mission Partners:

