

E-mobility



OVERVIEW

The C40 Cities Finance Facility is supporting Jakarta to conduct an e-bus trial in the city. Transjakarta (TJ), the public transport company for Jakarta, will incorporate a fleet of 100 e-buses in its network to create a foundation for the city's long-standing efforts to provide sustainable mobility in the city and improve air quality. The project also contributes to Jakarta's target of reaching a modal share of 60% in public transport and electrifying 50% of TJ's fleet by 2025.

Jakarta is a signatory of C40's Green and Healthy Streets declaration, and mass transit electrification is amongst the declaration commitments made by the city.

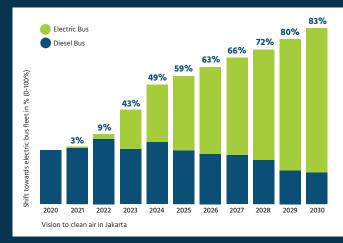


Figure 1: TransJakarta's Electrification Plan. Source: TransJakarta, 2020

Implementing agency

- PT. Transportasi Jakarta (TransJakarta)
- The Provincial Government of DKI Jakarta

Timeline

Q3 2020

Project Preparation

September: Financial Feasibility Study

October: Technical Feasibility Study & Business Case

December: Preparation of Procurement

Documentation

2021

Procurement

January & May: Procurement Process of e-bus trial split into two batches

February & May: Contract Award

April & July: Financial Closure

Start of Operation

Key Climate Impacts & Development Outcomes



Average annual GHG emission reduction (2021-2030): 3,349 tCO₂e



Cumulative GHG emission reductions over the project horizon (2021-2050): 100,461 tCO_{.e}



Jakarta aims to achieve a transport modal share of 60% by 2030



Electrifying 50% of TJ's fleet by 2025



Electrification of TJ fleet could save up to 0.21 µg/m3 from PM2.5 concentration, 58 annual premature deaths averted and 975 Life Years (LY) gained



Traveling comfort, improved air quality, less noise, traffic reduction and operational & maintenance cost are reduced



Investment Structure

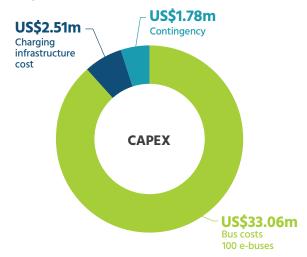
Proposed Procurement Method

- PPP: Gross Cost Contract
- Length of concession: 7 years
- Type of tender: Open tender via DKI Jakarta

The procurement of e-buses and charging infrastructure will be made by bus operators in Jakarta. TransJakarta will pursue a Gross Cost Contract, anticipating subsidies from DKI Jakarta.

▶ Total CAPEX

US\$37.35 million



♠ Annual OPEX

USD 4 million (IDR 56,890 million) per year for 100 e-buses. For a seven-year contract period, the average OPEX per year for selected e-bus routes is about 20% less than for diesel bus.

TRANSJAKARTA ECTRIC VEHICLE

Proposed Funding

- 1. TJ's funding sources are:
 - DKI Jakarta subsidies
 - Fare-box revenue
 - Advertising revenue
- 2. Bus operators funding source is IDR/km provided by TJ.

Readiness Issues

Renewable energy (RE) is in its infancy in Indonesia. Increasing RE will have significant impact on GHG reduction related to the e-bus transition.

Legal

- DKI Jakarta Mid-Term Development Plan 2017-2022
- Presidential Regulation 55-2019 (Acceleration of batteryelectric vehicles for road transport)

CFF Support Summary

- Stakeholder and Project Management to reach financial and technical readiness of the e-bus trial project
- Advice on technical and economic parameters of e-bus operations
- Gender Analysis and Co-Benefit Analysis determining economic, health, and air quality benefits
- Procurement Strategy for 100 e-bus trial
- Capacity Development activities for city officials on key topics relevant to Project Preparation and Implementation

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