

TVDE

E-Bus Procurement



OVERVIEW

Guadalajara's Metropolitan Area comprises almost 5 million people, making it the third (INEGI Census, 2021) largest city in Mexico. To address the mobility challenges in the region, the State Government of Jalisco started the construction of a large-scale Bus Rapid Transit (BRT) system for the city in 2019 – the emblematic project "Mi Macro Periférico". The new system will require the rearrangement of several existing bus routes and the implementation of new feeder routes. The CFF is supporting the Metropolitan Area of Guadalajara in the technical and financial preparation of a feeder bus corridor for "Mi Macro Periférico". The corridor is 42.2 km in length, serving an estimated 12,000 users a day. Additionally, the feeder routes will extend the BRT system, extending service to Guadalajara's International Airport and the Public State University CUT Tonalá Campus.

The new feeder route will contribute to the transition towards cleaner technology for public transit, not only in Guadalajara, but all over Mexico.

Implementing Agency

Secretary of Transport (SETRANS) Jalisco Government

Timeline



Jul 2021 Sta

Start of Operation

Key Climate Impacts

Feeder Route numbers:

- 12,000 passengers per day / 4.9 million people each year
- 42.2 km length
- 30 electric buses / each 12 metres with a capacity of 80 people
- Battery capacity: 370 Kwh
- Connection between International Airport, State University CUT Campus and Mi Macro Periferico BRT at Belisario Station

Development Outcomes

- Increased connectivity through an expansion of public transportation services in the eastern areas of Guadalajara, providing 20% of the population with access to public transit
- Improved air, health and life quality for users and residents in the area of influence
- Connection of low-income neighbourhoods to the transit system

Greenhouse Gas Emissions saving:



Projected GHG reduction per year (average 2030-2050): 1,344 tCO_{.e}



Projected cumulative GHG reductions for years 2020-2050: **47,731 tCO**,e



Procurement Method

Public Procurement

Investment Summary

CAPEX: 16.7 MILLION EUR

NEEDS TO BE FINANCED:

30 Buses: 40 x 336,365 EUR • 10,090,971.63 EUR

Charging Infrastructure: 15 units x 47,268 EUR

• 709,024.20 EUR

Depot refurbishment: 2.1 M EUR

D OPEX costs: 1 million € per year

SETRANS will procure 40 new electric buses and the corresponding charging infrastructure. Based on the recommendations provided, Jalisco is preparing a suitable depot with the required infrastructure. The depot will be located in the university campus (CUT Tonala).

This project will only have state economic participation, that is to say, all investment will be public. Likewise, the operation will be in charge of the public entity SITEUR, which in turn will subcontract drivers and the necessary personnel for the correct operation of the route.

Readiness Issues

- COVID-19 has had significant impacts on public transit worldwide, reducing ridership and consequently fare revenues for cities
- In order to start the public bidding process, it will be necessary to update the technology available in the local context, as well as new services offered by manufacturers (i.e. guarantees, maintenance, training, etc.)

CFF Support Summary

- Developing necessary feasibility studies and business models for the procurement of e-buses
- Employing a dedicated technical advisor in the city administration
- Financing the institutional, mobility and financial studies, integrating them into a procurement package
- Developing specific depot design and implementation recommendations
- Developing recommendations to include the gender perspective in Guadalajara's public transport operation and planning

- Exploring potential financing and funding structures for the construction and operation of the bus corridor
- Supporting the structuring of the tender process
- Providing capacity development activities for city officials on key topics relevant to project preparation and implementation
- Analysing and comparing available zero-emission bus technologies using including the development of a total cost of ownership tool for determining future projects
- Facilitating the approach to the electric bus manufacturing and energy supply industries for the knowledge of the currently available technology

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