



CFF IMPACT BRIEF | Eje 8 Sur Bus Corridor

Mexico City's New Era of Trolleybuses

The C40 Cities Finance Facility has supported Mexico City to prepare and finance a new low emission corridor - Eje 8 Sur. Traversing the city from centre to outskirts, this 15,7 km-long bus corridor aims to provide residents from low- and middle-income neighbourhoods with a reliable, zero-emission alternative to private transport.



The project proved the need for expansion of the electric trolleybus fleet in Mexico City, paving the way for other cities to shift their bus fleet to low or zero emission technologies.



"Mexico City was so late working on electric mobility at that time and the new planning office at SEMOVI had too few resources. Receiving CFF support for the Eje 8 Sur was the perfect opportunity to finally start working on that sector."

LAURA BALLESTEROS

Former Sub-Secretary
Secretariat of Mobility
Mexico City



City profile



POPULATION:

City: 8.91 million (2015)

Metropolis: 20.89 million (2015)



PROJECT SCALE:

15.7km bus corridor

50+ new e-buses



**TOTAL REPORTED GHG
EMISSIONS IN THE CITY:**

30.2 MT CO₂e per year



Project Outcomes - with CFF support, Mexico City prepared and structured the procurement of e-buses for the Eje 8 Sur Corridor

The project will significantly reduce transport emissions, improving air quality and contribute to a green recovery



INVESTMENT CAPITAL TO BE
LEVERAGED (USD)

119,000,000



PROJECTED GHG EMISSIONS
REDUCTIONS (CUMULATIVE) CO₂e

875,000



DAILY TRIPS ON
BUS CORRIDOR

98,000



A technically-sound, finance-ready project for a 15.7km e-bus corridor providing connections with four Metro lines and one Metrobus BRT line. The project proposal was reviewed by the Secretariat of Mobility in October 2018 and measures for Eje 8 were announced by the new Mayor. The comprehensive set of feasibility and financial models discussed included public-private and fully publicly-financed options.



Improved capacities and skills of the city administration to plan e-bus projects, to select the appropriate technology and to develop sound business models. Overall, 30+ city officials from 5+ city departments learned to address barriers around project scoping and participatory planning through workshops, trainings and field-trips.



A gender-responsive project concept that puts disaggregated mobility data in the centre of planning and implementation. The concept includes specific zones reserved for women within buses, and illuminated paths to and from bus stations to improve safety and security. In addition, feeder connections to other types of transportation improve security, especially in the early morning or late-night hours.



Shared learnings with 40+ officials from 9 Mexican cities and states. Published knowledge products and learning formats with contributions to 10+ practitioner meetings and policy dialogues with over 200+ participants from national governments, financial institutions, civil society, academia and the private sector. The CFF's e-Bus Cluster established in 2018 has created better communication between city administrations in Hermosillo, Monterrey, and Guadalajara benefitting from the experience of Eje 8 Sur.



Built a consistent strategic dialogue to forge strong alliances and partnerships, with stakeholders, financial institutions and civil society. Those include exchanges with development banks including KfW, CAF, World Bank, the European Investment Bank and Mexico's national development bank BANOBRAS.

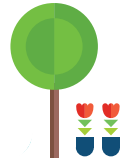
Solid technology for scaled-up city climate action

- By end of 2020, over 50 buses will be in place and run on the new corridor – cutting tailpipe GHG emissions to zero and reducing overall GHG emissions by more than 68% compared to diesel buses.
- Together with the city's project team, the CFF developed a sound assessment that compared various technological options for buses on Eje 8 Sur. The study proved that integrating environmental impacts into the analysis can drastically change the total cost of operation and allow for consideration of greener bus technologies.
- The CFF's technological assessment recommended the city retains its tradition of trolleybuses but using the newest e-bus technologies.



Signs of Transformation – preparing and financing a zero-emission bus project in Mexico

The CFF creates impacts and transformative change beyond its projects - supporting shifts in the systems of cities that enable access to finance and further climate action. With our partners, we strive to make urban mobility emission free!



■ SHAPING THE CITY'S MOBILITY AGENDA

"The CFF opened a new discussion in Mexico. Through this project several private and public institutions became involved to discuss strategies to push the topic of e-mobility on the city's agenda. This again created interest in finding technical and financial assistance for similar projects."

Andres Chavez

Senior Financial Expert and CFF consultant for the project's technology study

■ STRENGTHENING GOVERNANCE STRUCTURES

"For projects like Eje 8 it is a big challenge to move the many stakeholders involved. The CFF helped to establish a much more fluent conversation among actors and reminded them of the joint objectives."

Alberto Marin

Senior Urban Mobility Planner at IDOM and CFF consultant for the project's mobility study.

■ SHIFTING MINDSETS

"It was because of the project that there was a change of perception towards moving forward with electric trolley buses. Not only in Mexico. Many other local governments are currently analysing the potential as a result of the discourse around this project."

Antonio Huerta

Financial Expert, Mexico City and CFF consultant for the project's financial model

■ MOVING FORWARD

"I believe that the CFF's cooperation provided the necessary advice and resources to push forward the city's vision on e-mobility. The work on the project also showed the demand of a city-wide, as well as nation-wide, mobility strategy which, for example, rolls out the design and sustainability standards applied to the Eje 8 Sur corridor."

Ivan Islas

Senior Manager, Carbon Trust and CFF consultant for the electromobility strategy for Mexico City



"CFF support was super important not only for Eje 8 but also for the department's entire mobility agenda. They helped us building technical as well as internal capacities and strengthened our agenda-setting."

Laura Ballesteros

Former Sub-Secretary
Secretariat of Mobility
Mexico City



"The support of the CFF opened the city's eyes to the Eje 8 Sur Corridor, a very important corridor of high demand that would attend an area of the city which had been abandoned. Today, the Eje 8 is a priority project for our head of government."

Guillermo Calderón

Director
Electric Transport Service (STE)
Mexico City



"The CFF helped Mexico City to have a greater vision of the financial opportunities that exist, both nationally and internationally."

Erika Kulpa

Former Transport Advisor,
Secretariat of Mobility (SEMOVI)
Mexico City



"There was a great coordination between all the agencies involved and the studies were technically very solid. This is something we should replicate on any project that we conduct. To always try to incorporate all the relevant stakeholders."

Amado Crotte

Transport Advisor
Inter-American Development Bank
Mexico City

KEY CHALLENGES

- The important role of transport unions and private operators on Eje 8 Sur created a complex political environment with different stakeholders pushing different visions. The CFF supported the city to decide on a financial and operational model for the corridor that considered Eje 8 Sur's complexity.
- Initially, the new administration set out its new transport priorities, which represented a clear break from the previous administration. The CFF promoted the project's relevance within this new mobility agenda, building ownership to ensure project continuity.

LESSONS LEARNED

- Building city ownership and political support is crucial since transport projects often extend beyond electoral terms
- A clear and joint understanding of roles and responsibilities of the CFF advisors as well as the city's project department have been key success factors for an effective cooperation. This requires significant time and resource allocation.
- The initial project work plan did not account for political events and diverging timelines of consultancies. Adjusting the cooperation window to these external risks and framework conditions was crucial.

BEST PRACTICES

- Facilitating better correspondence and coordination between city agencies and engaging various stakeholders helps broadening support for the project and securing political ownership.
- Strengthened capacities are key to ensure continuity of the sustainable mobility agenda irrespective of changes in the administration. Constant feedback and conversations with the city were vital to underline the benefits of the project for key actors.
- The technological analysis showcased why bus procurement decisions must be based on the total cost of ownership of the bus to avoid choosing diesel technologies because of their lower upfront costs. Integrating environmental impacts into technology assessments can thus drastically change the total cost of ownership comparisons and allow for consideration of alternative bus technologies.

OUTLOOK

- Key results derived from the technological analysis shall be presented in a web-based tool to be of used for other city administrations in Mexico and Latin America.
- STE (Servicio de Transportes Eléctricos) is seeking the acquisition of in total 500 new electric trolleybuses for the entire bus fleet before the end of the current administration (2024).



"The CFF's demand study is a very good basis for the city's mobility agenda in the next years. Even when the city modified their vision for Eje 8, they used the results of the study as a reference. I believe this project is very good for the city and will provide initial data for other projects, too."

Alberto Marin

Senior Urban Mobility Planner at IDOM and CFF consultant for the project's mobility study.

