THE ROUTE TO ELECTROMOBILITY
METROBUS, Mexico City

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Mexico City BRT public transportation system.
Mexico City Integrated Mobility

One city, one system.

Metro
Metrobus
Trolley Buses
RTP

Eco-bikes
Cablebus
Concessioned bus network
CETRAM

MOVILIDAD INTEGRADA DE LA CIUDAD DE MÉXICO
UNA CIUDAD, UN SISTEMA
Metrobus System

7  Lines
16  Operating companies
164 km  Route extension
251  Stations
25  Terminals
1.7  Million passengers
Metrobus Bus Fleet

- 158 Bi Articulated (24 m)
- 438 Articulated (18 m)
- 90 Double decker
- 70 12 m
- 20 15 m
- 10 Electric (18 m)

786 buses
Defining of a 10-year plan (2020-2030)

1. Route selection criteria for the pilot phase.
2. Programmed progressive fleet replacement.
3. Selection of electric bus technology.
4. Charging infrastructure and energy supply.
10 Year Plan to Electromobility

Fleet Renewal Plan (2022 – 2030)

Pilot phase (2020 – 2021)

First electric fleet (2022)

- **Line 3**
  - August 2020
  - 1st electric bus

- **Line 3**
  - August 2021
  - Arrival of 9 buses

- **Line 4**
  - October 2021
  - 3 test buses

- **Line 3**
  - December 2022
  - Start of operation of first 60 buses fleet

- **Line 4**
  - December 2023
  - +60 electric buses

100% of the system is electric
Initial considerations:

1. Design of the technical specifications for the buses.

2. Look for technically and economically viable alternatives.

3. Determine the financing mechanism that would make the project viable.
We achieved interest from technology suppliers.

We have technical support from international organizations.
Challenges

• Charging infrastructure is one of the biggest challenges.
• Renewing the system is a time challenge.
• Traditional financing does not work.
• Integration of the operating companies in the project.
• An electric bus must be custom-designed.
Findings

- Operational savings due to fuel consumption of around 75%.
- 30% savings in maintenance costs.
- Over its lifetime, the electric bus is 33% cheaper than the diesel bus.
Lessons learned

- Electromobility is not a model exclusively for small wealthy cities.
- Long-term planning is key to good performance.
- The role of local governments is fundamental.
- Integration guarantees success.
- Be open to change.
Thank you.

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