



Creating Markets, Creating Opportunities



Accelerating Electric Bus Adoption

Why Electric Buses?

A market transition to electric buses is already underway. According to [BNEF](#), more than 40 percent of all buses sold globally in 2020 were electric. By 2040, that proportion is expected to rise to 80 percent.

Electric buses offer several advantages:

- Electrification reduces air and noise pollution, cuts reliance on imported fossil fuels, increases passenger comfort, and reduces carbon emissions.
- Electric buses are already cost competitive on a total cost of ownership (TCO) basis in some cities because of their lower operations, maintenance, and fuel costs.
- Decreasing battery costs are making electric transit options increasingly affordable.

The Challenge

Public transit electrification can pose challenges for cities:

- Up-front costs can be high and TCO can be challenging to estimate.
- Operators of Internal Combustion Engine (ICE) buses may lack the specialized technical knowledge to select the right buses, batteries, and charging station specifications.
- It can be difficult to integrate electric bus services into existing operational models.
- Business models and regulations suitable for traditional buses may not be appropriate for electric buses.

IFC's Capabilities

As an experienced partner, IFC has the capacity to partner with cities as they integrate electric buses into their transit operations.



IFC has developed a deep understanding of public transit electrification through projects in major emerging markets.



IFC can be a single source for advisory services and investment products, simplifying the transition process.



IFC helps cities identify, implement, and finance electric bus solutions for specific operational, institutional, financial, and regulatory contexts.



IFC can mobilize additional partners, including technical advisors, investors, and donors to design and deliver comprehensive support packages with highly attractive conditions.

IFC's Electric Bus Toolkit

IFC offers a systemic approach to help its partners plan, deliver, and manage operationally feasible and commercially viable electric bus projects, from idea to scale-up:

- 1 PRELIMINARY ASSESSMENT.** After initial discussions between clients and IFC, IFC undertakes a preliminary assessment of project needs and develops tailored support packages.
- 2 BUSINESS MODEL ASSESSMENT.** IFC provides guidance on structuring bankable business models and regulations, allocating responsibilities fairly between stakeholders.
- 3 TECHNICAL & FINANCIAL FEASIBILITY ASSESSMENT.** Through an in-depth technical-commercial feasibility analysis of actual routes and operations, IFC can help to identify the optimal electric bus and supporting infrastructure specifications that fulfill operational needs at the lowest TCO.
- 4 OPERATIONS ASSESSMENT.** IFC can help build necessary operational capabilities in areas such as e-bus scheduling, charging, and maintenance, and by delivering driver and staff training.
- 5 PROCUREMENT GUIDANCE.** IFC can help design and conduct electric bus procurement tenders, in accordance with best practices for international procurement to achieve the best value for money.
- 6 INVESTMENT.** IFC can offer tailored and attractive financing solutions, including mobilizing blended concessional finance.
- 7 PILOT (OPTIONAL).** IFC can assist in conducting and evaluating pilot operations.
- 8 PROJECT IMPLEMENTATION SUPPORT.** IFC can provide additional services to optimize project sustainability, for example to monitor implementation, integrate gender considerations, restructure routes or include captive renewable energy generation.

The eight sample steps shown above can be implemented in different sequences, depending on specific project needs. Steps also can be omitted or occur concurrently, depending on the situation.

Who can benefit from IFC's expertise?



Cities and other subnational entities



Public transport authorities



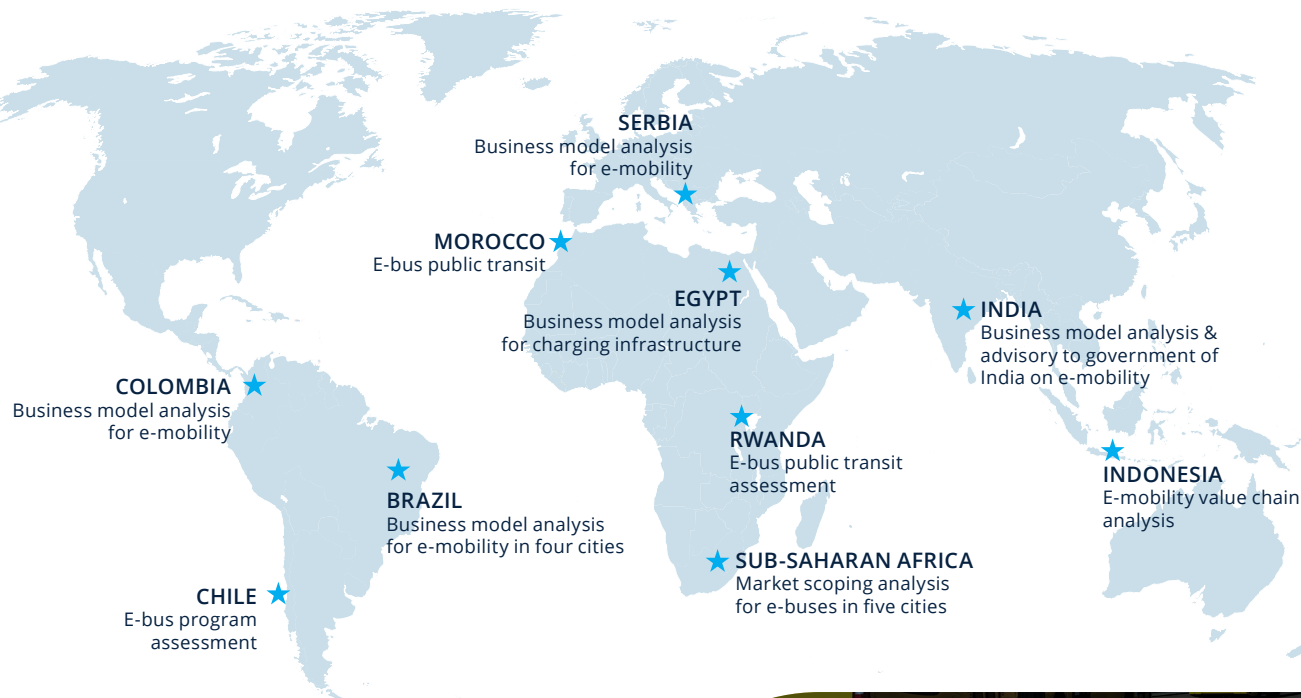
Fleet operators



Asset owners such as entities that own and lease electric buses, depots, and charging infrastructure



IFC's Global Electric Bus Projects and Initiatives



FOR MORE INFORMATION,
PLEASE VISIT

www.ifc.org/emobility

www.ifc.org/transportation

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