CREATING AN ENABLING ENVIRONMENT FOR PRIVATE INVESTMENT IN ELECTRIC MOBILITY

Insights on IFC's support for market creation and early-stage project development

IFC International Finance Corporation
WORLD BANK GROUP

Creating Markets, Creating Opportunities

Enhancing mobility for people and goods is a key driver of economic growth and access to opportunities in emerging markets. However, transportation is also a carbon-intensive activity that generates greenhouse gas (GHG) emissions and local pollutants. Making transportation sustainable will require scaling up public and private investment in transportation methods which use little or no fossil fuel. Electric mobility (e-mobility) offers an attractive solution in many regions. IFC supports the development and scale up of investments in e-mobility in emerging markets, bringing the world closer to a low-carbon future.

IFC seeks early engagement with both public and private entities to develop new private investment opportunities in e-mobility. Our partnerships help fill in market gaps and remove legal and regulatory barriers. Over the last two years, IFC has supported public and private clients through the implementation of multiple early-stage and pre-investment projects to develop investment opportunities in the sector. These e-mobility projects have encompassed a wide range of preparatory activities such as market assessments, identification of enabling reforms, and business model development. IFC has also supported investment project preparation and piloting.

This five-part Knowledge Series "Scaling Up E-mobility" illustrates IFC's early-stage work to develop new private investments in e-mobility. The series presents IFC's experience addressing market gaps and creating new investment opportunities in four e-mobility segments: charging infrastructure, electric two-wheelers and three-wheelers, battery-electric buses, and last-mile transport services.

What are the market gaps?

Scaling up private investment in electric mobility faces several barriers in developed and developing countries alike. These challenges include the higher capital cost of electric vehicles (EVs) as well as barriers to adoption posed by limited or non-existent charging networks. There is a need to generate strong signals for demand and to further adapt the public transit system to allow the introduction of this novel technology.

Supporting government policies and regulations can help reduce barriers, nurturing the industry toward self-sustainability. Both the level of ambition and stability in the policy environment are important. In developed countries, most policies have focused on fiscal incentives designed to reduce the price gap between EVs and conventional vehicles, such as purchase subsidies and/or tax rebates. These measures have been implemented in countries such as Norway, Austria, the Netherlands, the United States and China.

Several governments have now committed to completely phasing out internal combustion engine (ICE) car sales over the next 10 to 30 years or have announced net-zero pledges. More than 20 countries have electrification targets or ICE bans for cars, and more than eight countries have made net-zero pledges.

After the price gap, increasing the availability of public charging points is a key tool for kickstarting the e-mobility market. Many governments have tried to address this challenge through public funding or subsidies for the development of charging infrastructure. However, they have not always provided this support in a coordinated manner, nor with appropriate regulations for optimizing the location of public chargers and avoiding redundancy and interoperability issues.

Addressing issues beyond the cost and convenience of EVs, some governments have established regulations tightening fuel economy and tailpipe emissions standards. A few European countries, as well as the US state of California, have set mandatory targets for EV sales. Several governments have now committed to completely phasing out internal combustion engine (ICE) car sales over the next 10 to 30 years or have announced net-zero pledges. More than 20 countries have electrification targets or ICE bans for cars, and more than eight countries have made net-zero pledges.

However, in many developing countries, there are still no planning or strategic frameworks to promote investments in e-mobility. Many of the policies that have been adopted in developing countries could be optimized by applying the knowledge which emerged during early e-mobility efforts in developed countries.

What is IFC doing to address these gaps?

Although each country presents different challenges, the first step in the establishment of an enabling framework is usually the development of a national e-mobility master plan and enabling regulations. IFC is engaged in multiple advisory and technical assistance projects focused on producing policy, legal and regulatory framework recommendations to ease the transition to e-mobility. These projects have each identified actions that emerging market governments can take to increase the uptake of e-mobility.

In ***Indonesia***, IFC identified critical regulations and policies related to supply, enabling factors, and demand to promote voluntary EV adoption. On the supply side, an IFC-led study identified fiscal incentives for EV production and assembly to boost the EV ecosystem. On the enabling side, IFC identified regulations mandating or incentivizing the installation of charging infrastructure as part of building code requirements, and procurement of public charging infrastructure projects. Finally, on the demand side, the study identified fiscal incentives to reduce the cost of EVs and increase the cost of ICE vehicles. It also highlighted mandates for EV adoption by government entities, state-owned enterprises, and fleet operators.

In ***Serbia***, IFC produced recommendations for amendments on various critical pieces of legislation. Legislative adjustments were recommended in the areas of procurement, construction, planning, energy, and transport areas, with a primary focus on promoting the development of charging infrastructure, including defining roles and responsibilities of each market player, standardizing vehicle and infrastructure components, and transposing EU legislative requirements regarding charging to enable international interoperability.

In ***Egypt***, an IFC study of charging infrastructure identified gaps in the enabling framework and opportunities where supportive policies would spur the growth of e-mobility. The study drew attention to non-economic incentives, such as improved fuel standards and electric vehicle mandates, as well as EV-friendly building and parking lot standards and the launch of EV procurement programs. These incentives and changes would complement existing measures like EV customs duty exemptions and fiscal incentives for local EV production.

In ***India***, the country already had a national policy to support the development of e-mobility, the Faster Adoption and Manufacturing of Hybrid and Electric Vehicles (FAME) program. Working together with the World Bank, IFC recommended additional policy actions prioritized according to their impact on the development of scalable private investment models. IFC and the World Bank recommended changes to the terms and conditions for the procurement of electric buses that resulted in important cost reductions. The BEST bus company of Mumbai adopted over 50 of these recommendations in the documentation for its most recent electric bus tender, resulting in 35 percent cost savings relative to the previous tender. The study team also provided recommendations for other market segments, including two-, three- and four-wheelers, and suggested harmonizing value added tax rates,

allowing battery swapping, and streamlining the EV registration process.

In ***Brazil***, IFC studied the regulatory changes needed to allow e-bus charging infrastructure and batteries to be added to the regulatory asset base of electric distribution companies in São Paulo. This change would have allowed for their cost to be recouped from electricity tariffs. It would have also lowered capital costs and increased cost recovery from urban transport fares, allowing cross subsidies between the transport and power sector.

In ***Uzbekistan***, IFC is supporting the government in preparing a Presidential Decree on E-Mobility. This decree will serve as the government's policy to support the development of e-mobility and focuses on the early uptake of EVs (personal and commercial), deployment of charging infrastructure, greening public transit, and localizing production of spare parts and potentially EV manufacturing.

In ***Kazakhstan***, IFC's assessment revealed regulatory gaps in charging infrastructure deployment, where technical standards do not allow for the deployment of charging infrastructure in residential complexes and parking facilities. The assessment also pointed to a lack of incentives for charging infrastructure deployment. IFC is engaging the government in addressing these policy issues.

IFC is engaging in policy, early-stage, and pre-investment activities to develop e-mobility investments in emerging markets. When it comes to the development of an enabling legal and regulatory environment, working in partnership with the World Bank, IFC can support the identification of policy and regulatory gaps, and development of supportive policies across different areas, including transportation, energy, urban development, and fiscal policy. IFC can also provide insights and share lessons from successful programs across the world that can be leveraged by new market entrants.

This series of notes on creating markets and investment opportunities in e-mobility also includes:

- **Charging Infrastructure Powers the Electric Mobility Transition**
- **Electric Buses: Finding the Right Business Model**
- **Starting Small but Aiming Big: Electric Two-wheelers and Three-wheelers**
- **Going the Last Mile in Electric Mobility**

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