



Barriers and Challenges around Policies and Measures

UNFCCC Mitigation Work Programme

2nd Global Dialogue
16 October 2023

FOCUS ON ELECTRIC BUSES

Mahua Acharya

Former MD and CEO, CESL,
Govt of India

Barriers and Challenges around Policies and Measures.

Moving from Own & Operate to Mobility as a Service for eBuses

Vehicles	Are there enough? Locally manufactured? Enough variation and choice?	5 major OEMs. Have to cope with supply orders. Raise funds against orders – expand. New ones got smaller orders.
Batteries	Industry is nascent Still heavy. People carrier vs battery carrier? Buses don't do the required KMs on single charge	Work with today's technology but plan for the future. Optimization to local conditions.
Operators	Not enough No financial capacity	WIP
Congestion	Optimal was 200km/day. Can't travel that much because traffic is slow.	Limit to 200/km – depot charging. Things may be different for NEW cities.
Charging infrastructure	Space limitations, funding limitations	Integrate into planning early on.
Grid capacity	Big batteries, fast charging – needs investment in	Same as above.

Barriers and Challenges around Policies and Measures. *Moving from Own & Operate to Mobility as a Service*

STU capacity	Traditional method is to own and operate. GCC models are new.	Build STU capacity – one step at a time.
Knowledge	Very little experience	Managed through a initial consultative process involving States, Ministries, OEMs.
Prices were perceived to be high	Federal subsidy offered initially. eBuses are 2x-3x higher than diesel.	Subsidy no longer needed. Gross Cost Contract model Aggregate demand
Financing	STUs are not creditworthy. Risk appetite of banks is limited.	WIP
No single Ministry in-charge	Institutional fragmentation	Each Ministry tasked. Centrally coordinated by PMO.
Transport is State matter	<u>Prices through aggregated tendering were 30% less than diesel.</u>	

But every barrier can be overcome – one focused step at a time.

-
- Yet, India has contracted over 20,000 electric buses to date.
 - Prices are 30% less than diesel.
 - A target of 50,000 was announced - this is well on its way.
 - All eBuses so far have been in the metro cities. But India has announced subsidies for smaller cities for 10,000 more eBuses
 - Financing needs are huge – almost USD 10Bn.
 - Risk mitigation instruments to bring in finance are being designed.
 - Banks, funds, OEMs very active.

Government is at the wheel! This is the more important “barrier removal” until eBuses become fully mainstream.