

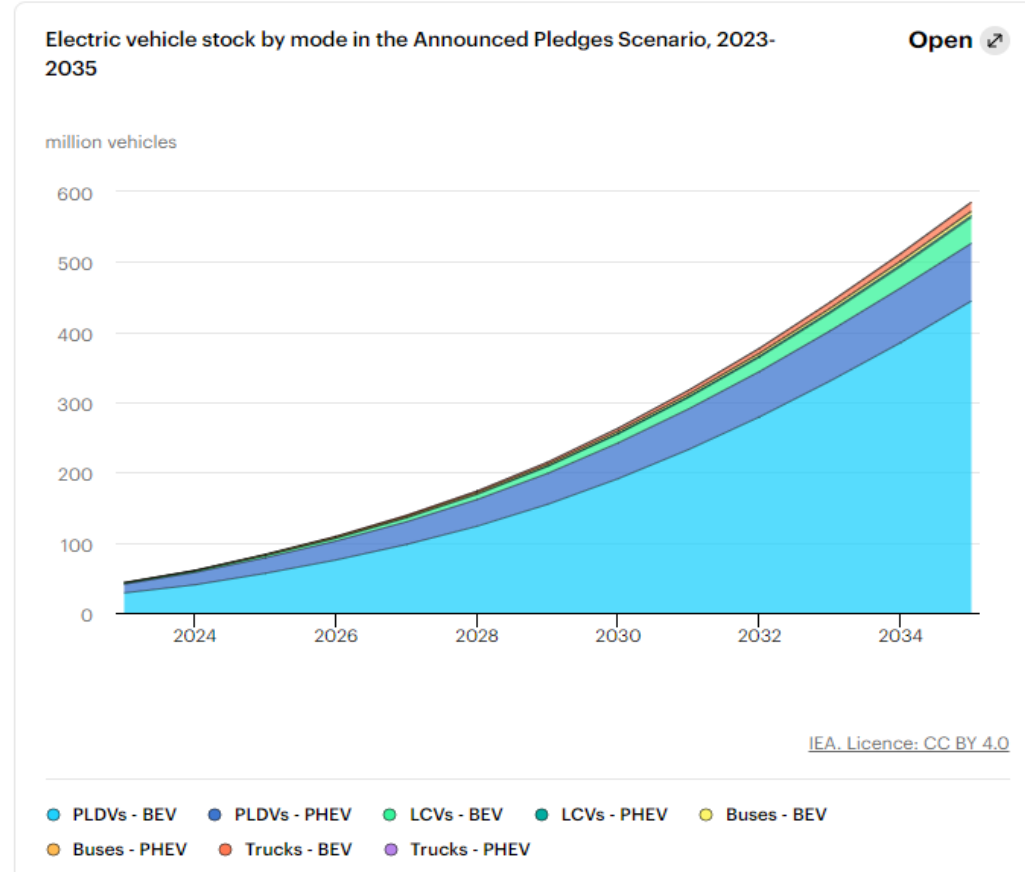
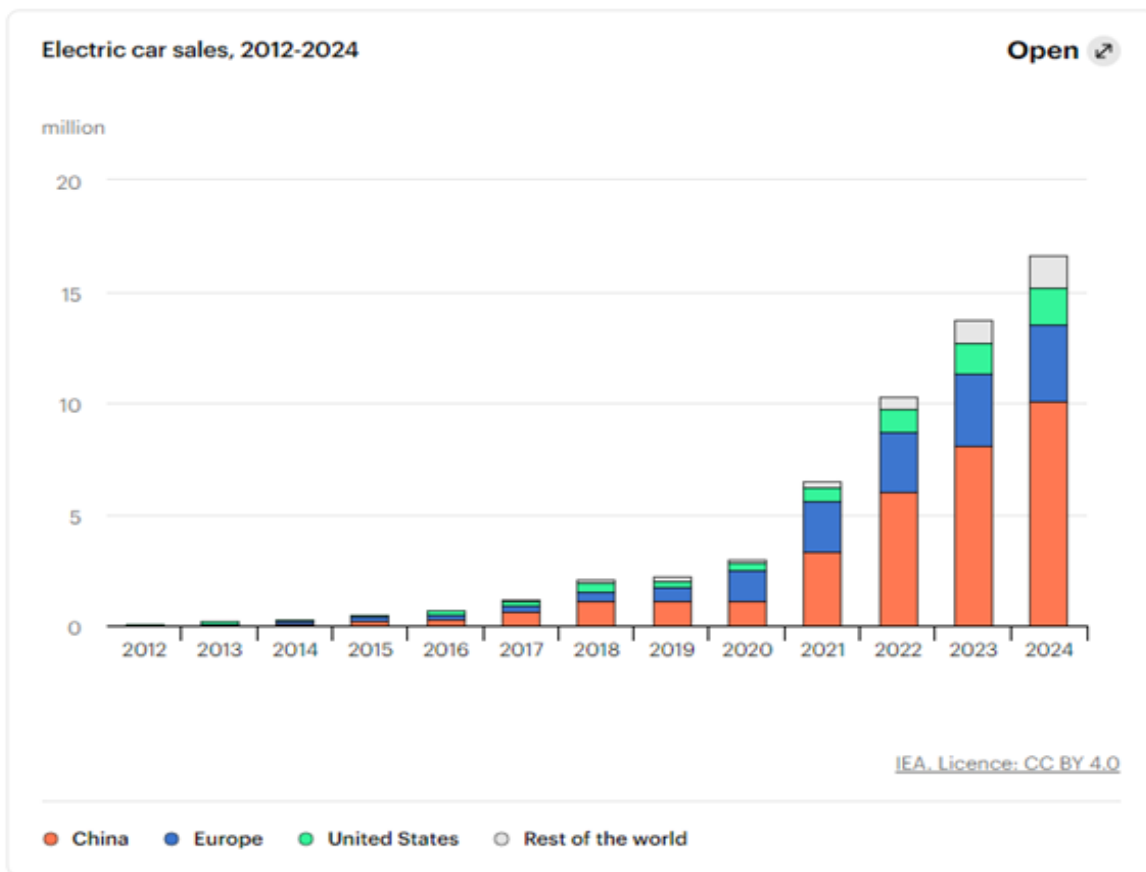
UNEP's Global Electric Mobility Programme



The Global Switch to Electric Vehicles has Started ...

Global Electric Vehicles Sales 2012-2024, IEA 2024

Predicted EV sales 2024-2034, IEA 2024



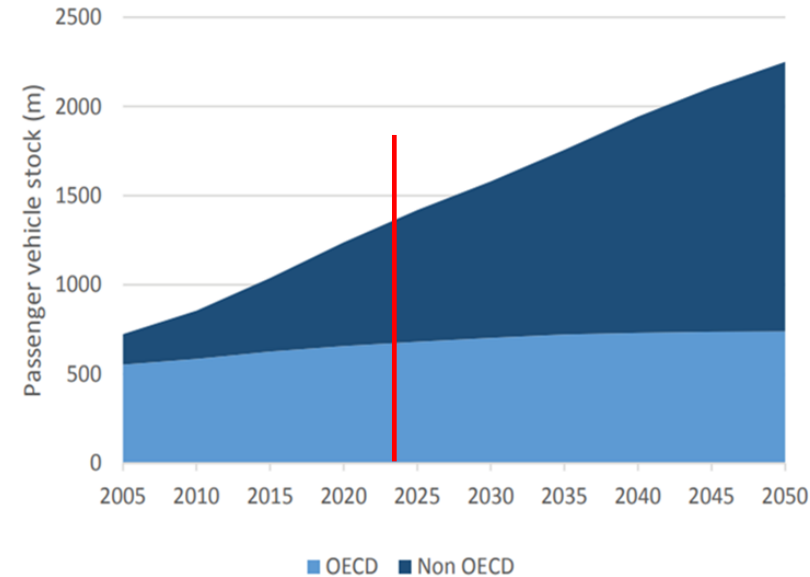
Need for a Global Transition

Replacement vs growth market

In 2050 three out of five vehicles will be found in global south

For example:

- Germany – 50 cars per 100 people (no more growth)...
- Kenya – 3 cars per 100 people...(car fleet doubles every ~8 years)



Electric vehicles would need to displace fossil-fuel powered passenger vehicles by 2035 - 2050 to remain in line with 1.5C consistent pathway... (IPCC 2018)

Importance for the Environment and UNEP

- Urban air pollution - no tailpipe emissions
- Climate emissions – over life significantly lower emissions than ICE (dependent on electricity)
- Noise pollution – EVs are silent
- Economic
 - Use local power
 - Green jobs
 - Cost savings
- UNEP MTS & POW
 - Pollution
 - Climate Change



Challenges for LMICs

- Awareness
 - Can this work in our countries?
- Technology
 - Access to products – like E-busses
 - Local production and assembly
 - Charging infrastructure
- Policy & Standards
 - Fiscal policies
 - Technical standards
 - National roadmaps
- Finance
 - Upfront cost
 - Access to finance



Opportunities for LMICs

- Leap frogging
 - Majority of the fleet is still coming!
 - Like E-BRT
- Local production & assembly
 - Green jobs
 - Youth employment
- Import oil vs local renewable power
 - Example - Ethiopia



UNEP supporting St Lucia with electric taxis, charging infrastructure, and a national policy framework

UNEP's Global Electric Mobility Programme

- To support low- and middle-income countries with a shift to electric mobility
- Country, regional and global level
 - National – 60 country projects
 - Regional – Support and Investment Platforms
 - Global – Working groups & Tools
- Combining national policies and roadmaps with pilot projects
- Support: GEF; EC; Germany; Foundations; + others
- Budget: technical support 130+mIn



UNEP is supporting the Philippines postal fleet to electrify 2&3 wheelers

Special Focus Areas

- Used Electric vehicles
 - Quality standards?
- Electrifying BRTs Africa
 - Avoiding diesel fleets
- Electric 2&3 wheelers
 - Low hanging fruit; local assembly
- Gender
 - Opportunity for gender action
- Finance
 - Working with finance institutions
- End of Life circularity
 - Reuse and recycling of EoL EV batteries



Global - Thematic Working Groups:

- Electric Light-Duty Vehicles (IEA)
- Electric Heavy-Duty Vehicles (UNEP)
- Electric 2&3 Wheelers (UNEP)
- Electric vehicle charging, grid integration, renewable power supply and batteries (IEA)

Regional – Investment and Support Platforms

Africa Support and Investment Platform (UNEP)



















































Asia & Pacific Support and Investment Platform (ADB)

Central & Eastern Europe, West Asia and Middle East Support and Investment Platform (EBRD)

Latin America and the Caribbean Support and Investment Platform (Centro de Movilidad Sostenible)

National – Country projects

60 Country Projects

Africa			Asia			Central & Eastern Europe, West Asia, Middle East			Latin America & the Caribbean		
Burundi		UNEP	Bangladesh		UNDP	Uzbekistan		UNDP	Antigua & Barbuda		UNEP
Cote d'Ivoire		UNEP	India		UNEP / ADB	Albania		UNIDO	Argentina		UNEP
Ethiopia		UNEP	Indonesia		UNDP	Ukraine		UNEP / EBRD	Belize		UNEP
Ghana		UNEP	Malaysia		UNIDO	Belarus		UNDP	Colombia		UNEP
Kenya		UNEP	Maldives		UNEP	Armenia		UNEP	Costa Rica		UNEP
Madagascar		UNEP	Nepal		UNEP / SOL+	Jordan		UNIDO	Chile		UNEP
Mauritius		UNDP	Philippines		UNEP / SOL+ / UNIDO				Dominican Republic		UNEP
Mozambique		UNEP	Sri Lanka		UNEP				Ecuador		UNEP / SOL+
Rwanda		UNEP / SOL+	Thailand		UNEP / UNIDO				El Salvador		UNEP
Senegal		UNEP	Viet Nam		UNEP / SOL+				Grenada		UNEP
Seychelles		UNEP							Guatemala		UNEP
Sierra Leone		UNEP							Honduras		UNEP
South Africa		DBSA							Jamaica		UNDP
Tanzania		UNEP / SOL+							Nicaragua		UNEP
Togo		UNEP							Panama		UNEP
Tunisia		UNIDO							Paraguay		UNEP
Uganda		UNEP							Peru		UNDP
Zambia		UNEP							St. Lucia		UNEP
									Uruguay		SOL+

About the Country Projects

- Carry out comprehensive *stakeholder consultations*
- Conduct feasibility *studies*, impact assessments and cost benefit analyses
- Establish *institutional* frameworks
- Develop e-mobility *policies, strategies* and roadmaps
- Pilot and *demonstrate* electric vehicles
- Develop business models and *finance* schemes, including access to finance



● UNEP
 ● UNDP
 ● SOL+
 ● DBSA
 ● UNIDO
 ● EBRD
 ● ADB

🚗 E-LDV
 🚌 E-Bus
 🚚 E-2&3W
 🚚 E-Freight
 🔌 Charging
 📋 Policy





Supporting the transition to electric bus fleets



Executing Agencies: Department of Land Transportation with support from UNEP

Project cost: USD 450K

Interventions: National e-mobility strategy, establishment of national e-mobility coordination body, development of e-mobility policies and regulations, procurement guidelines and business model for e-buses within SPTC, study on sustainability of e-mobility

Demo project: electric buses

Location: Victoria



Supporting policies for electric 2&3W, incl charging infrastructure

India



Executing Agencies: EESL, Niti Ayog, with support from UNEP and ADB

Project cost: USD 5.8 M (grant), USD160M (loan)

Interventions: Policy development, capacity building, financial schemes, business models, battery reuse and recycling, charging infrastructure

Demo project: charging network, 2Ws, 3Ws, and/or 4Ws

Location: 5 cities in India



Supporting policies for import of used electric vehicles, including batteries end-of-life



Executing Agency: Ministry of Energy with support from UNEP

Project cost: USD 3 mln

Interventions: Capacity building, policy development, national e-mobility strategy, inter-ministerial e-mobility coordination body, integrated e-mobility pilot, financial scheme for e-mobility upscaling, EV and battery EOL, RE power integration

Demo project: TBD

Location: TBD



Supporting the switch to electric taxi fleets in cities



Executing Agency: Ministry of Energy – Agency of Sustainability Energy

Project cost: USD 1,8 mln

Interventions: i) Institutionalization of low-carbon electric mobility, ii) e-mobility demonstration projects, iii) support the scale-up and replication of electric mobility projects, and iv) support the long-term sustainability of the electric mobility.

Demo project: demonstration of 56 electric taxis and 6 charging infrastructure.

Location: Antofagasta, Puerto Montt and Talca

Chile



Some Final Thoughts

- It will take decades to switch
- We also need to focus on cleaner fuels and vehicles at the interim
- We also need more public transport, better designed cities, more walking and cycling
- But change is coming
- And there are major opportunities to leapfrog, especially for countries that still have major fleet growth ahead of them



Thank you

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