ELECTRIC TRUCKS IN INDIA

Current Market, Best Practices and Policy Recommendations for Maharashtra



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I. Introduction

India's ambitious goal to decarbonize its transport sector depends significantly on prioritising public transport and freight systems. Moving freight is essential to India's economic growth and trucks are a critical part of logistics. India currently transports around 4.6 billion tonnes of freight annually at a fuel cost of Rs 9.5 lakh crores. The bulk of this freight, nearly 70%, is carried by road on trucks. Within this, Heavy Duty Trucks (HDTs) account for 76% of goods transported, followed by Medium Duty Trucks at 21%. By 2050, Heavy Duty Trucks are expected to carry 83% of all goods by road, amounting to nearly 8.4 trillion tonne-km of long haul freight.

As road freight continues to grow, the number of trucks plying on Indian roads and highways is expected to reach 17 million by 2050, from 4 million in 2022. This presents a huge opportunity for transitioning to zero emission electric trucks, without which this growth in the trucking sector will significantly contribute to air pollution, oil imports and carbon emissions. India's trucks already account for <u>28.25%</u> of all diesel consumed in India, leading to <u>53%</u> of total road transport emissions. Road freight accounts for more than 25% of oil import expenditure and is expected to grow over 4X by 2050. ZET adoption can eliminate a cumulative of <u>838 billion litres</u> of diesel consumption by 2050, reducing oil expenditures by ₹116 lakh crore through 2050.

India recognises the need to decarbonise trucks and is working towards addressing challenges of ecosystem and infrastructure readiness, cost parity with diesel trucks, awareness of the technology and behavioural change amongst fleet owners. The journey can be accelerated through supportive policies and programmes at the state level.

This report presents the current scenario of electric trucks in India, their feasibility, benefits, global and national best practices, and recommendations that can support the electrification of heavy duty trucks in Maharashtra.

II. Profile of Zero Emission Trucks in India

Till date, <u>Vahan</u> data shows that India has a total of 8,301 electric trucks plying on its roads - 612 HDVs, 25 MDVs and 7,466 LGVs (Light Goods Vehicle). All the HDVs and MDVs are deployed only by companies for transportation in cement and steel plants and ports. LGVs are being used in last-mile deliveries.

India currently has 17 models of electric trucks across these three categories, of which only four have been launched in the market for sale. Thirteen models are still in the pilot testing stage. Of the 17 models, only four are heavy duty vehicles (HDVs), six are medium duty vehicles (MDVs) and seven are light goods vehicles (LGVs). Below we present the electric truck models best suited for different customers' requirements.

HDVs suited for Intercity Travel:

• Ashok Leyland BOSS 1218 HB EV: Offers an expected range of 300-350 km with a quick charging time of 1 hour, making it ideal for longer intercity routes.

HDVs suited for Short Travel (Up to 120 - 130 km):

- IPLT Rhino 5536: With a 258 kWh battery capacity and an expected range of 85 km, it is suitable for short intercity travels, despite its heavy-duty classification.
- Ashok Leyland AVTR: Though its expected range is not specified, its significant payload capacity of 40,000 kg and 301 kWh battery suggest its potential for shorter, heavy-load trips.

MDVs Suited for Intercity:

- Eicher Pro 2049 EV and Pro 2055 EV: Both models have a decent range (175 km and 165 km, respectively) and battery capacities (64 kWh each), suited for medium-distance intercity travel.
- Tata E9: With a 110 kWh battery and a 120-150 km range, it is well-equipped for intercity logistics.

MDVs suited for Short Travel (Up to 120 - 130 kms):

- Tata T7 Ultra: A range of 100 km and a 2-hour charging time make this vehicle practical for short-distance, medium-load transportation within or close to urban centers.
- OSM M1 KA 3.0: Expected to cover 180 km on a single charge.

Name of Manufacturer	Model	Charging Time	Expected range (km)	Battery Capacity	GVW	Payload	Expected price ex- showroom	On sale (Yes/No)	Category (LGV/ MDV/ HDV)
Ashok Leyland	BOSS 1218 HB EV	1 Hr	300-350 Kms	NA	12000 Kg	5000 Kg	NA	Yes	HDV
Ashok Leyland	AVTR	NA	185 Kms	301 kWh	55000 Kg	40000 Kgs	NA	-	HDV
IPLT trucks	Rhino 5536	2 Hrs	85 Kms	258 kWh	55000 Kg	NA	NA	Yes	HDV
Ashok leyand	BOSS 14 HB EV	NA	230 Kms	201.5 kWh	14000 Kg	NA	NA	-	HDV
Eicher	Pro 2049 EV	NA	175 Kms	64 kWh	4900 Kg	NA	NA	-	MDV
Eicher	Pro 2055 EV	8-10 Hrs	165 Kms	64 kWh	5500 Kg	2200 Kg	NA	-	MDV
Tata	T7 Ultra	2hrs	100 Kms	63 kWh	8750 Kg	4935 Kg	NA	Yes	MDV
Tata	E9	2hrs	120-150 Kms	110 kWh	9000 Kg	4050 Kgs	NA	-	MDV
OSM	M1 KA 3.0	2 Hrs	180 Kms	97 kWh	5500 Kg	NA	NA	Yes	MDV
Ashok Leyand	BOSS 1219 EV	NA	NA	NA	11900KG	6000 Kg	NA	-	MDV
OSM	M1 KA 1.0	NA	NA	38.7 kWh	NA	1000kg	NA	Yes	LGV
EVAGE	FR8	NA	100 Kms	NA	1000 Kg	NA	NA	Yes	LGV
Tata	ACE EV	6-7 Hrs	154 Kms	17.2 kWh	1840 Kg	600 Kg	₹9.22 Lacs	Yes	LGV
Switch Mobility	leV4	8 Hrs	120 Kms	32.2 kWh	3490 Kg	1700 Kg	NA	-	LGV
Switch Mobility	leV3	6 hrs	120 Kms	25.6 kWh	2590 Kg	1200 Kg	NA	-	LGV
Eka Mobility	K 1.5	8-10 Hrs	180 Kms	NA	2510 Kg	NA	₹13.9 Lacs	-	LGV
Etrio	Mini Truck	6 Hrs	120 Kms	20 kWh		750 Kgs	₹825 Lacs	Yes	LGV

Table 1: An overview of electric truck models launched and in the testing phase in India

III. India's policy landscape for electric trucks

India has recognised the importance of transitioning trucks to zero emission technology as this presents the highest potential for reduction in road transport-related carbon emissions. However, supportive policies are still at a nascent stage. India currently does not have a national-level policy framework that could accelerate the deployment of ZETs, although it has undertaken a few initiatives outlined below. A few state EV policies have also offered incentives to reduce the upfront cost of ZETs and improve charging infrastructure.

a) Technical Roadmap for Deployment of Zero-Emission Trucking in India

In March 2023 the government of India released a <u>Technical Roadmap</u> for the deployment of zero emission trucks in India. It draws out a field research-based action plan aimed at making India ready across various areas for the successful transitioning of trucks. It outlines specific action required in the Indian context over a five-year horizon and includes a

masterplan, timelines, suggested stakeholders and tasks involved, methodology and budget for each activity. With a proposed budget allocation of approximately ₹850 Crores over a span of four years, this Roadmap articulates India's dedication to nurturing vehicle development, establishing state-of-the-art testing facilities, and ensuring robust homologation processes.

This financial outline reflects a forward-looking perspective, acknowledging the dynamic pricing models associated with emerging ZET technologies. While initially focusing on the adoption and optimization of BETs due to their imminent market readiness, the Roadmap also casts a forward gaze towards incorporating fuel cell electric trucks (FCETs). This inclusion aligns with the anticipated maturing of the hydrogen fuel ecosystem, presenting a complementary pathway to achieving India's zero-emission goals.

b) e-Fast Platform

The <u>e-FAST platform</u>, launched by the NITI Aayog, is India's first national freight program dedicated to accelerating freight electrification. It aims to facilitate collaboration between government stakeholders and private sector <u>partners</u> - OEMs, Logistics Service Providers, financers, producers and CPOs - to shape strategies and actions that enable a faster transition to ZETs. This collective effort of multiple initiatives combined has led to an order of 7,750 zero emission trucks (ZET) by diverse companies. These include clients from sectors such as cement, chemicals, dairy & food industry, and the service sector.

c) Zero Emission Road Freight under the Moving India network

Launched in 2022, this is a <u>network</u> of governments, business leaders and third party actors committed to working together for the accelerated transition of shared, connected and electric mobility solutions in India. To support early freight electrification efforts in the country, a Task Force comprising global and Indian experts and leading businesses has initiated a conversation on road freight electrification in near-viable use cases and hopes to prepare a roadmap for large-scale national adoption. This Task Force is collaborating closely with NITI Aayog, the apex public policy think-tank of the Government of India.

d) ZET focus in state policies

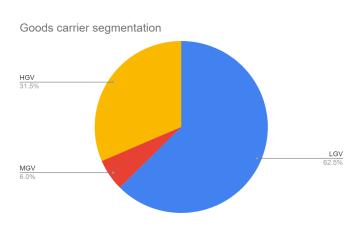
• Telangana: Launched a ZET accelerator programme to collaborate with industry leaders to deploy ZETs and infrastructure along a lighthouse corridor. This platform hosts pilots on zero-emission trucking and develops ZET corridors across the state through public-private collaboration. Ultimately, it aims to foster innovation, overcome barriers, and establish the groundwork for a significant shift towards ZETs in the market. The various stakeholders involved are original equipment manufacturers (OEMs), charging infrastructure providers, industry leaders, logistics firms, truck operators, and e-commerce giants.

- Haryana: Only state in India that offers a subsidy of three to six lakhs with an upper cap on the purchase of light duty freight vehicles, making the existing models in the market up to 15% cheaper.
- Madhya Pradesh, Uttar Pradesh, Andhra Pradesh and Assam are committed to phasing out fossil fuel-based commercial fleets for last mile delivery by 2030.
- Seventeen states offer fast charging for electric freight vehicles in their policies, under which they are planning and commissioning electric vehicle charging infrastructure across the national highways at every 25 km.
- Seventeen states and UTs offer road tax exemption or registration fee waivers for electric freight commercial vehicles.

IV. A business case for Zero Emission Trucks

Maharashtra has nearly 15.4 lakh registered trucks, with 4.84 lakh HDVs, 91,930 MDVs and 9.63 lakh LDVs. This amounts to 11% of India's truck population.

Creating a supportive policy landscape to transition its diesel truck fleet to zero emissions, through battery



operated or hydrogen fuelled trucks, will have significant economic and environmental benefits. A report by <u>RMI India on transforming trucking in India</u> analysed the total cost of ownership of electric trucks and showed that it leads to cost savings for fleet owners in the long run.

a) Delivering operational savings of nearly ₹55 lakh for fleet operators over the vehicle's lifetime, with a payback period of 5.2 years

For a 12-tonne electric MDV with an 80 kilowatt-hour (kWh) battery, the capital cost is close to 2.3 times that of the diesel counterpart. This battery capacity is sufficient to travel distances in the range of 100 – 150 kms. The operational cost savings to operate electric MDVs on a per-km basis is as much as ₹9/km, resulting in cumulative savings of over ₹55 lakh over the vehicle's lifetime. This translates to a payback period of just 5.2 years (i.e., in just over five years, a truck operator will be able to offset the capital cost differential of the

electric and diesel truck). On a total cost of ownership (TCO) basis, an electric truck for this use case is ~16% cheaper than its diesel counterpart.

b) Estimated TCO for MDVs under a mature production scenario is cheaper than diesel; parity could be reached for HDVs by 2027

Currently ZETs have a higher upfront cost than diesel trucks - 2X for MDVs to ~6X for HDVs. However, under a mature production scenario, the resulting TCO for ZETs is 12% -16% cheaper than MDV diesel trucks, and for heavy-duty trucking applications, ZETs can feasibly reach TCO parity by 2027. This will result in payback periods of 5.2 - 6.4 years for MDVs and 10.7 - 18.3 years for HDVs, but these operational cost savings will remain out of reach without decisive market creation and policy action.

c) Electric HDTs for regional haul — Generating operational savings of over ₹1.3 crore over the vehicle's lifetime, with a payback period of 10.7 years

A 31-tonne electric HDT with a larger battery of 470 kWh costs 3.7X the cost of its diesel counterpart. Operational cost savings are expected to be ~₹18/km, making it far more affordable to operate than a conventional diesel truck. Though there is a high capital cost difference, the operational savings are significant and by 2024 electric HDTs will be at parity with their diesel counterparts. Moreover, due to high operational savings of 1.3 crore over the vehicle's lifetime, a fleet operator will be able to pay back the cost differential of 95 lakhs in 10.7 years.

V. Recommendations to support the acceleration of Zero Emission Trucks in Maharashtra

India's journey towards zero emission trucks is still at a very early stage and given the complexity of the trucking industry, its long range operations and diverse patterns of logistics, India will have to work on all fronts to create a conducive environment for this transition. Truck manufacturers must feel confident in upcoming demand to invest in R&D facilities. To create the right product-market fit, charging companies will require the necessary support to set up and to operationalise charging infrastructure for electric trucks, awareness is needed to understand the environmental and cost benefits of ZETs by fleet owners, and financial solutions that can reduce their high upfront cost.

Maharashtra has the opportunity to be a national leader in designing supportive policies and programmes to transition its trucks to electric.

a) Subsidies and Incentives to Reduce Upfront Costs and Support Financing:

Implement a subsidy scheme for the purchase or leasing of zero-emission trucks, which could be tiered based on vehicle size and battery capacity to make them more accessible to small and medium-sized enterprises (SMEs). This is necessary as incentives that lower the upfront cost of owning an EV are primary drivers in their adoption, particularly since on average, an electric truck costs 2X to 2.5X more than its ICE equivalent. Some incentives that Maharashtra government could include are:

- Purchase subsidy: This is an upfront subsidy to reduce the capital cost of electric trucks. Currently, Maharashtra's EV policy offers 10% subsidy, up to 20 lakhs, of the vehicle cost for buses. Similarly extending subsidies for electric trucks will significantly boost adoption. Countries like <u>Canada</u> offer subsidies to reduce the cost of electric trucks by nearly 50%. The United Kingdom also ran a subsidy scheme for electric trucks from 2016 to 2022, providing up to 20% or £16,000 for vans and trucks up to 3.5 tonne.
- Exemption from road and registration fees: ICE trucks attract road taxes in the range of 10 - 18% of the vehicle cost, along with a registration fee. Waiving these off for electric trucks will serve as a motivation to make a shift, and also reduce their upfront cost. These exemptions are already being offered for two-, three- and four-wheelers under Maharashtra's EV policy.
- Reduced interest rates on vehicle loans or interest subvention: ICE vehicles attract an interest rate of 8% 30% on financing from banks and other financial institutions. Some states like Delhi have introduced interest subvention for electric vehicles, making their financing more affordable. Offering this in the Maharashtra policy for electric trucks could help reduce the cost of borrowing for fleet owners, thereby lowering the cost of financing the purchase of an electric truck. The government could cover a part of the interest payments, effectively lowering the interest rates for the buyers.
- Scrappage incentives: Offer higher scrappage incentives for diesel truck owners that wish to switch to electric. Currently, Maharashtra offers scrappage incentives only to two-, three- and four-wheelers in the range of Rs 7,000 25,000. This should be extended to diesel truck owners as well.

b) Incentives to Reduce Operational Costs:

Lower TCO for electric Medium and Heavy Duty Vehicles will shorten the time for the operators to recover their initial investments and make the vehicles turn income-positive that much quicker. The essential steps to do this would be to:

- Lower electricity tariffs: On operational costs alone, a 12 tonne electric MDV is cheaper than its diesel counterpart. Lowering electricity tariffs for commercial EV charging from the regular grid rates, or charging rates that are subsidised according to increasing battery capacity will significantly bring down the TCO of electric trucks. This could help strengthen the TCO argument for truck owners, which often falls flat in the face of high upfront cost. Utilities can create dedicated rate plans specifically designed for commercial EV charging. A good example of this is the Time-of-Use (ToU) Tariffs where the highest tariffs are charged during peak hours and the rates are reduced for off-peak times. Encouraging EV charging during off-peak hours will also help to smoothen the power demand on the grid. Some states in India have implemented EV-specific tariffs with ToU structures. For example, the Delhi Electricity Regulatory Commission (DERC) introduced an EV tariff offering significant discounts during off-peak hours.
- Reduced toll rates for zero-emission freight vehicles: Trucks incur large costs in toll taxes. Offering exemptions here can make electric trucks more attractive for fleet owners. For example, the EU provides up to 75% toll discounts to zero emission MDVs, HDVs and electric vehicles on the Trans-European road network.

A time-based toll tax waiver, such as a toll-free inception period of several months to one-two years from the time of registration, or lower toll taxes for commercial EVs, can be introduced for electric trucks.

• Incentivising electrification of fixed-route HDVs: Multi-axle vehicles that carry freight between fixed routes, such as from automobile factory lots to shipping yards, should be prioritised to switch to electric through incentives. Their routes and recharging needs are predictable, which would take away the uncertainty around sizing their batteries in the absence of easily available charging stations.

c) Incentives to Promote Charging Infrastructure

Maharashtra has the largest road network in the country and is connected with its six neighbouring states through seventeen national highways, covering 13.26% of the total length of National Highways and 18.26% of the total length of state highways. Increasing public charging infrastructure, particularly fast chargers, will be essential to allow smooth operations of electric trucks.

• Incentives for charge point operators: Some state EV policies, such as Gujarat and Tamil Nadu, offer incentives up to 25% of the capital cost or Rs 10 lakh, which is one of the highest in India for charge point operators to set up charging infrastructure. Maharashtra could offer incentives to fast charging stations, in particular along all tier-1 and tier-2 freight corridors, to create an easily accessible charging ecosystem for electric trucks. These charging stations would have a

minimum output of >250-350 kW to minimise the HDVs' downtimes. High-capacity chargers would require heavy upfront investment, and incentives would help reduce that.

- Analyse future electricity demand from EVs: A perception study shows that DISCOMs often highlight the lack of data on future electricity demand and guarantee of consistent utilisation as challenges for investing in upgrading the grid at the distribution level. Large investments are needed to meet load peak, but with the right information on electricity projections, DISCOMs will have more confidence in making such investments.
- Set up avenues for stakeholder collaboration: Charge point operators see value in collaborating with freight operations and OEMs to understand their daily kilometres travelled, vehicle battery design and power requirements to optimise their charging needs. Similarly, the DISCOMs can benefit from knowledge sharing with OEMs and CPOs to develop grid integration plans.

Maharashtra's Climate Action Cell can be the nodal agency that brings these stakeholders together and facilitates dialogues, particularly between charging companies and DISCOMs.

d) Education, Information and Communication Efforts

A <u>perception study</u> of key stakeholders by CSE India revealed that truck OEMs are still wary of demand generation for electric trucks, even though they have released prototypes. Logistics service providers have very little understanding of what it means to transition to e-trucks. They have reservations around the upfront capital costs, the perception of high total cost of ownership, charging requirements that may increase costs and delays, limited driving range, lengthy recharging times and the strong desire for financial support.

There is a need to help stakeholders understand the business case for electric truck adoption by highlighting its benefits such as low operations cost, better TCO compared to ICE counterparts. They also need to understand cost-effective solutions for batteries such as using a battery leasing model, extended warranty, as well as better clarity about the real-world maintenance savings and technical glitches during the initial years of operations.

Fleet owners and investors must see electric trucks in action, or have access to detailed case studies for proof-of-concept. This can be arranged through:

• Information Campaigns: Case studies showcasing successful transitions by local businesses, the economics of the switch, the investment recovery periods and the cost-savings over ICE HDVs over the vehicles' operational lifetimes.

- **Training Programs**: For fleet operators, drivers, and maintenance staff on the operation and maintenance of electric trucks and charging infrastructure. This should be arranged in collaboration with the OEMs and technical institutes.
- **Demonstration Projects**: Support demonstration projects and pilot programs at centres set up specifically for e-MHDVs in various sectors (e.g., urban delivery, long-haul freight) to showcase their efficiency and reliability.

VI. Global Initiatives to Accelerate Zero Emission Trucks

Electric truck deployment across the world has been growing. In 2022 nearly <u>66,000</u> electric buses and 60,000 medium- and heavy-duty trucks were sold worldwide, representing about 4.5% of all bus sales and 1.2% of truck sales worldwide, according to the International Energy Agency (IEA). China continues to dominate both the production and sales of electric and fuel cell trucks and buses, selling 54,000 new electric buses and an estimated <u>52,000</u> electric medium- and heavy-duty trucks in 2022.

The number of models on offer for ZETs has continued to expand. More than half of the 220 models that became available globally in 2022 were either medium-duty trucks or heavy-duty trucks, reflecting that truck manufacturers are increasingly gaining confidence in supplying larger, heavier, zero-emission models. The majority of the already available medium-duty and heavy-duty truck models are battery electric.

Countries are also increasing funding and announcing their ZEV deployment targets and enacting HDV-specific policies. In 2022, eleven countries signed on to the Global Memorandum of Understanding (MoU) on Zero-Emission Medium- and Heavy-Duty Vehicles, bringing the total number of signatories to 27. These countries aim for 100% zero-emission new truck and bus sales by 2040.

Targets Announced By Governments

- New Zealand: Aims to reduce emissions from freight transport by 35% by 2035.
- **Norway:** Aims for virtually zero-emission goods distribution by 2030 in the biggest urban centres.
- **Tianjin (China):** Aims to have 80% NEVs in public transport, rental, logistics and delivery vehicle sales by 2025.
- Japan: Aims to introduce 5,000 electric HDVs by 2030, with a JPY 13.6 billion (USD 120 million) plan to electrify HDVs and taxis.

Electric Truck Deployment In Major Economies

China

- China has set a target to fully electrify public vehicles by 2035 as outlined in its New Energy Vehicle Industry Development Plan 2021-2035
- Battery swapping is playing a key role in increasing ZEV deployment. In 2022, <u>49.5%</u> of the electric trucks sold in China were equipped with swappable batteries. China is at the forefront of battery swapping for trucks owing to its policy support and technology usage
- Up to 2022, China offered a <u>subsidy</u> of 28,000 Yuan per electric truck.
- Co-developers China Electricity Council and CHAdeMO's "ultra ChaoJi" are developing a charging standard for heavy-duty electric vehicles of up to several megawatts
- The country launched the implementation plan for Synergistic Reduction of Pollution and <u>Carbon Reduction</u>

United States

- More than 10,000 electric trucks hit the road in the US in 2023, according to a new EDF analysis of class 2b-8 fleet announcements
- Electric truck deployments jumped to 1,948 in 2022. Combined with more than 10,000 deployments in 2023, the list tracked upwards of 12,894 medium- and heavy-duty electric trucks
- Part of the Inflation Reduction Act (IRA), passed in August 2022 that includes tax incentives and funding programmes, concentrates on accelerating EV adoption, with dedicated funding drawn from the USD 369 billion allocated for climate investments The IRA also includes supply-side Advanced Manufacturing Production Tax Credits, under which the government provides subsidies for domestic battery production of up to USD 35 per kWh, plus another USD 10 per kWh for module assembly
- The Clean Vehicle Tax Credit introduces a new set of conditions for EV models to qualify for incentives
- Specifications for the CharlN Megawatt Charging System (MCS), with a potential maximum power of 4.5 MW, are under development by the International Organization for Standardization (ISO) and other organisations
- More than USD 1.5 billion has been approved under the National Electric Vehicle Infrastructure (NEVI) Formula Program to help build EV chargers covering approximately 75,000 miles of highway across the country

European Union

- The Europe Electric Truck Market size is estimated at USD 1.12 billion in 2024, and is expected to reach USD 10.76 billion by 2029, growing at a <u>CAGR of 57.13%</u> during the forecast period (2024-2029)
- In 2022, about 260,000 heavy trucks were sold. Of those, just over 700 were electric

- The European Commission proposed the Alternative Fuels Infrastructure Regulation (AFIR) in 2021. The European Council and European Parliament have a provisional agreement on AFIR. A pact between the European Investment Bank and the EC will make over EUR 1.5 billion available by the end of 2023 for alternative fuels infrastructure, including for EV charging
- In February 2023, the European Union presented the Green Deal Industrial Plan, through which it plans to achieve net-zero projects by fast pacing permits, providing financial support, enhancing skills, and open trade
- The European Commission released <u>proposed revisions</u> of the regulation on HDV emissions in February 2023
- The revisions would increase targets for CO2 emissions reductions to 45% by 2030 relative to 2019, <u>65% by 2035, and 90% by 2040</u>. Furthermore, all city buses should be ZEVs by 2030

United Kingdom

The United Kingdom advanced the date to end the sale of fully ICE cars and vans to 2030, five years earlier than previously announced, with a full transition to 100% ZEV sales by 2035

- Subsidies for electric cars ended in 2022, having exceeded a 20% sales share, after the available grant was gradually reduced between 2016 and 2021
- 13 Subsidies remain in place for electric taxis, vans and trucks and the focus on charging is also increasing
- It opened a new electric highway for hybrid electric trucks that will draw power from overhead electric lines
- The British government has extended its electric van and truck subsidy scheme for another two years until 2025

Other Global Initiatives

- Zero-Emission Government Fleet Declaration: In 2022, a group of nine countries <u>committed</u> to the Zero-Emission Government Fleet Declaration. They aim to reach 100% zero-emission cars and vans in government fleets, with an additional aspiration of 100% zero- emission trucks and buses, by no later than 2035.
- Zero-Emission Vehicle Emerging Markets Initiative: The World Business Council for Sustainable Development (WBCSD), the United States and the United Kingdom launched the initiative to enhance cooperation between public and private actors in EMDEs to accelerate the transition to zero-emission road transport.
- Global MoU on Zero-Emission Medium- and Heavy-Duty Vehicles: Signatories of this pact have committed to work together to achieve 100% ZEV bus and truck sales by 2040, with an interim goal of <u>30% by 2030</u>.