POLICY BRIEF
THE CASE FOR ELECTRIC
Building scale and speed for zero emissions mobility

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Why zero emissions?

For taming toxic air, heat trapping gases and energy guzzling in transport sector

• Energy demand for road transport to more than double over the next two decades
• Oil demand to increase by almost four million barrels per day in 2040—to be the largest increase for any country.
• Road freight activity will triple by 2040.
• Between 2005–06 and 2019–20, petrol and diesel consumption increased by 2-3 times.
• Close to 85% of crude oil is imported.

Need zero emissions tailpipes and clean energy

Source: IEA 2021, Air Quality and Climate Policy Integration in India
Road transport to upset energy budget in India

- IEA: India - Final energy use of transport by subsector and road transport by fuel in the Stated Policies Scenario, 2010-2040

Source: IEA 2021, Air Quality and Climate Policy Integration in India
Local pollutants to decline but heat trapping CO2 emissions to increase

- Road transport related air pollutant emissions in the Stated Policies Scenario & Road transport related CO2 emissions, 2019-2040

Source: IEA 2021, Air Quality and Climate Policy Integration in India
CO2 reduction opportunities in climate challenged world

• Need big cuts

Note: Scenarios are Stated Policies Scenario (STEPS) and Sustainable Development Scenario (SDS)

Source: IEA 2021 India energy outlook
Petro-economy to electro-economy: Is EV transition inevitable?

Transforming markets

• 126 countries pledged to achieve carbon neutrality by 2050; Total net-zero commitments globally cover half of the world’s GDP.

• 20 countries: 100% zero-emission vehicles during 2040–50. More to follow.

• IEA: Electric vehicles stock to jump from around 5% of global car sales in 2020 to more than 60% by 2030. Annual battery production for EVs to leap from 160 gigawatt-hours (GWh) today to 6,600 GWh in 2030, -- adding almost 20 gigafactories each year for the next ten years.

• Global automotive companies announcing commitments to produce 100 per cent electric vehicles by 2040.

• IC engines to become more complex and expensive as real world emissions regulations tighten…

• Electro economy is also part of the industrial policy
Towards zero emissions .... Are we prepared?
Uncertain targets

• Policy intent: Ministerial announcements -- 30@30

• **NITI Aayog 2019**: 70% electrification of all commercial cars, 30% of private cars, 40% of buses, and 80% 2/3-wheelers by 2030.

• **Not backed by any regulatory mandate and long-term policy roadmap**

• **Automotive industry’s voluntary targets (SIAM 2019)**: All new vehicle sales for intra-city public transport fleets to be electric by 2030; 40% of new vehicle sales to be electric by 2030. All new vehicle sales to be electric by 2047.

• **State level target**: Eg Delhi – 25% electrification by 2024; Others too
But ..... against the minimum target of 30@30

Currently…. (According to the VAHAN data base):

• **E2Ws**: 0.15% of market share
• **Private electric four-wheelers**: 0.02%
• **Electric buses**: 0.16%
• **Electric goods vehicles**: 0.1%

• **Original target of National Electric Mobility Mission Plan of 2013**: 60–70 lakh electric vehicles by 2020

• **2012-2021**: India registered 6.3 lakh E-vehicles (4.9 lakh e-rickshaws).

• **2012–2019**: EV numbers - an average CAGR of 45% from very tiny stock.

• **Need to maintain minimum average CAGR of 46%** going forward. Challenging for high volume sales.
Electric vehicle registration in India – 2012-2021

Source: Vahan Database
How EV registration needs to grow for a market share of 30-@30

Projection of EV registrations and annual market share to reach 30@30

CSE Analysis based on Vahan Data
Small EV fleet spread thin across the states
(cumulative EV sales including 3 wheelers in states under FAME subsidies)

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<th>State</th>
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- **Sales under FAME I**
- **Sales under FAME II (14.05.21)**
EV policies not designed for scale yet........
A lot is happening. But what is the effectiveness of accelerators?

- FAME II incentives
- Zero emissions mandate?
- Production linked incentives
- Fuel economy regulations
- Charging and battery ecosystem
- Financing strategies
- State level policy for bottom up pressure
FAME incentives and EV market: Can this catalyse big change?

• **FAME incentive scheme**: Corpus of Rs 10,000 crore -- **to support only 15.6 lakh vehicles** – (10 lakh 2-wheelers, 5 lakh 3-wheelers, 55,000 passenger cars and 7,000 electric buses).

• **E2W and E3W account for more than half** of the FAME subsidy package;

• **Charging infrastructure and four-wheelers are fourth and fifth** in the pecking order.

• **FAME II – delayed**: Only 6% of planned fleet target registered as of July 2021; with total sales of 94,252 vehicles—73,753 2-wheelers, 18,900 3-wheelers and 1,598 four-wheelers.

Too small to have a catalytic effect
FAME trajectory: Small steps

FAME I scheme in 2015: limited impact -- poor design and lack of focus
- Most of the incentive diverted towards mild hybrids;
- promoted vehicles without performance criteria
- Resources spread too thin among segments

FAME II - strategic shift: Prioritized high performance vehicle models
(Buses, three-wheelers, high-mileage commercial delivery fleet and ride hailing Two-wheelers.)
- Slow progress -- two-thirds of the intended FAME II scheme duration elapsed (as of March 2021),
- Significant portion of the fund remains underutilized (as of April 2021). (2021 WBCSD)
- FAME II scheme extended for two years to utilize the unspent money.
- Change in design without infusion of new resource or bigger targets
How is incentive support playing out in different vehicle segments?
Two wheelers: Big opportunity
Numerous and consume maximum petrol

- Niti Ayog: 70-80% electrification possible

- Expected to achieve price parity with ICE earlier

- Likely to reach the tipping point for scale much quicker if strategies are refined and supported.

- Sales are picking up to counter the high petrol prices.

Source: Petroleum Planning and Analysis Cell
Disruption in e-2 wheeler market

- Simplicity of EV technology enables entry of new players -- free from the legacy challenge of the ICE vehicles.

- 20 manufacturers with 41 E2W models in the market.

- Only three out of the seven conventional ICE two-wheeler manufacturers have introduced products in the electric segment, while the 17 new companies form 84% of the sector.

- Start-ups and non-conventional players enter with innovative business models.
Market share of ICE 2Ws manufacturers (FY 2020)

- Hero MotoCorp: 35.78%
- Honda Motorcycle and Scooters: 27.02%
- TVS: 13.84%
- Bajaj: 11.93%
- Royal Enfield (Eicher Motors): 11.61%
- Rest: 7.66%

Market share of E2Ws manufacturers (FY 2020)

- Hero electric (Subsidiary of Hero MotoCorp): 31.69%
- Okinawa: 21.74%
- Ather Energy: 17.27%
- Ampere Vehicles: 11.61%
- Revolt Motors: 9.66%
- Rest: 8.03%

Source: Statista, Autocar
E-2 wheeler market: evolving rapidly

• **FAME I** allowed cheaper, low-speed and low range scooters with lead acid batteries

• **FAME II: Performance criteria** -- minimum range of 80 km per charge and minimum top speed of 40 kmph; defined energy efficiency, minimum acceleration, and higher number of charging cycles. Disallowed lead acid battery-powered scooters.

• **Innovation in business models** -- manufacturers provide charging solutions around their products and have platforms for their users to provide longer term solutions.

• **E-2W sales have picked up after petrol price hike**

  How soon can we seen a bigger turn around?
On-road price of 2Ws with and without incentives in Delhi

FAME II lowered average price by 35%; FAME + Delhi government incentives can reduce on an average by 57% from the on-road price (13 vehicle models in Delhi)

CSE Analysis
Total cost parity of E2W is already here with FAME + state incentives

ICCT estimates:
FAME and electric cars

FAME II not for personal cars

- **State policies -- Delhi electric vehicle policy --** initial subsidy support for a targeted c-car fleet; Tax waivers, non-fiscal preferential incentives, reliable charging network...

- **Limited models** -- Less than 10 vehicle car models available with range varying between 140 km to upto 300+ km. Most variants have a top speed of 80 kmph.

- **Cars need to be part of the 30@30 or stronger targets:** Total cumulative battery capacity needed in 2030 to support this target, the share of cars have to be at least 31%. (ICCT)

- **Key to scale** -- OEM price, fiscal and non-fiscal support, model availability, and charging infrastructure.

- **Consumer expectations of range:** Tata Nexon model and consumer expectation. Improve test procedures to reduce gap between certified range and on-road performance.
**Incentive for E-passerenger cars**

On-road price of private E4Ws with and without incentives in Delhi

Upfront price reduce by an average of 19% -- several models still remain more expensive than petrol counterparts.
Incentive for cars for commercial use

On-road price of commercial E4Ws with and without incentives in Delhi: Upfront price reduce by an average of 32% -- several models remain slightly more expensive than their petrol counterparts.

CSE Analysis
Special case of e-buses
FAME and buses: Challenge of scale

- **Department of Heavy Industries**, India could be the second-largest e-bus market by 2030 if 4 out of 10 buses sold are electric.

- **FAME I**: less than 500 buses registered; **FAME II** - target of 7,000 buses.

- **FAME II** - tendering of 2,450 buses - a lot of it could not be procured during pandemic

- **Union Budget of 2021–22**: funding 20,000 buses – not linked with electrification.

- **E-bus industry – new entrants**: Until 2020–21, about 74% of the total e-bus supply order received by new market players (Olectra-BYD, PMI-Foton, JBM-Solaris etc).

- Traditional OEMs (Tata Motors and Ashok Leyland), together dominate ICE bus market at 81%; But 26% of EV bus market.

- Tata Motors is the second highest seller of e-buses.
E buses: Special challenges

• **Pandemic disruption**: massive losses in ridership and revenue for STUs -- increased the viability gap funding requirement by nearly 70 per cent.

• **Upfront capital investment** -- more than double that of the ICE buses—plus battery and charging infrastructure. Capex -- almost 45–50%.

• **Slow and repeated tendering process in several states**

• **FAME II** -- coverage, promotion of cleaner technology, setting up deployment targets along with dedicated fund allocation, etc.,

• **New amendment in June 2021** -- Energy Efficiency Services Limited (EESL): Aggregate demand for e-buses (also three-wheelers) for deployment in Mumbai, Delhi, Bangalore, Hyderabad, Ahmedabad, Chennai, Kolkata, Surat and Pune. Support charging

• **EV growth centres and demand aggregation** for concentrated effort, reduce cost and present a learning curve to other cities.
E buses: Special challenges

- **FAME II mandates gross cost contract (GCC) for procurement and operations** – OEMs/ designated operators to provide bus and operate on behalf of the STUs on per kilometre payment basis to de-risk the STUs.

- **Reduce upfront costs while improving the efficiency of services.** – But GCC not suitable for all STUs. – Challenge of operating a small e-bus fleet on GCC model and the rest on their own. Open and flexible FAME incentive structure.

- **Incentive should be more flexibly provided** based on technical and financial viability of the projects.

- **E-bus procurement more service level oriented as STUs** -- specifying service needs instead of only specifying the details of the vehicles.

- **Not much scope for service guarantee:** FAME II - capital incentive up to 40% of total bus cost; whole subsidy amount to be paid within 6-7 months of bus operations. **Support for a longer operation period**
E buses: Special challenges

- Quicken price parity and make total cost of ownership comparable with ICE buses. It is possible:
  
  A 2019 study (International Journal of Technology): Calculated TCO for a period of 25 years (assuming the normal life of transport infrastructure in India). While the **TCO for electric buses is Rs 36.6 million, for diesel buses it is Rs 39.1 million.**

- **FAME II subsidy**: Create more options for a combination of charging technology. Currently, only conduction charging facilities. Possibilities of other options (DC Pantograph charging or battery swapping etc)

- **City level e-bus deployment plans** – routing and driving pattern, e-bus oriented transit infrastructures like depots, terminals, bus stops, etc.

- **Align to improve grid, local sub station capacity etc**
FAME and 3-wheelers: Potential for rapid electrification

- NITI Aayog - potential for 80% electrification by 2030.

- Total cost of ownership parity expected quicker.

- Mandate possible: Low volume, high frequency and short haul transport system attractive option for quicker electrification.

- Limited access to capital, Banks reluctant to lend to start-ups ---- Daily rentals/lease for operations makes financing and monthly repayment a challenge.

- Products innovation needed -- Out of 23 most commonly sold E3W models, 17 have a range equal to or greater than 100 km; 30% --120 km;
- Top speed of only 9% models exceeds the 25 kmph mark.

- Manufacturing of lithium-ion E3W models conforming to safety norms;
- E-rickshaw models continue to dominate
FAME and Cargo vehicles

• Lower cost of ownership and operating costs make electric cargo vehicles attractive

• Operates at 1/6th of the running cost of a petrol/diesel-fuelled vehicle, though with higher acquisition costs.

• Vehicles with high-payload capacity, requires uninterrupted running times, or, larger range;

• Limited public charging stations deters adoption-- public charging facilities needed to ensure minimal downtime.

• Product development and mandate for targeted electrification is important
FAME and fleet aggregators: Scalable

- **High utilization segments** -- ride-hailing, urban freight/ deliveries, and employee transport.

- **Ride hailing**: Voluntary and government target for electrification. 40% by 2026?

- **Quicker recovery of cost and viable**:  
  - ICCT’s assessment- at current cost and incentive, some models are cheaper than ICE in terms of 5-year TCO and cost per kilometre. Some marginally higher; Additional incentives can help

- **More strategies**:  
  - Differential fares between e-ride services vs ICE vehicle based services.  
  - Reserved parking spaces for e-fleet operators, preferential parking permits, preferential parking rates etc

- **Special needs of overnight charging, home based and neighbourhood scale roadside charging with discount**,  

- **Preferential electricity rates.**

- **Delhi, -- a new scheme**: Ride hailing and delivery aggregators to convert 25% of fleet within one year of notification of the scheme and 50% in the subsequent year.
FAME and delivery fleet: Scalable

Phenomenal increase in last-mile deliveries across urban e-commerce,
(e-Kart, Delhivery, GATI and others to transition to Evs; Amazon and Ikea have set global targets to move to electric vehicle deliveries.)

- **Delhi government** partnered with Flipkart, Amazon, Zomato, Blue Dart Express, and 26 other companies to start using electric vehicles for deliveries

- **Electrification of feeder services of metro.** Delhi metro-- facility is now available at 29 stations, with an operational fleet of over 1,000 e-rickshaws.

- **Need management of last-mile urban freight and deliveries:** Regulation of daytime entry of heavier electric delivery vehicles; Link incentives with e-kilometers based on odometer reading.

- **Limited EV options for heavier delivery vehicles,**

- **Permit concerns related to cross-sector usage of** the same vehicle, and licensing system of two-wheelers.

- **Charging plan is critical**
Need targets and mandate
Need zero emissions mandate

- Incentive-based strategies already in place

- A ZEV mandate can ensure robust supply and larger model availability; address skewed costs etc

- A mandate-based strategy provides certainty; encourage investors; provide flexibility to the industry to develop plans to achieve targets.

- A mandate is revenue neutral strategy for the government - leverage market competition to promote ZEVs. Free up government capital for EV promotion, charging infrastructure

- A credit trading mechanism: provide an incentive to manufacturers to build EVs, win ZEV and emission credits, get a fresh revenue stream from banking and trading over-compliance credits.
Need zero emissions mandate

• Manufacturers can qualify for ZEV programme credits based on vehicle performance aligned with FAME eligibility: electric vehicle range, energy density and power consumption for BEVs; and range etc.

• Non-compliance with criteria can attract lower credits which can neither be banked nor traded.

• Manufacturers with little or no electric vehicles in their inventory can buy surplus credits to avoid penalties. Trade within same segment.

• Linking energy efficiency and range with the ZEV mandate will ensure that low emissions and higher calibre vehicles will receive higher credits.

• Global experience: Combination of target, ZEV mandate and incentives can be game changers.
Globally mandate + incentives have worked

- **California ZEV Mandate** - 14 states in the US have adopted California's ZEV programme

- **China's NEV credits**: use both production as well as technical factors (range, efficiency and power rating of vehicles).

  Vehicles with higher FE performance get more credits, capped at six credits per vehicle.

- **Europe**: alternate compliance pathway built into the CO2 emission standards for light passenger and commercial vehicles: 2025 onwards, manufacturer will have a discount ratio on their specific emission targets if producing electric vehicles.
Leverage fuel economy standards
Need tighter benchmarks to push EVs

- **Assessment of Stage 1 FE standards**: Car companies have not only met but also exceeded the 2017–18 requirement of fuel efficiency.

- **IEA/1CCT evaluation**: Average fuel consumption of new light-duty vehicles sold in 2018 was roughly 9% ahead of the target for that year. Industry has comfortably achieved its target.

- The fleet is only 7% away from meeting the next target in 2023.

- Only 1–2% electrification of major carmakers can meet Stage 2 targets easily without any significant changes in the ICE technology. (ICCT)

- Yet industry opposing timely implementation of the stage 2 FE targets.
Allowing super credits for ineffective approaches weaken the standards

Super credits are allowed for annual calculation of compliance with CAFC standards:

- i) Ineffectual technology approaches: Regenerative braking, start–stop systems, tire pressure monitoring systems, and six-speed or more transmissions.

- ii) Electrification: Battery electric vehicles (BEVs), plug-in hybrid electric vehicles (PHEVs), and strong hybrid electric vehicles (HEVs) and

• Weak targets and easy options do not drive electrification. Link super-credits with electrification. Phase out other ineffectual credits

• Europe -- Europe has set CO2 standards at 95 CO2 g/km in 2020–21, as opposed to 113 CO2 g/km in India in 2022-23. Europe aiming for 60 CO2 g/km for cars in 2030 and even lower, - close to most Indian two-wheelers -- Evs are 10% of new sales
Charging eco-system?
Charging: can make or break

- **Deloitte global automotive consumer survey 2018**: 36% Indians hold lack of charging infrastructure and charging anxiety as bigger deterrent than cost or range.

- **Ministry of Power (MoP) notification**: electricity consumed for charging vehicles not to be considered as transmission or distribution or trading of electricity; no license required. Recognized battery swapping.

- **Building-ready**: MoHUA - Model Building Byelaws, 2019; provide for ‘electric vehicle only parking areas’ within premises. Building premises can have additional power load.

- **FAME II support for charging infrastructure increased** to 10% of 10,000 crores total outlay. (Rs 300-400 Cr/yr). Reduced GST on charging stations from 18% to 5%. But not extended to battery swapping.

- **Access to capital a challenge esp for small players** -- cost of charging equipment, land and grid connectivity requires initial capital.

- **Further develop robust EV charging standards**. (Bharat DC 001 and AC 001) to be further reformed to enable charging of all types of vehicles. BIS and DST working on indigenous charging standards for India. Low-cost AC charger (LAC); interoperability of chargers.
Charging: address barrier

- **2021 WBCSD report** -- Unclear rules on grid upgradation strategies; land availability for private investments; absence of subsidy support to battery swapping; double taxation levied on charging services; and operational difficulties related to the open-access regulation threshold.

- **Swapping**: Batteries sold separately for vehicles will reduce the upfront cost of vehicles and the need for a dense recharging network.
  - Swapping requires a standardized system of battery cavities, batteries and chargers, in order to enable interoperability, and a system that will work well for the commercial segment.
  - Permit battery swapping to avail FAME subsidy, and reduce GST on charging and battery swapping services.

- Some states, such as Delhi, provide purchase incentives for vehicles sold without batteries.

- **City’s mobility plan needs to integrate a charging network plan.**

- Integrate captive charging stations with larger public charging network to improve utilization and access.

- **Varying usage patterns and charging requirements according to vehicle types makes the decision even more complex.**
**Delhi’s EV policy**: atleast 1 charging station in every 3km x 3 km grid. – works out to be atleast 200 charging stations

Currently 72 stations operational (Delhi’s official EV online portal)

Clustering approach - 84% with one charger connector. (Each connector or gun charges one vehicle at a time.)

All stations within 500 meters of a major road, arterial or sub arterial,

89% of stations within 500 meters of a metro station.

All stations in residential areas or commercial/mixed-use land
ICCT study 2021: Life-cycle GHG emissions analysis shows the advantage of EV pathway 2021

--- Even at 95% EVs by 2040 additional electricity demand from vehicle electrification is just 0.9% increase in generation in 2030; 1% increase in generation in 2040 from base case of 1% EVs.

--- If no new policy on coal and gas power plants SO2 to see modest increase: But net emission reductions in NOx, CO2, and PM2.5.

--- If power plant emission controls improve, coal power plant retired, RE increase etc - PM2.5 to reduce by upto 27%; SO2 by 85%, Nox - 77% , and CO2 - 25%
Localisation?

- **Production linked incentive (PLI)** of Rs 18,000 crore for production batteries – 50GWH target

- **Linked to the National Mission on Transformative Mobility and Battery Storage, 2019**, local manufacturing; raw materials, electrochemistry, and end-of-life treatment of cells, modules, and battery packs.

- **Needs matching demand from the EV sector** - PLI incentives to be disbursed on the basis of incremental sales from domestic units.

- **Five years too short** to get adequate commitment from manufacturers; high uncertainty about volumes, evolving battery chemistries. Too large a risk if the support structures and roadmap not clear.

- **The 30@30 target will require much larger battery capacity.** India may need annual addition of 246.9 GWh and cumulative addition of 824.7 GWh in 2030. (ICCT)
Battery eco-system

- **Battery ecosystem**—battery production and raw material sourcing, battery assembly and management, among others.

- **Battery raw material security and access to mined materials** -- challenge to localization of battery cells

- **Vulnerability to geopolitical complexities**; global supply of material and minerals and battery technology. Securing supply chain for cobalt, lithium, nickel, graphite

- **Battery costs**: Between 2010 and 2020, battery price reduced by over 85% -- to drop further below $100 per kWh. Promote diverse battery chemistry

- **Recycling to recover** lithium, cobalt, or nickel: Scalable recycling technologies and regulations on recovery rates for strategic resource. Improve rate of recovery. Need regulatory mandate for collection of spent batteries and recycling.

- **Standardize battery products** with information on the chemicals used and streamlined networks for battery collection
State level policy: Need bottom up pressure

- 15 states have either notified or drafted EV policies

- **Delhi Electric Vehicle Policy** -- EV sales share increased from 1.23% to 3%. E2W market grown more than twice, electric car registrations - increase of 18% over last year...

Varying scope of state policy:

- **Demand side incentives** 16 parameters -- Odisha (13), Delhi (11) and Punjab (10). -- Delhi and Odisha define technical eligibility for availing incentives

- **Supply side incentives** – manufacturing -12 parameters -- Tamil Nadu (11), Uttarakhand (10) and Uttar Pradesh (9). Delhi (None)

- **Non-fiscal enablers** - Odisha (6) Andhra Pradesh (8) Delhi (7)

- **Industrial policy** (interest free loans and reimbursement of GST for companies setting up up factories, business infrastructure with subsidies on capital (land, water, electricity, waste disposal and testing facilities)).
Financing EVs?

- **2021, NITI Aayog - Rocky Mountain Institute study**: for 70% electrification in 2030 cumulative capital cost expected to be Rs 19.7 lakh crore by 2030

- **State support** -- interest rate subvention; low cost loans etc

**Barriers:**
- **High financing cost** (high interest and insurance rates);
- **Low loan-to-value ratio, and limited financing options** for retail customers.
- **Banks and non-banking financial institutions** – 50% to four-wheeler passenger vehicles, 40% to commercial vehicles, and only 10% to two-wheelers.
- **Concerns around performance and resale value of Evs**: Two-wheelers and buses have different parameters for financing.
- **Unsecured borrowing from the unorganized sector** at higher rates.
- Two/three-wheeler fleet operators need high daily vehicle usage to justify their business model viability to financial institutions.
- **This needs a robust charging infrastructure network to support operations and financing plan**
Financing: Find answers

• Increase access to low-cost financing; Need priority sector lending mandates

• **State policy important** -- interest rate subvention; product guarantees and vehicle performance and increase resale values.

• **SBI started Green Car Loan for electric cars**, in April 2019. Provides discount.

• **Fleet operators can offer risk sharing mechanisms** with the financial institutions by providing guarantees for their driver partners including partial credit guarantees, share default risk with Fis etc.

• **Offer utilization guarantees to driver partners** to help achieve TCO parity while improving the fleet economics, innovate the business model and set target for fleet electrification.

• **Start-ups financing.** Venture capital funding is catalysing this sector -- bigger role in two- and three-wheeler markets where financing penetration is low
Need scale and urgency

-- Need ambitious regulatory target: Set the bar high

-- Need target setting for longer term policy visibility to bring more certainty in investments: vehicle segment-wise, for charging, and production facilities

-- Need zero emissions mandate to upscale: Consider production based ZEV credit regulations

-- Central and state level: define milestones for each strategy for timebound implementation that is measurable and verifiable

-- Devil in design of each strategy

-- With tighter CO2/FE targets and post BSVI emissions standards, EV technologies to be more cost effective

This transition is inevitable
Thank You