

# STATE-LEVEL CONSULTATION ON ZERO EMISSION VEHICLE (ZEV) MANDATE

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TAJ GREEN COVE, KOVALAM, TRIVANDRUM + MICROSOFT TEAMS

ORGANISED BY **GOVERNMENT OF KERALA**  
IN PARTNERSHIP WITH **THE INTERNATIONAL COUNCIL ON CLEAN TRANSPORTATION**

## SPEAKERS/ATTENDEES

1. Mr. K R Jyothilal IAS, Additional Chief Secretary, Department of Energy, Govt. of Kerala (Chair)
2. Mr. Jayesh Ranjan IAS, Principal Secretary, (ITE&C), Industries & Commerce, Govt. of Telangana
3. Mr. Gopalakrishnan VC, Director-Automotive & EV, Industries Department, Govt. of Telangana
4. Mr. V.K. Sonakiya, Special Secretary Transport, Govt. of Uttar Pradesh
5. Mr. Amit Sharma IAS, Transport Secretary, Ladakh
6. Mr. Dhananjay Senapati, Additional Commissioner Transport (Technical), Transport Department, Govt. of Odisha
7. Mr. Amit Bhatt, Managing Director ICCT (Moderator)
8. Mr. Narayankumar Sreekumar, Associate Director-Electric Mobility, Shakti Foundation
9. Ms. Revathy Pradeep, Researcher, ICCT
10. Ms. Shikha Rokadiya, Senior Researcher, ICCT
11. Ms. Priti Shukla, Program Manager (Electric Mobility), Shakti Foundation
12. Mr. Rishab Sethi, Program Manager (Electric Mobility), Shakti Foundation
13. Mr. Pramoj Shankar, Additional Transport Commissioner, Govt. of Kerala
14. Mr. Narendra Nath Velluri, CEO, ANERT
15. Mr. Dr. Harikumar Ramadas, Director, EMC, Govt of Kerala
16. Ms. Asha Deputy CE REES, KSEB
17. Mr. Prasad, Chief Engineer, RESS & Chief Safety Commissioner, KSEB

## SESSION BACKGROUND

The session explored the potential of ZEV sales regulations, where vehicle manufacturers are obligated to sell a minimum percentage of their fleet as electric. This approach aims to boost investor confidence, level the playing field, and drive consumer benefits. To explore the feasibility of such regulations in India, ICCT conducted a comprehensive review of relevant national and state-level laws and regulations.

This review revealed:

- 1. Multiple avenues for ZEV regulation:** Authority exists at both national and sub-national levels to mandate EV sales.
- 2. Focus on Sub-national venues:** This session delved into how State Governments could take the lead in setting ZEV regulations.

In partnership with the Kerala State Government, ICCT has convened a consultation with stakeholders to discuss the need, benefits, and legal framework for ZEV sales regulations in India. The session specifically focused on accelerating EV adoption by:

- **Empowering State Governments:** Exploring their role in setting ZEV mandates.
- **Mandating EV sales:** Examining the impact of requiring manufacturers to sell a certain percentage of their fleet as electric.

By harnessing the potential of ZEV regulations at the sub-national level, India can accelerate its transition towards a cleaner and more sustainable transportation future.

## SPEAKER NOTES

### **Ms. Revathy Pradeep, Researcher, ICCT (Welcome address)**

Ms. Revathy Pradeep gave background on the consultation session and shared the session's aim of leveraging state-level leadership to accelerate EV adoption through regulations requiring manufacturers to sell a portion of their fleet as electric. She thanked the Kerala Government and session-chair Mr K.R. Jyothilal, for hosting the consultation on ZEV sales regulations in India. She welcomed representatives from several states, including Telangana, Ladakh, and Odisha, who convened to explore the need, benefits, and legal framework for implementing ZEV mandates.

### **Mr. K.R. Jyothilal, IAS Additional Chief Secretary, Department of Energy, Govt. of Kerala (Chair)**

Mr. Jyothilal's opening address at the state-level consultation on ZEV regulations painted a comprehensive picture of Kerala's journey towards electric mobility. He emphasised two key drivers for change: environmentally conscious citizens and proactive government regulations (hence the term "change by source or by force").

Mr. Jyothilal acknowledged Kerala's progress, achieving 1 lakh EVs with a 2019 policy target of 2 million. He stressed on the importance of ambitious targets, highlighting the limitations of subsidy-led models. Mr. Jyothilal advocated for mandates as essential for setting and achieving long-term goals like Kerala's 2050 net-zero target and 100% RE by 2040. He proposed starting with short-term targets for two-wheelers and three-wheelers, potentially increasing them by 2030.

To boost the supply side, Jyothilal suggested a ZEV mandate with a credit trading system. He believes India's position as the world's largest market, surpassing China, presents a unique opportunity to lead the EV revolution. Skilling initiatives across various educational levels were also highlighted as crucial for creating employment opportunities. He suggested prioritizing the electrification of government vehicles and employee transit fleets in IT hubs to make a significant impact.

He concluded by outlining both demand-side mandates (converting government departments, ride-hailing services, and public transport) and supply-side mandates (setting ambitious goals for public transport and three-wheelers) as key strategies for Kerala's successful transition to a zero-emission future.

## **Ms. Shikha Rokadiya, Senior Researcher, ICCT**

Ms. Shikha Rokadiya gave a presentation on decarbonising road transport through ZEV mandates. It stated that decarbonising road transport requires shifting away from internal combustion engines (ICE) to zero-emission technologies (ZEVs). She stated that India's national target of net zero by 2070 necessitates ambitious EV transition goals, such as significant electrification by 2025, 80% EV penetration in key segments (two- and three-wheelers) by 2030, and nearly 100% electrification across all segments by 2035–40.

Her presentation covered the following points:

### **POLICY GAP:**

- Current policies focus on incentives and infrastructure, neglecting supply-side regulations like ZEV mandates.
- Mandates offer certainty for investors, enabling large-scale manufacturing and cost-reduction for consumers.

### **GLOBAL EXAMPLES:**

- California pioneered ZEV mandates for cars and vans (1990s), with 17 U.S. states adopting similar programs.
- 10 U.S. states followed California's truck mandate, and Canada is considering a national mandate.
- National ZEV mandates exist in China, South Korea, and the UK.

### **CALIFORNIA'S ZEV MANDATE:**

- Flexible policy allowing manufacturers to either produce ZEVs or trade excess compliance credits.
- Stringent targets: 35% ZEV sales by 2026, increasing to 100% by 2035.

She also shared the current breakdown of legal authority in India:

### **CENTRAL:**

- Ministry of Environment, Forest and Climate Change (umbrella powers under Environment Protection Act).
- Ministry of Power and Bureau of Energy Efficiency (authority under Energy Conservation Act).
- Ministry of Road Transport and Highways (authority under Central Motor Vehicles Act).
- National Council on Electric Mobility and National Board on Electric Mobility (executive powers under National Electric Mobility Mission Plan 2020).

### **STATE-LEVEL:**

- State Pollution Control Boards and Committees (authority under Air Act to regulate emissions and fuel use).
- State Transport Departments (crucial role in enabling mandate policies).

She concluded by sharing that ZEV mandates are effective and have legal backing in India, both at the central and state-levels; states can take the lead in implementing these crucial policies to accelerate India's EV transition.

### **Mr. Jayesh Ranjan IAS, Principal Secretary, (ITE&C), Industries & Commerce, Govt. of Telangana**

Mr. Jayesh Ranjan started by congratulating the Government of Kerala and ICCT for initiating the conversation on setting a ZEV mandate for India. He mentioned that a central notification defining the preliminary thought on setting a ZEV mandate for India is ideal. A national mandate would set a precedent, and collective action at the subnational level could facilitate a conducive market scenario. Having said that, he mentioned that even if the Government of India does not have any thoughts on this matter, states should explore the possibility of initiating such innovative mandates, as the federal structure allows them to do so.

He suggested the three important aspects to consider when bringing in a ZEV mandate is that it should be done in a consultative process, involving OEMs. Secondly, demand aggregation should be created by setting demand-side mandates on vehicle fleets and public sector fleets. And lastly, the Government should seek feedback from users and OEMs on the challenges they face regarding charging infrastructure.

### **Mr. Gopalakrishnan VC, Director-Automotive & EV, Industries Department, Govt. of Telangana**

Mr. Gopalakrishnan VC suggested that in addition to a consultative process with stakeholders, the government should also consider financing options to help manufacturers and consumers meet ZEV mandates. He proposed starting with a 2-5% mandate for two- and three-wheelers and 2% for buses, and exploring financing options to support purchases by both public and private entities.

Mr. Gopalakrishnan emphasised the importance of ensuring the availability and functionality of charging stations, as mentioned by Jayesh. He suggested that this should be a key focus area in implementing ZEV mandates.

### **Mr. V.K. Sonakiya, Special Secretary Transport, Govt. of Uttar Pradesh**

Mr. V.K. Sonakiya highlighted UP's commitment to electric mobility. Their 2022 EV policy offers tax breaks and registration fee waivers for vehicles sold within the state. Additionally, they are replacing 10-15% of old SRTC buses with electric ones. To date, their subsidy portal has received 14,000 applications and disbursed INR 60 crore. He shared that the state's upcoming plans include phasing out polluting vehicles to further bolster zero-emission adoption.

### **Mr. Amit Sharma IAS, Transport Secretary, Ladakh**

Mr. Amit Sharma mentioned that Ladakh is leading the charge in India's ZEV transition, setting an ambitious green example. Hydrogen buses, already tested on local roads, are undergoing final certifications for summer deployment. The Ladakh Administration itself is driving the shift, with all Government HoD's vehicles now electric. Secretariat EVs are next on the agenda, demonstrating commitment and paving the way for citizen adoption under the Ladakh EV Policy.

Mr. Sharma, acknowledging the Prime Minister's vision for a carbon-neutral Ladakh, emphasized the moral obligation to deliver. He urged OEMs to step up with nationwide ZEV mandates and stakeholder training. Further consultations will be held in Ladakh this summer.

He emphasised on the importance of innovation and shared that a hydrogen conversion plant is planned to be set up. This will separate kinetic, electric energy, and oxygen, with the latter bottled for tourist use, addressing both clean energy and oxygen scarcity.

Mr. Sharma mentioned that freight EVs are being tested, and their rollout awaits the final report. He also suggested that the next phase of the consultation could be held in Ladakh over the summer, and it would promise to further drive this green revolution forward.

### **Mr. Dhananjay Senapati, Additional Commissioner Transport (Technical), Transport Department, Govt. of Odisha**

Mr. Dhananjay Senapati highlighted Odisha's shift to dynamic EV subsidies on the basis of vehicle's battery capacity and that Odisha has reached 80,000 registrations so far. He emphasised the need for competitive pricing, driver training across ownership levels, and mandatory scrapping of Government vehicles after 15 years and replacement by EV.

### **Mr. Pramoj Shankar, Additional Transport Commissioner, Govt. of Kerala**

Mr. Pramoj Shankar mentioned that Kerala's EV journey began in 2018 with an ambitious target of 1 million vehicles by 2022. While COVID slowed progress, the state still achieved over 1 lakh EVs. Recent months, he said, have seen 10% of registrations being electric, showcasing a strong shift. Moreover, subsidies for auto-rickshaw conversions and charging stations have spurred adoption. That state is actively developing a carbon credit system, and a revamped EV policy is on the horizon, solidifying Kerala's commitment to a greener future.

### **Mr. Narendranath Velluri, CEO, ANERT**

Mr. Velluri emphasized on infrastructure planning and standardised charging platforms. He stressed ANERT's role in subsidy distribution and supplying of EVs to Government departments. While acknowledging the importance of mandates, he highlighted that discrepancies in vehicle operations and maintenance need immediate attention. He also mentioned the lack of control over OEMs and their individual charging apps created confusion and cost disparity. He cited the vast difference between government rates (₹13/unit) and private ones (up to ₹25/unit) as a prime example. Standardising platforms, he argued, is crucial for cost-effectiveness and wider EV adoption.

### **Mr. Hari Kumar, Director, EMC**

Mr. Kumar shared that the vehicle loans mirroring home loan rates at 8.5% are unsustainable. He proposed a 3% hike in IC engine car loan interest, not reducing EV loan rates but using the revenue increase to fund free travel on E-Buses. This, he believes, incentivises EV adoption and reduces public transport costs.

### **Ms. Asha Deputy CE REES, KSEB**

Ms. Asha highlighted KSEB's role as the state's ZEV champion, showcasing 63 rapid charging stations already deployed across Kerala. Notably, they've pioneered pole-mounted chargers, installing a record 1,165 units, ensuring at least five per constituency, a first for India. This proactive approach underscores KSEB's commitment to powering the state's electric vehicle revolution.

### **Mr. Amit Bhatt, Managing Director ICCT (Moderator)**

Mr. Bhatt highlighted key points raised at the consultation. First, concerns on starting with a low ZEV mandate percentage and legalities surrounding it, along with questions about its ultimate benefits. Second, there is a debate on prioritising infrastructure development before or after mandating ZEVs. He noted interesting insights on both fronts, emphasising the potential for mandates to nudge carmakers towards producing desirable electric vehicles, considering cars' low utilisation and depreciation, while addressing environmental concerns.

In conclusion he mentioned OEMs' expertise in selling translates well to adapting to mandates. They leverage their innovative spirit to achieve sales and achieve the mandate.

### **Mr. Narayankumar Sreekumar, Associate Director-Electric Mobility, Shakti Foundation**

Mr. Sreekumar opened his concluding remarks at the State level consultation on ZEV mandate by questioning how to build an efficient and equitable electric transport system, and whether mandates could achieve this. He cited the power sector's success story as an example. Despite lacking developed transmission, battery storage, or even silica for solar cells, India created effective market signals through strong, achievable renewable energy targets. This led to a dramatic cost reduction, from ₹11/kWh in 2011 to ₹2/kWh today.

He emphasized the urgency for similar regulations in the transport sector, which contributes 15% of India's emissions. He mentioned with Vikasit Bharat's vision of increasing logistics and exports, decarbonising transport through regulations is crucial. Mr. Sreekumar lauded robust regulations as a proven strategy, particularly starting at the sub-national level, and commended ICCT and the Kerala government for initiating this dialogue. He expressed gratitude to Mr. Jyothilal and all state representatives for their participation.

## **HIGH-LEVEL SESSION OUTCOMES**

1. There is agreement from states that the ZEV mandate is the way to go for attaining Long-Term ZEV transition goals.
2. Having a national-level vision for the ZEV mandate shall be beneficial. Nevertheless, State Governments can still utilise their legislative power to set ZEV mandate regulations within their jurisdictions.
3. State Governments are inclined towards drafting ZEV mandate policies and have shown keen interest in understanding how to draft these.