

EV-Ready Kerala:

Next-Gen Charging Solutions

Policy Roundtable Proceedings Report
March 2025

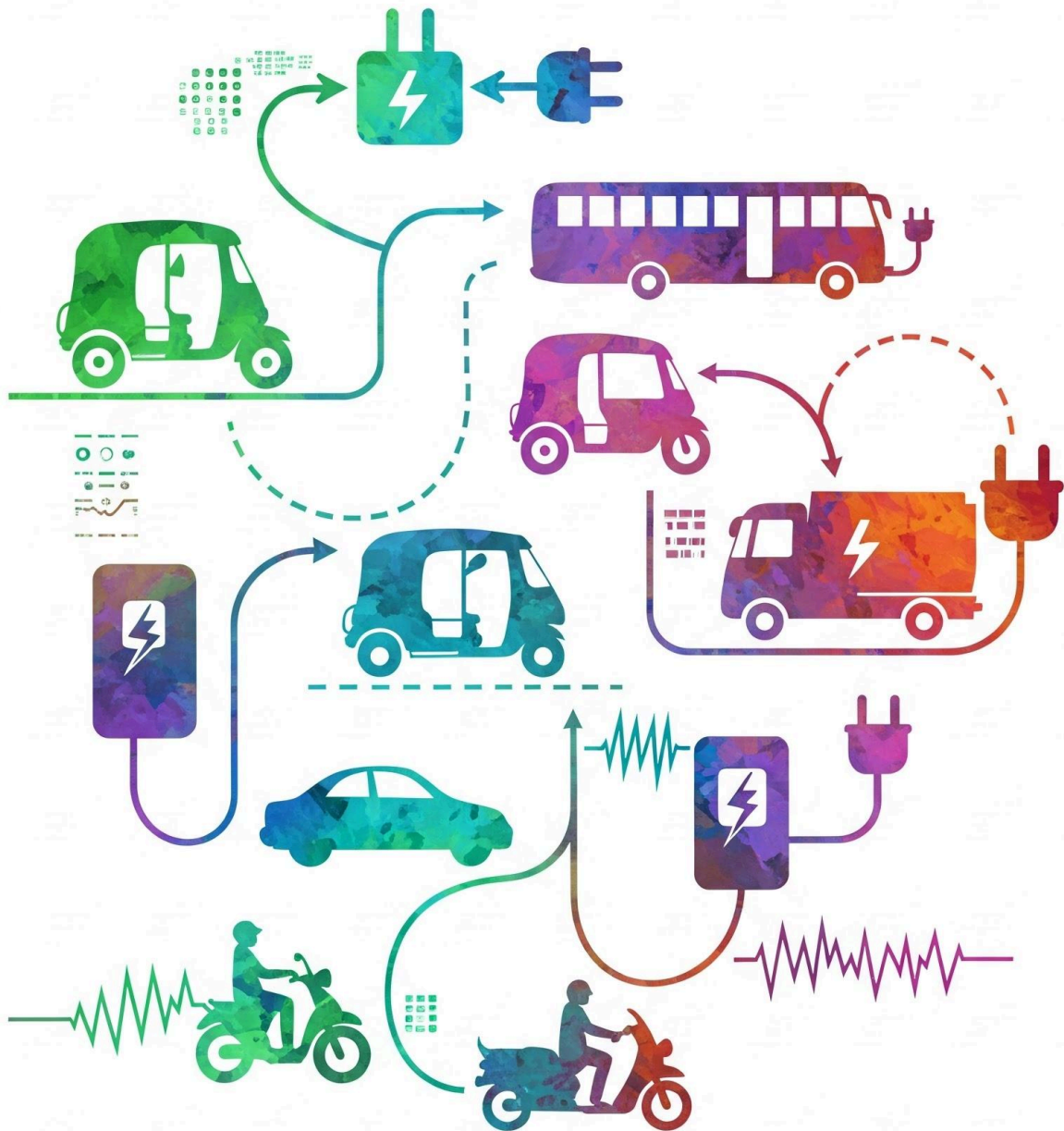


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Summary of Recommendations

- *Revise Kerala's EV Policy:* Update the state's EV policy to address next-gen charging technologies, infrastructure expansion, and evolving consumer expectations, ensuring long-term scalability.
- *Expand Fast Charging & Next-Gen Solutions:* Deploy high-power DC fast chargers, and pantograph-based charging to support diverse vehicle categories, including public transport and all forms of shared mobility.
- *Strengthen Grid Readiness & Renewable Integration:* Implement demand-response mechanisms, battery energy storage systems (BESS), and solar-powered charging hubs to balance increasing EV energy consumption.
- *Standardisation & Interoperability Framework:* Develop uniform charging standards, connector protocols (Type 6 & Type 7), and a Unified Energy Interface (UEI) to enable seamless cross-platform charging access.
- *Leverage Public-Private Partnerships (PPP):* Encourage private sector participation in EV infrastructure financing, leveraging PPP models to scale charging networks efficiently.
- *Deploy Wireless Charging Pilots:* Initiate static and dynamic wireless charging projects at transit hubs, highways, and commercial zones.
- *Expand Intercity & Highway Charging Corridors:* Develop a structured charging network with stations at 25 km for light EVs and 100 km for trucks.
- *Strengthen Policy & Research Support:* Conduct studies on wireless charging feasibility, user adoption barriers, and infrastructure optimisation.

About the Roundtable

Introduction

Kerala is witnessing a rapid transformation in its electric mobility landscape, with one of the highest EV adoption rates in India. However, the success of this transition depends on the development of a scalable, efficient, and future-ready EV charging infrastructure that can support the diverse needs of private vehicles, commercial fleets, and public transport. Traditional plug-in charging, while foundational, faces challenges related to grid capacity, land availability, and charging downtime - necessitating a shift towards next-generation charging solutions.

Emerging technologies such as battery swapping, wireless charging, and pantograph-based systems offer innovative ways to enhance Kerala's EV ecosystem. Battery swapping can provide a rapid turnaround for commercial fleets, reducing downtime and addressing range anxiety. Wireless charging, both static and dynamic, has the potential to streamline charging operations by eliminating plug-in dependency, making it particularly relevant for high-traffic urban zones. Pantograph charging, already in use globally for electric buses, could revolutionise Kerala's public transport electrification by ensuring seamless and efficient charging at depots and terminals.

The integration of renewable energy sources, battery energy storage systems (BESS), and smart grid technologies is also crucial to Kerala's long-term sustainability goals. A well-planned multi-modal charging ecosystem that combines plug-in, swapping, wireless, and high-power solutions will be key to building an EV-ready Kerala that is both technologically advanced and environmentally sustainable.

To successfully scale these technologies, it is essential to bring together the government-industry leaders, researchers, and technology providers to align on policy interventions, infrastructure investment, and implementation strategies. A collaborative platform serves as a crucial forum for stakeholder engagement, enabling knowledge-sharing, cross-sectoral partnerships, and actionable roadmaps for next-generation charging solutions.

Roundtable Brief

The Agency for New and Renewable Energy Research and Technology (ANERT), under the aegis of the Department of Power, Government of Kerala, in collaboration with OMI Foundation organised the *"EV-Ready Kerala: A Policy Roundtable on Next-Gen Charging Solutions"* on 19 March 2025 at ANERT Headquarters in Thiruvananthapuram, Kerala. This high-level convening focused on scaling up Kerala's EV charging network, integrating cutting-edge solutions, and aligning state-level policies with global best practices to accelerate Kerala's e-mobility transition.

The roundtable served as a strategic platform for identifying key challenges and opportunities in developing a comprehensive and future-ready EV charging ecosystem. The event featured participation from government agencies, charge point operators (CPOs), electric mobility service

providers (e-MSPs), wireless EV charging manufacturers, research institutions, and public transport authorities. The key panelists examined the role of innovative charging technologies, including plug-in charging, battery swapping, wireless charging, and pantograph-based solutions, in enhancing accessibility, efficiency, and sustainability.

Additionally, the discussions underscored the need for policy interventions, regulatory frameworks, and financial models to support large-scale adoption and infrastructure expansion. By fostering multi-stakeholder engagement, the roundtable helped define pathways for investment, innovation, and policy support that will shape Kerala's next-generation EV charging roadmap. The insights generated from this discussion will play a crucial role in guiding pilot projects, public-private partnerships, and technology-driven interventions, ensuring that Kerala remains a leader in India's clean mobility transition.

Key Themes of the Roundtable

The roundtable was envisioned to catalyse Kerala's progress towards a sustainable future by addressing a comprehensive array of themes central to the concept of charging ecosystem readiness. These themes include:

- **Scaling EV Charging Infrastructure:** Addressing deployment challenges, investment gaps, and public-private collaboration to expand charging networks efficiently.
- **Diverse Charging Technologies:** Evaluating the role of plug-in charging, battery swapping, wireless charging, and pantograph-based solutions in supporting Kerala's e-mobility transition.
- **Policy and Regulatory Roadmap:** Identifying policy interventions, incentives, and regulatory frameworks to drive innovation and large-scale adoption.
- **Grid Integration and Energy Management:** Exploring renewable energy synergy, battery energy storage systems (BESS), and smart grid solutions to ensure a sustainable and resilient charging network.
- **Urban and Rural Charging Networks:** Developing location-specific strategies for charging infrastructure in cities, highways, tourism hotspots, and underserved regions.
- **Interoperability and Standardisation:** Ensuring seamless user experience across multiple charging technologies and service providers through standardised protocols.
- **EV Charging Business Models:** Examining public, private, and hybrid investment strategies to ensure financial viability and long-term sustainability of EV charging infrastructure.

Roundtable Agenda and Participants

Table 1 | Detailed Agenda and Participants

Activity	Details
Welcome Address	Shri Narendra Nath Veluri, IFS, Chief Executive Officer, ANERT
Keynote Address	Shri Loknath Behera IPS, Managing Director, Kochi Metro Rail Limited (KMRL)
Opening Remarks	Ms. Aishwarya Raman, Executive Director, OMI Foundation
Keynote Presentation	"Advancing Innovation through Next-Gen Charging Solutions" - Shri Suresh Babu Muttana, Scientist E, EV Program Climate, Energy and Sustainable Technology (CEST) Division, Department of Science & Tech (DST), Government of India
Panel Discussion Moderator - Mr. Akhilesh Mahadevan K., Lead, Centre for Clean Mobility, OMI Foundation	Exploring Next-Gen Charging Solutions in Kerala: Plug-in, Battery Swapping, Wireless, and Pantograph Systems, etc - The future of EV charging lies in a diverse mix of technologies that cater to different use cases and mobility needs. Plug-in charging remains the backbone of EV infrastructure, while battery swapping offers a rapid turnaround for high-utilisation vehicles. Wireless charging is emerging as a convenient, contactless solution, and pantograph-based systems are proving effective for public transport fleets. Ensuring interoperability, seamless integration with the grid, and sustainable deployment models will be key to scaling these solutions for widespread adoption across urban and rural landscapes. Panelists from - Energy Management Centre (EMC), Government of Kerala - Kerala State Electricity Board (KSEB), Government of Kerala - Pulse Energy - Lotus Wireless Technologies Pvt Ltd - Sun Mobility - E-Fill Electric

<p>Strategic Snapshots</p> <p>Moderator - Mr. Akhilesh Mahadevan K., Lead, Centre for Clean Mobility, OMI Foundation</p>	<p><i>Building Blocks and Implementation Roadmap for Wireless EV Charging Pilots in Kerala -</i></p> <p>This session will focus on the key enablers, challenges, and strategic steps needed to roll out wireless EV charging pilots in Kerala. The goal is to establish a clear roadmap for Kerala to lead in wireless EV charging innovation, enhancing convenience, efficiency, and sustainability in the state's mobility ecosystem.</p> <p>Panelists from</p> <ul style="list-style-type: none"> - Simactricals Private Limited - Aisin Automotive - National Highways for Electric Vehicles (NHEV) - National Transportation Planning and Research Centre (NATPAC)
<p>Closing Remarks, Next Steps & Vote of Thanks</p>	<p>Ms. Arunima K.T., Lead, Centre for Clean Mobility, OMI Foundation</p>

Inaugural Sessions - Key Takeaways

Welcome Address - Shri Narendra Nath Veluri IFS, CEO, ANERT

- 1. Need for EV Policy Reassessment:** Kerala was one of the first states to introduce an EV policy, but after five years, a revision is necessary to keep pace with rapid technological advancements and evolving consumer expectations.
- 2. Charging Infrastructure Must Evolve:** While DC fast charging is established, even 60 kW chargers are becoming insufficient as newer EVs demand higher power levels. With OEMs promoting ultra-fast charging (0-80% in 10 mins), Kerala must expand high-power charging infrastructure to reduce range anxiety.
- 3. Anticipating Future Charging Needs:** Both at national and state levels, additional DC fast charging stations are required to meet growing demand. The PM E-Drive initiative mandates LEVDC chargers, highlighting the need for future-ready infrastructure investments.
- 4. Exploring Next-Gen Charging Technologies:** Wireless EV charging is gaining interest, but high costs remain a barrier. Pilot projects and feasibility studies are needed to assess Kerala's readiness for adoption.
- 5. Managing Growing Energy Demand:** Kerala is the second fastest-growing EV market in India (14% adoption rate), and EV energy consumption could increase tenfold if the state meets its target of 1 million EVs. Strategic planning is needed to align charging infrastructure with grid capacity.
- 6. Policy and Industry Alignment is Crucial:** The roundtable serves as a key platform to ensure that government interventions, infrastructure development, and industry trends align to support a future-ready EV ecosystem.

Keynote Address - Shri Loknath Behera IPS, Managing Director, Kochi Metro Rail Limited (KMRL)

- 1. Kerala's High Vehicle Ownership & EV Adoption:** With 1.5 to 1.7 crore registered vehicles, Kerala has one of the highest per capita vehicle ownership rates in India, comparable to European nations. While EV adoption stands at 14%, further incentives are needed to drive mass adoption.
- 2. Need for Targeted EV Incentives:** Drawing from global examples, policies like EV-only parking zones and toll exemptions could encourage wider adoption. A mandate for every household to own at least one EV was also proposed as a potential long-term strategy.
- 3. Charging Infrastructure Gaps:** Despite India's progress in charging infrastructure, accessibility issues persist, especially in tourist and rural areas. A case from Idukki illustrated how charging unavailability can negatively impact user experience and confidence in EVs. He proposed that all 3,000 petrol pumps in Kerala be equipped with EV chargers to eliminate urban-rural disparities.

4. **Grid Readiness & Energy Demand Management:** Kerala's high electricity consumption patterns, especially in the evenings, place a strain on the grid. Strategic planning and demand-balancing measures are necessary to support large-scale EV adoption.
5. **Fast Charging vs. Battery Health:** While fast charging is critical for consumer convenience, its potential impact on battery life and grid infrastructure must be studied further. The Kerala Water Metro's LTO battery model was cited as a high-efficiency but expensive alternative.
6. **Financing & Public-Private Partnerships (PPP):** The government alone cannot bear the financial burden of expanding charging infrastructure. PPP models and value-for-money assessments are necessary to ensure that EV charging remains cost-competitive with petrol refuelling.
7. **Need for Continued Stakeholder Engagement:** Shri Behera urged ANERT and OMI to facilitate more stakeholder discussions, focusing on policy recommendations, infrastructure expansion, and technology advancements to drive Kerala's EV ecosystem forward.

Keynote Presentation - Shri Suresh Babu Muttana, Department of Science & Tech (DST), Government of India

1. **Strengthening Kerala's EV Ecosystem:** The state must focus on three core areas:
 - Developing a robust manufacturing ecosystem for EV components, batteries, and chargers.
 - Ensuring clean electricity generation to support the growing EV fleet.
 - Expanding charging infrastructure through diverse, scalable, and interoperable solutions.
2. **Scaling Charging Infrastructure with Government Support:** Under PM-E-DRIVE, the government is incentivising 22,100 fast chargers across India, with specific advancements in:
 - Light EV (LEV) AC charge points for two- and three-wheelers.
 - Dual-gun fast charging systems for electric buses.
 - Interoperable battery swapping for commercial fleet electrification.
 - Pantograph charging to enhance public transport electrification.
3. **Addressing Standardisation & Indigenous Development:** Kerala must prioritise:
 - Cost-effective DC charging solutions for light electric vehicles (LEVs).
 - Indigenous development of DC chargers using SiC (Silicon Carbide) and GaN (Gallium Nitride) technologies.
 - Standardising connectors (Type 6 and Type 7) to support a wide range of vehicle categories.
4. **Enhancing Interoperability & Unified Energy Interface (UEI):** The evolution of **interoperability standards** will ensure seamless charging by enabling:
 - Vehicle-to-charger compatibility, ensuring uniform charging interfaces.
 - Charger-to-network integration, optimising payment systems and real-time monitoring.

- Network-to-network communication (OCPI) to support cross-platform charging accessibility.

5. Battery Swapping & Grid Resilience:

- Battery-as-a-Service (BaaS) can reduce upfront costs by 40%, making EV adoption more accessible.
- Battery swapping stations can double as energy storage systems, enhancing grid stability.
- Microgrids and decentralised park-bay charging could help lower infrastructure costs and optimise grid demand.

6. Exploring Next-Gen Charging Technologies: Kerala should actively pursue:

- Pantograph charging pilots to electrify public transport efficiently.
- Research on LTO battery technology, which offers longer life and faster charging but remains costly.
- Inductive (wireless) charging solutions, where ANERT and OMI can play a key role in advancing research and pilot projects.

Recommendations from the Inaugural Sessions

Table 2 | Key Recommendations from the Inaugural Sessions

- *Revise Kerala's EV Policy:* Update the state's EV policy to address next-gen charging technologies, infrastructure expansion, and evolving consumer expectations, ensuring long-term scalability.
- *Expand Fast Charging & Next-Gen Solutions:* Deploy high-power DC fast chargers, wireless charging pilots, and pantograph-based charging to support diverse vehicle categories, including public transport.
- *Strengthen Grid Readiness & Renewable Integration:* Implement demand-response mechanisms, battery energy storage systems (BESS), and solar-powered charging hubs to balance increasing EV energy consumption.
- *Standardisation & Interoperability Framework:* Develop uniform charging standards, connector protocols (Type 6 & Type 7), and a Unified Energy Interface (UEI) to enable seamless cross-platform charging access.
- *Leverage Public-Private Partnerships (PPP):* Encourage private sector participation in EV infrastructure financing, leveraging PPP models to scale charging networks efficiently.

Panel Discussions - Key Insights

1. Exploring Next-Gen Charging Solutions in Kerala: Plug-in, Battery Swapping, Wireless, Pantograph Systems, etc.

The discussion highlighted the importance of optimising EV charging infrastructure deployment, integrating renewable energy, and improving accessibility through innovative business models. While Kerala has made significant strides in EV adoption and charging expansion, challenges remain in infrastructure planning, energy management, and business model viability.

1. **Need for Strategic Charging Infrastructure Deployment:** While Kerala has expanded its charging network, a comprehensive study is required to assess whether stations are optimally located based on vehicle concentration and usage patterns to prevent bottlenecks and inefficiencies.
2. **Renewable Energy & Grid Integration:** The state's goal of 10 GW of renewable energy by 2030 highlights the need to power EV charging infrastructure primarily through renewables. Battery Energy Storage Systems (BESS) and smart grid solutions will be critical for grid stability and efficient energy utilisation.
3. **Interoperability & Digital Integration:** A unified EV charging application has streamlined user experience, but further advancements in appless charging solutions and standardised payment systems are necessary for seamless accessibility. Mandating interoperability at the policy level could further accelerate infrastructure efficiency.
4. **Scaling Battery Swapping & Subscription Models:** Battery swapping is gaining traction, especially in commercial EV segments, helping lower upfront costs by 40% and improve total cost of ownership (TCO). However, fragmented market structures and power availability challenges need to be addressed to scale adoption.
5. **Emerging Technologies & Infrastructure Efficiency:** Solid-state transformers, DC grids, and energy storage solutions present opportunities for enhancing charging efficiency while reducing space constraints. Smart energy systems integrating renewable energy with BESS could help balance demand and improve cost-effectiveness.

The session reinforced the need for data-driven infrastructure planning, renewable integration, and interoperability-focused policies to build a scalable and sustainable EV charging ecosystem. Advancing innovative financing models, digital solutions, and new technologies will be key to Kerala's transition towards efficient, accessible, and future-ready EV infrastructure.

2. Building Blocks and Implementation Roadmap for Wireless EV Charging Pilots in Kerala

The focus of this discussion was on wireless EV charging, strategic infrastructure planning, and policy interventions needed to advance Kerala's EV ecosystem. Discussions highlighted the potential of static and dynamic wireless charging, intercity charging corridors, and the role of public-private partnerships (PPPs) in scaling infrastructure.

- 1. Wireless Charging Deployment Strategies** – Static wireless charging is best suited for transit hubs, malls, tech parks, and apartment complexes, while dynamic charging could be ideal for bus routes, highways, airports, and seaports to support commercial fleets and logistics.
- 2. Integration with National & Global EV Roadmaps** – Kerala can leverage national initiatives such as NHEV and policy collaborations with NITI Aayog while drawing insights from France's plan to develop 8,850 km of electrified roads by 2035.
- 3. Intercity & Intracity Charging Corridors** – Kerala's charging infrastructure has gained national attention, but intra-city and highway-based charging networks need structured planning. Charging stations at 25 km intervals for light EVs and 100 km for trucks can optimise infrastructure efficiency.
- 4. Pilot Projects & Renewable-Powered Wireless Charging** – A 10 km pilot for wireless charging, integrating solar, wind, and excess renewable energy storage, was proposed. Solid-state transformers and distributed energy models can enhance efficiency.
- 5. Research & Policy Support for Wireless Charging** – Further studies on wireless EV charging feasibility are needed, particularly for Indian road conditions. Research on user behaviour, purchase barriers, and optimal station locations can support targeted policy recommendations.

The session emphasised the need for strategic deployment of wireless charging, intercity corridor planning, and PPP-driven infrastructure development. Advancing pilot projects, renewable integration, and policy-backed research will be key to establishing Kerala as a leader in next-gen EV charging solutions.

Recommendations from the Panel Discussions

Table 3 | Key Recommendations from the Panel Discussions

- *Deploy Wireless Charging Pilots:* Initiate static and dynamic wireless charging projects at transit hubs, highways, and commercial zones.
- *Expand Intercity & Highway Charging Corridors:* Develop a structured charging network with stations at 25 km for light EVs and 100 km for trucks.
- *Strengthen Policy & Research Support:* Conduct studies on wireless charging feasibility, user adoption barriers, and infrastructure optimisation.

Powering Kerala's EV Future - A Strategic Roadmap

The future of EV charging is not a one-size-fits-all approach - it requires an ecosystem of diverse, complementary technologies to meet different mobility needs. Plug-in charging remains the foundation of Kerala's EV infrastructure, but its scalability depends on grid resilience, renewable energy integration, and strategic deployment. While Kerala has expanded its public charging network, a data-driven approach is needed to ensure optimal charger placement based on vehicle concentration. Additionally, interoperability standards and a unified energy interface (UEI) must be established to streamline access across different charge point operators and service providers.

Battery swapping is emerging as a game-changer, particularly for high-utilisation commercial fleets. By decoupling the battery from vehicle ownership, swapping lowers upfront costs, enhances battery lifespan, and improves total cost of ownership (TCO). However, challenges remain - standardisation of battery formats, ensuring power availability at swap stations, and the financial viability of the subscription model must be addressed. Public-private partnerships (PPPs) can play a crucial role in expanding battery-swapping networks, and policies must facilitate timely subsidy disbursement and investment incentives to scale adoption.

Wireless charging presents a revolutionary step forward, offering seamless, automated energy transfer that eliminates the need for manual intervention. Static wireless charging can be strategically deployed at transit hubs, parking areas, and commercial zones, while dynamic charging on highways and dedicated bus routes can support public transport and logistics operations. Kerala must conduct pilot projects to assess feasibility, cost-effectiveness, and integration with renewable energy sources. Additionally, smart grid solutions and battery energy storage systems (BESS) can enhance efficiency and manage demand fluctuations.

Flash charging and megawatt-scale (MWS) charging are essential for Kerala's public transport and heavy-duty vehicle electrification. Pantograph-based flash charging, which enables high-power energy transfer within minutes, can be deployed at bus depots, metro stations, and key transit hubs to reduce downtime and improve operational efficiency. Similarly, megawatt-scale charging hubs along highways and logistics corridors can support electric trucks and commercial fleets, ensuring Kerala stays ahead in zero-emission freight and public transport. Strategic planning must focus on grid preparedness, energy storage integration, and financial models to make these technologies viable.

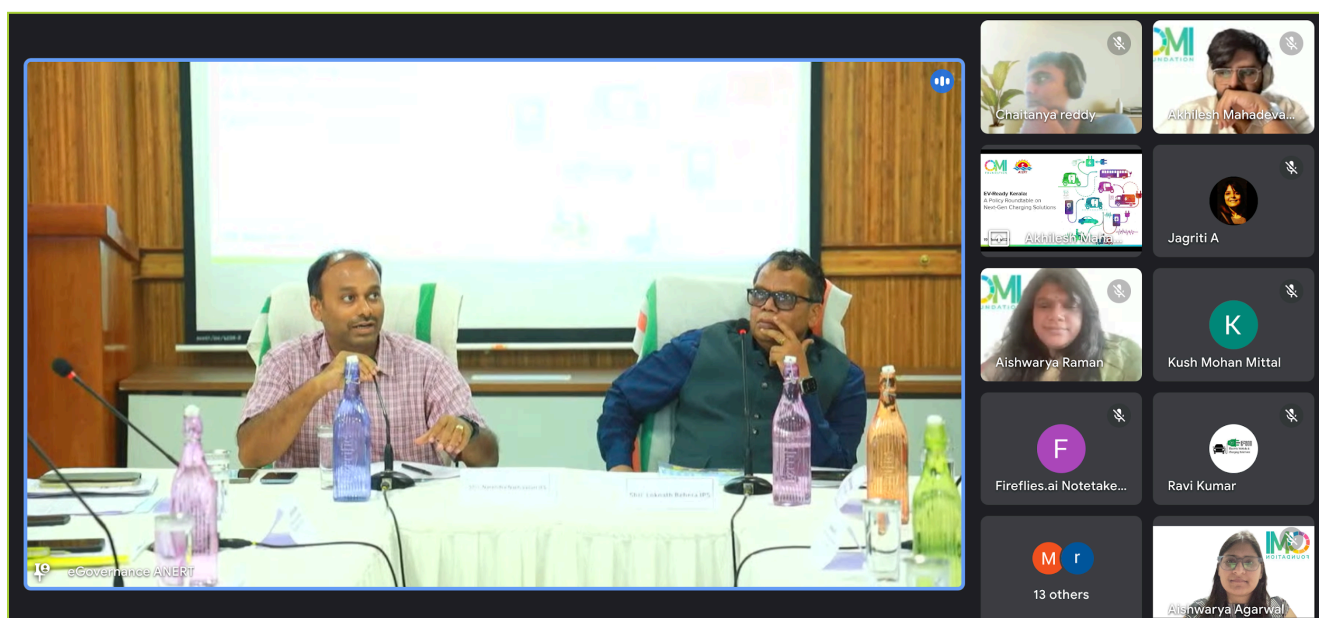
Beyond technology, financial sustainability, policy interventions, and research-driven implementation are key to Kerala's success. Flexible tariff structures, government-backed incentives, and PPP models can accelerate infrastructure deployment. Additionally, research on EV user behaviour, adoption barriers, and infrastructure planning will help shape data-driven policies for an EV-ready charging ecosystem in Kerala.

Snapshots from the Roundtable

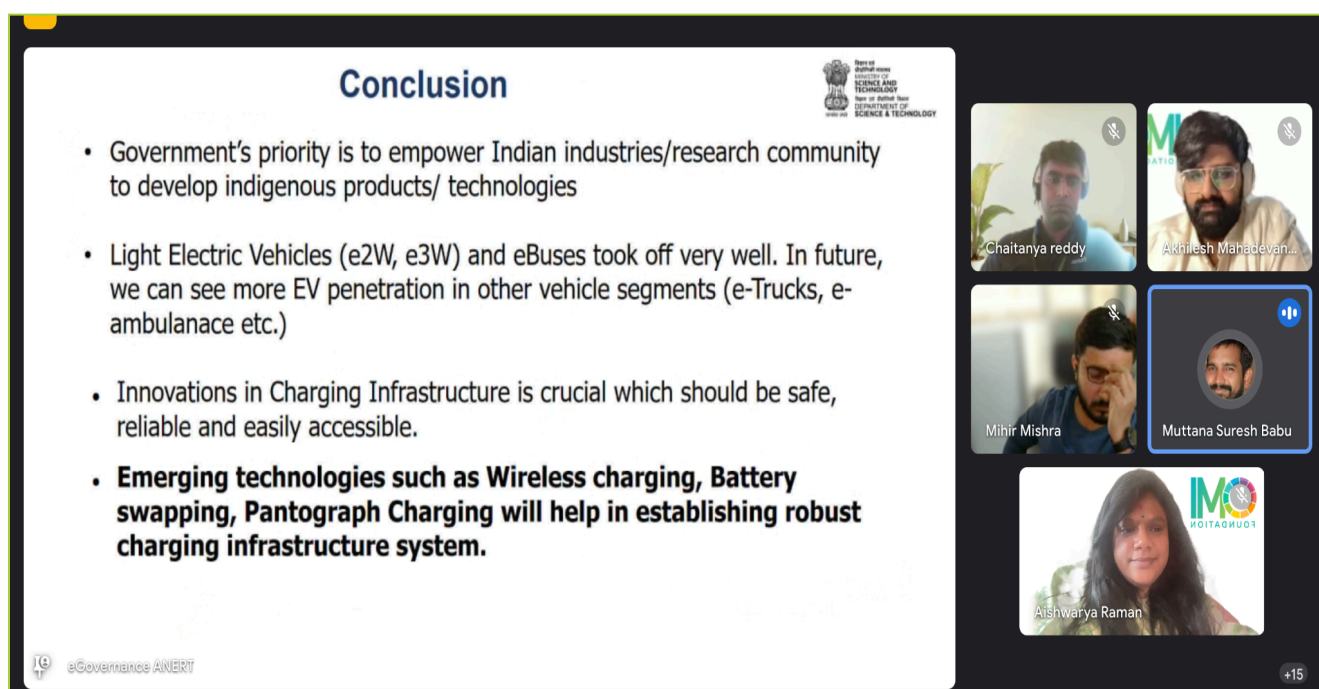
Picture 1 | Keynote Address by Shri Loknath Behra IPS, MD, KMRL



Picture 2 | Welcome Address by Shri Narendranath Veluri IFS, CEO, ANERT



Picture 3 | Keynote Presentation by Shri Suresh Babu Muttana, Scientist E, EV Program Climate, Energy and Sustainable Technology (CEST) Division, Department of Science & Tech (DST), Government of India



Picture 4 | Release of OMI Foundation Issue Brief, *EV-Ready India: Unplugging Barriers with Wireless EV Charging*, by Esteemed Guests and Panelists

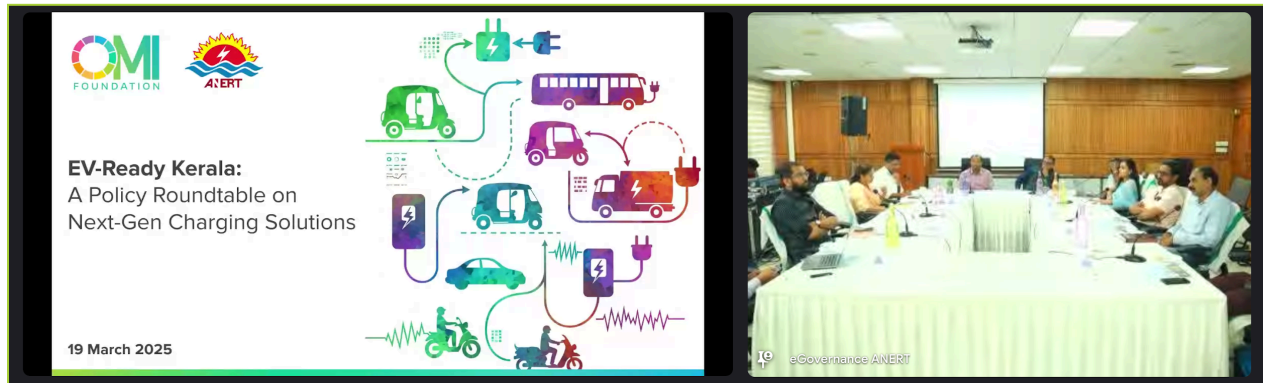


From Left to Right: Mr. Syed Yusuf Hassan from Pulse Energy; Ms. Cini John from KSEB; Mr. Manoharan from ANERT; Shri Narendra Nath Veluri IFS, CEO, ANERT; Shri Loknath Behera IPS, Managing Director, Kochi Metro Rail Limited (KMRL); Mr. Premkumar from ANERT; Ms. Arunima from OMI Foundation; Mr. Dinesh Kumar A. N., Joint Director, EMC; Dr. Shaheem S, and Dr. Tinku Casper D' Silva from NATPAC.

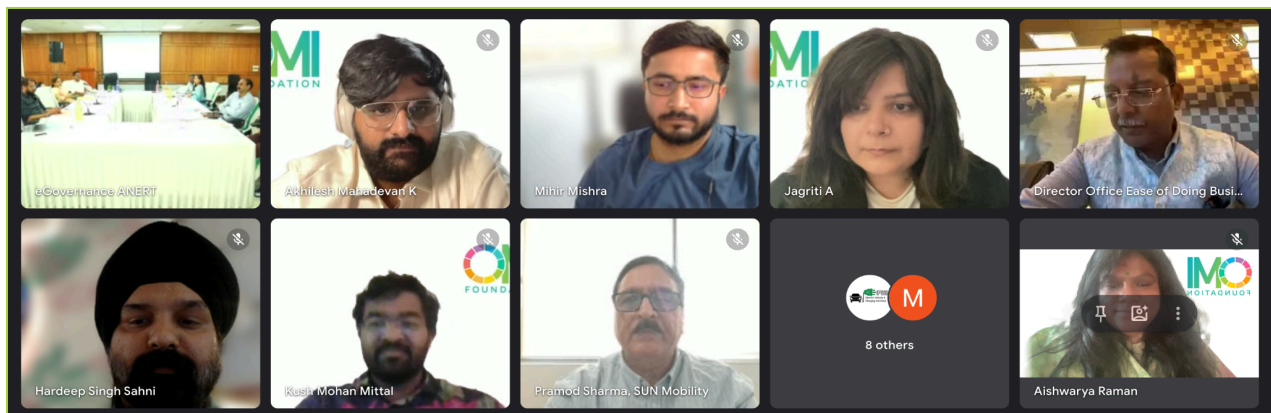
Picture 5 | A Ringside View of the Hybrid Roundtable - Esteemed Speakers joining us at ANERT HQ in Thiruvananthapuram and in virtual mode



Collage 1 | Panel Discussions Underway



Participants online and offline



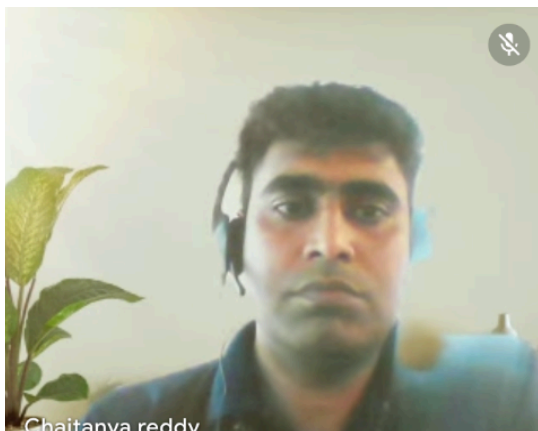
Top; From Left to Right: Mr. Akhilesh Mahadevan from OMI Foundation; Mr. Mihir Mishra from Simactricals; Ms. Jagriti Arora from OMI Foundation; Mr. Abhijeet Sinha from NHEV.
Bottom; From Left to Right: Mr. Hardeep Singh Sahni from Lotus Wireless; Dr. Kush Mohan Mittal from OMI Foundation; Mr. Pramod Sharma from Sun Mobility; Mr. Mayank Jain from E-fill Electric; Ms. Aishwarya Raman from OMI Foundation



Ms. Cini John, Assistant Executive Engineer and Team Lead (EV Cell), KSEB



Mr. Dinesh Kumar AN, Joint Director, EMC



Mr. Krishna Chaitanya Reddy, AGM - Advanced Technology Development, AISIN Automotive



Dr. Shaheem S - Principal Scientist & Head of Transport Planning Division, NATPAC



Mr. Abhijeet Sinha, Technocrat - Ease Of Doing Business;
Program Director - National Highways for Electric Vehicles (NHEV); President - CPOs of India

Credits

About ANERT



The Agency for New and Renewable Energy Research and Technology (ANERT) is an autonomous organisation established in 1986 under the Societies Act by the Government of Kerala, now functioning under the power dept; with its headquarters at Thiruvananthapuram. The objective of the Agency is to gather and disseminate useful knowledge in various fields of Non-Conventional Energy, Energy Conservation and Rural Technology; conduct studies, demonstrate, implement and support implementations of schemes and projects in these fields and thereby deal with the problems arising out of the rapid depletion of conventional energy sources; update the technologies used in rural areas as well as introduce appropriate new technologies to reduce drudgery, increase production and improve quality of life. The Agency is better known by its acronym ANERT and has become a synonym for Renewable Sources of Energy and Energy Conservation in the State. ANERT is guided by an Executive Committee chaired by the Chairman, Secretary power dept; and a Governing Body chaired by the Minister of Electricity, Govt. of Kerala to provide guidelines for ANERT's activities in various energy related areas. ANERT is the State Nodal Agency (SNA) for the Ministry of New and Renewable Energy (MNRE), Govt. of India, to carry out the Centrally Assisted Programmes in Kerala. ANERT is the state agency for Renewable Purchase Obligations (RPO) and Renewable Energy Certificates (REC) for Kerala. ANERT is headed by a Director appointed by the Government and guided by a Governing Body chaired by the Minister for Power, Kerala and an Executive Committee chaired by the Secretary to Government, Department of Power, Government of Kerala.

About OMI Foundation



OMI Foundation Trust is a new-age policy research and social innovation think tank operating at the intersection of mobility innovation, governance, and public good. Mobility is a cornerstone of inclusive growth providing the necessary medium and opportunities for every citizen to unlock their true potential. OMI Foundation endeavours to play a small but impactful role in ushering meaningful change as cities move towards sustainable, resilient, and equitable mobility systems, which meet the needs of not just today or tomorrow, but the day after.

OMI Foundation houses four interconnected centres that conduct cutting-edge evidence-based policy research on all things mobility:

- 1) **The Centre for Clean Mobility** catalyses the adoption of electric vehicles, future fuels, and renewable energy within the mobility ecosystem as a key climate strategy of cities.
- 2) **The Centre for Future Mobility** supports the leapfrog of cities to a sustainable future anchored in the paradigms of active, shared, connected, clean, and AI-powered mobility.

3) **The Centre for Inclusive Mobility** promotes safe, accessible, reliable, and affordable mobility for all. It paves the road for the future of work and platform economy to fulfil the modern promise of labour.

4) **The Centre for Technology Transitions** is dedicated to transforming India's innovation ecosystem through a systems approach. It aims to position India as a global leader in ethical, inclusive, and sustainable technological innovation.

Acknowledgements

We extend our sincere gratitude to the 25+ experts from the government, wireless charging OEMs and EV charging ecosystem players who attended the EV-Ready Kerala: A Policy Roundtable on Next-Gen Charging Solutions at the ANERT office or in virtual mode series and actively contributed to enhancing our collective understanding of next-gen charging solutions. Their valuable insights, both during the discussions and through one-on-one engagements, have been instrumental in shaping this report.

We also appreciate the guidance, mentorship, support, and cheerleading of our dear colleagues from OMI Foundation: Neha Gupta, Former Head, Centre for Clean Mobility; Anish Michael, Lead, Centre for Future Mobility; Madhumitha V, Lead, Centre for Future Mobility; Kush Mohan Mittal, Lead, Centre for Tech Transitions; Jagriti Arora, Lead, Centre for Tech Transitions; Aishwarya Agarwal, Lead, Centre for Inclusive Mobility;

Finally, we express our appreciation in advance to the government stakeholders who will be receiving and considering the recommendations emerging from this initiative.

Author



Akhilesh Mahadevan K., *Lead, Centre for Clean Mobility, OMI Foundation*

An engineer turned policy practitioner building his expertise in clean mobility, energy transition, and emerging technologies. With a strong academic foundation and on-the-ground experience in government advisory and stakeholder engagement, Akhilesh has worked with multiple state governments such as Kerala, Madhya Pradesh, Jharkhand, Tamil Nadu, Telangana, etc. Currently, he is an integral part of the Programme Management Unit (PMU) that serves as a knowledge partner for ANERT, Department of Power, Government of Kerala.

Contributors & Editors



Arunima K.T., *Lead, Centre for Clean Mobility, OMI Foundation*

Arunima KT, an urban planner turned clean mobility advocate, is currently Lead – Centre for Clean Mobility at OMI Foundation. With expertise in urban planning, sustainable transportation, and policy advocacy, she has contributed to World Bank-funded projects and published research on ecological resilience. She is committed to integrating urban planning with clean mobility for sustainable, low-carbon cities.



Aishwarya Raman, *Executive Director, OMI Foundation*

Aishwarya leads policy research on energy, mobility, livelihoods, and technology transitions. An Oxford-trained sociologist, she began her mobility sector journey as an entrepreneur and academic over a decade ago. A member of key policy committees at state, national, and global levels, she has received fellowships for AI-led transformations, including Salzburg Global and The Nippon Foundation fellowships. Under her leadership, OMI Foundation has developed pioneering policy tools, earning the organisation national and international recognition.

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