

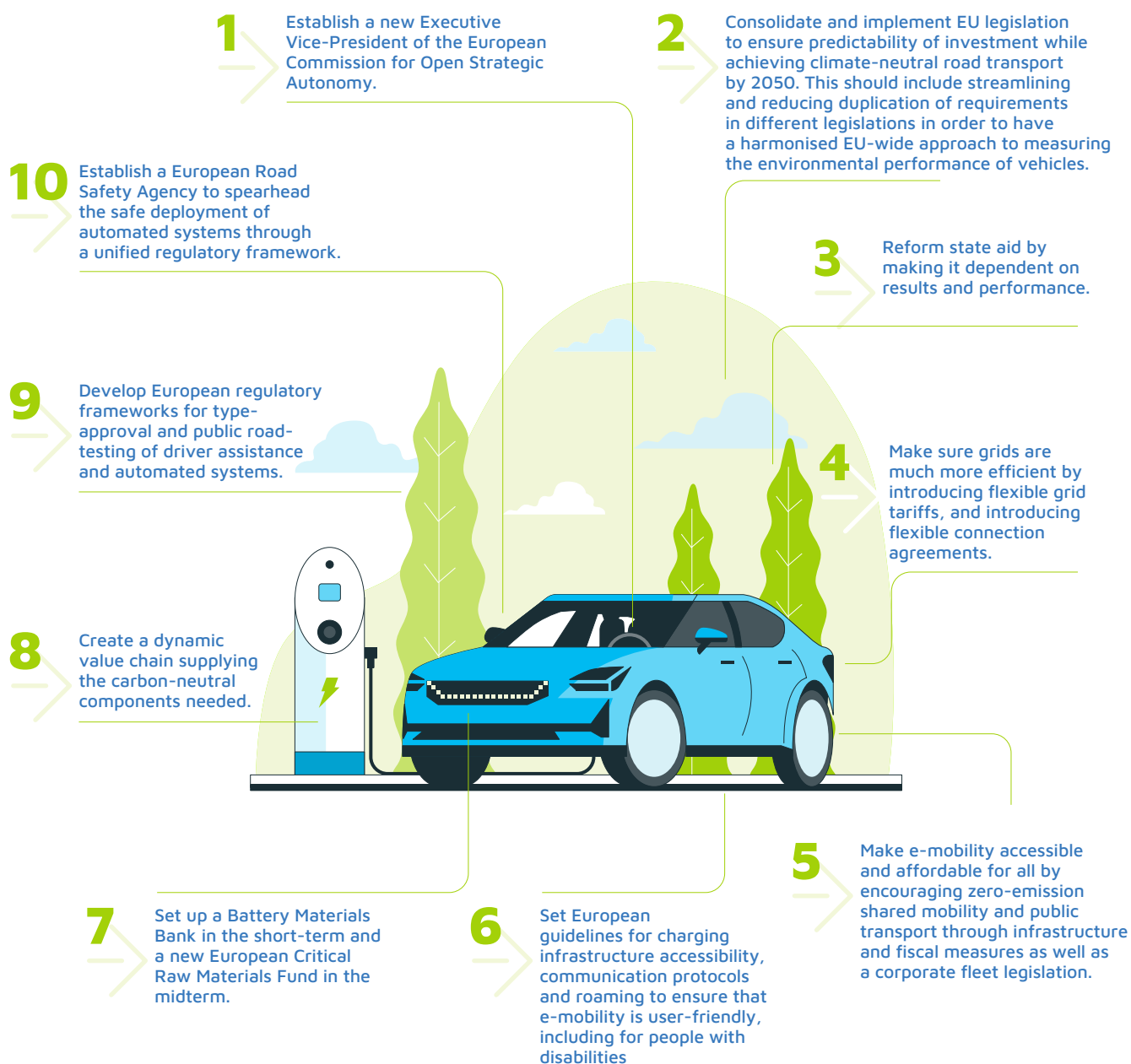
How the EU can Lead the E-Mobility Industrial Revolution

AVERE's Recommendations for
the Next European Commission



Executive Summary – Our Recommendations for the Next 2024-2029 EU Mandate

As we near the EU elections, the next European Commission must step on the pedal to accelerate EV uptake ambitions and relentlessly push for a greener future on our roads! The AVERE key recommendations emphasise prioritizing coherent industrial policies, ensuring legislative coherence, swift policy implementation, grid efficiency, accessible and affordable e-mobility, as well as strategic investments in battery technology. These recommendations urge decisive action to propel Europe towards a sustainable, efficient and competitive e-mobility landscape. **We especially call on the next Commission to:**



10 ELEMENTS TO CREATE A DRIVING FORCE FOR E-MOBILITY IN EUROPE

Foreward from our President

Keynote from
Maciej Mazur



The future of e-mobility depends on the next European Commission's enforcing established trajectories and creating an enabling framework. Now is the time to implement far-reaching electrification plans and remove blockers to the deployment of e-mobility. Previous investments in Europe have not only supported e-mobility but also catalyzed employment opportunities, underlining the transition's positive socio-economic impact. To be globally competitive, the EU must set up short- and midterm plans to financially support the battery materials and net zero technologies and industry we need, as is the case in other regions, to ensure sustainability, competitiveness and jobs.



Table of Contents



Executive Summary



Foreword from
our President



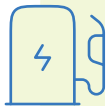
Introduction

1



Seizing the Momentum:
Rapid and Coherent
Implementation for a
Dynamic E-Mobility Future

2



Unlocking the Future:
Electrify, Electrify, Electrify!

3



Providing E-Mobility for All:
A Vision for Inclusive
and Affordable
Transportation in the EU

4



Empowering Europe's Green
Future: A Call for Strategic
Investment in E-Mobility
and Related Materials

5



Facilitating the Development
Electric Automatic Driving
Solutions: Kick-Starting
Europe's Ability to Compete



Conclusion

Introduction

The European Green Deal has established the regulatory path for making Europe a global leader in climate action. In view of the upcoming European elections, AVERE fully supports the European Commission's past climate policy efforts and urges the EU to accelerate the uptake of electric mobility (e-mobility) to enable the green transition of the EU 27. To do so, AVERE calls on future European legislators to prioritise the following actions for 2024–2029.



1

Seizing the Momentum: Rapid and Coherent Implementation for a Dynamic E-Mobility Future

We call for the appointment of an Executive Vice-President (EVP) of the European Commission for Open Strategic Autonomy to continue the work done on the EU Green Deal and at the same time foster EU competitiveness on the global stage.

Many policies adopted in the current legislative term are supportive of the e-mobility transition. What is currently missing is a coherent and ambitious industrial policy, looking at de-risking all stages of the EV value chain. The portfolio of the new EVP should therefore encompass an ambitious trade policy to secure access to raw materials, environmental and industrial policy to ensure the development of an EU industrial base with high environmental standards, energy policy to secure access to competitive green energy, and R&D focused on the development of new low-carbon solutions. Additionally, it is crucial to recognise the counterproductiveness of protectionist measures like tariffs on EV imports from outside the union. Instead, the EVP should also oversee the development of new ambitious short and midterm funding schemes to scale up EU manufacturing capacity for precursor cathode active material (pCAM/CAM), materials refining, in addition to the EU's current battery cell focus overall supporting the competitiveness of the EV value chain on a global stage, with market incentives for low-carbon and green products. The EU's industrial support should be output-based, cover CAPEX and OPEX, be time-limited, predictable and easy to use.

Coherence of future legislation with existing EU policies is also crucial to provide legal certainty for investors and create an environment conducive to e-mobility investments.

This new EVP would also have an essential role in overseeing the swift implementation of adopted policies such as the cars and trucks CO₂ standards Regulations, Alternative Fuels Infrastructure Regulation, the Renewable Energy Directive, the Energy Performance of Buildings Directive, the Electricity Directive, the Electricity Market Design, Net-Zero Industry Act, the Trans-European Network Regulation and the Critical Raw Materials Act, while maintaining and protecting the targets and trajectories set in these laws. Upcoming initiatives, such as the revision of REACH, should also be seen in conjunction with these adopted measures and targets. Clarity in the technical implementation of existing legislation, consistency with established policies, and a commitment to a supportive business environment are imperative to attract and avoid divestment of investments across the entire EU e-mobility value chain.

Establishing a new Executive Vice-President of the European Commission for Open Strategic Autonomy to ensure coherence between legislative files and support the uptake of net-zero technology production in Europe.

 We recommend:

Consolidating and implementing – Europe has adopted a plethora of legislation to achieve climate-neutral road transport by 2050. It is now very important to let the dust settle and ensure stability and predictability so that the industry can invest.

Reforming state aid by making it dependent on results and performance (like the IRA¹ in the USA) rather than project proposals, budgets and so-called „funding gaps“, comparing it with counterfactual scenarios. The mid-cycle battery sector is essential, and investment in this part of the value chain is still low in Europe.

¹ <https://www.whitehouse.gov/cleanenergy/inflation-reduction-act-guidebook/>

2

Unlocking the Future: Electrify, Electrify, Electrify!

Electricity is the backbone of our society and also the most efficient energy carrier to decarbonise road transport¹. Efficiency is what sets e-mobility apart and this must remain the driving force of the next Commission, which has to promote the most efficient energy carriers for the appropriate transport sub-sectors. The electrification of road transport would help the EU become more autonomous by considerably cutting oil imports which represent on a monthly basis 35 billion euros².

EVs are more efficient than e-fuels and biofuels, and the EV growth will increase even more as more EU countries implement the RED III-mandated electricity credit trading systems and improve the build-out and modernisation of their power grid.

Grids will be the next frontier for e-mobility as grid connections are taking longer and are becoming more expensive. Therefore, building on the Grid Action plan and our own recommendations³, we urge lawmakers and the other relevant stakeholders of the electricity market (NRAs and system operators) to implement a regulatory framework that promotes grid flexibility and market-based congestion management solutions, while keeping investments on grid expansion and modernisation.

The slow development of new and modernisation of existing grid infrastructure is causing higher grid reinforcement costs in countries where these costs are transferred to developers of charging infrastructure and fleet operators. In some cases, these costs are killing the business plan for new fast-chargers, ultimately resulting in less charging infrastructure for consumers. Countries that are experiencing this today

in the light-duty vehicle sector will face even more serious issues in heavy-duty vehicle (HDV) charging, which has higher power capacity. Therefore, the European Commission should propose the socialisation of grid connection and grid reinforcement costs, which would allow developers to focus on deploying more fast-charging infrastructure.


The next Commission must ensure system operators accelerate and anticipate their investments in electricity grids to enable Charging Points Operators (CPOs) and fleet operators to deploy a dense charging infrastructure network – across major highways, in urban and peri-urban areas as well as at mobility hubs – to allow EV users to travel smoothly across Europe. Additionally, system operators, national regulatory authorities (NRAs) and lawmakers must consider the e-mobility sector as an opportunity to bring greater flexibility, that is the ability of any energy source – consumers and EVs included – to adapt power consumption or production (injection) to a price signal to optimize network reinforcements and operation in a context of increased electrification of society and penetration renewable energy sources, while ensuring that e-mobility services are of sufficient

1 <https://www.transportenvironment.org/wp-content/uploads/2022/02/TE-Briefing-Rewarding-renewable-efficiency.docx.pdf>
2 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU_imports_of_energy_products_-_latest_developments
3 <https://www.aveva.org/blogpages/policy-details/2023/12/15/Position-Paper-Paving-the-way-for-electromobility-grid-integration>



2

Unlocking the Future: Electrify, Electrify, Electrify!



priority to avoid charging restrictions / shutdowns in case of grid overload. Here the Commission must promote the deployment of load management solutions such as battery storage systems which alleviate the grid build-out pressure and provide flexibility. However, the current regulatory framework does not facilitate the uptake of these flexible solutions (i.e., outdated network codes, double taxation issues linked to V2G, etc). In particular, the charging of electric HDVs requires a rapidly increasing availability of scalable charging locations with sufficient grid capacity available (10–30 MW+). Provision for these types of sites requires both the maximum deployment of grid extensions, and also full participation in flexibility markets both with vehicle batteries (fleets) and stationary battery deployment. Given the extreme targets for electrification of fleets (e.g. CO₂ standards), deployment of HDV

charging equipment should be supported and incentivised to the fullest extent.

Beyond investments, CPOs and fleet operators need faster connections to the grids and a clear understanding of locations that are ready to welcome charging points and connect them to the grid. We therefore urge lawmakers to implement and build a regulatory framework which streamlines administrative and permit-granting processes of the e-mobility industry and establish grid capacity maps to make investment future-proof.

Furthermore, the dominant role electric vehicles, mainly fleets, could play in bringing flexibility and grid support should be underlined with regulatory frameworks, standardisation and foremost should lead to a free and equal participation in electricity markets based on market-based mechanisms.



We recommend:

Making sure grids are much more efficient by:

- Introducing flexible grid tariffs.
- Introducing flexible connection agreements, but only under the condition that grid users' rights are respected: they need to keep the choice to switch to a regular connection agreement, be paid for flexibility they provide, and be informed transparently about all conditions. In parallel, investments into grid expansion and modernisation need to keep increasing.

3

Providing E-Mobility for All: A Vision for Inclusive and Affordable Transportation in the EU

E-mobility must move away from being perceived as a luxury and be recognised as a practical, mainstream solution available for mass market adoption and therefore be available for every citizen independent from income level and transportation needs.

As such, the Commission should address myths on e-mobility in its EU-wide communication campaigns¹ to tackle disinformation and misinformation on online platforms, social media and news media.

Policies need to ensure accessibility and affordability for all as well as remove barriers that may otherwise limit access based on socio-economic factors. To this end, we call for European guidelines for charging infrastructure accessibility, communication protocols and roaming. This would not only streamline operations but also foster interoperability, making e-mobility more accessible and user-friendly, including for people with disabilities while ensuring innovation can be a driving force in the EU. These guidelines also provide the necessary harmonisation for stakeholders involved in the recharging segment to have the legal certainty when deploying a dense network of recharging infrastructure.

The future also lies in maximising the use of public transport and fostering shared mobility options, which can play a vital factor in making zero-emissions mobility much more widely accessible and affordable in Europe as well as support the conversion to more zero-emission kilometres driven. In this context, zero-emission shared mobility and public transport have to be encouraged through infrastructure and fiscal measures, ensuring sufficient public charging infrastructure at mobility hubs such as train stations and airports. In addition, to encourage the growth of the e-mobility sector, a holistic mix of “push and pull” policy and financing measures will be needed to stimulate EV demand, notably for corporate fleets, to support access to affordable EVs, including in the second-hand market.

¹ <https://digital-strategy.ec.europa.eu/en/policies/online-disinformation>



We recommend:

Making e-mobility accessible and affordable for all by encouraging zero-emission shared mobility and public transport through infrastructure and fiscal measures as well as adopting a holistic mix of “push and pull” policy and financing measures to stimulate EV demand, notably for corporate fleets, to support access to affordable EVs, including in the second-hand market.

Setting European guidelines for charging infrastructure accessibility, communication protocols and roaming to ensure that e-mobility is user-friendly, including for people with disabilities.

4

Empowering Europe's Green Future: A Call for Strategic Investment in E-Mobility and Related Materials

The upcoming Commission and legislature must drive the EU toward achieving its climate goals and strategic autonomy, focusing on enhancing industrial capacity for manufacturing and recycling net-zero technologies, especially in e-mobility.

The EU needs to prioritize investments in the mid-stream battery sector, in particular the processing and refining of battery materials, and the recycling of scrapped batteries to ensure valuable resources can be produced and recovered on the continent.

As a result, the transition to e-mobility will strengthen the EU's position as a leader in sustainable practices and reduce its dependency on external sources. To this end, we call for setting up a Battery Materials Bank in the short term and a new European Critical Raw Materials Fund in the midterm to accelerate the deployment of a dynamic raw material value chain from refining to recycling in Europe.

Becoming more autonomous also means creating a circular value chain including for the automotive segment. However, the automotive segment cannot become more circular without an EU-based recycling value chain providing recycled content that meets the quality requirements for the automotive segment. Without this dynamic industry, OEMs are forced to import recycled materials from other parts of the world, which may contradict the intended

environmental policy objectives. The EU should focus on removing blockers to the movement of battery materials across the continent which will accelerate competitiveness across the battery and black mass recycling sectors.

Last but not least, it is essential that the next mandate focuses on removing duplicated regulatory requirements across different legislations. Instead of adding additional duplicated requirements, the European Commission must streamline and harmonise them wherever possible. Scattered requirements (designed as pass/fail) have emerged in the past year to try to address the environmental impact of vehicles and their components. They have led to a compliance-driven approach by OEMs which does not inform consumer choice nor leads to real environmental changes over time. AVERE calls on the EU to develop a new EU-wide holistic framework that would rate the environmental credentials of vehicles, which would be used as the criterion for national EV purchase incentives, and for consumers to compare the sustainability of EVs.



We recommend:

Setting up a Battery Materials Bank in the short term and a new European Critical Raw Materials Fund in the midterm to support the uptake of a dynamic raw material value chain from refining to recycling in Europe.

Creating a dynamic value chain supplying the carbon-neutral components needed to ensure a gradual transition to circularity in the e-mobility sector.

Rationalising and reducing duplication of requirements in different legislations in order to have a harmonised EU approach to measuring vehicle environmental performance to establish legal certainty while stimulating innovation.

5

Facilitating the Development Electric Automatic Driving Solutions: Kick-Starting Europe's Ability to Compete

Automated driving systems and services are seeing rapid development globally and are expected to be primarily battery-electric due to those technologies being deployed on new vehicle designs.

Unfortunately, automated driving solutions have only seen limited success within the European Union. This is primarily due to the complexity for businesses to test and develop their systems at scale on public roads, to approve and commercialize mature technologies, to navigate widely varying rules defining their legality of use and lastly the ability to license services at meaningful scales. Whereas progress is being made on the type-approval of automated driving solutions, insufficient efforts have been put to complete the single market and outline a clear legal framework in other areas.

Challenges faced with deploying automated driving solutions are making uncomfortable facts very clear: the European single market in terms of transportation remains very fragmented. While we have harmonised type-approval, we have not yet taken steps to ensure the consistency of traffic rules, signs or

infrastructure. Not only does this help automated driving, it also improves road safety by improving understandability for human drivers. Improvements to road rules and infrastructure that help humans, generally also aid automated driving solutions.

We therefore call on the Commission to:

1. Develop a European regulatory framework for public road-testing of driver assistance and automated systems;
2. Take brave steps in ensuring member state consistency of traffic rules and infrastructure;
3. Establish a basic framework ensuring that automated driving solutions are legal to use and can be licensed.

We encourage European leaders to establish a European Road Safety Agency to accelerate progress in all of the above mentioned areas.

We recommend:

Developing a European regulatory framework for public road-testing of driver assistance and automated systems.

Taking brave steps in ensuring member state consistency of traffic rules and infrastructure.

Establishing a basic framework ensuring that automated driving solutions are legal to use and can be licensed.



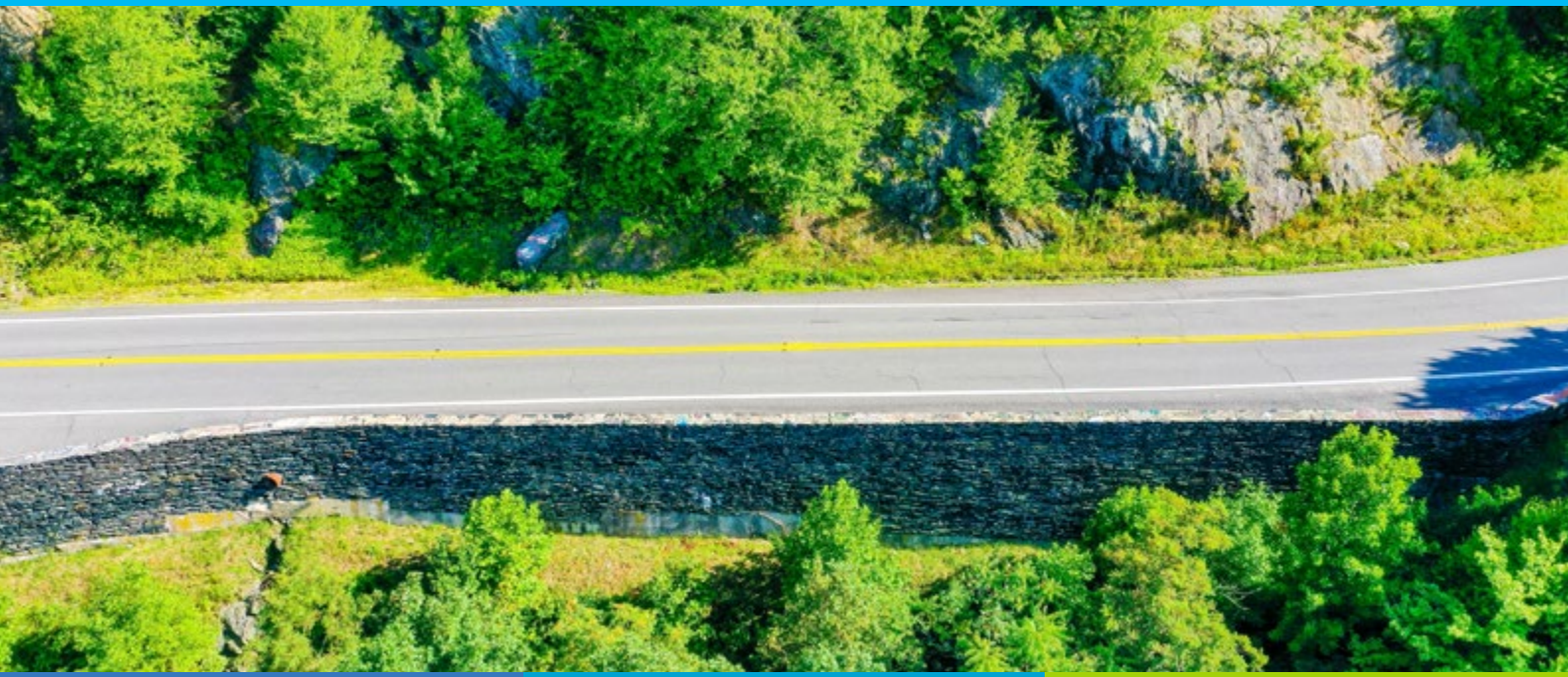
Creating a European Road Safety Agency to spearhead the safe deployment of automated driving systems through a unified regulatory framework

Conclusion

In conclusion, the future of e-mobility hinges on the decisive actions of the next European Commission in enforcing established trajectories and creating a conducive framework. Urgent implementation of comprehensive electrification plans and the removal of barriers to e-mobility deployment are imperative. Prior investments have not only bolstered e-mobility but also spurred job creation, underscoring its positive socio-economic impact. To maintain global competitiveness, the EU must

swiftly establish short- and midterm plans to financially support critical battery materials, net-zero technologies, and industries, mirroring efforts seen in other regions. This commitment is essential for ensuring sustainability, competitiveness, and job preservation. Additionally, providing predictability and legal certainty is paramount to attract investments in e-mobility, reinforcing the need for a stable regulatory environment





AVERE – The European Association for Electromobility

team@avere.org
www.avere.org

**JOIN EUROPE'S
ELECTRIC REVOLUTION**