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Report Finds Fundamental Changes Needed to Scale Electric Vehicles in US

Report from Troutman Pepper law firm highlights the transformative changes required to meet U.S. EV goals. Market actors identify outdated infrastructure and environmental regulatory programs among key obstacles hindering broader adoption

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NEW YORK – Outdated and insufficient infrastructure, alongside environmental regulatory programs, risk undermining the continued expansion of electric vehicles and EV battery manufacturing in the U.S., according to a new industry report.

In [Driving Change: Scaling up EVs in the U.S.](#), U.S. law firm [Troutman Pepper](#) has been joined by a variety of market actors to reflect on recent growth in the sector and the impediments to continuing this expansion.

Federal incentives, growing consumer demand, and supportive policies are driving efforts by the automotive industry to scale up production and uptake of electric vehicles. Consumer demand has led to a record number of EVs on the road. Businesses, consumers, and policymakers are increasingly aligning their efforts to support that growth. However, scaling further requires transformative change to infrastructure and environmental regulatory programs – as one report participant put it, “everything has to change.”

The report argues that the continued advancement of EVs requires a fundamental and dynamic upgrade and expansion of charging station infrastructure, along with a supportive regulatory framework for the establishment of new manufacturing facilities in the U.S. to produce EV batteries and vehicles.

Although the federal government has offered significant incentives to accelerate production, auto manufacturers have been left scrambling to unpick complex infrastructure permitting rules. This is further complicated by individual interpretations and implementation by states of federal policies and guidelines.

Andrea Wortzel, Troutman Pepper’s Environmental and Natural Resources Practice Group

Leader comments: “While the federal government is pushing out new policies and regulatory guidance to aid in the permitting of battery manufacturing, it is the states that implement those programs. Some states are more cautious than others, and the application of environmental regulatory programs to the various aspects of EV battery manufacturing can vary significantly from state to state.”

Additionally, the report highlights the urgent need for faster permitting for scaled up battery manufacturing facilities, and concerns around the workforce skills, technology, machinery, and raw materials necessary to support the desired growth in this industry.

Dan Anziska, Partner at Troutman Pepper explains: “A lot needs to happen for EVs by 2026 to be widely adopted. That includes speeding up the permitting process for battery gigafactories and speeding up manufacturing facilities. It is expensive and time-consuming to build a massive gigafactory, as well as being reliant on many suppliers, and there are so many that have been announced. There’s competition for everything from labor to equipment and resources.”

Having spoken with EV industry experts who shared their insights about the biggest infrastructure and regulatory challenges facing the industry, the report focuses on the following four recommendations:

1) Continue to expand the public charging station network.

States must clarify the charging station functions that should be performed by electric utilities. In states encouraging non-utility firms to own and operate charging stations, regulators must confirm that operators will not be required to be permitted as public utilities, but be viewed instead as service providers operating in a competitive environment.

2) Provide clarity on environmental rules for battery factories.

Automotive companies and battery makers are driving innovation. However, a lack of regulatory clarity can delay permits and investments in new battery plants in the U.S. Troutman Pepper encourages policymakers to seek and deliver clarity, particularly related to the import or manufacture of chemical components for EV batteries, as well as recycling processes. These rules will help advance innovation in the manufacturing, recycling, and management of battery waste.

3) Streamlined approval processes for key battery chemicals.

The EPA should streamline approvals for chemicals used in EV battery production that are similar to ones already approved. Applicants may not have access to all available information due to trade secret protections. But the EPA does, and could use it to make more informed and streamlined decisions.

Similarly, the EPA could issue additional policies or guidance to outline how wastewater from EV battery production is handled under the 1986 categorical pretreatment standard for battery manufacturing. Minimally, the EPA could outline the information and process for determining whether the standards apply to the technology used in EV battery manufacturing.

4) Encourage innovation and collaboration in battery recycling and disposal.

The industry would benefit from collaboration regarding best management practices associated with EV battery recycling, including management of shredding operations. This includes the development of uniform, certain, and protective environmental permitting programs for EV battery recycling.

Addressing these bottlenecks is essential for the expansion of EV adoption, and the report shares additional proposals from Troutman Pepper's environmental and energy teams on how this can happen.

Momentum is building for the transition to electric and there is a tremendous push to supercharge EV sales. The report concludes that the right mixture of public policy, investment, and innovation will enable the EV sector to achieve its full potential.

Driving Change: Scaling Up EVs in the U.S. can be downloaded [here](#).

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