

General Motors' Plan for 100% Electric Vehicle Lineup by 2035 - Impact on Suppliers

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General Motors (“GM”) recently announced its plan to completely phase out gasoline- and diesel-powered engines – and shift to a 100% electric vehicle (EV) lineup – by 2035. As one of the largest automakers worldwide, GM’s dramatic shift will have a significant impact on automotive suppliers, as well as likely influence the production of other automakers. GM’s announcement fits within a clear general trend. Other recent developments in the automotive industry, including an emphasis on lightweighting, stricter emissions controls, and a continued focus on propulsion, are driving large parts of the industry to invest in the EV market.

The accelerating shift toward EVs will impact the automotive supply chain in many ways. While some suppliers may see little impact, others – particularly suppliers of fuel systems and related components – may see a fundamental restructuring of their business in the coming decades. It is crucial that suppliers plan now for the coming changes in the automotive supply chain. This article is intended to highlight some (but by no means all) of the critical issues that this shift may require suppliers to consider.

Changing Supply Base

As existing suppliers and existing OEMs move to capture new business in the electric vehicles market, these suppliers and OEMs may encounter a different supply base than the one with which they have been contracting for prior automotive components. As a result, these suppliers and OEMs will be required to conduct additional supplier due diligence and develop commercial strategies in response to the increased risks associated with using new, unfamiliar suppliers. Some important steps will include: (1) judiciously exercising leverage during contract negotiations to shore-up likely risks and avoid wasting relationship capital on unlikely risks; (2) build important safeguards into the parties’ contracts, consistent with commercial contracting best practices; and (3) set pricing or make other business decisions based on risks that cannot be avoided due to lack of leverage or inability to contract around those risks. Some critical contract due diligence areas to explore for identifying risks include: Company History, Company Financials, Supplier References, and Litigation History.

New Cost Structures

EVs and their components may entail different cost structures and pricing issues than traditional automotive components. The typical factors that impact the costs of vehicle components may prove even more variable for EV components. In particular, there will be new costs associated with learning curves, ramp-ups, technology maturity, productivity, and efficiency. Raw materials coming from new geographic locations may lead to new government actors implementing new tariffs or regulations.

Uncertain Volumes

Volumes may be difficult to guarantee for any new program, which often presents a substantial risk to suppliers that have to make significant investments in new equipment, and even new plants, in order to service their customers. The risks involved with volumes for new EV, which have yet to gain widespread adoption, may be even greater. If consumers do not adopt EVs in the numbers that the OEMs are expecting, suppliers will face risks and delays in recovery of their investments. On the other hand, if consumer adoption of EVs outpaces OEM projections, suppliers may find that their existing capacity is insufficient to keep up with demand.

Lightweighting Considerations

As the automotive market shifts to all EVs, automakers will continue to increase the adoption of high-strength, low weight aluminum, magnesium, or similar metal alloys in vehicles at a faster pace than ever before. For example, the total aluminum content in vehicles is expected to grow from 397 pounds per vehicle (including passenger vehicles and trucks) just a few years ago to 565 pounds per vehicle by [2028](#). In light of the current trend toward lightweighting, suppliers will want to identify types of chassis for EVs that will be in short supply or difficult to obtain in the future.

Battery Considerations

One of the most important components in any EV is the battery, which currently amounts to approximately one-third the price of most EVs. In most EV designs, the battery spans the entire floor of the vehicle. As a result of its size and weight, the battery will have major implications for suppliers designing the battery's housing and assessing how the battery will fit within the design of the EV. Suppliers that plan to manufacture battery housing assemblies should explore several opportunities. First, these suppliers should look for opportunities to partner with battery manufacturers. Most lithium-ion battery production is currently located in Asia—though that may change as the market shifts to a greater EV-focus. Second, battery housing assembly suppliers should seek to protect against likely raw material issues related to batteries and other supply bottlenecks that could hamper high-volume production of batteries. One possibility would be, from the finance-side, to explore hedging options with respect to raw materials for batteries, such as lithium, cobalt, graphite, nickel, and copper.

Intellectual Property Issues

New designs and technology will be at the heart of the push towards an EV market. To assure suppliers and OEMs protect their valuable manufacturing and design IP interests, there will be several policies, compliance procedures, and guidelines they should implement. Some of these policies will include: (1) executing non-disclosure agreements; (2) limiting access to documents containing trade secrets; (3) limiting access to manufacturing facilities; (4) “salting” trade secret information to identify theft; and (5) avoiding receipt of others' trade secrets. Suppliers that are working on developing new EV content also should take care to ensure that newly-developed products do not infringe on existing third-party patents.

Potential Shortages As New Supply Chains Develop

The EV market will bring many new technologies and increase demand on unique parts and materials. As the supply chain continues to develop for these products, some hiccups may occur as capacity scales to match demand. For example, increasing EV production is likely to test the supply for lithium and magnets, which are critical for many electric powertrains. Suppliers will need to take careful legal steps to plan for, and mitigate, potential shortages of critical components and raw materials.

These issues and recommendations represent some first steps in what should constitute multi-phase projects undertaken by automotive suppliers and OEMs to prepare for a heavily EV-focused automotive market. Foley is here to help clients effectively address the short- and long-term impacts on their business interests, operations, and objectives. Foley provides insights and strategies across multiple industries and disciplines to provide timely perspective on the wide range of legal and business challenges that companies face.

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