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Date: May 14, 2018  
From: Larissa Insogna  
To: CTE Tech Corp  
Re: Analysis of Electric Vehicle Growth

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## **Executive Summary**

As the market for electric vehicles continues to grow, it has become prudent for all complimentary industries to decide if they will adapt their product offering or remain focused on products for the traditional fuel-powered vehicles. The following report will provide an assessment of the global electric vehicle market and some potential strategies for becoming a supplier to this industry.

## **Worldwide Trends of the Electric Vehicle (EV) Market**

Global EV production and registration has been increasing greatly over the recent years. Rapid cost decline, range and performance improvements, and various incentives have added to the shift of EVs. Automobiles represent the largest segment of electric vehicles. Although buses and light motor vehicles comprise other significant markets, we will focus most of the report on electric cars.

## **Market Drivers**

There are various factors that are impacting both the supply and demand side of the EV market. Governments mandates and auto-manufacturer investment are the most significant forces that are driving the increase in EV supply. On the demand side, private and corporate consumers, battery improvements, and charging infrastructure development have had the most significant factors that are increasing demand. Financial incentives, coupled with social influence, are the largest areas driving both personal demand and corporate partnerships, and with battery prices continuing to decrease, EV sales will begin to overtake those of internal-combustion engines.

## **Regional Analysis**

Moving down a level from the global trends, several geographic regions appear to be especially attractive for electric vehicles. Specifically, we will analyze current state and future potential growth for Asia, Europe, and North America. Within each region, we will highlight the reasoning for adoption success in specific countries and how the demand for EV's will change, in the near future. The United States, China, and Germany all represent the best markets in their respective regions, and they appear to be marked for significant growth in the next decade.

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## **Risks**

While there are many driving forces contributing to the success of electric vehicles, there are some risks to consider before pushing into this market. Market, political, and regulatory risks pose threats to growth, some mitigation steps can be taken to avoid or minimize the pitfalls. As far as market risks, lack of adequate charging infrastructure, uncertainty with battery recycling, and monopoly sourced materials could result in a perceived lack of value for consumers. Additionally, many government subsidies are set to be phased out in the coming years, which could negatively impact future EV sales. In terms of mitigation strategies, diversifying partnerships for sourcing materials and auto-manufactures will help to limit exposure and overdependency. Also, investing research and development to determine alternatives for materials or at least various geographical regions.

## **Outlook and Takeaways**

Global EV production and registration is on the rise; this is a market that cannot be ignored. There are several growth factors such as governments' incentives, major car manufacturers producing EVs, increased number of models available in the market, increased adoption of EVs by customers, and increases in electronic content in vehicles.

The top three markets for electric vehicles are cars, buses, and scooters. For each of these top markets, we have developed potential strategies for entering the market. Since cars represent the largest of the three segments, it is an attractive opportunity. CTE can leverage its relationships with existing traditional wire harness customers and potentially offer discounts for sourcing EV harnesses, as well. With electric buses, China represents the major area for growth. With electric buses likely to follow the trend of urbanization in China, partnering with a bus supplier to target local governments who have not yet implemented electric buses is one way to target this market. For scooters, CTE can utilize the recent release of Kymco's Ionex as a way to attract business with more scooter manufacturers, specifically those who have not released an electric model.