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Good morning, Chairman Bingaman, Ranking Member Murkowski, and members of the Committee. I would like to thank you for giving me this opportunity to speak to you regarding our nation's dangerous dependence on petroleum, and the enormous opportunities presented by the electrification of transportation.

While I am here largely to discuss the Promoting Electric Vehicles Act of 2011, I would first like to take a moment to thank this committee for its ongoing efforts to improve our nation's energy security. I would also like to specifically recognize Senator Stabenow's continued dedication to electrification. As her bill today highlights, research and development will continue to play a critical role as we adopt new technologies, and we look forward to working with her moving forward.

I am proud to serve as a member of the Electrification Coalition, an organization made up of a group of business leaders who represent the entire value chain of an electrified transportation sector and who are committed to promoting policies and actions that facilitate the deployment of electric vehicles on a mass scale.

The Promoting Electric Vehicles Act of 2011, introduced by Senators Jeff Merkley and Lamar Alexander, in both my view personally and that of the Electrification Coalition, represents a critical step forward in our nation's effort to reach that goal, helping us toward ending the very real economic and national security threats posed by our dependence on oil.

This is an issue I am very passionate about.

I am Chairman and CEO of Rockwood Holdings, a global specialty chemicals and advanced materials company that employs 9,600 men and women in 100 facilities around the world.

I came to Rockwood through a route that is probably a little unusual.

I was born in 1944 in the town of Mashad in what is now called the Islamic Republic of Iran.

When I was 15, I went to a special school organized and run by the international oil companies that, at the time, had the concession for the exploration, production and refining of the oil from Iran. When I graduated, I was offered a scholarship by the oil companies to go to graduate school with a condition that I would come back and work for them. But by then, I knew where I wanted to be: I came to the United States to complete my education at Stanford University.

After I completed my education, I went to work with William Lear—the man who developed the Lear Jet—on his project to develop and build a steam-powered automobile. Even back then, we

were looking for better, safer alternatives to oil. Steam-powered cars and trucks did not turn out to be the route to the future, but working on them helped shape mine.

In 1970, my wife—a third-generation American descendent of Russian Jewish immigrants—and I moved to Tehran, initially to teach at the university. I continued my work there in the manufacturing sector, working with the National Iranian Steel Industries Company to help develop a steel industry in Iran. It was an exciting, challenging time for me, my wife, and my son … until the Iranian Revolution in 1979.

At that time, I already had three strikes against me. I had gone to school and worked in the United States. My wife was an American and Jewish. And I had been a vocal opponent of the mullahs.

Thankfully, my wife and son were visiting the United States when the revolution occurred. I fled, and met them there months later. I was one of the lucky ones.

And that is a very significant part of why I am here today.

This is not just dollars and cents to me.

I know what oil dependence means. I know that the mullahs are still in power today at least in part because the West cannot and will not take overt action against a major oil-producing nation. Oil dependence distorts American diplomacy, subverts American goals, and forces us to accommodate hostile, brutal governments.

The vulnerability of global oil supply lines and infrastructure has driven the United States to accept the burden of securing the world's oil supply. Much of the infrastructure that delivers oil to the world market each day is exposed and vulnerable to attack in unstable regions of the world. According to the U.S. Department of Energy, each day more than 40 percent of the world's oil supplies must transit one of six maritime chokepoints, narrow shipping channels like the Strait of Hormuz between Iran and Oman. Even a failed attempt to close one of these strategic passages could cause global oil prices to skyrocket. A successful closure could bring economic catastrophe.

To mitigate this risk, U.S. armed forces expend enormous resources patrolling oil transit routes and protecting chronically vulnerable infrastructure in hostile corners of the globe. This engagement benefits all nations, but comes primarily at the expense of the American military and ultimately the American taxpayer. A 2009 study by the RAND Corporation placed the cost of this defense burden at between $67.5 billion and $83 billion annually.

And the threat to our economy is no less real.

In 2008, when oil prices spiked, Americans consumed nearly 20 million barrels of oil a day—one-fourth of the world's total. We imported 58 percent of the oil we consumed, leading to a U.S. trade deficit in crude oil and petroleum products that reached $388 billion—56 percent of the total trade deficit. That figure fell back to $200 billion in 2009, but jumped to $265 billion in

2010. In the first quarter of 2011, with near-record volatility in oil markets and high prices driver by turbulence in the Middle East, the United States ran an $84 billion deficit in petroleum trade over a three month period. In March, crude oil and petroleum products accounted for 65 percent of the monthly U.S. trade deficit, a figure which eclipsed otherwise strong growth in U.S. export strength.

And the steps we usually would take to help strengthen the economy and create jobs in times of weakness are just as easily overcome by oil price volatility. The total effect of changes to the federal tax code from 2001 to 2008 code was a decrease in annual federal income and estate taxes by about $1,900 for the median household. But a typical household's energy costs rose more than that. In other words, every penny that the most Americans saved due to federal income and estate tax cuts over those eight years was spent on higher gasoline bills.

At the beginning of 2001, oil prices were steady at $30 per barrel. Over the subsequent five years, prices steadily rose, reaching $75 per barrel in June of 2006. After retreating slightly, benchmark crude prices jumped 50 percent in 2007, from $60 per barrel in January to more than $90 in December. In 2008, oil prices soared rapidly, eventually reaching their all-time high of more than $147 per barrel on July 3.

Prices only came down when demand plunged along with the global economy. And now, with prices at the pump once again on the rise, we must ask ourselves how many times we must repeat this damaging cycle? Many of the underlying fundamentals that pushed oil prices to record levels are pushing them up once again today. Oil demand continues to recover, both in the United States and abroad. Unrest in the Middle East is only driving prices up faster. Historically, crude oil costs of more than 4 percent of gross domestic product have occurred concurrently with recessions. At between 4 and 5 percent of GDP, oil spending is reaching dangerous levels once again. Our nascent economic recovery is at risk.

It would be ideal if there was a free market solution to these threats. But there is no free market for oil. Far from it: today, more than 90 percent of proved conventional global oil reserves are held by national oil companies that are either fully or partially controlled by foreign governments whose interests are often at odds with our own. As long as we remain dependent on those nations, we remain vulnerable.

At the crux of America's oil dependence is the energy demand of the transportation sector. Transportation accounts for approximately 71 percent of American oil consumption. Cars and trucks are 94 percent reliant on oil-based fuel for their energy, with no substitutes immediately available in anything approaching sufficient quantities. Any shortage of oil will cause a massive disruption of the transportation system, creating significant difficulties in day-to-day life which will inevitably lead to chaos. Put another way, when prices go up, we have only two choices: drive less or pay more. This is unacceptable.

A new path forward begins with a statement of fundamental fact: As long as our cars and trucks are powered by internal combustion engines, we will continue to be dependent on oil. The solution can be found in something that nearly every single one of you has either on your belt or on the table in front of you. The lithium ion batteries that power our cell phones and laptop

computers can one day form the nucleus of an electrified transportation sector that is powered by a wide variety of domestic sources: natural gas, nuclear, coal, hydroelectric, wind, solar, and geothermal. No one fuel source—or producer—would be able to hold our transportation system and our economy hostage the way a single nation can disrupt the flow of petroleum today.

Electricity represents a diverse, domestic, stable, fundamentally scalable energy supply whose fuel inputs are almost completely free of oil. It would have clear and widespread advantages over the current petroleum-based system:

1) **Electricity is Diverse and Domestic:** Electricity is generated from a diverse set of largely domestic fuels. Among those fuels, the role of petroleum is negligible. In fact, just 1 percent of power generated in the United States in 2009 was derived from petroleum. An electricity-powered transportation system, therefore, is one in which an interruption of the supply of one fuel can be made up for by others.

   This ability to use different fuels as a source of power would increase the flexibility of an electrified light-duty vehicle fleet. As our national goals and resources change over time, we can shift transportation fuels without having to overhaul our transportation fleet again. In short, an electrified transport system would give us back the reins, offering much greater control over the fuels we use to support the transportation sector of our economy.

   Moreover, while oil supplies are subject to a wide range of geopolitical risks, the fuels that we use to generate electricity are generally sourced domestically. All renewable energy is generated using domestic resources. We are a net exporter of coal, which fuels about half of our electricity. Although we currently import a net of approximately 11 percent of the natural gas we consume, more than 80 percent of those net imports were from North American sources (Canada and Mexico) in 2010. And in fact, recent advancements in the recovery of natural gas resources from unconventional reservoirs like shale gas, coal bed methane, and tight gas sands have led to wide consensus that our domestic undiscovered technically recoverable reserves are well in excess of 1,000 trillion cubic feet. We do import a substantial portion of the uranium we use for civilian nuclear power reactors. Forty-two percent of those imports, however, are from Canada and Australia.

2) **Electricity Prices are Stable:** Electricity prices are significantly less volatile than oil or gasoline prices. Over the past 25 years, electricity prices have risen steadily but slowly. Since 1983, the average retail price of electricity delivered in the United States has risen by an average of less than 2 percent per year in nominal terms, and has actually fallen in real terms. Moreover, prices have risen by more than 5 percent per year only three times in that time period.

   This price stability, which is in sharp contrast to the price volatility of oil or gasoline, exists for at least two reasons. First, the retail price of electricity reflects a wide range of costs, only a small portion of which arise from the underlying cost of the fuel. The remaining costs are largely fixed. In most instances, the cost of fuel represents a smaller percentage of the overall cost of delivered electricity than the cost of crude oil represents

as a percentage of the cost of retail gasoline. Second, although real-time electricity prices are volatile (sometimes highly volatile on an hour-to-hour or day-to-day basis), they are nevertheless relatively stable over the medium and long term. Therefore, in setting retail rates, utilities or power marketers use formulas that will allow them to recover their costs, including the occasionally high real-time prices for electricity, but which effectively isolate the retail consumer from the hour-to-hour and day-to-day volatility of the real-time power markets.

By isolating the consumer from the price volatility of the underlying fuel costs, electric utilities would be providing to drivers of grid-enabled vehicles (GEVs) —vehicles propelled in whole or in part by electricity drawn from the grid and stored onboard in a battery—the very stability that oil companies cannot provide to consumers of gasoline.

3) **The Power Sector has Substantial Spare Capacity:** Because large-scale storage of electricity has historically been impractical, the U.S. electric power sector is effectively designed as an 'on-demand system.' In practical terms, this has meant that the system is constructed to be able to meet peak demand from existing generation sources at any time. However, throughout most of a 24-hour day—particularly at night—consumers require significantly less electricity than the system is capable of delivering. Therefore, the U.S. electric power sector has substantial spare capacity that could be used to power electric vehicles without constructing additional power generation facilities, assuming charging patterns were appropriately managed.

4) **The Network of Infrastructure Already Exists:** Unlike many proposed alternatives to petroleum-based fuels, the nation already has a ubiquitous network of electricity infrastructure. No doubt, electrification will require the deployment of charging infrastructure, additional functionality, and increased investment in grid reliability, but the power sector's infrastructural backbone—generation, transmission, and distribution—is already in place.

Based on these and other advantages, a wide array of automakers is beginning to introduce grid-enabled vehicles into the marketplace. There are important differences in drivetrain architectures, with some vehicles relying solely on battery power (electric vehicles, or EVs) and others augmented by liquid fuels as well (plug-in hybrid electric vehicles, or PHEVs). All told, automakers worldwide are developing dozens of plug-in hybrid and electric vehicles. By 2013, more than 40 models could be available to consumers.

From just a handful of units introduced in 2010, the industry is beginning to scale up. Announced North American production capacity will exceed 100,000 vehicles in 2012 and 350,000 by 2014. (These figures do not include trucks.) Additional volumes will reach the U.S. market from OEM plants overseas, particularly in the next two years.

High penetration rates of GEVs could radically minimize the importance of oil to the United States, strengthening our economy, improving national security, and providing much-needed flexibility to our foreign policy while clearing a path toward dramatically reduced economy-wide

emissions of greenhouse gases. No other alternative to petroleum can claim these widespread advantages.

The logical next question is how we can successfully devise and deploy an electrified transportation system. Here's what we need to avoid: it has now been more than 10 years since traditional hybrids were first introduced in the United States. And despite government support and record high gas prices for part of that time, there are still only 1.9 million hybrids on the road in the U.S. today—out of approximately 250 million light-duty vehicles in the fleet.

We cannot let electric vehicles turn into another niche product. We cannot allow their use to be limited to the environmentalists and technological enthusiasts who will buy those first waves of them. To make our nation's investment worthwhile—and, more importantly, to truly combat our oil dependence—we must put ourselves on the pathway toward millions, then tens of millions, and then hundreds of millions of electric cars and trucks.

It is not as simple as flipping a switch. Electrification on a mass scale is an enormously complex undertaking. The issue is not simply one of putting electric cars into showrooms. At the most basic level, the first commercially available EVs and PHEVs will be significantly more expensive than their internal combustion engine counterparts. The existing tax credits help offset that cost, but they hardly represent a transformative policy framework that will give consumers the necessary confidence to adopt a fundamentally new technology. For electrification to appeal to consumers, it will truly 'take a village.'

For example, drivers will want to know that installing a charger in their garage will be a seamless and simple process that isn't bogged down by weeks of red tape. For EV drivers, they will want access to some amount of public charging infrastructure so that they can feel confident as they complete a Saturday full of errands and shopping—or take the family on the highway for the great American road trip.

The proactive engagement and support of utilities will be absolutely critical. Smart charging will make EVs and PHEVs an asset for the grid, but dumb charging will make them a liability. One analysis by EPRI found that plugging in just one PHEV to charge at 220 volts overloaded 36 of 53 transformers examined during peak hours and 5 of 53 transformers during off-peak hours. We are all excited about the benefits of using EVs and PHEVs to fill valleys in utility load curves, but this will only work if consumers have the ability to receive information that incentivizes them to charge their cars at night. Yet, most public utility commissions don't encourage or allow time-of-use pricing.

The bottom line is that, for this technology to succeed, the vehicles will need a network of support—both in terms of regulations and infrastructure. Without that, they will be relegated to niche product status. Consumers will have poor experiences, many of the 3,000 utilities in the U.S. will play an absentee role—at best—in the process, and we will have invested billions of dollars in a battery industry that finds stronger roots in Europe (where fuel prices are higher) and in China (where the public imperative is already stronger). We have to recognize that such a network of support does not currently exist in most places in the U.S.

That is where this crucial legislation comes in.

The Promoting Electric Vehicles Act would initiate a competition in which specific geographic areas would vie to be selected as large-scale deployment communities: areas in which all of the elements of an electrified transportation system are deployed simultaneously and at scale, thereby providing a crucial first step toward moving electrification beyond a niche product into a dominant, compelling, and ubiquitous concept. These deployment communities would be selected on a competitive basis. The most attractive regional bids would demonstrate a clear path to successful integration of GEVs, including:

- A supportive regulatory environment that facilitates concepts like utility investment in upgraded physical and IT assets; time-of-use pricing; and a seamless process for permitting and installing level II EVSEs in residential consumer garages.

- Support and participation from a broad swath of stakeholders, including state and local governments, utilities, utility regulators, large local employers, universities and others.

- A diversity of business plans, allowing innovators and entrepreneurs to explore the most effective and efficient models for deployment.

In sum, successful bids should be those in which all of pieces have been brought together—autos, infrastructure, favorable regulatory environment, interested consumers—to ensure that large scale deployment of GEVs has the best chance of success.

Once selected, deployment communities would be eligible for amplified, targeted, and temporary financial incentives for consumers, infrastructure providers and utilities. Upon completion of the program, the Secretary of Energy would be required to produce a final report evaluating its success, challenges and lessons learned as well as recommending whether to promote further deployment of electric vehicles. If the conclusion is that further deployment is warranted, the Secretary would provide recommendations on how many additional cities to select, updates to the selection criteria, changes to incentive structure, and whether other forms of energy storage should be included. If fully implemented, the legislation would aim to deploy a total of 400,000 grid-enabled electric vehicles and their infrastructure in the first deployment communities over a three-year period.

We believe this approach is critical to avoiding the pitfalls of the past. These deployment communities would:

1) **Demonstrate Proof of Concept Beyond Early Adopters:** A deployment community approach would drive significant penetration of GEVs into a limited number of auto markets, as opposed to very shallow penetration in many auto markets. By demonstrating the benefits of grid-enabled vehicles in a real world environment, this deployment plan will make consumers, policymakers and industry aware of the tremendous potential of electrification of transportation.

In general, consumers are probably unaware that GEVs have evolved to the point where they can meet most individuals' daily driving needs. In addition, electric drive vehicles generally have faster acceleration and operate more quietly than internal combustion engine vehicles. They hold out the promise of offering drivers a wide range of features, based on the electronic package in the vehicle, that are beyond our imagination today in the same way that iPhone applications would have been beyond our imagination a decade ago.

The problem is that consumers are not aware of the opportunities presented by GEVs and are not yet convinced that they can operate reliably and affordably at scale. Concentrating investments and other efforts in a limited number of communities will accelerate the opportunity to demonstrate that grid-enabled vehicles can meet drivers' needs. In addition, these projects will demonstrate that a community is capable of putting the infrastructure in place, operating the vehicles over their lifetimes, and disposing of them after their useful life has ended, all in a manner that profits the participants in the value chain.

2) **Facilitate Learning by Doing:** While GEVs present a great opportunity, their deployment also raises a number of questions. Deploying large numbers of GEVs in concentrated areas will allow for the collection of information and experience that is needed to successfully deploy GEVs nationwide. It will help automakers learn how much consumers are willing to pay up front for a car that costs less to operate and has a lower total cost of ownership over its lifetime. It will allow utilities and charging station providers to learn when and where drivers want to charge their vehicles. It will allow utilities and other aggregators to learn who can best sell power to drivers and what types of rate structures meet both drivers' and utilities and aggregators' needs.

   Deployment communities will also help determine whether there is a viable business model for public charging infrastructure. It is clear that for GEVs to succeed there must be a model in which each party in the value chain is able to operate profitably, or in which the government determines that, as a matter of public policy, certain aspects of the system should be publicly supported in a manner that facilitates further competition. Deploying GEVs in a series of geographic regions around the country where resources can be concentrated and data can be collected and studied will ultimately accelerate wide-scale GEV deployment. Therefore, rather than allowing the market to develop scattershot across the country, it is critical that the market be encouraged to develop at a deliberate pace in clearly identified geographic regions in which a large number of vehicles can be deployed in a relatively short period of time.

3) **Drive Economies of Scale:** Concentrating resources in a limited number of geographic areas will allow participants in the GEV value chain to take advantage of economies of scale, particularly with respect to the deployment of charging infrastructure. Utilities will incur fixed costs to support the operation of GEVs; those costs will be more affordable if spread over a greater number of vehicles. Power providers also can reduce the cost of charging infrastructure through economies of scale. While it is unclear how many public

> Previous pilot studies demonstrate that the cost of installing charging facilities can be reduced significantly when groups of facilities are installed at once. Furthermore, these geographic concentrations will stimulate demand for grid-enabled vehicles at a rate that is likely to be far greater than if the vehicles are simply purchased by early adopters scattered around the United States. Early on in the process, this higher level of demand will simply be the result of magnified consumer incentives. Subsequently, as individual metropolitan areas gain exposure to GEVs and confidence increases, adoption rates should be measurably expedited.

In order to be selected, a community will need to present a comprehensive proposal, similar to bids to host the Olympic Games. Such a proposal would need to show capability and buy-in from a wide range of public and private players, including local governments, utilities, major employers, and more.

Cities and communities throughout the nation will be eligible to compete for selection as a deployment community. And the bill makes it clear that in selecting deployment communities, DOE should seek areas that are diverse regionally, geographically, climactically, in terms of their urban and suburban composition, size, typical commuting patterns, and type of electric utility.

We believe we will also see an important diversity in the business models that innovators and entrepreneurs will present to explore the most effective and efficient models for deployment. Again, the advantage of a competitive, market-based plan like this is that the best ideas have the opportunity to rise to the top.

We believe the result of passing this legislation will be a great competition, a race to the top as communities fight to present the most fertile ground for an exciting new technological rollout. Even those that are not ultimately selected will have, in order to compete, taken steps that will ultimately make the adoption and deployment of electric vehicles and infrastructure more achievable within their borders.

We've already seen cities and other localities across the country taking the first steps toward electrification, whether it is installing charging infrastructure, buying the vehicles for city fleets, or some combination of both and more. They see the benefits and are eager to take the next step. If we pass this legislation, I think we will see cities once again, as they have in the past, playing the role of experimenters and leaders in this exciting new technology.

Incidentally, let me address a concern that others have brought up about this very aspect of the deployment community idea: that it overly concentrates resources in a small number of communities.

I strongly disagree with this criticism.

First, these plans do nothing that would limit or impede the current nationwide incentives for electric vehicles. Today, a maximum tax credit of $7,500 on qualified electric drive vehicles exists nationwide. Additional credits exist for infrastructure. This bill does not in any way impact the maximum vehicle tax credit available to consumers nationwide. What we are talking about is added incentives, which will spur added demand.

Second, the benefits accrue far beyond the deployment communities themselves. While money will flow into these communities, they should more correctly be thought of as funnels through which a substantial portion of the funds will flow on their way elsewhere around the country. Much of the money that flows through deployment communities will end up in the towns and cities where the vehicles and charging infrastructure and their components are manufactured. When a factory reopens in a depressed area to build or support these vehicles—as we've already seen in places like Elkhart, Indiana and Livonia, Michigan—that is a real and tangible benefit for hardworking Americans.

Third, if this program succeeds, it will drive down costs for electric vehicles for consumers throughout the nation. It will also set the nation on a path toward greater energy security and economic prosperity through sharply reduced oil dependence. This effort is about building a new transportation system from the ground up in a fiscally responsible, competitive fashion. That's good for the entire nation.

While electrification of the light-duty, personal-use passenger vehicle market is the most important long-term objective for increased energy security, the early development of the GEV industry will benefit from a more diverse market. Particularly during the period from 2011 to 2015, commercial and government vehicle fleets could represent a large share of the market for plug-in hybrid and fully electric vehicles. In fact, recent purchase announcements by a host of commercial entities—General Electric, FedEx, Frito Lay, Hertz, Enterprise, and PG&E to name a few—suggest that this dynamic is already rapidly emerging.

Commercial and government fleet operators should be well-prepared to address a number of the early challenges constraining adoption of grid-enabled vehicles. By matching the proper vehicle, battery and drivetrain technology to required payload requirements, drive cycles, and usage profiles, fleet operators can minimize upfront investment costs. Total investment in public and private charging infrastructure can also be efficient and optimized. Perhaps most importantly, grid-enabled vehicles could appeal to a significant number of fleet operators in a short timeframe. In that case, fleet operators would account for important early demand volumes in the development of the large-format battery industry in addition to catalyzing the ramp-up of electric drivetrain component supply chains.

Nonetheless, the supply chains for many of the grid-enabled vehicles that will appeal to fleet operators—particularly light- and medium duty trucks—are still developing, and vehicles are being produced annually in the tens, not the thousands. This translates into a high cost structure—one that will certainly come down over time as the industry grows. However, cost reductions could be accelerated through limited public policies designed to minimize risk to early adopters.

Recognizing these opportunities, the Promoting Electric Vehicles Act offers targeted, temporary incentives to both the public and private sectors to encourage early fleet adoption of plug-in vehicles. Commercial entities that commit to purchasing significant volumes of GEVs would be eligible for grants to help offset upfront costs of vehicles and infrastructure. The bill also authorizes funds to be made available to federal agencies to help offset the incremental costs of electric drive.

In summary, this bill recognizes a simple fact: electrification will not move past niche product status without careful policy coordination designed to overcome early obstacles. I fully understand that this is a challenging time for suggesting increased government expenditures for any project, no matter how worthwhile. However, certain aspects of the threat of oil dependence and the solutions contained in this bill make this a unique issue.

First is the urgent national security threat posed by our dependence on oil. While we cannot and should not ignore costs, threats to national security have always occupied a unique place of priority in our budget considerations. And make no mistake: the dangers posed by our oil dependence are not theoretical. Our safety and security are threatened by oil dependence, and every single day that we do not act is another day that we remain vulnerable.

Second is the economic cost of inaction. Department of Energy researchers have estimated that the economic costs of U.S. oil dependence were $500 billion in 2008 alone—and more than $5 trillion since 1970.

And perhaps most telling: every American recession for almost four decades has been preceded by—or occurred concurrently with—an oil price spike. Simply put, you cannot have a healthy economy when energy prices are too high. This is something I cannot emphasize strongly enough: electric vehicles in general, and these proposals to deploy them in particular, not only can help strengthen our economy, but are critical to it.

I work in a manufacturing business.

Right now, we are spending more than $100 million to expand our operations in the United States, in places like North Carolina, Michigan, and Nevada.

Now here is the truth: Rockwood Holdings is expanding, and will continue to expand wherever electric cars are made. As Chairman and CEO, I can tell you that Chinese EVs need the materials we supply just as much as any other country's automobiles. But as an American, I can tell you this: I want those cars made here.

Let's not go in the same direction we have gone with personal computers: designed by Americans and made overseas. A strong manufacturing sector is critical to a strong economy, and a strong auto industry is critical to a strong manufacturing sector. So how can our auto industry revive itself, and regain the global stature it once had? It can be the world leader in a game-changing technological leap forward by making the electric cars of the future.

The opportunity before this Committee, and indeed before the entire Senate, is tremendous. It may also be one of our last chances. I truly believe that oil dependence is a clear and present danger to the national security and the economic stability of the United States. We have made some progress in recent years, but now it is time to take the leap. We can end our dependence on oil once and for all, and the first step is passing the Promoting Electric Vehicles Act of 2011.

Thank you again for your time and attention.