

Post-Hearing Questions for the Record

Questions for Bob Holycross

Vice President, Sustainability, Environment and Safety Engineering
Ford Motor Company

Subcommittee on Energy of the Committee on Energy and Commerce

March 8, 2022, Hearing: “Charging Forward: Securing American
Manufacturing and Our EV Future”

Questions from the Honorable Lisa Blunt Rochester (D-DE)

- 1. Ford recently announced that it would be dividing the company into two distinct divisions—an electric and a gas division—how will this split better support the company’s transition to electric vehicles?**

Response:

Ford Model e is a center for innovation and growth and will be the driving force behind Ford’s commitment to leading the electric vehicle revolution. Offering a strong EV portfolio, Model e will continue to build on the success of F-150 Lightning and Mustang Mach-e. It also will create embedded systems and software for all Ford vehicles and deploy an EV-specific supply chain.

Ford Model e will also:

- Attract and retain the best software, engineering, design and UX talent and perfect new technologies and concepts that can be applied across the Ford enterprise;
- Embrace a clean-sheet approach to designing, launching and scaling breakthrough, high-volume electric and connected products and services for retail, commercial and shared mobility;
- Develop the key technologies and capabilities – such as EV platforms, batteries, e-motors, inverters, charging and recycling – to create ground-up, breakthrough electric vehicles; and
- Create the software platforms and fully networked vehicle architectures to support delightful, always-on and ever-improving vehicles and experiences.

- 2. Ford produces full-electric vehicles as well as hybrids, and batteries for each. Why is the diversification of electrified options at Ford important and how do you see this trend evolving in the future?**

Response:

The transition to a zero-emissions transportation future takes time. Hybrid vehicles will help us get there by offering an exciting choice for customers who want the benefits of an electric

motor and the long-distance freedom of a gas engine. Whether it is in the city or on the highway, hybrid technology offers the best of both worlds and are an important component to Ford's mission to lead the electric vehicle revolution.

Questions from the Honorable Kathy Castor (D-FL)

- 1. Across the country, American families and businesses are adjusting to pandemic-related price increases and supply chain challenges. Low-income households often face the highest energy burdens and are the most vulnerable to volatile fossil fuel price spikes. Mr. Holycross, how would federal investments in electric vehicles and EV charging help families save money?**

Response:

As we transition to a zero-emissions transportation future, we must ensure that everyone has access to affordable electric vehicles and charging infrastructure, including those in rural, underserved, and disadvantaged communities. The bipartisan Infrastructure Investment and Jobs Act passed last year is a good start by providing \$2.5 B for EV chargers in rural and underprivileged communities.

At Ford, we're electrifying our most iconic and popular vehicles and working to bring down costs to make them more affordable and accessible. Our F-150 Lightning Pro starts at less than \$50,000.

We're very supportive of strengthened consumer EV incentives, like the ones the House passed, to help make EVs even more affordable while supporting American manufacturing jobs.

Ford has worked with partners to develop the BlueOval Charge Network, North America's largest public charging network, with more than 20,500 charging stations and more than 70,000 plugs, and growing. And Ford Pro has created a 50-state solution for commercial EV charging that is deployable at homes and businesses in urban and rural settings to serve fleets of all sizes.

- 2. There is a global competition to build the vehicles of the future. Mr. Holycross, how do incentives for domestic manufacturing of clean vehicles help the United States compete while also bringing good-paying jobs to our communities?**

Response:

Incentives can accelerate our progress, build the market for EVs and support a just transition. Extending and expanding the EV consumer tax credit -- including support for American workers and domestic manufacturing -- expanding charging infrastructure, investments in battery manufacturing, and R&D here in the U.S. can help make EVs more accessible and more affordable, and drive demand.

As we transition to an electrified future, a battery investment tax credit will be necessary to maximize U.S. jobs for the critical EV components and to have competitive incentives to compete with China and other countries who are already well ahead. Ford, like other OEMs, are facing decisions right now about where to build new battery facilities. An investment tax credit for manufacturers who produce batteries in the United States would make a material difference in our decisions as well as our competitors. Localizing our entire EV supply chain is the key to America leading the electrification revolution.

Questions from the Honorable Cathy McMorris Rodgers (R-WA)

- 1. Ford announced major investments in developing battery supply chains, including in Tennessee and Kentucky. This is good news of course. We hope you will keep the Committee informed of permitting and other red tape issues.**

I want to understand what Ford is doing to ensure the reliable, affordable supply of plastics, composites, and other hydrocarbon-based materials used in the vehicles that make up its domestic fleet. As I understand it, demand for these materials around the world is increasing.

- a. What is Ford's assessment of the impact on the supply and cost of hydrocarbon-based materials from policies that restrict domestic natural gas or petroleum?**

Response:

The U.S. is blessed with abundant domestic fossil fuel reserves and the U.S. is the world's largest producer of natural gas and petroleum hydrocarbons. Domestic production of natural gas and petroleum has been an important driver of national economic activity and has played a vital role in national energy security.

We have seen price volatility in material costs including plastics. Price fluctuations in plastics have been driven by several factors including force majeure events as well as the price of oil. So if oil prices increase, that tends to increase plastic costs. We are focusing on using increased amounts of recycled and renewable plastics in our vehicles which reduces our consumption of petroleum-based plastics. Much of recycled and renewable content comes from waste products generated by other industries. Our ability to implement these green materials depends on the collection and recycling infrastructure. So we support measures which would improve the infrastructure to collect, clean, and recycle this type of material.

- b. What would restrictions on domestic fossil fuels mean for the domestic supply and price of materials you need to build your electric vehicles?**

Response:

Large amounts of energy are required to produce materials, fabricate components, and assemble vehicles. The batteries used in electric vehicles are particularly energy intensive. As part of our journey to carbon neutrality Ford has committed to using 100% carbon-free electricity in all manufacturing by 2035. We encourage the development of carbon-free electricity and energy sources to facilitate a transition to a low-carbon future.

c. What is Ford doing to ensure reliable, affordable domestic supply of hydrocarbon-based materials?

Response:

We are working with our suppliers to ensure a sustainable (economic, environmental, social) material supply both domestically and globally

Questions from the Honorable Michael Burgess, M.D. (R-TX)

1. The America's reliance on foreign nations to provide the critical minerals it needs is very concerning to me, especially pertaining to human rights.

a. Where do Ford's electric vehicle batteries come from?

Response:

Ford currently manufactures batteries in Georgia and starting in 2025 will produce batteries in Tennessee and Kentucky as part of our partnership with SK Innovation. As we take leadership of the electric revolution, we must do so in a way that has a positive impact on people and the environment. That means ensuring access to the raw materials needed to manufacture them, as well as ensuring those materials are ethically and sustainably sourced and recycling them into new products. We recently announced several steps we're taking to strengthen our North American and U.S. supply chain for critical minerals from Nevada, Utah, and Louisiana, as well as from allied countries Canada and Australia. Our goal is to only source raw materials that are responsibly produced and work towards a closed-loop manufacturing system, starting right here in the United States.

b. Are there any concerns about forced labor being used to manufacture those batteries?

Response:

Ford is committed to respecting human rights everywhere we operate and throughout our entire supply chain. Additionally, Ford is investing \$90 million in Texas alone as part of a \$525 million total investment across the U.S. during the next five years to transform America's auto technician industry. The investment will go toward job training and career readiness initiatives for the current and next generation of technicians. These programs aim to develop highly skilled technicians and will support Ford's growing portfolio of connected electric vehicles.

We aim to ensure that everything we make – or that others make for us – is consistent with local law and our own commitment to respecting human rights and protecting the environment. Ford was proud to be the first American automaker to join the Initiative for Responsible Mining Assurance, or IRMA, working to advance responsible mining practices and to provide third-party verification and certification against comprehensive environmental and social criteria for all mined materials, anywhere in the world.