



INTERNATIONAL UNION, UNITED AUTOMOBILE, AEROSPACE & AGRICULTURAL IMPLEMENT WORKERS OF AMERICA – UAW

RAY CURRY, *PRESIDENT*

FRANK STUGLIN, *SECRETARY-TREASURER*

VICE-PRESIDENTS: CHUCK BROWNING • TERRY DITTES • CINDY ESTRADA

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**Implications for Electric Vehicle Investments for Agriculture and Rural America House Committee on Agriculture Submitted by Josh Nassar
UAW Legislative Director
1757 N Street NW, Washington, D.C. 20036**

Chairman Scott, Ranking Member Thompson, and members of the Committee, on behalf of the over one million active and retired members of the International Union, United Automobile, Aerospace, and Agricultural Implement Workers of America (UAW), UAW President Ray Curry, and the UAW International Executive Board (IEB), I want to thank you for the opportunity to share our perspective on the implications of electric vehicle investments for agriculture and rural communities. It is my honor to appear before you today.

Importance of the U.S. Motor Vehicle Industry

The United States' motor vehicle industry is advanced, competitive, and a cornerstone of American manufacturing. The domestic vehicle assembly and parts industries are vital to our manufacturing base, and it is imperative that we stay strong and competitive now and into the future.

A majority of our members and retirees work in or have retired from the auto industry. They are directly impacted by decisions made in Washington, D.C., and corporate board rooms regarding this critical sector of our economy.

By extension, investments in motor vehicle manufacturing jobs impact workers, their families, and communities. Over 900,000 people work in the auto and auto parts manufacturing sectors.¹ Of course, the economic impact of the auto industry reaches far beyond the workers employed at the plants and their families. It has been estimated by the Center for Automotive Research that when jobs from other linked industries are considered, the auto industry is responsible for over 7.25 million jobs nationwide.² The long-term health of the industry is critically important to both workers and the economy at large.

Furthermore, auto manufacturing is not a regional issue and extends far beyond the upper Midwest. For example, in recent months, significant investments in motor vehicle and battery manufacturing have been made in Tennessee, Georgia, and Kentucky.

¹ Bureau of Labor Statistics, "Automotive Industry: Employment, Earnings, and Hours", <https://www.bls.gov/iag/tgs/iagauto.htm>

² Hill, Kim, Deb Menk, Joshua Cregger, and Michael Schultz. "Contribution of the Automotive Industry to the Economies of All Fifty States and the United States." Center for Automotive Research. January 2015.

The UAW supports a coordinated industrial policy centered on maintaining and growing high-quality jobs in U.S. manufacturing while combating climate change and advancing equity. As we work toward the future of clean transportation, it will be critical to ensure this transition benefits American workers, enhances U.S. competitiveness, and promotes economic security. Unless comprehensive policies are adopted which focus on raising standards for U.S. workers and boosting domestic manufacturing, we will continue to fall behind in the production of EVs and union jobs in the auto sector will be eroded even further.

Union Difference

The difference between being in a union versus not being in a union is significant. According to the Economic Policy Institute (EPI), unionized workers earn on average 10.2% more than their non-union counterparts.³ Union workers are more likely to have paid sick days and health insurance compared to non-union workers. 94% of union workers participate in a retirement plan compared with 67% of non-union workers. Policies that strengthen labor standards and support workers' right to collectively bargain is foundational to building a strong middle class.

Electric Vehicles (EVs) Are Coming

EV sales have grown steadily over the past decade, but they still represent a fraction of vehicle sales. EVs and PHEVs (Plug-in Hybrids) combined represent just 4% of U.S. auto sales in 2021.⁴ And EVs face several hurdles to mass-adoption. EVs are more expensive to produce, making them less profitable and dependent on consumer incentives. In most parts of the country, EV charging infrastructure is woefully inadequate, and the electrical grid is unprepared. And moreover, consumers shopping for an EV face barriers in battery range and charging speed, as well as a limited selection of models and segments. To be clear, this transition will take time and will occur at different rates throughout our country and world.

The industry is preparing for EVs to be a much larger part of the market going forward, both in the U.S. and abroad. Major automakers around the world have announced several billion in EV investments and ambitious new product plans and target dates. As automakers improve technology, decrease battery costs, and produce at scale, EVs will become more competitive with ICEs (Internal Combustion Engine). And in the coming years, automakers plan to launch EVs in the segments that are most popular with American consumers: CUVs, SUVs, and pickups.

Union workers must lead this transition and in fact, UAW members are currently building the vehicles of the future. Our members currently make advanced technology vehicles that include battery electric (Chevy Bolt, GMC Hummer), plug-in hybrids (Jeep Wrangler PHEV, Ford Escape PHEV), and autonomous vehicles (Cruise AV (Autonomous Vehicle)). UAW employers have announced plans to make EVs and PHEVs at UAW plants in a range of segments, including CUVs, SUVs, pickups, and delivery vans. This year will also see production launches by several start-ups. If new entrants are hostile to unions and provide subpar wages & benefits, it will further erode job quality in the industry.

³ Economic Policy Institute. Unions Help Reduce Disparities and Strengthen Our Democracy, April 2021.

⁴ Wards Intelligence. Jan 2022. "U.S. Light Vehicle Sales, December 2021";

<https://wardsintelligence.informa.com/WI966151/US-Light-Vehicle-Sales-December-2021>

Electrification is not limited to the auto industry. The UAW also represents over 15,000 workers who manufacture farm, construction, and mining equipment. These manufacturers are also investing in future technologies for electrification and autonomy, including those in the agricultural equipment sector. For example, John Deere Senior Vice President Pierre Guyot has said that *“John Deere is committed to a future with zero emissions propulsion systems and is investing in and developing technologies for batteries as a sole- or hybrid-propulsion system for vehicles.”*⁵ Just last week, John Deere revealed a fully autonomous tractor that will be available to farmers later this year and is ready for mass production.⁶ The over 10,000 UAW members who build John Deere equipment, most of whom are working and living in Iowa and Illinois, are ready and able to build the latest agricultural equipment that helps feed the nation. But we need policies that ensure industry invests to produce advanced technologies domestically and creates quality manufacturing jobs that sustain communities across the country.

As the committee is aware, climate change presents significant challenges for the agricultural sector. A large body of scientific research predicted for decades that climate change would increase the number and strength of extreme weather and climate events such as heat waves and droughts. Unfortunately, these predictions regarding climate change are proving correct right before our eyes, and we all have a responsibility to take action to mitigate its impacts. We need cleaner and more efficient vehicles on the road and jobs building these cleaner vehicles must pay family and community-sustaining wages and provide benefits that workers can count on to care for themselves and their loved ones.

The U.S. is far behind other nations in public and private investments needed to make the U.S. a competitive player in vehicle electrification. China has invested more than \$60 billion to support EV manufacturing. Chinese firms, either owned or supported by the Chinese government, currently produce 60% of passenger EVs sold around the globe and produce almost 70% of battery cells.⁷ China also controls some 80% of the supply of rare earth minerals—which are essential for aerospace, defense, and EV production—and may impose export controls on these vital materials.⁸ The European Union (EU) has established the European Battery Alliance to promote the production of batteries and key components within EU.⁹ South Korea is home to LG Chem, the world’s largest producer of lithium-ion batteries for electric vehicles, with a 24.6% market share. The company has plans to triple its battery production.¹⁰

The global market is moving towards ever more efficient vehicles, including hybrid and electric vehicles. Global electric car registrations increased by 41% in 2020, despite the pandemic-related

⁵ <https://www.deere.com/en/our-company/news-and-announcements/newsroom/kreisel-announcement/>

⁶ <https://www.deere.com/en/our-company/news-and-announcements/news-releases/2022/agriculture/autonomous-tractor-reveal/>

⁷ The New York Times, “The U.S. Auto Industry Bets Its Future on Batteries,” February 16, 2021. [The Auto Industry Bets Its Future on Batteries - The New York Times \(nytimes.com\)](https://www.nytimes.com/2021/02/16/business/autonomous-vehicles-batteries.html)

⁸ Financial Times, China targets rare earth export curbs to hobble U.S. defence industry, February 16, 2021. Available Online: [China targets rare earth export curbs to hobble US defence industry | Financial Times \(ft.com\)](https://www.ft.com/content/20210216/china-targets-rare-earth-export-curbs-to-hobble-us-defence-industry)

⁹ European Battery Alliance, “EBA 250,” accessed Jan. 15, 2020. Available online: www.eba250.com/about-EBA250/?cn-reloaded=1

¹⁰ Reuters, “LG Chem to Triple its EV Battery Production Capacity,” October 21, 2020. Available online: [LG Chem to triple its EV battery production capacity \(autoblog.com\)](https://www.autoblog.com/news/2020/10/21/lg-chem-to-triple-its-ev-battery-production-capacity/)

worldwide downturn in car sales, in which global car sales dropped 6%.¹¹ It has been projected that by 2040, over 50% of new car sales globally will be electric.¹² If the U.S. fails to make public investments and adopt smart public policies to encourage and attract investment in the growing electric vehicle market, companies will locate production and supply facilities in countries that are making these investments. The greener vehicles of the future are going to be made somewhere and other countries are preparing for these innovative technologies. We could see the U.S. auto industry fall behind on advanced technology, hurting the American economy and American workers. Ignoring these realities is not an option because it cedes the future to other nations that have a significant auto manufacturing footprint.

We are at a pivotal crossroads as automakers transition many of their fleets from gas- and diesel-powered vehicles to electric ones. The shift to EVs cannot come at the expense of good wages and benefits and it is critical that we do not leave workers behind as the industry transitions to electrification.

The EV transition reinforces the continued importance of putting in place policies that facilitate vehicle and parts production in the United States and easing impediments to workers at non-union automakers to organize. As the nation invests in a transition to innovative technology, we must seize upon these opportunities to preserve and increase quality jobs. We have an opportunity, right now, to ensure that future EV investments incentivize production of EVs in the United States, made by union workers.

A three-pronged approach is needed to achieve these goals including robust investments in EV infrastructure such as charging stations; supporting tax subsidies to incentivize consumers to purchase EV's; and targeting investments towards retooling facilities. We commend Congress and the Biden Administration for passing the bi-partisan Infrastructure Investment and Jobs Act (IIJA) which contains historic investments in EV infrastructure including \$7.5 billion for EV charger infrastructure, \$5 billion for EV school buses and \$3 billion over five years for battery processing. Furthermore, we commend the House of Representatives for approving the Build Back Better Act (BBBA). The Build Back Better Act includes the Kildee-Stabenow EV consumer tax credit which makes historic investments in domestic electric vehicle production that are good for the environment, our economy, and working families. *IIJA and BBBA, together, address all three prongs that are needed for a successful transition.* The UAW believes that government subsidies and tax breaks must be paired with a commitment to locate these jobs in the U.S. at comparable wages and benefits to the jobs they replace. Fortunately, the Kildee-Stabenow amendment in the BBBA continues a \$7,000 consumer credit for EVs and adds a \$4,500 bonus for autos assembled in the U.S. by unionized workers as well as a \$500 domestic battery bonus. It is our hope that the Senate passes BBBA and maintains this provision to reward good jobs.

¹¹ International Energy Agency, "Global EV Outlook 2021." <https://www.iea.org/reports/global-ev-outlook-2021>

¹² BloombergNEF, "Electric Vehicle Outlook 2020." <https://about.bnef.com/electric-vehicle-outlook/>

Future of the EV Manufacturing in the United States

While EV sales have grown steadily over the past decade, but they still represent a fraction of vehicle sales. EVs and PHEVs combined represent just 4% of U.S. auto sales in 2021.¹³ And EVs face several hurdles to mass-adoption. EVs are more expensive to produce, making them less profitable and dependent on consumer incentives. In most parts of the country, EV charging infrastructure is woefully inadequate, and the electrical grid is unprepared. And consumers shopping for an EV, face barriers in battery range and charging speed, as well as a limited selection of models and segments.

Global Challenges

The ongoing pandemic has a direct impact on the topics before us today. According to John Hopkins University, the U.S. now averages more than 700,000 new COVID (coronavirus disease) cases per day, far more than any previous point in the pandemic. By just April of last year, more than 35% of the U.S. population had been infected by COVID-19, putting the current death toll over 830,000 Americans.¹⁴ Of course, the pandemic has impacted both production and demand. As we are all painfully aware, the global coronavirus pandemic is by no means over and will take many years until we fully appreciate the profound impact it has had on our country and the world.

Regarding the motor vehicle sector, lack of resilience in our global supply chains has painfully demonstrated that the slightest disruption can have significant impacts on working people and the economy. Our members have been severely impacted by the pandemic-driven shortage of automotive-grade semiconductors. Production at numerous U.S. plants have been idled and tens of thousands of workers have been laid off, with ripple effects across the automotive value chain.

The current shortage is relevant to the discussion of electric vehicles (EVs) and autonomous vehicles (AVs). EVs and AVs are heavily reliant on semiconductors. It is estimated that an EV autonomous vehicle will have over a thousand dollars' worth of semiconductors. This increase in semiconductor usage comes at a time when U.S. semiconductor manufacturing has been in decline. The total number of U.S. fabrication plants have decreased from 123 in 2007 to 95,¹⁵ while the industry employs 100,000 fewer production workers than it did at the turn of the century.¹⁶ Currently, U.S. manufacturers account for only 13% of the global semiconductor supply. This is because the U.S. is no longer attracting new fabs. In 2011, of 27 high-volume fabs built worldwide, only one was in the U.S.; 18 were in China and 4 in Taiwan. In 2018, 20 new fab projects were announced in China, with total investment exceeding \$10 billion.¹⁷

We applaud Congress for passing the *Creating Helpful Incentives to Produce Semiconductors (CHIPS) for America Act* in the FY 2021 National Defense Authorization Act which included funding to address the

¹³ Wards Intelligence. Jan 2022. "U.S. Light Vehicle Sales, December 2021":

<https://wardsintelligence.informa.com/WI966151/US-Light-Vehicle-Sales-December-2021>

¹⁴ "COVID Tracker." *Center for Disease Control*, January 10, 2021.

¹⁵ MForesight, "Manufacturing Prosperity: A Bold Strategy for National Wealth and Security", June 2018: <http://mforesight.org/download/7817/>

¹⁶ BLS, Quarterly Census of Employment and Wages (QCEW) for NAICS 334413, <http://www.bls.gov/cew/>.

¹⁷ MForesight, "Manufacturing Prosperity: A Bold Strategy for National Wealth and Security", June 2018: <http://mforesight.org/download/7817/>

semiconductor shortage facing auto manufacturing, but more work remains. We urge the House to pass the *CHIPS for America Act provisions* from the U.S. Innovation and Competition Act (USICA), providing more than \$52 billion to fully implement this program aimed at spurring domestic production of semiconductors that are crucial for auto manufacturing and a host of other sectors.

Need to Create and Maintain Good Jobs

U.S. manufacturing workers face serious headwinds, including weak labor laws that fail to protect workers' rights to join a union, bad trade deals that put interests of investors before workers, and misguided tax incentives that allow corporations to pay fewer U.S. taxes on profits earned overseas than those earned within our borders and some to pay no corporate taxes at all. Over the past fifteen years, U.S. automotive production workers' wages have fallen significantly. When adjusting for inflation, average hourly earnings for production workers in auto assembly have declined by 21%, while wages in the auto parts sector have declined by 19%.¹⁸The status quo is unacceptable.

Labor law reform is desperately needed. In fact, the National Labor Relations Act (NLRA) has not been strengthened since becoming law over 85 years ago. Our laws must ensure workers are able to collectively bargain for better wages, safer worker conditions and a dignified retirement. We urge the Senate to pass the *Protecting the Right to Organize (PRO) Act*. The PRO ACT could help raise job standards in the motor vehicle industry. We applaud the House for passing it in the 117th and 116th Congresses on a bipartisan basis. If signed into law, the PRO Act will protect a worker's right to join a union by strengthening penalties against corporations that violate workers' rights, provide for mediation and arbitration of first contracts, eliminate right to work laws, prohibit captive audience meetings, and support workers' right to strike. Passing the PRO Act will go a long way in strengthening outdated labor laws and rebuilding our nation's middle class. We call on the Senate to swiftly pass the bill.

As Congress deliberates on legislation aimed at improving the environment and ensuring that jobs of the future are good jobs, it is incumbent to incorporate provisions related to shoring up domestic supply chains and strengthening labor standards. Consumer and deployment incentives must support domestic assembly and high domestic content requirements. Lawmakers should include U.S. domestic content requirements for key vehicle components, like those considered super-core components in the USMCA (United States Mexico Canada Agreement), focusing on domestic EV batteries, plug-in hybrid engines, hybrid transmissions, and electric motors. Companies that fail to meet labor standards and U.S. final assembly requirements will still be able to sell their automobiles, they just should not get taxpayer assistance.

President Biden has rightfully prioritized buying American products, made here by American workers by signing the Executive Order to Strengthen Buy America provisions. We commend the Biden administration for emphasizing the importance of building out and re-shore critical supply chains, including medical equipment, semiconductors, energy and grid resilience technologies, key electronics and related technologies, telecommunications infrastructure, and key raw materials. These initiatives have the potential to create new jobs and protect U.S. supply chains against national security threats. We

¹⁸ Bureau of Labor Statistics. "Average hourly earnings of production and supervisory employees." Series CEU3133610008 & CEU3133630008, Data from January 2006-January 2021. Adjusted using BLS CPI Inflation Calculator.

urge you to work with the Administration to strengthen domestic supply chains and support U.S. made products.

Conclusion

We do not have to choose between protecting our environment and economic prosperity. This is a false choice that hinders our ability to tackle real dangers and build a better future. In fact, to effectively combat climate change and strengthen our middle class, we must do both. To lead the future, electric vehicles and other green technologies must create good U.S. jobs where workers have a voice on the job. It is important to ensure all manufacturing workers can join a union free from intimidation by employers seeking to maintain the status quo.

The transition from traditional gas-powered engines will require patience and public resources. Even with billions in planned investments, auto companies are relying on public subsidies and other policies to promote sales, transform production capacity, and speed up profitability for EVs. Strategic government support is a crucial tool for strengthening American innovation and manufacturing capacity. But if the public is going to foot the bill, the public must get economic benefits in return, in the form of domestic investments and quality jobs. To make EVs work for American workers, we need policies that promote domestic manufacturing and quality union jobs.

We stand ready to work with you and all other stakeholders to ensure the transition is good for working people, the U.S. economy, and our planet. Thank you for considering our views. I look forward to answering your questions.

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Josh Nassar has served as the Legislative Director for the United Auto Workers since December 2011. The legislative department is responsible for implementing the union's policy agenda and designing legislative strategy on labor, trade, environment, health care, defense, energy, tax policy and other issues. He works closely with members of Congress, the executive branch, and stakeholders.

Mr. Nassar previously worked as the assistant legislative director for the Service Employees International Union. He also worked as the vice president for federal affairs at the Center for Responsible Lending and served as legislative assistant for Congresswoman Jan Schakowsky. He has testified before Congress numerous times.

Mr. Nassar earned a bachelor's degree from Skidmore College and holds a master's degree from CUNY Graduate Center. Mr. Nassar and his wife, Amy, live in the District of Columbia with their daughters, Naomi, Justice, and Janis.