ISSUE BRIEF: FEDERAL SUPPORT FOR EV JOBS IN GEORGIA

CHARGE

An EV manufacturing boom creates opportunities for Georgia

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Introduction

The electric vehicle (EV) transition is well underway. In 2023, nearly 10 percent of all new vehicles sold in the United States were EVs. This transition is generating jobs and investment in manufacturing and construction, charger assembly and maintenance, electrical installation, and administration. This shift has been fueled in significant part by the passage of the Infrastructure Investment and Jobs Act (IIJA) and the Inflation Reduction Act (IRA). These laws will inject at least \$87 billion to encourage consumers to get into the EV market, drivers looking for charging, and manufacturers looking to set up or grow their U.S. operations.

Georgia is poised to become a hub for EV manufacturing as it <u>leads the nation</u> in announced private investment (\$24.8 billion) and permanent jobs (27,477). But what will these jobs mean for Georgia? And how is federal funding supporting this development?

The Impact of Federal Investments

Since IIJA's passage in November 2021, over \$22 billion and nearly 24,000 new jobs in EV and battery manufacturing have been announced in Georgia.¹ Of those announcements, about \$16 billion and nearly 11,000 jobs were announced after the passage of IRA in August 2022. Of the jobs announced, 97 percent will go to Congressional districts represented by Republicans and jobs will flow to 11 out of Georgia's 14 congressional districts, based on announced facility locations. The largest investors are Hyundai with \$7.5 billion in announced investment and 8,550 announced jobs, Rivian with \$5 billion and 7,500 jobs, and SK Group with \$4.6 billion and 4,800 jobs.²

These recently announced investments were likely enticed and will be supported by the passage of IIJA and IRA. To support manufacturing, IIJA includes grant funding for training and manufacturing. For instance, IIJA funding will support a joint venture between Solvay and Orbia, which received \$178 million from the Battery Materials Processing and Battery Manufacturing Grant to manufacture battery polymers. The Augusta, Georgia, facility will open in 2026.

² Rivian's facility in Social Circle Georgia is included in these statistics. In March 2024, Rivian announced that its Georgia manufacturing facility will be delayed for the foreseeable future. In a March <u>opinion piece</u> in the Atlanta Journal Constitution, Rivian CEO RJ Scaringe wrote that the company is "committed to building our future in Georgia" and that the announcement is a shift in timelines, rather than investment. The company reaffirmed <u>this position</u> in April 2024 in correspondence with state and local officials in Georgia.



¹ Including manufacturing for stationary storage through April 24, 2024.

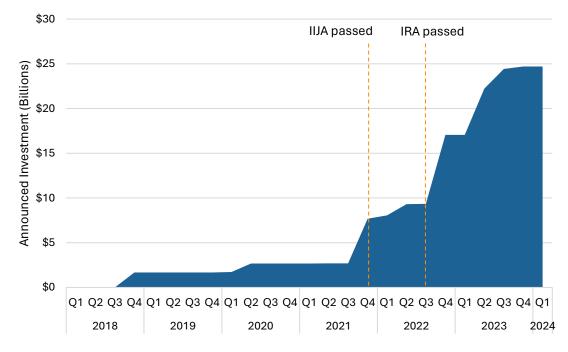


Figure 1: EV Manufacturing Investment in Georgia by Date of Announcement

Cumulative announced EV and battery manufacturing investment in Georgia by quarter since 2018, through April 24, 2024. Source: <u>Clean Economy Tracker</u>.

Inflation Reduction Act

IRA provides programmatic grants as well as incentives for domestic production of EVs and batteries through tax credits such as the <u>Advanced Manufacturing Production Tax Credit</u> (45X) and the <u>Qualifying Advanced Energy Project Credit</u> (48C). Round 1 allocations for 48C projects located in energy communities³ were <u>announced</u> on March 29, 2024, with 35 recipients self-disclosing project information. Mobis North America received <u>\$57.7 million</u> for their Richmond Hill, Georgia, power electric systems manufacturing facility, which supplies components for Hyundai and Kia EVs. There are likely other EV projects in Georgia that will receive support that have chosen not to disclose funding.

To illustrate the significance of these tax credits, the CEO of FREYR, a Norwegian battery company building a <u>new \$2.6 billion facility</u> near Atlanta, <u>stated</u> that IRA made a "massive"

³ The <u>U.S. Department of Energy</u> defines an energy community as: a metropolitan statistical area or non-metropolitan statistical area that achieves an unemployment rate at or above the national average for the prior year or 0.17 percent or greater direct employment or 25 percent or greater local tax revenues related to pre-combustion activities for coal, oil, and natural gas; or a census tract in which a coal mine or coal-fired electric generating unit has been retired in a given timeframe; or a brownfield site (not included in the <u>Clean Economy Tracker</u>).



difference in their choice to build in the United States. According to the CEO, the company reversed its original plans to build in Norway first and then the United States because of IRA and the incentives offered by the legislation. Meanwhile, Rivian <u>indicated</u> that it began claiming the 45X tax credit for module assembly in 2023 and would apply to the 48C tax credit.

The laws also support EV adoption in other ways including by making public charging more available and helping consumers financially access EVs. Again, tax credits will play a significant role. The <u>Clean Vehicle Tax Credit</u> (30D) is available to support consumers with up to \$7,500 for the purchase of EVs. Additionally, the <u>Commercial Clean Vehicle Credit</u> (45W) applies to vehicles that are purchased to replace a non-Zero Emission Vehicle (ZEV). Vehicles powered by fuel cells, batteries, and plug-in hybrids are eligible. For vehicles heavier than 14,000 pounds, businesses are eligible for a tax credit of up to \$40,000 for ZEVs.

The <u>Alternative Fuel Vehicle Refueling Property credit</u> (30C) offers tax credits for individuals or businesses installing charging infrastructure or hydrogen fuel cell refueling stations servicing low-income or rural census tracts. Individuals can obtain up to \$1,000 per charger while businesses can obtain up to \$100,000 per charger with a base credit of six percent per property; if prevailing wage and apprenticeship provisions are met, the credit is boosted to 30 percent. These tax credits will be transformative for years to come as they will be open to vehicles purchased before 2033.

Infrastructure Investment and Jobs Act

Elsewhere, federal grant programs will drive uptake. For instance, the <u>Clean School Bus Pro-</u> gram can be applied to manufacturing companies and school districts. The program has resulted in <u>\$108 million</u> in awarded funding to the state of Georgia, supporting 153 vehicles deployed in FY2022 and 165 deployed in FY2023.

The Low or No Emission Grant Program can support the state of Georgia to deploy electric buses. Three awards from FY2022 will support deployment of battery electric buses in Atlanta, Augusta, and Chatham while <u>one award</u> in FY2023, will support electric buses at Georgia State University. These awards amount to about \$53 million. Moreover, the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grants are open to applications from state and local governments to develop EV infrastructure, generating jobs as a result. While six Georgian cities, counties, and transit authorities have been awarded <u>about</u> \$100 million across FY2022-2023, only one project pertained to EVs — a \$20 million award to install electric bus charging stations in <u>Gwinnett County</u>, just outside of Atlanta.

These programs and others provide significant opportunities to rapidly electrify transportation across the state. Mayor Van R. Johnson of Savannah emphasized in an interview the



importance of these laws as well, stating that the federal government "really made the conditions so that Georgia could be more attractive to EV producers."

Georgia's state government has also heavily supported companies to invest in Georgia, with state and local governments <u>granting at least \$4 billion</u> in subsidies and tax credits to entice larger investment and job creation. FREYR, for instance, received sales tax exemptions, tax credits, and grants from the state and county that amount to \$358 million for the manufacturer. Similarly, South Korean EV battery manufacturer SK On is receiving almost \$300 million in tax credits as well as other incentives that add up to \$641 million for its Bartow County facility.

A final factor supporting the build out of a domestic supply chain is the Biden Administration's <u>Build America</u>, <u>Buy America</u> (BABA) standards. Written into IIJA, BABA enacts a "made in America" requirement for many infrastructure projects across both IIJA and IRA, including EV and charging infrastructure. <u>Specifically</u>, to access some federal incentives, products must be manufactured within the United States and greater than 55 percent of the cost of a product's components must be sourced from U.S.-based factories. BABA provides foreign firms with a financial incentive to site their facilities domestically, creating jobs.

EV Labor in Georgia

Nearly 24,000 EV and battery manufacturing jobs have been announced in Georgia since IIJA's passage. Increasing demand for an EV automaking workforce has the potential to grow local economies as Georgia becomes a central node for U.S. EV manufacturing. As these jobs are realized, it is important to assess their quality and workforce readiness.

Right to work and unions in Georgia

Historically, unions in the automaking industry have been <u>strong</u>. This is not true in Georgia at large. <u>4.6 percent</u> of Georgia's workforce is in a union compared to <u>10 percent</u> nationwide, and the only EV automaking facility in Georgia with reported unionization is run by electric bus manufacturer <u>Blue Bird in Fort Valley</u>. A complicating factor in determining the quality of Georgian EV jobs is the fact that Georgia is a <u>right-to-work state</u>. The "right to work" refers to a law barring a requirement for employees to join or pay dues to a union when beginning employment at a new company. This makes facility-wide organizing difficult and weakens unions by encouraging freeriding.

Reem Rayef, Senior Policy Advisor for Clean Transportation at the BlueGreen Alliance, highlighted that across the South it is generally easier for employers to "get away with" lower



wages and evade organizing efforts. Occasionally, this occurs by matching their offered wages with that of the union rates while doing away with additional benefits; this tactic diffuses organizing energy, Rayef added. "It's important that we're vigilant as we celebrate new investments. We should ask about high quality, sustainable jobs that should not be enriching only executives but also workers and communities. The best way for that to happen is good wages and benefits," Rayef said.

The United Auto Workers (UAW) has been at work <u>in Georgia</u>, applying pressure on automakers in the state since the end of 2023. Riding a wave of momentum from its November 2023 wins in <u>Detroit</u>, the UAW <u>announced</u> it would target autoworkers in thirteen companies — including Hyundai and Rivian, the two largest announced EV investors in Georgia. This pressure resulted in Hyundai announcing it would raise wages <u>by 25 percent</u> by 2028 for its Georgia workforce, matching the increase granted to UAW members. This pressure will only become more intense. On February 22, 2024, the UAW announced it would invest <u>\$40 million</u> into organizing over the next two years, with a focus on EV battery workers.

The efforts appear to be paying dividends. In April 2024, workers at Volkswagen's Chattanooga, Tennessee facility <u>successfully</u> voted to join UAW, with 73 percent votes cast in favor. The <u>facility</u> expanded to <u>produce EVs</u> in 2022, announcing an investment of \$800 million that would bring 1,000 new jobs to the area. The facility had previously experienced two failed unionization votes in <u>2014 and 2019</u>. Upcoming unionization votes in the Southeast <u>include</u> the Mercedes facility in Vance, Alabama, with ongoing efforts at Hyundai's Montgomery, Alabama facility.

Workforce Development

New jobs mean new demand for a skilled workforce. Programs have sprung up around Georgia meant to attract future workers from Georgia's high schools, colleges, and incumbent auto workers in need of retraining. Several significant programs are also supported by Georgia's government, a nod to the EV industry's growing importance to the state's economy.

Stan Cross, the Electric Transportation Policy Director at the Southern Alliance for Clean Energy (SACE), partially attributed the attractiveness of Georgia for EV manufacturers to the state's strong state universities and technical colleges. "People in Georgia need to understand the pathways to access jobs in this market." Cross added, "The investments are here, but there's a lag for rolling out the investments, so we have time for job training and making sure the workforce is there."

The Electric Vehicle Career Pathway (EVCP) is supported by Georgia's Department of Education and is meant to support the Rivian facility to be sited in Social Circle, Georgia. EVCP curricula will be publicly available via <u>Career, Technical, and Agricultural Education</u>



programs across the state for high schoolers. Johnson added that these programs are very important for younger ages. "Our challenge is not really the people attending college. It's the people in third grade," Johnson said. "How do you help create a workforce that is prepared locally to literally walk into these jobs?"

There are also several programs led by colleges and universities across the state. The University of Georgia is partnering with the University of Alabama, Mississippi State University, and many companies, non-profits, and public agencies on the <u>Mississippi Alabama Georgia</u> <u>Network for Electric Vehicle Technologies</u> (MAGNET). MAGNET will examine supply chains across these states, including workforce development activities. The project anticipates expanding its regional partners in the process of developing workforce requirements.

Trey Gowdy, Research Lead at Duke University's Nicholas Institute for Energy, Environment & Sustainability and co-facilitator of the Southeast Electric Transportation Regional Initiative, highlighted a <u>memorandum of understanding</u> (MOU) between Hyundai and Savannah Technical College. The MOU guides Savannah Technical College to provide prospective EV industry employees with the information and training they need to apply for entry-level employment — for instance, shop operations, electrical principles, and how to service hybrid and electric vehicles. Similar programs exist at Columbus and Augusta Technical Colleges.

The largest jobs training program in Georgia is also making moves into EV workforce development. <u>Georgia Quick Start</u> provides free, custom job training for businesses across Georgia and was originally designed to attract businesses to the state. As a part of the Technical College System of Georgia, the program is poised to aid Hyundai's Ellabell facility. The <u>\$62.5</u> <u>million</u>, state-funded training center, recently <u>broke ground</u> and will be devoted to training between <u>300 and 400 workers</u> a week to quickly and effectively staff Hyundai's facility.

Further, workforce development is most effective when it is advanced hand-in-hand with consumer education and access, especially in underserved communities. Electric Black Futures is a <u>U.S. Department of Energy funded program</u> in Atlanta, Savannah, and Albany. Cross described the project's goal as working with local Black communities to understand and access federal funding to meet their electric mobility needs and priorities, including jobs. SACE, alongside partners EVNoire and Clean Cities Georgia, will collaborate with local stakeholders over the next three years to deliver the program.

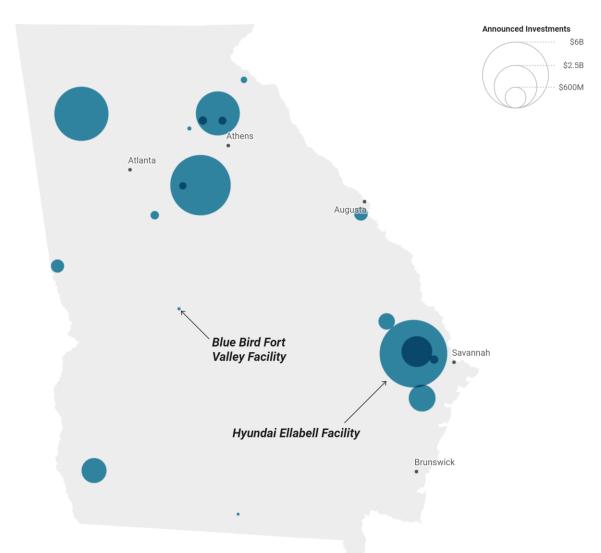
Cross emphasized that it is currently unclear how or if EV-related job pathways are being laid out equitably. "[U.S. Department of Energy] funded Electric Black Futures in part because Georgia is the epicenter of EV manufacturing," Cross said. "Equitable access to these jobs is key, and so we need to match community priorities with workforce opportunities and roll our learnings up within the state's education and job training programs." More than a third of the announced investment should flow toward <u>disadvantaged communities</u> in Georgia as defined by the Climate and Economic Justice Screening Tool.



Facility Profiles

The following profiles are of the largest private investment and the only unionized EV manufacturing facility in Georgia.

Figure 2: Announced EV Manufacturing Investments in Georgia



All announced EV manufacturing facilities in Georgia through April 24, 2024, with the two profiled below called out.

Source: <u>Clean Economy Tracker.</u> Created with Datawrapper.



Hyundai Ellabell Facility

Hyundai Motors and LG Energy Solutions (LGES) are constructing a \$7.6 billion "metaplant" in Ellabell, outside of Savannah. The facility is split between a Hyundai vehicle assembly plant and a joint venture battery manufacturing plant funded by Hyundai and LGES. Hyundai broke ground in October 2022 and construction on the massive site is underway with more than 2,000 construction workers on site. The plant is expected to begin production in early 2025 and produce 300,000 vehicles annually once at full capacity. This facility will be the largest economic development project in Georgia's history as well as Hyundai's first EV-dedicated facility in the United States. As of February 2024, Hyundai and LGES anticipate 8,500 jobs at the plant with an average salary of \$58,000. Hyundai has indicated that its Georgian workers "have yet to show interest in union representation," but its recent wage structure change — increasing hourly rates by 25 percent by 2028 — matches that of the newly won UAW contracts.

Recently, a coalition of labor organizers in Georgia has <u>pressured</u> the company to enact a legally binding community benefits agreement. This agreement would include requirements to hire and train workers locally and improve safety conditions.

Additionally, this facility will receive Georgia's <u>largest-ever incentive package</u>: \$1.8 billion in tax breaks and other subsidies. These subsidies include \$472 million in property tax breaks, \$212 million in income tax credits, and \$250 million in subsidies for road construction and machinery. At the time of the original deal, Hyundai intended to invest \$5.5 billion and create 8,100 jobs. With Hyundai and LGES' <u>announcement</u> that they would increase investment to \$7.6 billion and 8,500 jobs in August 2023, it is now possible that the tax breaks will <u>amount</u> to \$2.1 billion. This is not Hyundai's only investment in Georgia; they are also building a <u>\$5 billion battery plant</u> in a joint venture with SK On in Cartersville. Hyundai North America CEO José Muñoz commented in September 2023 that the company would <u>speed</u> <u>construction</u> of the facility to qualify for IRA tax credits. Muñoz noted that Hyundai hoped to begin production in 2024, earlier than its initial start date of January 2025.

Blue Bird Fort Valley Facility

<u>Blue Bird Corporation</u> has a long history in the state of Georgia, having been founded in the state almost a century ago. The school bus manufacturer recently added electric buses to its lineup, with its <u>EV Build-up Center</u> in Fort Valley opening its doors in May 2023. Production in the rural Fort Valley began with two electric buses a day but will now ramp up production to twenty buses a day, according to Blue Bird's Vice President of Alternative Fuels Albert Burleigh.



The facility <u>employs</u> over 2,000 to build school buses—including electric buses—significant given that Fort Valley's <u>population</u> is about 9,000. Burleigh said that the company invests in the "training and upskilling" of its incumbent workforce as Blue Bird transitions to manufacturing more electric buses. In a <u>voluntary survey</u> to the U.S. Environmental Protection Agency, Blue Bird noted it is developing a Registered Apprentice Program with local colleges and partners with local high schools and trade schools. In the same survey, Blue Bird reported that its workforce recruitment takes place across central and lower Georgia.

Federal funding is allowing Blue Bird to shift its production away from diesel-powered to low- and zero-emission school buses. Burleigh said that IIJA's <u>Clean School Bus Program</u> has the potential to generate about \$1 billion in additional revenue for the company. The program will disseminate \$5 billion over five years to bolster the buildout of clean school bus manufacturing. "Therefore," Burleigh added, "we continue to invest in our EV technology leadership and production capacity to meet increasing demand for zero-emission student transportation."

According to <u>reporting</u> from January 2024, Blue Bird has received around \$170 million from the Clean School Bus grant program to date. In the <u>FY2022</u> iteration of the program, Blue Bird had 30 successful requests for proposals, six of which deployed electric school buses in Georgia; Georgian awarded funding amounts to about \$7.8 million of about \$37 million directly awarded to Blue Bird.

The Fort Valley facility is unique in Georgia. It is the only medium- and heavy-duty EV manufacturing site and the only unionized EV manufacturing site in the state. Its workforce held an election to unionize and was recognized by Blue Bird in <u>May 2023</u>. Since then, Blue Bird has been liaising with the United Steel Workers Union to <u>establish</u> a collective bargaining agreement and negotiations are ongoing. "It is our joint goal to develop a mutually beneficial agreement that enables all parties to best serve our customers and to safeguard Blue Bird's long-term success," Burleigh said when asked about the negotiation process.

Rayef said that Blue Bird is top of mind for labor advocates in Georgia. "These things don't come easy," Rayef noted. "Forming a union is only the first part of the battle. Getting a good first contract is a difficult process that companies are very good at stalling."

What's next for EVs in Georgia?

There was a veritable explosion of private EV manufacturing in Georgia in the wake of IIJA and IRA, spreading economic opportunities across the state. Rayef described this phenomenon of federal investments encouraging private investments as a multiplier effect. Yet, simultaneously, Cross sketched out a political tension across the Southeast and in Georgia



where the benefits of investments and jobs are weighed against anti-climate action lobbying efforts. According to Cross, during the 2024 election cycle, EVs will be used as a wedge issue, potentially hampering economic and workforce development opportunities in Georgia.

"There is very much a hunger for the state to do more to support consumers," Anne Blair, Vice President of Policy and Freight at the Electrification Coalition (EC), added. "We're seeing the manufacturing, seeing the state really support that part of the industry, but fewer programs that really support individuals, fleets, and others with accessing the equipment or charging ... it's an affordability and an accessibility issue." This has not always been the case in Georgia, which had a state-wide \$5,000 tax credit for the purchase of EVs from 1998 to 2015.

Georgia is rapidly becoming an EV manufacturing powerhouse. It is essential that residents of the state have equitable access to the EVs they will be producing — and that the communities around new facilities can benefit from their presence. In an interview, the Electrification Coalition's Policy Manager in Georgia Celia Kosinski noted that part of the EC's work including a series of rural round tables held across the Southeast, with one in Georgia has been to highlight how rural communities can best take advantage of federal investments. Economic benefits are within reach for rural areas across Georgia, Kosinski added. Bringing the information to these communities is the most efficient way to galvanize them to action.

"I'm hopeful that it's going to be an equitable progression of EV jobs in Georgia and the Southeast," said Gowdy. "I hope that where facilities open up, residents in those communities have access to those jobs — that would be a key marker to strive for."



