REGIONAL ROUNDTABLES

Securing The Battery and Critical Material Supply Chain in Georgia

Roundtable Summary and Takeaways

December 5, 2025

On November 5, 2025, the Center for Climate and Energy Solutions (C2ES) hosted a roundtable event in Atlanta, Georgia, in partnership with the Georgia Tech Strategic Energy Institute. This document summarizes the conversation and recommendations from that event, highlighting lessons, challenges, and opportunities to develop a battery and critical material supply chain both in Georgia and more broadly in the Southeast United States.

Note: Takeaways represent statements made in the roundtable discussion and do not necessarily reflect C2ES or Georgia Tech positions or opinions, nor do they represent consensus among participants in the event.

Summarizing the Conversation

Georgia's Competitive Advantages

- Georgia possesses many of the capabilities to support a cutting-edge battery industry, including an innovative and pro-business economic development and policy strategy; supportive infrastructure including the interstate highway system, deep-water commercial port, and major international airport; and its central geographic location to the U.S. battery industry.
- Since 2020, companies have announced or invested over $25 billion in electric vehicle (EV) related projects in Georgia, with approximately 30,000 jobs. Georgia has spent years investing in the battery and EV space, launching the state to #1 in EV manufacturing investments and EV charging infrastructure in the Southeast.
- Many Fortune 1000s are located in Georgia, which can serve as a market for clean-tech products like stationary storage batteries and EVs.
- Participants highlighted an opportunity to connect the state's expertise in developing innovative technology with new industry partners entering the market who can help commercialize technological breakthroughs, such as the advanced South Korean battery and material companies locating in Georgia and the Southeast.
- Atlanta, in particular, is a hub of innovation, drawing from world-class research universities to develop new products and train the workforce of the future.
- Georgia has historic experience in mining kaolin clay, indicating the workforce capacity to mine and refine other materials. Simultaneously, Georgia also has a growing battery and EV assembly industry. However, refining—a crucial step in processing mined materials into useable forms—is

non-existent in the United States. Companies and policymakers should be thoughtful about how to bridge the gap to ensure Georgia has facilities across the value chain, including supplying, refining, and assembling for the battery industry, with the ultimate goal of creating a circular economy through reuse and recycling.

The Growth of a Manufacturing Sector

- Companies building battery projects are driven by profit motive. Factories in the United States are competing with producers worldwide to supply components and products at the current market price. To be competitive on the global market, the state and region need to be a low-cost provider of batteries and critical materials today and cannot only rely on long-term cost projections or technological developments. Therefore, these highly capital-intensive battery materials facilities need to lower their operation expenditures, and participants suggested the only way to compete is large-volume-scale automation of manufacturing processes.
- Part of China's competitive advantage in the battery industry is the lower cost of labor. If the United States needs to automate large-scale manufacturing processes to compete in the global market, industry and policy makers must find solutions to protect the long-term economic future of human workers.
- The emerging American battery industry can learn many lessons from the experience of companies in the solar industry, which developed decades earlier. Although American manufacturers hoped to produce modules to supply the domestic market, China's large supply of lower-cost modules made it impossible for higher-cost American products to compete on the global market. Now, to support the development of a domestic battery industry, the state and region should proactively help secure the manufacturing base needed to support an American battery supply chain, from raw materials through manufacturing of final products, at sufficient production volume and cost to compete with more mature global producers.
- When considering upstream battery materials production, the most important feedstock for manufacturing is power. Low-cost, cheap, reliable power is key to manufacturing site selection and is important to the offtakers of battery and EV products. Several battery material companies have chosen to locate in places like Tennessee due to the availability of carbon-free power; the Tennessee Valley Authority (TVA) region offers 50 percent carbon-free electricity.
- While China is currently the world leader in exporting EVs, participants believed the United States could catch up to China or surpass its volume of exports with the correct level of government and private sector investment. If successful, an American battery supply chain would create massive growth in new jobs, technologies, and wealth for the Southeast. However, if the sector is not built in a smart and efficient manner, the region and country could lose out to this generational opportunity.
- While the region has successfully increased its manufacturing capability for EVs and batteries, a regional pilot test facility could support long-term growth through new technology development and commercialization.
- What happens in the battery and critical materials space in 10 years will be based on the innovation currently happening in universities today. Industry partners need to support this early innovation and its ultimate translation to commercial scale manufacturing.

Creating a Supportive Policy Environment

- Participants emphasized that industry and government must ensure demand exists for the supply that companies are producing regionally. State and federal demand-side policies need to align

with the recent growth of clean tech industries. To support the battery industry's long-term growth in the region, both state and federal policy should support both defense and electric mobility applications for American-made batteries.

- Due to recent federal policy changes, some companies across the Southeast have canceled projects, creating uncertainty among investors. This pause may slow the timeline for industry growth. The industry will continue to mature, but companies and policy makers must find ways to support greater investment certainty to ensure the industry stays globally relevant.
- To build political durability and compete globally, battery industry stakeholders must help build coalitions of support for the region's historic investments in the new battery and EV industries. Participants noted that critical minerals could serve as a bipartisan area to build coalitions around shared interests in national security and clean tech manufacturing in Georgia.
- While there has been substantial market and policy change, the basic economic argument for electrification must center around driving favorable economics and improving product affordability. In the long term, supporting auto manufacturers' ability to produce affordable EVs is more important than providing consumer credits to boost mass market adoption.

Market Challenges and Opportunities

- For companies looking to build their first facility, one of the key challenges is the timing of access to specialized equipment. In China, companies can source equipment in three weeks to prove and improve their process flow. It takes much longer—from several months to a year—to source equipment in the United States to set up a new factory.
- Current prices for critical battery materials produced in China, such as synthetic graphite, cannot be matched by producers in the United States under the current investment environment.
- Companies and government agencies need to invest in both EV software and hardware development like batteries to remain relevant internationally. Investing in the rapid evolution of new technologies and battery chemistries is crucial to ensure future opportunity for young people and the realization of local economic benefits.
- A missing piece for the North American battery materials market is guaranteed product offtake. The industry must consider how to take advantage of advanced market commitments, especially for recycled battery materials that meet manufacturers' requirements.
- Battery materials companies need to consider opportunities to pivot to meet demand from different end uses as the market evolves. For instance, as domestic EV market growth slows, companies should consider options to supply the stationary storage market.
- New technology development is crucial to long-term economic health, but the United States lacks a breadth of funders willing to take on long-term, high-risk funding in the battery materials market. This lack of funders creates a big chasm in new technology deployment between concept and commercialization. Without continuous grant funding, new technologies do not have the necessary financial support to advance from pilot scale to commercial adoption. To become a hub—not just for new technology innovation, but commercialization—the region needs to solve the funding challenge.
- As utility electric rates rise, stationary storage batteries can promote affordability when deployed to support peak shifting and load following. New and innovative technologies can accelerate these solutions, such as potentially using EVs as backup power sources for homes or across the grid.

Developing a Regional Supply Chain

- The entire supply chain will not be developed within a single state; it will take a concerted regional effort to help target supply chain development matching the strengths of each state and the needs of the industry.
- Commerce does not stop at state lines; governors need to coordinate to maximize their individual state's economic gains. There has been increased collaboration on nuclear power generation, while building out the EV and battery industry has been more competitive than collaborative.
- A new tri-state agreement around the battery supply chain, the Mississippi-Alabama-Georgia Network for Evolving Transportation (MAGNET), could help support this regional industry development and build on Georgia's role.
- The Southeast has a chance to lead the national battery and critical material industry due to the large presence of EV manufacturing and position as a major exporter of completed vehicles. Battery manufacturers will want to locate close to where auto original equipment manufacturers (OEM) are building, and the automotive evolution can provide enough demand to create a market for the batteries produced in the Southeast.
- Many companies have already invested in the region. Policymakers and other stakeholders need to ensure they support their growth and create opportunities for new entrants in a way that creates industry longevity.
- Federal incentives successfully supported battery and EV manufacturers to locate in the Southeast, in spite of challenges to the domestic market and supply chain. This support helped develop a regional ecosystem strong enough to weather future industry challenges.

Sourcing Raw Materials for Industry Growth

- While the state cannot control where its mineral deposits naturally occur, it does have control over technology development and manufacturing growth. Participants believed Georgia has the people, technology, and business environment to become the manufacturing center of this industry in the United States.
- When considering what resources the battery industry needs to extract to build the supply chain, participants were concerned that outsourcing this process—rather than sourcing domestically using higher environmental standards—would have long-term environmental impacts.
- Participants urged the industry to innovate new solutions to access abundant materials with a smaller environmental footprint. This could ameliorate the often lengthy political conversations about whether to open mines domestically.
- While industry stakeholders aim to increase demand for batteries and critical materials, participants also highlighted the need to reduce demand for virgin materials. To do so, participants emphasized options for circularity and ensuring products are designed for disassembly to help maximize the efficient use of resources in the future.
- A major gap exists around circularity for batteries. While some key battery recycling companies in the United States have capacity to break down the batteries to black mass, most are unable to process it further to return it to the supply chain. To ensure recyclability, researchers must think about how to better design batteries for full life cycle on the front end of battery research and design.

- Graphite has a centralized supply chain in China, but innovations in process and feedstocks could support the decentralization of this supply chain to other regions. For example, Georgia Tech has a partnership with the Georgia Forestry Commission to make graphite from wood pulp and other byproducts. These types of innovations could have a large impact on localizing supply chains for the industry.
- One positive example of responsible domestic mining for critical battery minerals is a lithium mining project in North Carolina. The company operating the project has been able to address community concerns around mining due to their adoption of the voluntary Initiative for Responsible Mining Assurance (IRMA) mining standard. This has helped support development of the project with little community opposition.

Workforce Development Drives Long-Term Success

- The employment needs of the growing battery industry create an opportunity to tap into the resources of the existing manufacturing workforce in the region.
- To continue developing a new workforce, battery and materials companies should collaborate with local technical colleges and consider how to invest their resources in building new talent pipelines for students. Many students in these programs are not traditional, so they may need some non-traditional funding to support their efforts to build the workforce.
- For high-demand careers, like those in the battery and EV space, a key challenge is retaining qualified instructors to train the workforce. There is an opportunity for industry partners to provide their expertise to help assist with training future workers in their sector.
- Cuts to federal grants have negatively impacted some workforce development programs supporting clean energy, but workforce development providers are trying to be creative in attracting other sources of funding so they can continue to support the clean energy industry. At the same time, the strength of the clean energy talent development ecosystem that companies, policymakers, and educators built over the past half decade allows industry stakeholders to explore new strategic partnerships.
- Workforce is a top concern for industry looking to set up new facilities in the United States. To develop a Southeast workforce development strategy, states must use all existing educational and training assets in the region. Policymakers, companies, and educators must collaborate to ensure they have a plan for how to increase access to the labor market, train the workforce, and ensure they have the skillsets across the entire value chain.
- Over the next decade, new cathode, anode, and electrolyte producers will need sufficient numbers of trained workers to operate their plants in Georgia and across the Southeast to create a complete ecosystem and ease supply chain constraints.
- Even with a similar or identical manufacturing process in Europe, Asia, and the United States, products can vary widely depending on the skills of the workers running the facilities. The Southeast has access to strong training institutions to ensure workforce competencies in these new processes.
- Many students are unaware of the battery and natural resource industry. This emerging sector needs to engage with the K–12 space to ensure a pipeline of talent for future industry growth.

Strategy Workshop

Following the morning guided discussion sessions, participants self-selected topical areas to engage in blue-sky thinking to develop specific recommendations in support of the battery and critical materials industry.

Research and Development

In this session, participants discussed: next-generation and non-lithium batteries; design improvements for enhanced safety; performance and efficiency improvements; and design for recyclability.

As part of the recommendation development process, the group identified key principles that must be part of any policy or program to support the research and development process for new battery and critical material technologies:

Principles

- Research funding models must align federal, state, corporate, and academic interests with potential for government matching.
- Federal-directed or -funded research must focus on manufacturing and end-use.
- Clear goals, research milestones, and go/no-go like those under the Advanced Research Projects Agency (ARPA) are helpful for innovation.

Using these principles, the participants shared aspirational goals for what would push the industry forward; they then developed a specific and actionable recommendation:

Recommendation

To rapidly scale manufacturing processes of new technologies, the state of Georgia, in partnership with a university technology transfer group and corporate partners, should create a framework for translational research programs that are a hybrid of academic and commercial processes for scaling.

Commercializing Innovative Technologies

In this session, participants discussed: the technology and finance environment in the Southeast; financing and related support mechanisms to move product ideation to commercialization; opportunities for regional coalitions with neutral facilitators; multi-dimensional workforce education and training programs; and the importance of long-term policy and market commitments.

As part of the recommendation development process, the group identified key principles that must be part of any policy or program to support the commercialization process for new technologies:

Principles

- Technology developers need state and regional support to transform ideas developed by innovators and incubators in a university lab to larger-scale production. Access to translational facilities and seed funding are key levers to prioritize in bridging the first valley of death for startups.
- There must be a pathway for innovators to pilot their technologies and move through the stages of commercialization (via a program such as a Southeast energy resilience accelerator program).

- Workforce education and training must include principles of artificial intelligence (AI) and advanced manufacturing. The development of novel technologies must be embraced and utilized.
- Workforce development must support both the innovation workforce and manufacturing workforce by diversifying the skillsets in which workers are trained. Workforce development programs must recognize that the innovation workforce requires training in different ways of thinking and operating in high-ambiguity environments.
- Technology developers must have greater accessibility to and certainty around capital flows.
- The innovation ecosystem in Georgia must position the state as a home for venture capitalist (VCs) through targeted public outreach and knowledge-sharing to attract VC investors.

Using these principles, the participants shared aspirational goals for what would push the industry forward; they then developed a specific and actionable recommendation:

Recommendation

To create a backstop for investment in the region and industry, states should join together to create a Southeast Energy Finance Authority (SEFA). This new entity would help develop an advanced market commitment for battery materials, technologies, and products.

Workforce Development and Education

In this session, participants discussed: training for workers entering new facilities/industries; worker safety in battery supply chain and adjacent industries; wraparound support; and K–12 education and the future workforce.

As part of the recommendation development process, the group identified key principles that must be part of any policy or program to support the growth of a skilled workforce in the region:

Principles

- Workforce development programs must create an interdependent system including building awareness, acquiring knowledge and training, creating pathways to jobs with industry, and supporting policy that enable the applications of industry and remove other barriers to success.
- Workforce development efforts must localize the proximity of people in the community to providers of education for the industry's employers.
- There must be multigenerational inclusion and access.
- Skill-based hiring should focus on transferrable skills rather than years of experience.

Using these principles, the participants shared aspirational goals for what would push the industry forward; they then developed a specific and actionable recommendation:

Recommendation

To support workforce development for the battery industry, Clean Cities Georgia should serve as a 3rd-party convenor to bring together the stakeholders on EV and stationary storage to develop one battery workforce credential specific to the battery industry in Georgia and support an awareness campaign for prospective workers.

Attracting and Retaining New Industries and Facilities

In this session, participants discussed: site development and infrastructure; bankability and long-term offtake opportunities; and the role of state and federal procurement.

As part of the recommendation development process, the group identified key principles that must be part of any policy or program to attract new industries to the state and region:

Principles

- Companies operating in Georgia should benefit local communities.
- All policies should have extensive stakeholder engagement; stakeholder engagement is key for community perception and benefits.
- Companies must have a robust product model system and end-product market.
- All policies should have support for workforce development.
- Workforce development should include industry as a partner and ensure in-region benefits from the job opportunities the industry brings.
- Economic development for the industry should help build an ecosystem through strategic clustering.

Using these principles, the participants shared aspirational goals for what would push the industry forward; they then developed a specific and actionable recommendation:

Recommendation

To build a resilient innovation economy in Georgia, the state legislature should establish a study committee to evaluate existing and potential incentives to support local product manufacturing and consumption.