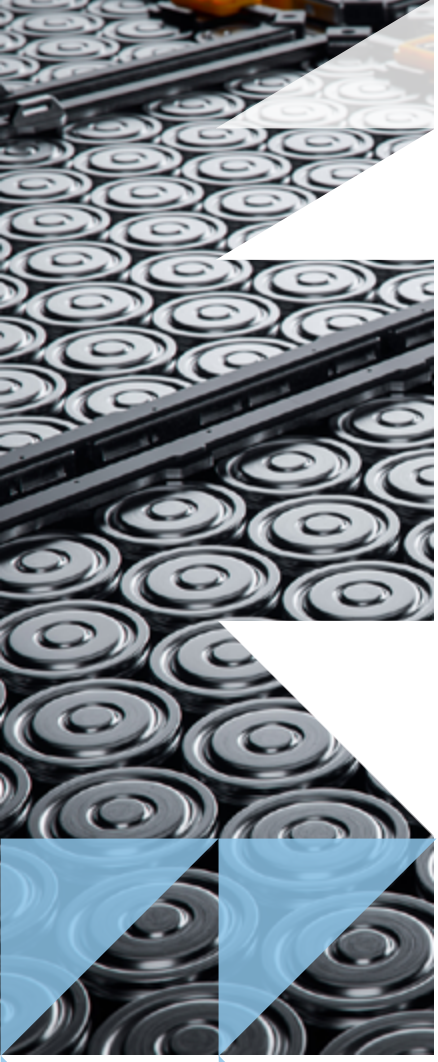
CENTER FOR CLIMATE AND ENERGY SOLUTIONS

Regional Clean Economies:

Transforming ideas into action on the Southeast Battery Supply Chain

C2ES



In April 2026, the C2ES Regional Clean Economies Initiative hosted a Southeast Regional Summit on Securing the Critical Battery Materials Supply Chain. This full-day conference was the culmination of more than 18 months of research and convening work across the region, including full-day in-person events in South Carolina, Tennessee, Alabama, North Carolina, and Georgia. In total, more than 250 stakeholders representing business, academia, communities, and state and local government provided input into the assessment of the near-term economic opportunity the battery supply chain offers the region. Through these events, and subsequent discussions, C2ES collaborated with these stakeholders to develop a near-term policy roadmap with recommendations at the federal and state levels, as well as for industry-led action. In June 2026, nearly two dozen local leaders traveled to Washington, D.C., to advocate for these policy priorities on Capitol Hill through 25 meetings with legislative offices.

BY THE NUMBERS:
REGIONAL CLEAN ECONOMIES SOUTHEAST BATTERY SUPPLY CHAIN COHORT

250+ regional stakeholder informed the development of the policy roadmap, including

4 federal
3 state
2 industry
recommendations

100+ attendees Joined our Southeast regional summit

featuring **25 speakers &** **10 sessions**

Through interactive workshops, they developed **6 action plans**

21 Hill Day advocates joined

25 meetings with Congressional offices

We hosted **6 regional convenings** with **5 local partners** across the region since 2024

This region includes **5 states**

South Carolina
Tennessee
Alabama
North Carolina
Georgia

What is at stake

The U.S. Southeast has emerged as a leading hub for battery and electric vehicle manufacturing. Alabama, Georgia, North Carolina, South Carolina, and Tennessee have collectively captured more than 40 percent of announced U.S. battery investment since 2021, driven by strong industrial fundamentals and proximity to automakers. However, the current domestic industrial base remains concentrated in downstream activities like cell production and vehicle assembly, while much of the high-value upstream supply chain remains underdeveloped and dependent on foreign markets.

A new study by Greenline Insights models the economic potential of expanding the battery supply chain in the Southeast.[i] Over the next ten years, under a supportive policy scenario, the region could capture:

- Over $100 billion in investment
- $140 billion in economic output
- $61.7 billion in GDP growth
- 374,000 jobs.

We develop and advocate for effective policies, unlock barriers to scaling critical technologies, and engage communities across the country to reshape politics around the advanced energy future.

ECONOMIC POTENTIAL OF EXPANDING THE SOUTHEAST BATTERY SUPPLY CHAIN

State	New Jobs	Economic Activity	Labor Income
Alabama	56,900	$21.6 billion	$4.6 billion
Georgia	84,200	$31.2 billion	$7 billion
North Carolina	73,200	$26.4 billion	$6.2 billion
South Carolina	68,300	$27.3 billion	$5.6 billion
Tennessee	91,400	$34.6 billion	$8.7 billion

In each of the five states of the Southeast Cohort, between 2026 and 2035, with strong policy support, scaling the U.S. battery supply chain could create significant economic and labor benefits.

Source: Greenline Insights

i Ashna Aggarwal et al., The Economic Upside of Building the Battery Supply Chain in the Southeast United States (Greenline Insights, April 2026), https://www.greenlineinsights.com/southeast-battery-supply-chain.

Southeast Regional Summit

The Regional Summit was designed to connect industry professionals from across the region and to formally release the Southeast Policy Roadmap while supporting small groups to develop near-term action plans to implement the collaboratively-developed recommendations.

Demand certainty is the most fundamental requirement to rapidly scaling production across the battery supply chain.

Through keynote speakers, mainstage panels, and interactive workshops, more than 100 participants explored remaining questions and challenges for the regional industry. Together, we developed a clearer picture of both the opportunity and needed next steps to achieve the tremendous economic benefits the industry could bring to the region. The event was hosted in collaboration with the Battery Show South, the largest trade show for batteries in the region.

Summit takeaways

For the United States to develop an end-to-end supply chain for raw materials, midstream components, end-use products, and recycling, both government and industry must develop a proactive, intentional strategy to make this industry globally competitive at scale.

Long-term policy consistency should be at the center of a U.S. industrial strategy, including a consistent and streamlined permitting process and robust government support to responsibly expand mineral processing in the United States.

Demand certainty is the most fundamental requirement to rapidly scaling production across the battery supply chain. Demand uncertainty and volatility at any point along the supply chain negatively impact the entire industry from mineral extraction through material production.

The Southeast's historic competencies in manufacturing for textiles, furniture, and automotive provide a strong foundation of skilled workers and manufacturing infrastructure that positions these communities to succeed

Across the meetings, the recommendations were met with bipartisan interest, and a positive reception indicating there is a possible near-term path to passage.

in clean energy manufacturing. Cross-state collaboration can highlight the comparative strengths of each state while accelerating development of the industry.

Academic research centers will play a major role as key partners with industry to scale new technologies and necessary workforce development. Collaborative partnerships can help drive breakthroughs on the battery material upstream and midstream, where many of the key challenges to the battery industry exist.

There are not yet enough trained workers to keep pace with the rapidly growing U.S. battery industry. The industry and government must undertake a comprehensive effort to develop coordinated training programs and standardized certifications to make the battery industry immediately accessible to workers while helping them to prepare for a long-term career pathway.

The Road Ahead

In June 2026, C2ES welcomed 21 stakeholders representing Alabama, Georgia, North Carolina, South Carolina, and Tennessee to Capitol Hill to advocate for the federal recommendations in the policy roadmap.

These advocates represented Fortune 500 companies (e.g., utilities, mining, automotive), startups (e.g., critical minerals, battery infrastructure development, recycling), academic institutions, workforce development organizations, and consulting groups.

In total, the group met with 25 offices across the House and Senate, including relevant committees, representing a total of 33 percent of the federal delegation across the five states in the region. Across the meetings, the recommendations were met with bipartisan interest, and a positive reception indicating there is a possible near-term path to passage. Offices highlighted the importance of the local economic value of this industry to their constituents. Arguments emphasizing the importance of federal support for the battery industry to bolster national security and economic competitiveness were most effective with policymakers on both sides of the aisle. This positive reception is a testament to the work each of our stakeholders across the region have put in to develop a strong case for support grounded in local realities.

We look forward to continuing our engagement with policymakers on our recommendations and turning the policy roadmap into action.

Regional Summit Readout

The following section summarizes the key takeaways from each session of the event, including three mainstage panels and two interactive workshops. The workshops were broken into three tracks to guide the discussion and action plans: technology innovation, workforce development, and manufacturing and markets at scale.

The American Battery Opportunity

Opening Panel: A panel of industry leaders discussed the opportunity for American industry and workers of investing in a globally competitive battery supply chain and manufacturing industry.

Speakers:

- Paul Donnellan, Clareo
- Rick Howard, Toyota Motor North America
- Ryan Melsert, American Battery Technology Company
- Celina Mikolajczak, Industry Advisor
- Brad Townsend, C2ES - moderator

Click here to watch a recording of the Summit's Opening Panel.

The best thing the U.S. can do is set a clear vision and keep it. You may have a difference of opinion on how we get to the moon, but we have to get to the moon.

– Celina Mikolajczak

The battery supply chain presents an opportunity for the United States to enhance its economic and supply chain resilience and promote national security while creating hundreds of thousands of jobs and driving economic growth. Yet to succeed, the U.S. government, military, and industry must have a unified vision of success.

Alone, the natural resources of the United States cannot supply the full demand of raw materials needed to power this growing industry—rather, strategic cooperation with allies and a whole-of-supply chain strategy is necessary to

succeed. The United States' best opportunity for global leadership is on innovation of new technologies, particularly process and performance improvements that can reduce costs over time. In this way, investing in the midstream portion of the battery supply chain (i.e., active material production, component manufacture, cell fabrication) is the greatest economic opportunity for the American battery industry.

A major challenge for the development of this relatively nascent industry in the United States is the simultaneous scale of many portions of the supply chain that are all interdependent on one another. For example, midstream components producers seeking to source domestically produced raw materials need to secure a sufficient supply to meet their growing capacity—while at the same time, raw materials producers need long-term, stable, and predictable demand with clear offtake certainty to secure investment and scale production. Without coordination or strong government support, these facilities will likely develop on significantly different time horizons that may make it difficult to balance scaling production with offtake.

For this reason, intentional strategy by government and industry is needed to develop whole-of-supply-chain manufacturing for raw materials, midstream components, end-use products. Recycling is key to supporting a globally competitive industry at scale. Partnerships among companies across the U.S. value chain will also be crucial. For example, recycling is a key element of the supply chain that supports the development of a reliable domestic supply of battery inputs, but it must scale at a level that corresponds with the manufacturing industry to have sufficient volumes of end-of-life batteries to recycle. Achieving supply chain resilience will require strong investment across the value chain so that producers can maintain partial production and supplier flexibility so operations can continue and adapt even during disruptions.

To prepare today's industry for the challenges and opportunities of tomorrow, our industry experts recommended a core focus on long-term policy consistency, including a consistent and streamlined permitting process, and robust government involvement to support expanded mineral processing in the United States.

Key to this opportunity is a clear and consistent vision of success. Our panelists suggested that this would include reshoring manufacturing to the United States that generates thousands of jobs across the manufacturing supply chain to produce innovative, low-cost, better-performing batteries.

Demand across grid, defense, and infrastructure, plus near-zero baseline supply, makes bipartisan support and recycling critical.

– Ryan Melsert, American Battery Technology Company

Building the Southeast Battery Supply Chain

Proactive Economic Development

This panel of state leaders highlighted successful economic development approaches to attract and retain battery companies, and explore the best path forward to promote continued economic growth for communities across the region in the evolving advanced energy market.

Speakers:

- Bakari Miller, Economic Development Partnership of Alabama
- Jennifer Mundt, North Carolina Department of Commerce
- Costas Simoglou, Georgia Department of Economic Development
- Will West, Tennessee Valley Authority
- Aaron Brickman, RMI - moderator

Because the battery supply chain is geography-based, regional collaboration matters more than state-by-state competition.

– Costas Simoglou, Georgia Department of Economic Development

Since 2021, the Southeast United States has attracted more than 40 percent of all domestic investment in the battery supply chain. This was no accident, but due to the strategic planning and investment in this industry by state economic development agencies.

At the core of this success is intentional partnerships between the public and private sectors, as well as ecosystem actors like philanthropy. Over more than a decade, states and prospective companies pursued collaborative iteration around building out new facilities and infrastructure, including with workforce development and training providers.

Looking ahead, particularly to the need to develop critical minerals extraction and recycling resources, it will be crucial for states to continue collaborating across the region.

Successful industry attraction leverages the comparative advantage of a state while focusing on the local needs of communities. For example, Georgia led on attracting electric vehicle manufacturing and new technology innovation, at the same time Alabama focused on attracting suppliers throughout the value chain that may have a smaller footprint and better fit the needs of its communities. While North Carolina has a unique opportunity to fulfill the needs of the whole battery value chain, it must continue to invest in regional cooperation for final assembly and downstream demand.

For the region, historic competencies in manufacturing, such as textiles and furniture, mean there is an existing framework of skilled workers and manufacturing infrastructure that position these communities well to succeed in clean energy manufacturing. Additionally, the Southeast is an attractive place to do business because of relatively low electricity costs and a growing supply of clean energy.

As states look to continue supporting the industry, panelists emphasized the importance of strategy to retain investments beyond 10 years. Supporting long-term investments, especially in the manufacturing sector, is beneficial for both companies and communities. Additionally, panelists highlighted the need to continue investing in workforce development, including through utilizing the community college systems and applied training programs in each state. With electricity demand forecasted to increase significantly in the coming years, states must prioritize diversifying their energy generation portfolios to enhance resilience and prepare to meet this coming demand.

Investors are increasingly exploring opportunities to grow capacity further upstream, including mining, refining, and processing critical minerals.

Investment and Finance for Battery Innovation

This panel of representatives from financial institutions shared their perspective on opportunities to support development in the battery industry amid market uncertainty and financing challenges.

Speakers:

- Daniel Nilsson Sjölander, New System Ventures
- Jessie Smith, JPMorganChase
- Peter Trousdale, C2ES - moderator

The market for battery investment in the United States and globally has shifted rapidly in recent decades, and particularly in the past two years as federal policy abruptly rescinded its strong support for electric vehicles. As the industry has settled following the rapid growth of the early 2020s, and the federal funding landscape has contracted, investors are placing a greater focus on ensuring companies have immediate access to robust offtake in a diversity of markets as a prerequisite for investment. Similarly, investors are increasingly exploring opportunities to grow capacity further upstream, including mining, refining, and processing critical minerals.

The battery industry is a uniquely challenging investment environment, in part because of the highly specialized needs of consumers. For example, cell makers often rely on a particular formulation of critical materials that may vary in composition from one facility to another. New entrants to the market producing these critical minerals must qualify their materials through an extensive, iterative process to ensure they can meet the requirements of the cell producer. Similarly, electric vehicle battery manufacturers may rely on a particular cell, meaning all actors in the supply chain from material production, cell fabrication, and battery assembly must align their development timelines to scale in tandem.

Recent federal actions have introduced significant uncertainty to the investment ecosystem. The cancellation of federal grants that had already been committed to particular companies or facilities in 2025 has deeply undermined the credibility of the federal government as a funding partner, where it was once considered foundational.

In today's environment, emerging companies in the battery industry can best succeed by exploring gaps in the present market. This could include battery technologies that can be deployed in a variety of end uses; or, alternatively, designing for underserved markets and niche applications. Their path to commercialization must include a diversification of funding sources (e.g., beyond only venture capital [VC]) and as much utilization of existing supply chains and vendors as possible to mitigate risk.

Workshop Outcomes

Technology Innovation

The Southeast is developing an advanced battery innovation landscape across the region. Efforts are accelerating by university research centers, national labs, and private sector startups. These new efforts will scale new research through public, private, and academic partnerships to advance research, development, and commercial deployment. There is a tight coupling between research commercialization and the innovation landscape. However, key questions remain around new policy frameworks to support new technology development and company formation out of the Southeast's growing innovation centers.

Since 2022, public and private investment across battery supply chain in the Southeast has totaled more than $48 billion. This has mostly been focused on the bookends of the industry, including material extraction—especially lithium—and battery pack and final product assembly, such as electric vehicles and stationary storage. What is currently missing is the manufacturing base in the mid-stream to turn critical minerals into battery materials.

Many in the region believed the companies building factories in the Southeast would bring their research and development (R&D) divisions with them, but all activities to date have focused on building out established industrial

What is currently missing is the manufacturing base in the mid-stream to turn critical minerals into battery materials.

To help tie the different parts of the ecosystem together, the region needs a coordinated effort where each state and research center can cover different components of the battery innovation landscape.

manufacturing. In response to the need for innovation, smaller upstream and midstream battery companies looking to gain a foothold in the region are pursuing work with university research centers to commercialize their products and connect with larger scale battery manufacturers who have established their operations in the region.

The increasing partnership of battery materials companies with academic research centers will provide a major benefit to the domestic battery industry. In particular, these partnerships will address the need for increased focus of innovation on the upstream and midstream, as many of the key challenges to the battery industry come from the battery material component stage. In addition to innovating on established technology, the United States, and Southeast specifically, need to leverage unconventional resources for battery materials, such as forestry materials and mining waste products.

The feasibility studies and pilot demonstrations provided by academic research centers are crucially important. However, it can be difficult for companies to even begin these feasibility studies, since companies need to run their process at larger, near-commercial scale to prove their concept. This requires a significant amount of funding to accomplish the necessary scale up in manufacturing output that pilot lines cannot provide. Establishing a mechanism to demonstrate the return on investment for new innovative technologies coming out of the region will be paramount to commercial success for the region's new battery innovations.

Corporate venture capital has and will continue to play a huge role in the success of innovation in the region. From a capital development perspective, battery materials investments are intensive and long term. This provides a major challenge for companies to be able to follow traditional VC pathways. Barriers also exist to engaging with institutional investors. Banks often rely on historical patterns and performance to gauge investments, but there is not a long track record for a lot of the new things being done now. Typically, there's a bridge between VC funding and traditional banking. Funders need to see strong VC backing and need to understand the long-term vision.

To help tie the different parts of the ecosystem together, the region needs a coordinated effort where each state and research center can cover different components of the battery innovation landscape. Existing efforts on coordination have been underway through efforts like the Department of Energy's LiBridge program, but those are at a standstill due to funding cuts and shifting federal administration priorities. An increased strategic focus across university systems to leverage strengths and create centers of excellence would help propel the region forward as a national and global leader in battery innovation.

Workforce Development

The opportunity ahead in the United States can only be met by a skilled workforce ready to fulfill the needs of the present and future battery industry. Proactive, comprehensive workforce development is crucial to the success of this industry, particularly to unlock bottlenecks in manufacturing the industry's rapid scaling has caused.

Presently, efforts are underway to develop guidelines to the industry to support standard certification and training pathways for workers. These include, for example, the Battery Workforce Initiative at the U.S. Department of Energy; NAATBatt's workforce development committee; and the Society of Automotive Engineers' (SAE) standards. Additionally, colleges and universities have developed curricula including Clemson University, the Alabama Mobility and Power Center at the University of Alabama, and the community college systems of South Carolina and Alabama. However, for employers looking to staff new facilities, there is a 6–12 month lead time needed to recruit and prepare the local workforce ahead of reaching fully operational status.

Ensuring workforce development programs reach all prospective job seekers is crucial to ensuring there are sufficient numbers of workers, and that they are sufficiently trained. This includes proactive and targeted outreach to traditionally underrepresented demographics in the battery industry. With relatively low unemployment, there is an overall shortage of workers that exacerbates the challenges of supporting the battery industry. Wraparound services like access to childcare and paid training are crucial to supporting the full worker.

Digital tools can be deployed to effectively train new workers. These include virtual and augmented reality (VR and AR, respectively) simulations, which can help workers learn essential skills from anywhere.

In the near term, a comprehensive effort to coordinate among developing training programs and standardize certifications is needed to make the battery industry accessible to workers and prepare for a long-term career pathway.

Ensuring workforce development programs reach all prospective job seekers is crucial to ensuring there are sufficient numbers of workers, and that they are sufficiently trained.

Manufacturing & Markets at Scale

Presently, the Southeast faces significant challenges to scaling manufacturing for batteries and the value chain. Access to technology and a skilled workforce is a core challenge for technology providers, while access to value streams and financial success is concentrated across a limited set of companies and industry actors. Furthermore, scaling manufacturing is challenged by misalignment between policymakers support for economic development and job growth and the increased politicization of clean energy in day-to-day policy decisions.

As noted in the technology innovation discussion, the pathway for funding access is unclear at each step of the commercialization process, making it difficult for new technology developers to scale from lab to market readiness. Demand is the biggest challenge to rapidly scaling production across the supply chain, and uncertainty and volatility in demand negatively impacts the entire industry from mineral extraction through material production. Replicating Asia's battery supply chain success in the United States is difficult due to a variety of factors, including a lack of consistent signals from the federal government and long-term public and private capital mobilization.

The data center boom is emerging as a major driver of energy demand and potential partnership opportunities, but there is local opposition to data center and energy infrastructure projects, which can slow deployment. Early-enough community outreach for clean energy technologies is limited, and current spending is disproportionately higher for fossil-based projects. Early, proactive community engagement and education should be prioritized, and manufacturers should account for local, household-level impacts (e.g., cost of living) in siting decisions.

Given these challenges, policymaker engagement and alignment are critical. Policymakers should be directly involved in strategy and business attraction for the battery industry. States should take a more proactive role to support companies following project announcements, particularly on siting, permitting, community engagement, and implementation support.

While the Southeast has the assets and capabilities to scale manufacturing, greater effort is needed to attract investment by clearly demonstrating the opportunity for financial success for both developers and communities. Demand creation must occur across the full value chain and start with utilities. Current gaps between R&D stage and prototyping and commercialization stages persist because in part due to a lack of incentivized offtake for domestically produced products, which tend to be more expensive than those produced by Chinese companies.

Stronger, more stable financial pathways are needed to bridge the commercialization gap by funding pilot and project demonstration to derisk larger capital flows. Tax structures, incentives, and utility-level standards and regulations should be in place to drive adoption and improve long-term affordability.

For the industry, messaging and positioning should center on national security, affordability, and resiliency to build broader political and market support. This should employ a systems-level strategy to connect many intersecting issues that are siloed in the public consciousness, such as energy affordability, data centers, nuclear power, and clean energy.

Stronger, more stable financial pathways are needed to bridge the commercialization gap by funding pilot and project demonstration to derisk larger capital flows.

Learn More

Visit at **www.c2es.org/SE-Cohort** to learn more about Regional Clean Economies initiative and check out how we have been engaging with stakeholders in the region to build a robust battery supply chain in the United States.

C2ES CENTER FOR CLIMATE AND ENERGY SOLUTIONS

Center for Climate and Energy Solutions (C2ES), 1400 K Street Northwest, Suite 1100, Washington, DC 20005 | www.c2es.org