

**Energy round table** 



# Georgia



Representative:
Sergio Domingues
Managing Director
State of Georgia Europe Office



- GEORGIA means business for any company-- from innovative start-ups to corporate giants. It has the resources to assist companies get ideas researched, tested, commercialized, produced, and then delivered quickly to anywhere in the world Technology, cybersecurity, finance, healthcare, renewable energy are among its strategic sectors. Its technology and innovation ecosystem is anchored by world-class universities, a diverse tech workforce, over 40 corporate innovation centres, and various accelerators and incubators.
- Nicknamed "Transaction Alley,"70% of all U.S. transactions are handled by payment processing firms in Georgia.
- Cybersecurity also offers strong potential., reflected in the \$100 million investment by the state in Cyber Centre, the single largest investment in a cybersecurity facility by a state government to date
- Life Sciences, Health IT, digital entertainment and software development are additional sectors of strength. Georgia is the headquarters for the Centre for Disease Control (CDC), the Global Centre for Medical Innovation (GCMI), the American Cancer Society and the Task Force for Global Health. In 2020, Georgia exported \$1.8 billion in medical devices and pharmaceuticals
- Georgia ranks 2nd in the nation for the share of its universities' research that is funded by industry.









# **Georgia Energy Quick Facts:**



Georgia is a Top Ten solar state, driven by consumer/company demand, not by mandates. It is the ninth in the country, with 4,466 jobs, 57 manufacturing companies and 75 installers. It is the third largest state for solar installations in the Southeast, after Florida and North Carolina. *Georgia's entire renewable energy sector continues to grow.* 

- Renewable energy capacity has nearly doubled in the past decade, while 12 percent of the state's energy mix comes from renewables including solar. Specifically, to solar, Georgia added 700 megawatts of capacity in 2021, with 1.3 gigawatts in the pipeline
- Solar Photovoltaic (PV) is the state's fastest-growing source of renewable energy
- Over 3% of the state's electricity now comes from solar power, with enough installed capacity to power 373,248 homes:
  - The largest operational solar photovoltaic (PV) plant in the Southeast is in Twigg's County in central Georgia. Georgia is increasingly leading the renewable energy movement for companies
  - In August, Plug Power broke ground on its green manufacturing plant in Camden County.
  - A leading global provider of hydrogen solutions, Plug Power is investing \$84 million in opening a green hydrogen fuel production plant in Georgia
  - Plug Power has deployed more than 40,000 fuel cell systems for e-mobility, delivering efficiency gains, fast fuelling, and lower operational costs to its customers, and delivers 40 tons per day of hydrogen fuel to those customers
  - Dalton is home to Q CELLS (also Korean), which opened in 2019 as the largest solar panel manufacturing facility in the Western Hemisphere
  - GE Energy's headquarters and world-class Smart Grid division in metro Atlanta, and Georgia Biomass LLC has the world's largest renewable energy capacity of wood pellets









# **New Jersey**



Representative:
Sebastian Gerlach
Director
Choose New Jersey, Europe (CNJ)





- With a history of developing lifesaving medicine for over a century, New Jersey is where discovery happens. Research, talent, funding, available space, university partnerships and industry expertise New Jersey has it all for life sciences companies.
- Home to 14 of the top 20 pharmaceutical companies, you'll be in good company. A number of industry leaders have found success here, including Celgene (a trailblazer in oncology, acquired by Bristol-Myers Squibb for \$74 billion in 2019) and Amicus Therapeutics (which received its first FDA approval for rare diseases in 2018).
- We have the brain power to build your business. New Jersey has the largest concentration of scientists and engineers per square mile in the U.S and over 3,200 life sciences companies operating across all sectors. New Jersey is the only state that specializes in four of the five bioscience subsectors.
- No matter the size of your company, New Jersey will greet you at every stage of growth. From incubators to stand alone laboratory space at research parks and hubs, you'll find the support you need here, along with world-class research universities, medical schools and some of the best hospitals in the country.









# **New Jersey Energy Quick Facts:**



- New Jersey is a CLEAN ENERGY LEADER;
- We envision a more sustainable tomorrow for our residents and for the people of the world. New Jersey is addressing climate change head-on and is one of only a handful states in the U.S. that has adopted the goal to be 50% clean energy by 2030 and 100% clean energy by 2050.
- Because of our geographic and geological position, New Jersey is set to become America's capital for offshore wind with a target of 3,500 MW by 2030 and 7,500 by 2035. Our State is the gateway to PJM the largest competitive power market in the U.S. New Jersey's wind potential includes 130 miles of coastline, 340,000 acres of land with close proximity to shore (10-21 nautical miles), shallow water depths (under 30m) and strong wind speeds (avg. annual wind speed of 8.5 m/s, significantly higher during peak). In June 2019, New Jersey announced the development of Ocean Wind the largest offshore wind farm in the U.S.





# **VIRGINIA**

# Virginia



Representative:

Antje Abshoff
Managing Director
Virginia Economic Development Partnership (VEDP)

# **Virginia Energy Quick Facts:**



- Renewable Energy with a particular focus on offshore wind: Virginia's central location on the East Coast offers strategic
  advantages for the offshore wind industry. Located halfway between Boston and Atlanta, Virginia is an excellent entry
  point for global offshore wind companies to gain access to major U.S. markets on the Northeast corridor, throughout
  the Southeast, and across the Midwest.
- For OEMs, the Hampton Roads region allows ready access to Bureau of Ocean Energy Management (BOEM) offshore wind lease areas from North Carolina to New Jersey.
- Off the coast of Virginia, Dominion Energy is developing the East Coast's only utility-owned offshore wind farm, with a capacity of 2,600 megawatts enough energy to power 660,000 homes.
- Commitment to Renewable Energy: In 2020, Virginia enacted the Virginia Clean Economy Act, which supports the
  growth of the wind, solar and offshore wind power industry and associated supply chain businesses. The legislation
  sets renewable portfolio standards and promotes the development of 5.2 gigawatts of offshore wind
  generation by 2034.









#### Other sectors



- **Life Sciences:** Top companies in the life sciences industry choose Virginia because of the state's top talent, advanced culture of innovation, outstanding logistical advantages, competitive costs, and top-ranked business climate. Its ecosystem spans the entire value chain, ranging from public and private R&D; laboratories that provide testing and other services; manufacturing of pharmaceuticals and medical equipment; and distribution of health care products. Virginia's life science manufacturing covers a broad swath of the industry including: pharmaceutical and nutritional products, and medical supplies and devices. In addition, 25 percent of federally funded research and development centres (FFRDCs) are in Virginia.
- Ranked No. 2 in the U.S. for Education and No. 3 for Workforce by CNBC, Virginia's excellent school systems ensure a steady flow of new talent every year. Virginia's life sciences sector has gained significant momentum in recent years, with 20 life sciences industry projects announced in just the past three years, representing over 1,400 jobs and \$1.2 billion in investment. Recent announcements include U.S. Pharmacopeia, AMPAC, Civica, Merck, GlaxoSmithKline (GSK), Bausch + Lomb, and Virginia-grown biotech firm Grenova.
- Smart Cities: Virginia has established itself as a pioneer in the smart community industry by launching new initiatives that integrate smart technologies into our communities and attract cutting edge companies. Virginia has a Smart Cities and Smart Communities State Action Plan that calls for pilot projects to begin the process of building capacity and expertise around the Commonwealth, and these pilots are now under way. The pilots rely on community-driven innovation to identify topics relevant to each community, and include a technology partner and support to initiate agreed upon priorities. Virginia's Smart Communities team helps entrepreneurs and stakeholders move Smart ideas, innovations, and inventions through the testing and pilot phases to prepare them for commercialization, funding, and success in the market. It creates opportunities through facilitating partnerships, research support, raising capital, and community development.









#### **New York State**



Representative:

Marine L'Herrou

Deputy Director

Empire State Development Corporation



- New York State. The mission of Empire State Development ("ESD") is to promote a vigorous and growing state economy, encourage business investment and job creation, and support diverse, prosperous local economies across New York State through the efficient use of loans, grants, tax credits, real estate development, marketing and other forms of assistance.
- New York State has ten diverse regions, which are home to forward thinking industry sectors such as biotech and life sciences, industrial machinery and systems, materials processing, cleantech, renewable energy, and financial services.







# New York State Cleantech and Renewable Energy Quick Facts:



- Energía
- New York's commitment to these sectors is driving tech manufacturing and reinvigorating the state's economy while establishing New York State as a business destination for industry innovators looking to access one of the world's largest markets.
- The State is committed to a cleaner, greener energy future—leading the U.S. in wind- and clean-technology patents, renewable energy resources, the development of new energy storage products and systems, and biofuel manufacturing and production. To meet a goal of 100% zero-emission electricity by 2040, the State is targeting offshore wind, increased energy storage and greater energy efficiency. This supplements New York's ongoing efforts to develop and deploy solar, wind, geothermal and other renewable products and systems via established university-industry collaborations and state initiatives supported by the state's Clean Energy Fund and Green Bank.







# **New York State Manufacturing Quick Facts:**



Advance Manufacturing

- New York State's leadership position in the design and production of industrial machinery and systems is enhanced by
  its industry-leading research in high-tech electronics, software and materials processing, all of which can help
  manufacturers improve precision and efficiency.
- The State produces everything from turbines and pumps to compressors and generators. Its industry is fuelled by many other factors, including a number of robust incentive programs and a 0% corporate income tax rate for manufacturers. This vibrant sector has a state-wide footprint, supported by a highly skilled workforce, and with available industrial manufacturing facilities and sites that are ready to occupy. With creative business incentives, the best and brightest talent, innovative tools and university partnerships, New York State is the place where your business can grow stronger.





# Advance Manufacturing round table



#### Indiana



**Representative:** 

Sabrina Riccardi Representative for Spain and Italy Indiana Economic Development Corp.





- INDIANA is a vibrant state mostly known as home of Automotive, Advanced Manufacturing, Pharma and Aerospace. The State has the highest concentration of advanced manufacturing jobs in the country.
- Indiana is prime for disruption from new technologies, solutions and visionary founders. From global giants to local start-ups, tech businesses are thriving in Indiana and pulling from our deep pool of highly educated, highly trained talent.
- Indiana is:
  - 1st in pass-through highways
  - 1st in shortest distance to median centre of U.S. population
  - 1st in rail tons of primary materials
  - 4.9% corporate tax.









# **Indiana Advance Manufacturing Quick Facts:**



Advance Manufacturing Given Indiana's strong legacy in automotive manufacturing, a deep pre-existing network and supply chain, and attractive benefits for employees including financial incentives, the future of advanced manufacturing has never looked more promising for today's companies.

- Indiana offers a supportive environment with benefits for employees and companies. It's one of the reasons Indiana has the second largest Automotive industry in U.S. 1.3 million cars and trucks are produced annually in Indiana. 80% of the world's RV"s are manufactured in the state. 25% of Indiana's output is based in advanced manufacturing.
- Indiana is home to nationally-ranked universities with world-class engineering and manufacturing degree programs.
   Training initiatives like Next Level Jobs include a powerful advanced manufacturing track dedicated to automation and robotics technology. As a result, Indiana boasts a deep, highly-skilled workforce. In fact, 20% of Hoosiers are working in advanced manufacturing well above the national average
- Indiana invites you to bring your disruptive, savvy business plan to Indiana and let us help you reach your biggest most ambitious advanced manufacturing goals.
- TAs demand for electric vehicles and renewable energy increases, Indiana is ready to pioneer a new energy ecosystem to support the energy transition. There are 88 companies right now in Indiana that are producing goods and services, generating profit in the energy transition in the clean-energy space.







#### **North Carolina**



#### Representative:

Luigi Mercuri Managing Director

Economic Development Partnership of North Carolina (EDPNC)



- NORTH CAROLINA, with more than 10 million residents, is the 9th largest state in the nation. It is also the 3rd fastest-growing state in the country.
- With the largest manufacturing workforce in the Southeast, the lowest corporate income tax in the nation and two deep-water seaports, North Carolina fosters a pro-business environment, along with a favourable legal and regulatory climate, low business costs and qualified talent.







# North Carolina Advance Manufacturing Quick Facts:



Advance Manufacturing Advanced Manufacturing: North Carolina has the largest manufacturing workforce in the South-East and leading proficiencies in industrial components, advanced metallurgy, and composites for segments such as automotive, aerospace, defence, and machinery production.

- North Carolina hosts much of the South-eastern supply chains supporting BMW, Toyota, Volvo, Daimler, Continental, Bridgestone, Caterpillar, Linamar, Honda Jet, Honeywell, Siemens Energy, ABB, Pratt & Whitney Aerospace, GE Aviation and many other industrial OEMs. Toyota, and Boom Supersonic just announced two major investments in the past few months.
- North Carolina is propelling the future of aerospace and defence. Universities like NC State are spearheading new research into unmanned aerial vehicles, while amazing industry resources, including the NC Advanced Manufacturing Alliance and NextGen Air Transportation Centre, are further bolstering the charge.
- The State ranks #1 in the U.S. for industry-sponsored research. Even better? North Carolina not only hosts the biggest research and technology park in North America (the Research Triangle Park), but is sustained by a thriving university and research ecosystem. Its academic and R&D landscape include NC State University (4th largest engineering college in the USA), Duke University, University of North Carolina at Chapel Hill, the NC Biotech Centre, the Nonwovens Institute at NC State University and multiple technical colleges and professional schools, often modelled after the German Dual Education Apprenticeship System. North Carolina's 53 universities and colleges are turning out aerospace engineering degrees every semester. The State 's top-tier university partnerships support the industry's continued success. 29,000 STEM degrees annually







#### Other sectors



- Others
- Biopharma R&D and manufacturing: With the largest biologics manufacturing cluster in the USA, North Carolina competes on a global level, particularly in gene and cell therapies, plant science, regenerative medicine, and advanced vaccine research. For example, Grifols has its largest foreign operations based in North Carolina.
- North Carolina is also home to the nation's largest **research park (RTRP)**, comprised of 250+ companies and 50,000+ employees with industry specializations including biotechnology and pharmaceuticals. The RTP is also home to the North Carolina Biotechnology Centre and the First Flight Venture Centre.
- Other
  - Advanced Materials: With a dense ecosystem in additive manufacturing, technical textiles, coatings, advanced
    filtration systems, and composites manufacturers, North Carolina is a hotspot in the next wave of industrial
    materials.
  - Plastic and chemical manufacturing in North Carolina make up the sixth-largest industry workforce in the U.S.
     With an industry concentration 1.5 times the national average, the state represents a prime location for new investment.
  - **Food Manufacturing**: North Carolina is home to 1,200+ food and beverage manufacturing establishments. The industry includes a variety of thriving clusters, including agriculture, confectionary production, and the third-largest animal processing cluster. 23 of the 50 largest food & beverage companies in North America have operations in North Carolina.

More information can be found here: https://case-usa.eu/north-carolina/









### Ohio



**Representative:**Alina Harastasanu



- OHIO is a centre for automotive and advanced manufacturing, as well as advanced mobility.
- The State's manufacturing workforce is the third largest in the country. At \$104.6 billion, Ohio's manufacturing industry is one of the largest industries in the state. The industry's size, alone, gives manufacturers confidence that everything they need to prosper is in Ohio. #1 in Glass, Plastics and Rubber Manufacturing Means Companies are Close to Suppliers.
- Ohio is a well-known authority in the US Automotive Industry.







# **Ohio Advance Manufacturing Quick Facts:**



Advance Manufacturing All parts of the manufacturing value chain are represented here, from suppliers and customers to academic and industry partners willing to help turn novel ideas into ground-breaking new products and processes. Ohio is also home to seven light vehicle OEMs, two commercial vehicle OEMs, and the iconic Airstream company

In Ohio, companies can:

- Connect to all elements of the supply chain easily, quickly and cost-effectively via one of the best transportation systems in the U.S.
- Hire expert production and engineering talent, as well as tap into training programs across the state that connect you to an evolving talent pipeline.
- Benefit from a top destination for Foreign Trade Zones that pro-manufacturing tax structure (No. 3 in new capital-intensive manufacturer corporate tax costs and No. 5 in new labour-intensive manufacturer corporate tax costs, Tax Foundation 2021).
- Access to more customers and suppliers. Ohio's central location within the North American automotive supply chain helps reduce transportation costs.
- Seize a competitive business climate. Low taxes and healthy state finances encourage investment and reduce the cost of doing business.
- Innovate through collaboration. A dedication to collaboration increases the opportunity for companies to make improvements and facilitate new discoveries.
- Find the ideal location for your manufacturing facility with Jobs Ohio start-to-finish site selection programs.









# Pennsylvania



Representative:

Jordi Reverté

Pennsylvania Department of Community and Economic Development



- PENNSYLVANIA, With a population of more than 13 million Pennsylvania has successfully applied its traditional workforce's skilled approach, established infrastructure, and in-state resources to modern manufacturing, from companies focused on fabricated metal products, medical devices and organic foods to nanomaterials,
- Pennsylvania´s four key industries are:
  - 1. Advanced manufacturing: Pittsburgh is a US Hub for Autonomous Vehicles, Robotics, Al and Machine Learning
  - 2. Lifesciences: Philadelphia is US Leader in Cell & Gene Therapy Innovations
  - 3. Energy & Plastics: Pennsylvania is the 2nd largest producer of natural gas in the United States. A \$6 billion ethane cracker plant for a new petrochemical hub in the Northeast will be opened in 2022. It will produce 1.6 million tons/year of polyethylene for plastics companies for automotive components, food packaging, containers, etc
  - 4. Agribusiness: Top U.S. state in food processing and production of dairy, cattle, poultry, mushrooms & greenhouse product,









# Pennsylvania Advance Manufacturing Quick Facts:



Advance Manufacturing Today Pennsylvania's advanced manufacturing industry is a state key sector based on 4 strong pillars: -

- Energy supply: With easy and efficient access to power any industry
- Skilled Workforce and Top Education: With lower labour and cost of living costs in comparison with neighbouring states.
- Logistics infrastructure: Strategically located in the North East Coast with interstate highways, railroads, 6 international airports & 3 major ports
- Market access: Within 1 day's drive of 40% of US population and 60% of Canadian population. Including four of the 10 largest markets in the US.





# Virginia





#### Representative:

Linda Green

Director of Economic Development

Virginia Economic Development Partnership (VEDP)

# **Virginia Advance Manufacturing Quick Facts:**



Advance Manufacturing .

- Virginia's strategic East Coast location connects companies to the U.S. and the world with exceptional road, rail, and port infrastructure, making it a desirable location for manufacturers. . Virginia's manufacturing base is substantial, with concentrated industry populations found throughout the state supported by a skilled and dedicated talent pool. This robust manufacturing sector spans a wide variety of products from craft beer and snack cakes to steel beams and wood flooring, to semiconductors and rocket engines. A diverse ecosystem of suppliers, innovators, and customers already thrives in Virginia, supporting the 400+ advanced materials companies operating in a range of subsectors from chemicals and metals to plastics and composites.
- Hundreds of specialized suppliers including contract manufacturers operate in Virginia and North Carolina, and thousands more in the wider region. Virginia's advanced materials ecosystem continues to grow on the solid foundations of over a century of excellence in areas ranging from advanced textiles in Southern Virginia to chemicals in Hopewell. DuPont's Spruance plant, for example, began operations in 1929 and is currently the largest DuPont facility in the world.
- Public, private, and university-based R&D activity drives innovation in Virginia. Virginia's public universities, such as Virginia Tech and the University of Virginia, invested more than \$355 million in advanced materials research in 2019, and every year billions in federal research dollars are spent in Virginia.
- Major public and private research centres include NASA Langley Research Centre, the Commonwealth Centre for Advanced Manufacturing (CCAM), and the ChemQuest Technology Institute









#### Other sectors



Others

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