

GOVERNMENT AFFAIRS

Siemens USA: Together, we act on climate.

The impact of innovation in industry, infrastructure, and mobility, now more than ever must advance an equitable society, strengthen the economy, and sustain the environment. There is no time to waste. Accelerated climate change demands our concerted effort to unify federal and state governments' actions with forces within the private sector to bring much needed relief to our local communities.

Siemens is focused on deploying technologies and services that intelligently connect energy systems to buildings and industry, always with an eye toward energy efficiency, reliability and smaller carbon footprints. From decentralizing power generation, deep electrification and creating resilient microgrids to making buildings smarter to manage long-term operating costs, Siemens is committed to doing its part to lead and advocate for sustainable and equitable policies that drive U.S. innovation and leadership.



Global Partner in the Paris Climate Agreement

Siemens was the first global industrial company to publicly commit to a carbon neutrality goal by 2030. In December 2020, we announced that Siemens cut global CO2 emissions by 54% and is on track to meet our carbon neutrality goals. Siemens also supports the Paris Climate Agreement signed by 194 countries as it is an important element in enabling and encouraging governments, other businesses, and investors to turn the billions of dollars in existing low-carbon investments into the trillions of dollars the world needs to tackle climate change, create jobs and improve the health of our local communities.

Transportation Electrification

By investing in the electrification of U.S. transportation, a burgeoning industry will grow to support multiple sectors including manufacturing, installation, and service jobs. The U.S. has an opportunity to be a global leader and to pioneer emerging critical technologies.

Siemens has manufacturing capabilities to produce and assemble electric vehicle (EV) charging equipment with facilities in North Carolina, California, Texas, Georgia and South Carolina. Additionally, we have deployed 65,000 Charging-as-a-Service (CaaS) stations across the U.S. and are investing in digital technologies to manage charging for large scale electric fleet deployment. With new models for CaaS for trucks and buses we are working alongside our partners, Amply, a Bay Area start-up software company, and with industry and transit agencies to help the nation make the shift to 100% electric transportation.

Distributed Energy Systems

There has been an acceleration of the adoption of distributed energy systems as communities seek to invest in resiliency efforts and reduce cost. A main challenge is financing for communities that do not have access to capital to invest in these critical projects. Energy-as-a-Service (EaaS) models provide solutions for municipalities and mission critical building owner operators to bring on a full range of energy technologies and to have greater control of their energy assets.

This work will be advanced by <u>Calibrant Energy</u>, a joint venture with Macquarie's Green Investment Group, <u>Siemens Smart Infrastructure</u>, and <u>Siemens Financial Services</u>. Calibrant Energy offers a unique combination of technical, operating, and risk management expertise that enables customers to access the benefits of on-site energy systems with a new level of simplicity.

Efficient and Zero Energy Buildings

Automated and equipped with advanced technologies, energy-efficient buildings use less energy, and offer healthier indoor environments. By focusing on investments and upgrades in automation, lighting, fire safety and security for critical building infrastructure and new construction, as a nation we can ensure that we can keep infrastructure operating during future crises while providing a short-term payback on operational and energy reductions. Siemens manufactures critical building products in Buffalo Grove, IL and designs and develops next generation life, fire, and safety solutions in Florham Park, NJ.



Siemens Smart Infrastructure has deployed 65,000 EV charging stations throughout the U.S.

Siemens is pioneering the next generation of automated building technologies to connect disparate building systems and drive more value for the customer. The end goal for the building technology industry is to create an ecosystem of connected devices, systems and buildings designed to maximize the potential of the built environment. This will allow customers to be even more effective at what they do – be it conducting business, teaching young minds, or safeguarding lives. This work is being advanced through recent start up acquisitions in loT space of two California companies, Comfy and Enlighted, Inc., along with the support of the Siemens Digital Service Center in Austin, TX.

Delivering Savings for U.S. Government

Siemens also has a long history of partnering and driving solutions for the federal government. This work includes Energy Savings Performance Contracts (ESPC) that have long been an opportunity for the federal government to tackle deferred maintenance and reduce energy bills. Additionally, ESPCs are large infrastructure projects that include multiple partners from the manufacturing, construction, and small business communities. ESPCs have saved the federal government more than \$20 billion since 2000.

Smarter Infrastructure and Resilient, Decarbonized Cities

Over the last three years in the United States, the number of annual billion-dollar weather disasters has more than doubled compared to the long-term average. For the many cities at risk, resiliency planning has emerged as a growing priority. Resilient cities are smarter, energy-efficient, and more adaptable in meeting the needs of residents, businesses, and visitors especially with critical improvements to infrastructure and technology. The frequency and severity of weather events like hurricanes, tornadoes, ice storms, and extreme heat waves are continuing to increase. However, there are several proactive, long-term steps that can be taken by forward thinking municipalities, including strengthening power system resiliency and simulation planning to identify resiliency gaps, to help modernize energy systems.



Siemens Technology is headquartered in Princeton, NJ with employees advancing R&D and innovation across the U.S.

Siemens Technology in Princeton, NJ is one of our R&D centers advancing technologies to tackle resiliency challenges. Its Island Grid living lab was developed to show what is possible in the realm of microgrids and autonomous grids and to research and demonstrate how energy generation, storage and building management products behave and work together in a dynamic real-life environment. In addition, the living lab provides a co-creation space for public and private organizations looking to deploy highly integrated, sustainable, and resilient microgrid solutions.

Investing in our Schools

It is critical that we invest in the U.S. education system to ensure our schools are operating efficiently and safely with the technologies required to ensure students have clean air to breathe and are safe from fires and security risks. This includes supporting digital solutions to drive better future investments in the buildings themselves.

21st Century Workforce

Siemens workforce development activities are focused on shrinking the skills gap and include a Military Talent Acquisition Program. Since launching the veterans hiring program, Siemens has recruited more than 4,000 service members from all four branches of the U.S. Military, with over 60 percent working in STEM disciplines.

Siemens Partnerships with the Department of Energy Span the Nation and Foster Innovation

We share a deep commitment to R&D as illustrated by our work with the U.S. Department of Energy National Laboratories. We currently have 30 active projects across several national laboratory network partners supporting advanced manufacturing, materials grid modernization, renewable integration, and cybersecurity. Through ARPA-E's ReNew100 program, we are working to deploy new technology for the Hawaii Island power grid to demonstrate a path to 100 percent renewable power. This transition to a system of all-renewable energy sources will be tested through a virtual grid. The project helps to forecast how the island grid would respond to critical events using the software and algorithms developed by Siemens Technology. These algorithms will provide the grid operator with alternative settings for the inverters of their renewables to manage frequency. The interconnection of the digital twin of the Hawaiian power system real-time simulators with the new Energy

Management System will enable the team to demonstrate the effectiveness of the new support system under realworld operating conditions.

Siemens Commitment to ESGs

Siemens is proud to receive top ratings once again from the Dow Jones Sustainability Index and a AAA rating from the world's largest provider of environmental, social and governance (ESG) indices MSCI ESG Ratings. Going forward, these metrics will also be embedded into the compensation system for our managing board as we continue to ensure sustainability is central to all of our work.

Another way Siemens ensures we continue to take potential environmental and social risks into account earlier and more comprehensively is by introducing the Siemens ESG Due Diligence Tool. The tool is used by our team internally to review ESG criteria for our projects, and was developed in cooperation with external experts, including human rights experts. By using the tool, data-driven decisions can be made to identify, assess, mitigate, and monitor environmental and social risks.

Siemens is committed to being at the forefront of the new green economy and invested in the following technologies to ensure it meets its goals:

- Advancing critical technologies
- Solar power and on-site energy storage
- Efficient building management systems to better manage power consumption and usage
- On-site EV charging stations
- Microgrid management systems
- Developing and maintaining a Distributed Energy Systems Research Hub; and
- Software solutions to optimize power usage and utility bills

Siemens USA Global Impact

- More than 30 years of experience in sustainable energy, with an installed base of over 25GW globally
- Provided over \$US 3 billion in energy and operational savings
- Curbed 637 million metric tons of carbon emissions for customers in FY 2019

Siemens USA Leadership Credentials

- FORTUNE World's Most Admired Companies
- Fast Company World Changing Idea Award
- Global 100 World's Most Sustainable Corporations
- Leading developer of micro-grid controllers, demand response, peak shaving, eMobility
- >10,000 inventions and patent applications filed and \$US 6.7 billion invested on R&D

Microgrids contain all the elements of complex energy systems. They maintain the balance between generation and consumption, and they can operate on grid or in island mode. The Blue Lake Rancheria microgrid incorporates a Spectrum Power Microgrid Controller from Siemens, a solar array with 420 kW AC combined with a 2,000 kWh lithium-ion battery storage.



Blue Lake Rancheria Humboldt County, California
Siemens partnered with Humboldt State University's Schatz Energy Research Center to build a low-carbon community microgrid to power the government offices, economic enterprises, and critical Red Cross safety shelter-in-place facilities across 100 acres.

Siemens Smart Infrastructure and Technology Locations in the USA



Siemens USA

Siemens has for more than 160 years, deepened collaboration across the U.S. and created a robust ecosystem of technologies and experts supporting bold climate action.

With customers in all 50 states and Puerto Rico, working with more than 100 U.S. cities, Siemens USA's 40,000 employees and 24,000 suppliers transform the everyday – from more agile and productive factories, to more intelligent and resilient buildings and power systems, to more reliable and sustainable transportation.

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