SIEMENS

Ingenuity for life

Solar Solutions

Count on Siemens technology, financing and expertise to get the most value from all of your solar projects.

usa.siemens.com/onsite-power

A Powerful Approach to Solar

Benefit from a partner with the resources and commitment to make your project a strategic and financial success.

With its costs declining and technology advancing, more organizations are turning to solar as a leading option for power generation. As an expert in on-site generation, Siemens can help you implement a stand-alone or hybrid solar power solution designed to support your goals now and into the future. We'll help you take a holistic approach that addresses your needs for equipment, controls and financing so you can get the most value out of your investment.

An Energy Evolution

Today, organizations of all types are looking closely at how they obtain electricity and how they use it. Instead of being passive consumers, they are engaged prosumers, implementing energy solutions tailored to their specific needs. Power reliability and sustainability remain key drivers to support a digital, always-on business environment and to meet sustainability goals.

It's this shifting landscape that is accelerating the adoption of solar power across the United States and globally. It's also brought about new challenges – implementing the right solar project for your organization requires a partner well-versed in technology, financing and energy management, and one who can support long-term service contracts.

Trust in Expertise

Having deployed 21 GWs of wind and 1.6 GWs of solar, Siemens is a true global leader in clean, renewable energy. Of note, 90% of solar power in the US was installed in the last five years. But we have long been a major player in the solar market, delivering projects for more than 30 years. During this time, we have continued to innovate, and our latest generation of manufactured solar modules and inverters are installed in some of the largest utility scale projects around the world.





We apply our expertise every day to address the growing demand for distributed energy solutions. Through our On-Site Energy Solutions practice, we help organizations across all markets take greater control of their power reliability and sourcing. Many are doing this by integrating on-site solar installations as a key part of their own local power generation strategy.

For solar installations, and all local generation projects, we take a holistic approach designed to create the most value. Solutions include the latest in solar technology as well as energy storage, microgrids and automated controls.

Our team of experts helps you clarify your organizational needs and how solar can address them with solutions that deliver:

- Greater reliability
- Maximum control
- Improved ease-of-use
- Enhanced sustainability
- Lower energy and operating costs
- Long-term scalability and support



Columbia University, NY
A 5.8MW ground mount system serves Columbia University through remote net metering with remote sites located in Orange County, NY. Siemens advanced this project through environmental approvals and into the construction phase.



Project Financing and Support

More options from a trusted, long-term partner



Hendrick Hudson Central School District, NY Each of Hendrick Hudson

Each of Hendrick Hudson
Central's five schools is supported
by a 803kWh solar installation.
This project, financed via a
20 year Solar PPA, was one of
the first large solar projects
deployed in New York funded by a
PPA. Siemens secured over
\$600,000 in state incentives
through a competitive reverse
auction process.

At Siemens, we're committed to making solar a smart, financially viable option for any organization. Backed by our Siemens Financial Services arm, we can help you manage the entire financing process, while providing more competitive options that are well-suited to your specific capabilities and needs.

Over the past eight years, Siemens has directly financed projects within the energy sector worth over \$5.9 billion. We support you with financial expertise that simplifies and streamlines the process, and even help you identify and secure government or local incentives to support your project.

Solar PPA

Solar Power Purchase Agreements, also known as PPAs, are a cost-effective solution to finance solar projects. In a PPA, Siemens takes on the responsibility of building, owning and operating the solar installation at your site. You pay for only the power the system generates at a competitive per kilowatt hour rate. PPAs are favored option for organizations that want to benefit from reliable, renewable power but would rather apply their existing capital resources to projects more core to their mission.

Our history makes us an ideal partner for customers using a Solar PPA. Typically, agreements are contracted for 20 years and can include the leasing of space for the solar installation. With our 160-year track record of solid financial performance and growth, you can trust Siemens to provide long-term counterpart stability in a rapidly changing market.





Technology and Planning

Ingenuity that helps solar projects work smarter



City of Lakeworth, FL
In 2017, Siemens installed a 2MW
solar array as part of a larger
performance contract project for
the City of Lakeworth. The array is
located on a closed landfill,
allowing the city to make use of a
previously unusable large ground
area. The solar array supports
Lakeworth's own municipal
electricity distribution system.

At Siemens, we put more resources to work to make sure every solar project delivers exceptional value. As a Siemens customer, you'll benefit from our market-leading offerings in energy storage and microgrid technology. You'll also take greater control of your energy portfolio through our Total Energy Management approach.

Energy Storage

Energy storage solutions make your solar project more efficient and cost-effective by providing greater flexibility to schedule power use. Due to the intermittent nature of solar, storage can play an important role in the usefulness and economics of solar power. Storage also supports reliability by adding stored capacity to ensure power can flow during peak periods.

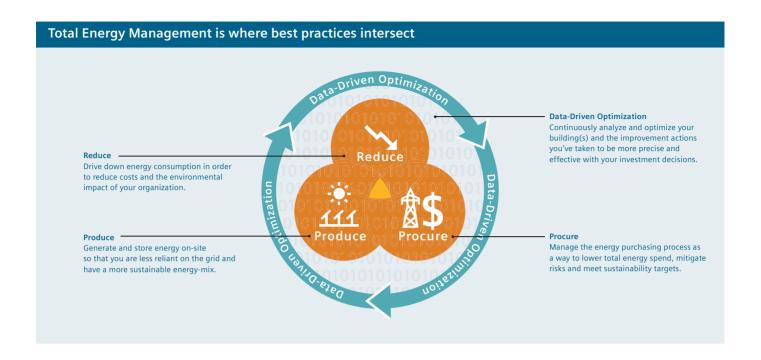
Siemens storage systems are built around the latest lithium-ion battery technology, integrate easily with solar arrays, and are backed by our Siemens performance guarantee.

Microgrids

A microgrid is a scaled-down version of a centralized power system that generates, distributes, and regulates the flow of electricity. It can operate connected to the grid or in an isolated (islanded) mode and, if required, can switch between the two. A well-designed microgrid can be easy to establish and enhances the value of your solar installation.

The intelligence behind a safe and reliable microgrid is our automation controls that manage these systems. They help you create a seamless grid that is resilient and cyber-secure. Options are available for both advanced and basic controls, depending on your specific needs and how you plan to leverage your solar installation.





Total Energy Management

Through our Total Energy Management approach we help you maximize both the overall value of your solar project and its contribution to your overall energy strategy.

Total Energy Management is a new way of thinking that provides customers greater control by looking at the big picture. Using advanced technology and data analytics, we help you gain a comprehensive view of all your energy initiatives – from on-site production to reducing consumption to procurement – and how they can better work together.

Identifying your energy management goals and implementing a comprehensive strategy helps you define where your energy initiatives intersect. This enables you to better prioritize your investments and create a long-term plan. A plan that is aligned with organizational goals supports confident decision-making and, most importantly, significant cost savings.

With a Total Energy Management approach you can combine the benefits of solar with other building-level energy management strategies to generate additional value for your organization. For example, with on-site solar you can participate in demand response programs with your local utility — earning cash reimbursements for reducing energy taken from the grid in peak periods — without impacting your operations.

Siemens experts are equipped to help you take a Total Energy Management approach to your portfolio. Through this process you can better maximize the value of your solar project, supporting a lower energy spend and achieving sustainability targets.



White Sands Missile Range, NM Siemens installed two separate solar arrays for the U.S. Army with a combined generation per year estimated at 10,000,000 kWh, enough to satisfy 10 percent of the annual consumption at White Sands Missile Range. At the time of commissioning, the array was the largest solar installation owned by the federal government.

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The information in this document contains general descriptions of technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract. The document contains a general product overview. Availability can vary by country. For detailed product information, please contact the company office or authorized partners.

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