

SIEMENS

Four Steps for integrating Energy-as-a-Service into your corporate sustainability strategy





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Introduction

Assuring that corporate sustainability initiatives are kept on track can be challenging for many organizations.

On one hand, too many initiatives—implementation of renewables, pursuit of energy efficiency initiatives, management of microgrids, establishment and measurement of key performance indicators (KPIs)—can consume a significant portion of corporate funding and resources. On the other hand, the difficulty of implementing change management, the capital investment associated, and the many technology choices to be made can lead to a state of sustainability paralysis with few positive CO₂ emissions reduction results.

Meanwhile, the pressure from government regulators, consumers, and shareholders for action continues to mount. Fortunately, organizations no longer need to deal with these challenges alone. New offerings like Energy-as-a-Service (EaaS) can help organizations get started on the journey to a more sustainable future without having to commit to high up-front capital investments. When embracing an EaaS approach, municipalities and building owners receive the

benefits of energy and infrastructure improvements without the capital investment or development, construction, and operating risks; all of which are transferred to their third-party partner.

Such an approach facilitates the deployment of renewable energy assets that can support an organization's decarbonization objectives, reduce energy costs, and improve the reliable supply of power. Under an EaaS arrangement, industries, buildings, campuses, and cities can position themselves to reduce energy costs and deploy renewable energy infrastructure without having to manage or own the energy assets.

Dramatic increases in fuel prices have accelerated the value proposition of investing in more predictable renewable energy sources such as solar PV coupled with energy storage. Outsourcing the development, ownership, financing, and management of these new renewable energy assets has also grown in popularity.



Selection of the appropriate partner is critical

A key factor in realizing these benefits is to partner with a services provider that has the capabilities and experience with the full range of commercially available technologies that will be needed to reduce overall energy consumption and CO2 emissions. Below is a checklist of desired characteristics that can help to steer an organization towards an appropriate EaaS partner:



Ability to offer client-focused customization and design

- The service is designed with client needs in mind, with flexibility in technologies, assets, and contract types.
- Service benefits that include future-proofing organizational energy resources and building capabilities to keep up with the energy transition.



Wide range of industry-specific knowledge

- Consideration of all ranges of behind the meter (BTM) client facilities across all commercial & industrial (C&I) businesses and municipal and state governments, universities and colleges, K-12 schools, and hospital (MUSH) market verticals.



Organizational resources, established reputation, and long-term stability

- A well-established Energy Services Company (ESCO) with substantial financial resources and a long track record of performance.
- A partner that will simplify the process with streamlined operations and clear offerings.
- A single client interface over the project lifecycle, from integration to operation and services, provided by a trusted partner.



A broad range of technology solutions

- A diverse set of renewable energy solutions that can be supported through the distributed EaaS approach, including solar PV, battery storage, combined heat and power, microgrids, and heating and cooling infrastructure upgrades.
- Experience with investing in and structuring a range of distributed energy assets and commercial structures with a diverse client set.

The Siemens four-step approach

Companies like Siemens meet all of these criteria and have a long-standing commitment to helping organizations meet their energy transition challenges.



By offering advanced technology through one of the broadest technology portfolios in the industry, deep expertise, flexible financing, and innovative services like EaaS, Siemens can help drive modernization and sustainability initiatives.

Siemens EaaS services offer municipalities and businesses additional renewable energy deployment flexibility. We offer a range of commercial and financial structures under which we can implement renewable energy, energy efficiency, and infrastructure modernization projects. Additionally, we can take the project from initial feasibility assessment, through construction and into commercial operation; managing the development and implementation risks and ensuring that the assets generate their promised value for the host throughout their lifecycle.

Siemens has a dedicated financing partner for EaaS solutions, Calibrant Energy, which is a joint venture between Siemens Industry, Siemens Financial Services, and Macquarie Capital's Green Investment Group. Calibrant helps deploy smart building energy infrastructure (such as solar panels, microgrids, and energy storage) with no upfront capital allocation required. The infrastructure is owned and operated by Calibrant, in an EaaS arrangement. Calibrant is designed around customer needs with flexibility in both assets and contract types. We simplify the process with streamlined operations and clear offerings, future-proofing energy and building our customers' capabilities to keep up with the energy transition.



When deploying EaaS, Siemens executes on four critical steps:



Site analysis and feasibility testing – We help our partners understand all the options and what works best for their needs. Then we design a plan and test its feasibility.

Technology planning to optimize energy management operations – We take advantage of proven solutions and the latest innovations to maximize ROI.

Project implementation – We bring projects to life on time without disrupting operations.

Long-term operation and maintenance – We operate and maintain projects long-term to maximize the value of the assets, meet reliability and availability targets, and provide ongoing services to keep our partners on track in meeting their energy and carbon reduction goals.





Conclusion

An experienced ESCO partner, like Siemens, can implement a wide range of projects under an EaaS model that can reduce energy costs, improve GHG footprint, lower grid fees, and help create additional energy-related revenue opportunities. Further, efficiently managing the supply and consumption of energy is fundamental to meeting organizational energy and sustainability objectives. Leveraging EaaS results in a capital-efficient and scalable approach to renewable energy deployment that allows organizations to focus on their core business while modernizing and decarbonizing their energy and utility infrastructure via a partner that brings capital and expertise.

Legal Manufacturer

Siemens Industry, Inc.
7000 Siemens Road
Wendell, North Carolina 27591
United States of America

Telephone: +1 (800) 347-6659
www.usa.siemens.com

Order No. XXX-XXXXXXXXXX

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