

Siemens Launches Digital Decarbonization Tool at Climate Week NYC to Help Simplify the Path to Net-Zero Facilities

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- The Decarbonization Business Optimizer (DBO™) provides baseline carbon assessments and more efficient pathways to net-zero emissions based on location, type and size of commercial and industrial facilities
- Integrates verified data sets and tools from the US Department of Energy, Environmental Protection Agency, and National Renewable Energy Laboratory
- Built on Amazon Web Services (AWS) using serverless architecture to minimize the tool's carbon footprint

ISELIN, N.J.--(BUSINESS WIRE)-- Siemens Financial Services launched the **Decarbonization Business Optimizer (DBO™)**, a cloud-based tool created to help address the overwhelming complexity of decarbonizing buildings and the financing needed to get to net-zero emissions. The DBO is a free, digital web tool that removes the initial knowledge barrier and uncovers more efficient strategies to help decarbonize a company's facilities. The scenario modeling and optimization tool aggregates and leverages data from relevant governmental agencies including the U.S. Department of Energy (DOE), the Environmental Protection Agency (EPA), and the DOE's National Renewable Energy Laboratory (NREL).

The Decarbonization Business Optimizer (DBO™) provides baseline carbon assessments and more efficient pathways to net-zero emissions based on location, type and size of commercial and industrial facilities. (Photo: Business Wire)

"Companies, specifically those in the supply chain, are increasingly asked to report their carbon footprint to their

customers -- yet many do not know where to begin," said Anthony Casciano, President and CEO of Siemens Financial Services, Inc. "The DBO addresses these barriers by taking action and puts companies of all sizes, and at all stages, in a better position to create long-term value, accelerating participation in the transition to net-zero

emissions.”

The DBO generates cost effective decarbonization scenarios for each facility using the address, facility size and type (for example, a hospital, office building, manufacturing plant, etc.). The estimated carbon footprint calculated for the facility, as well as the energy cost, is based on data relevant to its geographic location, enabling a more accurate estimate than using country-wide averages. The tool also considers site-specific data such as the annual energy use or load profile, if available, to generate an even more accurate result.

“A lack of data sometimes can deter companies from initiating a sustainability strategy,” said Lee Evangelakos from American Industrial Partners (AIP). “As an initial tester, we found that the DBO tool is a great way to get started in estimating facility footprints. The tool enables industrial businesses to think through the building blocks of their emissions profiles and how they could begin to take action towards decarbonization.”

Users can discover and choose a combination of generation and storage technologies that makes the most sense for their site such as solar panels, combined heat and power (CHP), thermal energy storage, battery storage, and more. Customized decarbonization scenarios can also be generated based on a desire for specific technologies, resilience to grid outages, or a maximum budget, enabling data-driven decarbonization decision making. The tool also provides a summary of estimated return on investment (ROI).

“Trusted data sets coupled with credible modeling and analysis tools are vital in the complex decision-making process to achieve a clean energy future,” said Roderick Jackson, Laboratory Program Manager for Building Technologies at NREL. “NREL-developed tools are built to be leveraged in this way—including ComStock™, REopt ® , and our Annual Technology Baseline framework. It’s great to see that in practice.”

SFS developed the tool in partnership with **Siemens Technology** , the company’s central R&D department. The tool is built on AWS, utilizing server-less architecture to lower its workload carbon footprint by allowing the DBO to operate only when needed, rather than running constantly. A recent study estimates AWS’s infrastructure is up to 4.1 times more efficient than on-premises, and when workloads are optimized on AWS, the associated carbon footprint can be reduced by up to 99 percent.

The tool also leverages public data made available through the Amazon Sustainability Data Initiative (ASDI) to help estimate thermal properties of materials in buildings. ASDI works with sustainability-focused government agencies to host, and deploy key datasets on the AWS Cloud, including weather observations and forecasts, climate projection data, satellite imagery, hydrological data, air quality data, and ocean forecast data.

“At AWS, we are committed to helping our customers build a more sustainable future,” said Chris Walker, Director of Sustainability for AWS. “This is a shared goal we have with Siemens and all of our customers. We also provide

knowledge and tools, such as Amazon Sustainability Data Initiative (ASDI), for organizations of all sizes, and across all sectors, to build and implement solutions like DBO that support their sustainability goals.”

Looking ahead, SFS will add a vehicle fleet analyzer to assist companies with fleet electrification and a climate resiliency feature to help identify a site’s ability to withstand extreme weather.

To access the DBO and learn more, those interested can visit www.dbo.siemens.com . The tool is currently available for free in the U.S. and can be accessed via **Siemens Xcelerator** , an open digital business platform that helps companies accelerate their digital transformation easier, faster, and at scale. Companies can reach out to **Siemens Financial Services** for more information and to learn about how **Siemens Smart Infrastructure** can help act on their DBO results toward realizing their sustainability strategies.

For more information about the DBO, please visit: <http://www.dbo.siemens.com>

For more information about technology and financing from Siemens, please visit: www.usa.siemens.com

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