



Carrier and Google Cloud Join Forces to Strengthen Grid Resilience with AI-Powered Home Energy Management Systems

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Carrier's Home Energy Management System integrates with Google Cloud's AI tools, and WeatherNext AI models to create an intelligent energy ecosystem within the grid

PALM BEACH GARDENS, Fla. and SUNNYVALE, Calif., March 5, 2025 /PRNewswire/ -- Carrier Global Corporation (NYSE: CARR), global leader in intelligent climate and energy solutions, and Google Cloud are joining forces to enhance grid flexibility and support smarter energy management.

Led by Carrier Energy, Carrier's new energy solutions business, this initiative will integrate Carrier's battery-enabled HVAC technology—delivered through its Home Energy Management System (HEMS) solutions—with Google Cloud's AI-powered analytics and WeatherNext AI models built by Google DeepMind and Google Research. The combined solution is expected to create intelligent, connected solutions for residential HVAC energy customers.

Advancing AI-Powered Energy Management

Electricity demand is rising across the U.S. as factors such as onshoring, electrification of transport and adoption of AI converge. These factors present new opportunities and challenges for both utilities and consumers. By leveraging real-time energy forecasting and intelligent grid interaction, Carrier and Google Cloud are working to ensure Carrier's HEMS technology will help balance supply and demand across the grid. For homeowners, this means they can store energy in batteries and use it during peak demand periods, when electricity costs are typically higher. Google's AI-powered WeatherNext models further optimize HVAC operation, enabling greater efficiency and potential cost savings. This will help promote greater availability, reliability and affordability for energy users.

This initiative helps facilitate Google's ambition to create new carbon-free energy solutions that support reliable and resilient grid operations. It also supports Carrier's goal of helping its customers avoid more than one gigaton of greenhouse gas emissions by 2030. Under this partnership, Carrier and Google Cloud will collaborate on innovative solutions to help unlock capacity and grid expansion in U.S. markets. By working together, Carrier and Google Cloud aim to create scalable benefits for the local grids where Carrier customers live.

"Across the country we see an opportunity to build resilience in communities and scale innovative, clean energy solutions that foster economic growth," said Caroline Golin, global head of Energy Market Development and Innovation at Google. "Through collaboration with Carrier, and across the industry, we hope to create the change that brings benefits for all."

Unlocking Grid Efficiency

First [announced](#) at Climate Week NYC last fall, Carrier's next-generation heat pump will feature battery storage, intelligent energy forecasting and grid-interactive capabilities to help utilities flatten demand peaks and enhance energy efficiency. By integrating Carrier's HEMS technology with Google Cloud's BigQuery, Vertex AI, generative AI solutions, and WeatherNext's forecasting models, the system will intelligently manage energy flows in real time—charging, discharging and redirecting energy based on grid conditions, energy demands and weather forecasts—contributing to a more balanced and sustainable energy grid. Homeowners using stored battery energy during peak periods can help reduce strain on the grid when electricity demand is highest and energy supplies tend to have a higher carbon footprint. The project will roll out in phases through 2027, with a focus on scaling nationwide adoption thereafter.

"Our energy systems must evolve to be more intelligent, flexible and economically efficient," said Hakan Yilmaz, chief technology and sustainability officer at Carrier and head of the company's new energy business. "By integrating Carrier's HEMS technology with Google Cloud's AI and analytics, we aim to help increase the efficiency of existing energy infrastructure—reducing grid congestion, unlocking greater energy utilization and contributing to economic growth."

"Carrier's innovative approach to energy grid management solutions will help create a lasting positive impact on the U.S. energy landscape. By integrating Google Cloud's AI and analytics with Carrier's intelligent HVAC systems, we are creating solutions that meaningfully contribute to a more efficient and resilient energy ecosystem," said Kyle Jessen, managing director, Energy Sector, Google Cloud.

A Smarter, More Resilient Energy Future

As utilities, businesses and consumers adapt to an evolving energy landscape, AI-driven energy optimization will play a critical role in ensuring grid resilience and supporting electrification. Through this collaboration, Carrier and Google Cloud are taking a bold step toward a smarter, more efficient and AI-powered energy ecosystem—one that not only benefits homeowners but also supports the next generation of technology infrastructure.

About Carrier

Carrier Global Corporation, global leader in intelligent climate and energy solutions, is committed to creating solutions that matter for people and our planet for generations to come. From the beginning, we've led in inventing new technologies and entirely new industries. Today, we continue to lead because we have a world-class, diverse workforce that puts the customer at the center of everything we do. For more information, visit [corporate.carrier.com](https://www.corporate.carrier.com) or follow Carrier on social media at [@Carrier](https://twitter.com/Carrier).

About Google Cloud

Google Cloud is the new way to the cloud, providing AI, infrastructure, developer, data, security, and collaboration tools built for today and tomorrow. Google Cloud offers a powerful, fully integrated and optimized AI stack with its own planet-scale infrastructure, custom-built chips, generative AI models and development platform, as well as AI-powered applications, to help organizations transform. Customers in more than 200 countries and territories turn to Google Cloud as their trusted technology partner.

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