

GE Vernova Announces New AI-Powered Carbon Emissions Management Software

- *New software is designed to empower energy industry to measure, manage, and operationalize insights to help reduce carbon emissions more accurately.*
- *Software engineered to help improve greenhouse gas (GHG) calculation accuracy on scope 1 gas turbines by as much as 33% using reconciliation algorithm and Digital Twin technology powered by machine learning (ML) and data analytics.*

SAN RAMON, Calif. - SEPTEMBER 12, 2023 -- Less than a week before the start of Climate Week NYC, [GE Vernova's Digital business](#) today announced the early limited release of CERius™, a carbon emissions management software designed to help energy companies progress toward their net-zero goals using data precision and abatement planning capabilities. CERius is currently available as a pilot for current GE Vernova customers, with general availability expected in early 2024.

[CERius](#) is designed to enable organizations to more accurately measure, manage, and operationalize certain insights needed to help companies track their carbon neutral emissions goals. The software is engineered to automate more accurate GHG data collection and suggest recommendations to operationalize carbon reduction efforts by offering scenario analysis, team collaboration, and standardized reporting based on GHG protocols. Implementing cross-functional standards and processes fueled by CERius helps position companies to address ever-evolving regulatory compliance.

“There are increased expectations from regulatory bodies, investors, and companies that have made public net-zero commitments which require more rigor to disclose accurate emissions data,” said Amy Cravens, research manager, ESG Management and Reporting Technologies at IDC. “Companies look to carbon emissions management technologies like GE Vernova’s CERius software to help improve scope 1, 2, and 3 data accuracy and reporting, in addition to measuring abatement planning strategies.”

“We believe that we are in a unique position to help customers decarbonize their operations, as GE Vernova’s technology helps generate roughly 30% of the world’s electricity,” says Scott Reese, CEO of GE Vernova’s Digital business. “As an OEM (original equipment manufacturer), we’ve had the opportunity to directly validate that CERius provides 33% greater accuracy for scope 1 emissions on today’s gas turbines. That direct validation gives us great confidence that we can help utilities in reporting and reducing their emissions.”

CERius can help energy companies better manage their emissions data, compliance reporting, and strategic planning. Additional analytics using Artificial Intelligence (AI) provide insights directly drawn from historical, current plant, and enterprise-level processes. The software aims to help with certain key benefits, including:

1. **Decarbonization Planning & Activation:** Companies can simulate and evaluate different abatement scenarios to optimize their carbon management strategies. Users can assess the potential impact of various initiatives—such as renewable energy integration, energy efficiency measures, and carbon offset projects—to identify the most effective pathways for reaching net-zero targets.
2. **Multi-Team Collaboration:** Transparent cross-functional visibility across sustainability executives, managers, and operators to help simplify audit preparations, further breaking down department and information silos. Receive data quality alerts to resolve quickly to get back on track collectively. This enhances trust and credibility while showcasing the company’s commitment to decarbonize.
3. **Emissions Tracking:** Automated collection and increased data accuracy to measure and monitor carbon emissions across various operations including assets, plants, and at the enterprise level across scope 1, 2, and 3 emissions data. CERius offers near real-time data visualization and reporting capabilities, empowering companies to track their progress and make data-driven decisions to manage emissions reduction programs. Accuracy of scope 1 emissions reporting is improved by as much as 33% using gas fuel systems

and fuel flow, not generic estimations by fuel consumption. Using precise data allows organizations to make better carbon reduction investments and measure the program's impact on overall net-zero strategy.

4. **Help Compliance Reporting:** With ever-evolving regulatory requirements, CERius will help simplify compliance management by automating collection and analysis of emissions data. Increasing data accuracy and precision helps energy companies report to regulatory bodies using established standards effectively so teams can focus on decarbonization programs, not data collection and verification.

Today, organizations typically report emissions estimate using a multitude of different approaches. What makes CERius so unique is that it moves from estimates to a more accurate result using Digital Twin technology. For example, a power generator can report closer to actual results by simultaneously calculating the same outcome using multiple variables, such as heat rate, based on a single gas turbine at a point in time.

Greater emissions data accuracy equals accurate decision making on how to better solve the carbon emissions reduction problem. Simple estimates on limited and infrequent data do not provide stakeholders with the confidence to invest in new programs. However, showing measurable actions with precision provides the level of granularity to perform what-if simulations. For example, adding a percentage of hydrogen to your gas operations will reduce emissions by a verifiable percent. Further, forecast more sustainable investments and its impact on carbon neutrality.

“As a leader in Asset Performance Management, we’re excited to be extending our deep industry expertise to the emissions management space,” said Linda Rae, General Manager, Power Generation and Oil & Gas for GE Vernova’s Digital business.

More information about how GE Vernova software is accelerating a new era of energy can be found [here](#).

About GE Vernova’s Digital Business:



[GE Vernova](#)'s Digital business is putting data to work to accelerate a new era of energy. We deliver the platforms and intelligent applications necessary to accelerate electrification and decarbonization across the energy ecosystem - from how power is created, how it is orchestrated, to how it is consumed. More than 20,000 customers around the globe use our software to help plan, predict, manage, and optimize operations today for a sustainable tomorrow. For more information, visit www.ge.com/digital.

<https://www.gevernova.com/>
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