



## GE Renewable Energy inaugurates 3D printing facility that will research more efficient ways to produce towers for wind turbines

- *3D printer the size of a three story building can print tower sections up to 20 meters high*
- *First of its kind research in the US: experimenting with new production methods to make wind turbine towers more efficient and sustainable*

**April 21, Bergen, NY** – GE Renewable Energy today held a ribbon-cutting ceremony to inaugurate a new research and development facility that will conduct research on how to 3D print the concrete base of towers used in wind turbines. The research will enable GE to 3D print the bottom portion of the wind turbine towers on-site at wind farms, lowering transportation costs and creating additional employment opportunities at the wind farms where the technology will be used.

The research being conducted in the Bergen facility is supported in part by a grant from the US Department of Energy. A team of 20 people will continue to work on optimizing the 3D printing technology with first applications in the field anticipated within the next five years.

GE Renewable Energy Chief Technology Officer [Danielle Merfeld](#), who spoke at the event, said, “Innovation will continue to be a key driver in accelerating the energy transition. It is particularly important to continuously improve the ways we design, manufacture, transport, and construct the large components of modern wind farms. We appreciate the support of the US Department of Energy for the research we are doing here and are confident it will help make the wind farms of tomorrow even more efficient, economical, and environmentally responsible.”

“Reaching the Biden administration’s ambitious goals of carbon free electricity by 2035 and a net-zero economy by 2050 will require vastly more wind energy capacity. We’re proud to partner with GE Renewable Energy on this innovative 3D printing technology which has the potential to be a game changer in how we harness this resource,” said U.S. Department of Energy Deputy Assistant Secretary for Renewable Power [Alejandro Moreno](#). “With American-made taller towers assembled on site we can cut costs, overcome logistical hurdles, and accelerate progress toward our goals.”

A number of GE Renewable Energy’s key local partners as well as Enel Green Power, a customer interested in potential applications of the technology, also attended the event and offered comments on how it can add value for the local community and the renewable energy industry.

[Luca Seletto](#), Director of Innovation, ENEL Green Power, said, “To rise to the challenge posed by the climate crisis, the renewable energy industry must prioritize innovation and sustainability as it scales. We are glad to keep working with GE in the development and evaluation of new technologies, like the 3D printing of wind foundations, and we thank the Department of Energy for funding this important work.”

[Bill Pollock](#), PE, Director of Rochester Operations at Optimization, an organization providing many of the employees working at the GE research center, said, “At Optimization we have a focus on made in America



and we also believe strongly in renewable energy. Working with GE on this project gives us an opportunity to pursue both of those goals. We are happy to be able to contribute to development of a new technology, to help reduce the cost of wind power and at the same time provide technically challenging jobs in western New York.”

[Henrik Lund-Nielsen](#), Founder & General Manager, COBOD, said, “We are extremely proud to have delivered a completely new type of 3D concrete printer -- the largest of its kind in the world -- for this world class and state of the art facility. The printer we have delivered is second to none: not only can it print in excess of 10 tons of real concrete per hour, but in addition, it is the first 3D concrete printer in the world with two X-axes on the printer. With the multiple functions of the printer, the printer can better be described as a multifunctional construction robot than a printer.”

“The announcement by GE Renewable Energy of its new R&D facility in Bergen is the latest example of the significant and continuing diversification of the Genesee County economy,” said Rochelle Stein, Chair, Genesee County Legislature. “While the agricultural, tourism and small business sectors are the mainstays of our local economy, GE Renewable Energy’s project shows why Genesee County is experiencing new capital investment and the creation of jobs in advanced manufacturing and how the renewable energy sectors which means new career opportunities for our residents.”

[Edelio Bermejo](#), Head of Global R&D, Innovation and IP at HOLCIM, said, "Holcim has a key role to play in accelerating the transition towards clean, renewable energy. We have been studying 3D printing in concrete for nearly a decade and the potential of this technology just keeps expanding. Projects that would have been impossible yesterday are now a reality. We are particularly proud to be part of this ambitious project with GE and Cobod where we can propose the right mixture of ink to build more efficient wind turbines, directly on site. We are convinced this innovation will grow very quickly in the upcoming years and help us all significantly in our net zero journey."

The research being done at the Bergen, NY facility will enable GE to better serve the growing US wind power market. The American Clean Power Association (ACPA) reports that there are more than 68,000 wind turbines across the country are generating clean, reliable power. Wind power capacity totals 135 GW, making it the fourth-largest source of electricity in the country. GE Renewable Energy was recognized by ACPA as the top manufacturer of wind turbines in the US in 2021 for the fourth year in a row.

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### **About GE Renewable Energy**

GE Renewable Energy is a \$16 billion business which combines one of the broadest portfolios in the renewable energy industry to provide end-to-end solutions for our customers demanding reliable and affordable green power. Combining onshore and offshore wind, blades, hydro, storage, utility-scale solar, and grid solutions as well as hybrid renewables and digital services offerings, GE Renewable Energy has installed more than 400+ gigawatts of clean renewable energy and equipped more than 90 percent of utilities worldwide with its grid solutions. With nearly 40,000 employees present in more than 80



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