

Great River Energy Launches Largest Dynamic Line Rating Project in the U.S. with Heimdall Power

Energy Provider to Install 52 Overhead Line Sensors (or “Magic Balls”) Across its Grid to Expand Capacity of Its Existing Infrastructure by About 40%

HOUSTON, TEXAS, UNITED STATES, March 20, 2024 /EINPresswire.com/ -- [Great River Energy](#), the power cooperative providing electricity to 1.7 million in the Upper Midwest, today announced the expansion of its work with [Heimdall Power](#) to launch the largest dynamic line rating project (DLR) in the U.S. to date. To increase the transmission capacity of its existing infrastructure, Great River Energy will install 52 of Heimdall Power’s Neurons (known colloquially as “magic balls”) throughout its electrical grid. This project will exceed the scale of previous DLR projects in the U.S., which have capped at just over 40 sensors.



Power grids across the U.S. are facing increased demand for energy as populations grow and extreme weather puts additional strain on resources. But grid operators have historically had limited options to realize the actual transmission capacity of their existing power lines. In many cases, they have instead launched large-scale and expensive infrastructure projects to increase their capacity. The U.S. government has recently stepped in to ensure that the utilities are getting more capacity out of their current infrastructure by mandating Ambient Adjusted Ratings (AAR) on all U.S. transmission lines. But with this implementation of DLR at a large scale, Great River Energy is aiming even higher.

The company's decision to install 52 of Heimdall Power's Neurons across its grids follows the success of its recent pilot project. After installing the first four Heimdall Power Neurons, Great River Energy was able to compare static seasonal line ratings, which are based on seasonal

averages, to a Dynamic Line Rating, based on real-time data on parameters like current, line angle, temperature and local weather conditions. This resulted in as much as a 42.8% increase in transmission capacity on a key line in Great River Energy's transmission system. For Great River Energy, this new initiative will set the foundation for it to become one of the most efficient grid operators in the U.S., contributing to reduced carbon emissions and saving customers money.

"We are laser focused on achieving our mission of providing affordable and reliable electricity to communities across the Midwest," said Priti Patel, VP of Transmission at Great River Energy. "This technology will help us unlock grid congestion and achieve additional transmission capacity from our existing infrastructure. This pilot project has revealed the impact these sensors can have on our operational efficiency."

The Heimdall Power Neurons are sphere-shaped sensors that are affixed to live, high-voltage power lines to assess transmission capacity in real-time. With actual data about real-time local weather conditions, line temperature and other factors that directly influence transmission capacity, the Neurons enable grid operators to perform Dynamic Line Ratings. Through this approach, grid operators are able to unlock 30%-40% of additional transmission capacity than they could previously access, without having to build any new infrastructure.

"Real-time line capacity data is the untapped secret weapon for utilities, who are experiencing an unprecedented demand for more grid capacity," said Jørgen Festervoll, CEO of Heimdall Power. "Great River Energy is a very customer-centric utility. Our work together allows them to utilize more of their existing grid, keeping costs down for ratepayers without compromising reliability. Their commitment to new technology provides a blueprint for other utilities who are seeking to optimize their power grid for a more cost effective and sustainable future. It's also proof that they can achieve this in a matter of weeks and months, rather than the 7 to 12 years it takes to build a new transmission line."

Great River Energy is a cooperative of 27 power companies that provide electricity to families and businesses across Minnesota, North Dakota and Wisconsin. It sources energy from traditional and renewable sources, including natural gas and fuel, wind, solar, coal, hydro-electric, and others.

About Heimdall Power

Heimdall Power is a technology company that specializes in power grid optimization, making the world's grids smarter, more capable and more sustainable. Heimdall Power's technology is in use by over 40 utilities in 17 countries, across Europe, Asia and in the United States, where it has successfully increased power grid capacity for companies like Swissgrid, Austrian Power Grid, TenneT and Great River Energy by as much as 40%. The company designs and develops industrial devices and smart software solutions in support of its mission to enable swift, secure and affordable energy transitions around the world. Heimdall Power was founded in 2016 with European headquarters in Oslo, Norway and US headquarters located in Houston, Texas.

Kieran Powell
Heimdall Power
kieran.powell@channelvmedia.com
Visit us on social media:
[LinkedIn](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/697107716>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2024 Newsmatics Inc. All Right Reserved.