



A Renewable
America

JOB CREATORS:

MINNESOTA COMPANIES MORTENSON
& ULTEIG FIND NEW OPPORTUNITIES
IN THE RENEWABLE ENERGY SECTORS





A Renewable America



A Renewable America Wind Energy Foundation

1501 M Street NW, Suite 900

Washington, DC 20005

202-552-8105

<http://arenewableamerica.org/>

info@ARenewableAmerica.org





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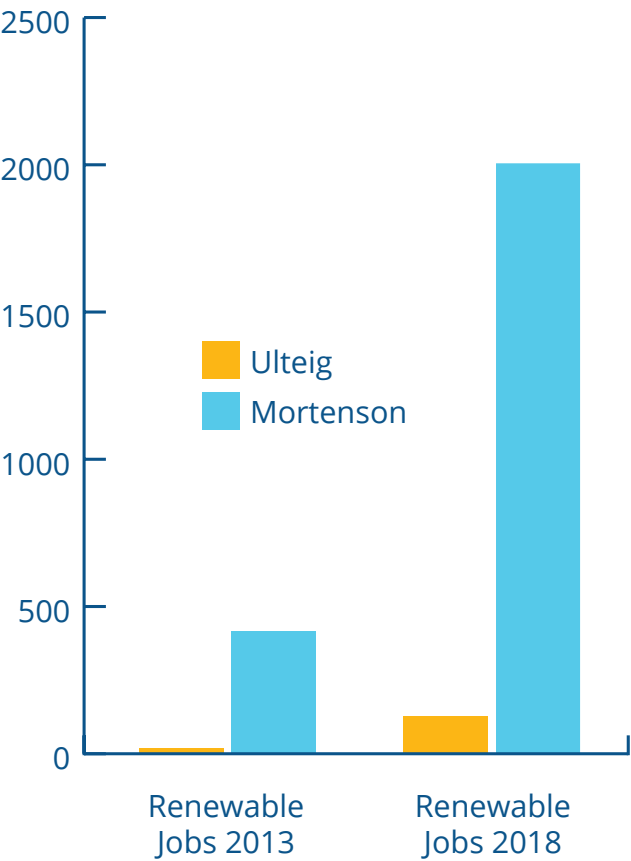


Prairie Rose Wind project, Hartwick, Minnesota.

EXECUTIVE SUMMARY

Minnesota is a national leader in renewable energy development. Home to over 180 companies working in the wind, solar, and energy storage industries, over 8,700 Minnesotan jobs are now supported by these technologies.¹ With installation and operational costs continuing to decline for all three sectors, wind and solar are capturing an ever-increasing share of the U.S. electricity market and now produce nearly 20 percent of the electricity generated in the state.²

This is just the beginning. Solar installer and wind turbine technician are projected as the fastest growing job categories through 2026, according to the US Bureau of Labor Statistics.³ And a recent report by the Minneapolis-based McKnight Foundation found the state could create an additional 44,000 jobs in the wind and solar industries by 2050 by decarbonizing the Minnesota economy consistent with the goals set out by the bipartisan Next Generation Energy Act of 2007.⁴ Also, as energy storage costs continue to fall and deployments accelerate rapidly, the technology is enabling wind and solar to deliver more emission-free electricity to the power grid – creating more jobs and job opportunities.



There are many other types of companies – beyond just project developers, owners, and operators - that are part of Minnesota’s growing renewable economy. This report features case studies of two with a significant presence in the state: (1) Mortenson, a construction company specializing in renewable energy, founded in Minneapolis in 1954; and (2) Ulteig Engineers, an engineering firm with significant renewable energy business and offices in St. Paul and Detroit Lakes.

Together, these companies have added 1,600 staff that work on renewable energy over the last five years. Both companies expect to continue to grow the renewable energy segments of their businesses in the coming years as low-costs and consumer demand make these three technologies the first choice for many utilities and large energy consumers.

ULTEIG

COMPANY OVERVIEW

Ulteig is an employee-owned design engineering, program management and technical and field services company founded in 1944 in North Dakota. It is one of over 180 companies active in Minnesota's growing wind, solar, and energy storage sectors. Ulteig employs over 400 professionals in 10 offices across the United States. The company has two offices in Minnesota, located in St. Paul and Detroit Lakes.

Ulteig is involved in the design and planning of renewable energy projects and power systems. The company developed its first renewable energy project in 1998 and has had a dedicated wind team since 2006.

RENEWABLE ENERGY EMPLOYMENT

Ulteig employs approximately 140 professionals nationwide who support renewable energy clients and projects, including work in wind and solar. The company has grown its renewables staff by 150 percent in the last five years. Like the wind, solar, and storage sectors nationwide, Ulteig's renewables team has grown exponentially since its first wind project was built in 1998. The growth is expected to continue: Ulteig expects almost to double the number of projects it has in the renewables sector in 2018 compared to 2017.

ULTEIG'S RENEWABLE JOB GROWTH: AT A GLANCE

Total Employees Supporting Renewable Energy: 140 professionals

5-year growth: 150% job growth

Courtenay Wind Farm in Stutsman County, North Dakota

PROFESSIONAL PROFILES

Manisha Ghorai, Senior Engineer

Manisha is a Senior Engineer for Ulteig's Transmission and Distribution department. With broad experience in transmission planning and power system studies, as well as experience with team management, proposal development and budgeting, Manisha joined Ulteig in 2017 from American Superconductor. During much of her career, she has focused on renewable energy integration onto the transmission grid.

Her current role includes conducting power system studies on renewables projects, looking at challenges on the transmission and distribution power grid, and ensuring power plants are successfully connected to the larger transmission system.

Andrew Melvin, Technical Manager

Andrew, a Technical Manager in Ulteig's Transmission and Distribution department, has spent his career specializing in solar energy projects. He has over a decade of solar experience, from residential rooftop systems to utility-scale systems. Prior to joining Ulteig in 2017, Andrew worked for SunEdison, formerly a leading solar energy company.

Currently, Andrew works with solar developers and utility companies across the country who rely on Ulteig's expertise in renewables management. He is focused on the design of large-scale solar electric projects and specializes in optimizing various aspects of the design to improve project return.



"At Ulteig, I really enjoy working with a team and colleagues who share the same pride in their work and a passion for the industry."

— Manisha Ghorai, Senior Engineer



"We offer comprehensive solutions under one roof, and I'm proud to work diligently on solar projects that help our clients meet their goals. Ulteig really listens to clients, we're nimble, and we take the time to personalize our work. Our engineering efforts are designed to maximize clients' project performance."

— Andrew Melvin, Technical Manager

MORTENSON



MORTENSON'S RENEWABLE JOB GROWTH: AT A GLANCE

Total Employment: ~2,000 workers

Wind jobs (2018): 627

Solar jobs (2018): 884

Energy storage projects completed: 5 in the last 3 years and 2 more currently under construction

COMPANY OVERVIEW

Mortenson is a Minneapolis-based, family-owned company, founded in 1954. The company has built renewable energy projects for the last 23 years, developing an extensive project resume in the wind, solar, high voltage transmission, and energy storage sectors. Recognized as a North American leader in renewable energy engineering, procurement, and construction, the company has regional offices in 11 major U.S. cities.

RENEWABLE ENERGY EMPLOYMENT

Mortenson employs approximately 2,000 workers nationwide in its renewable energy divisions, which include wind, solar, high-voltage transmission, and civil construction staff. The company has grown these divisions from a little more than 400 staff in 2013 to slightly over 2,000 employees in the last five years. Mortenson is projecting slight job growth in these divisions towards the end of 2018, with a more robust expansion of team member roles to accommodate the expanding wind, solar and energy storage markets in 2019 and beyond. Mortenson's renewable energy focused operating groups have added full-time, professional jobs for six years straight.

PROFESSIONAL PROFILES

Jason Fields, Senior Project Manager

Jason Fields has held various positions in his twelve years at Mortenson – often being referred to as a “Jack of All Trades”. He began his Mortenson career in 2006 as a Field Engineer, eventually working his way to Superintendent, before transitioning to become an Estimator and ultimately to his current role as Senior Project Manager.

As a Senior Project Manager, Jason is responsible for overall project execution – with direct responsibilities in the areas of schedule, quality and budget. He manages general project administration tasks such as scheduling, planning, quality control, project documentation and material procurement. In addition to having managerial responsibility for the entire site team including the superintendents, engineers, safety team and administrative personnel, he is the main point of contact for all client/owner project coordination and reporting.

In Jason’s ten years in field operations he contributed to almost 20 successful wind and solar projects.



“What I enjoy most about my job is the challenge of adapting to new scenarios and personalities with every project, navigating those complexities and delivering a successful project. I also derive a lot of satisfaction from watching and mentoring new team members grow into their positions and fostering their learning and development process.”

— Jason Fields, Senior Project Manager

PROFESSIONAL PROFILES

Tom O'Connor, Senior Design Phase Manager

Tom obtained his Bachelor of Science degree in Industrial Technology from the University of Wisconsin, Stout and then launched his career in commercial construction where he became a Construction Manager. However, after 21 successful years in the traditional construction industry, Tom was ready for a change.

An encounter with a Mortenson employee in the Wind Energy Group sparked Tom's curiosity about the prospect of working in an up-an-coming industry. His extensive construction background and drive to learn a new business while traveling the country helped Tom land a position as Project Manager in Mortenson's Wind Energy Group in 2006. From there, Tom became a Senior Preconstruction Manager and then moved to his current position as Senior Design Phase Manager (DPM).

As a DPM, Tom is responsible for the administration and coordination of all phases of project activity. His specific duties include preconstruction planning, setting project objectives and scheduling, cost control, safety, contract administration, quality assurance and ensuring client satisfaction. Tom has extensive experience in managing nearly every project stage, from initiation to completion. He is an essential part of the Mortenson team, ensuring projects are delivered to the highest quality and executed successfully.

In Tom's twelve years at Mortenson he has contributed to over 15 successful wind projects.



"The best part about working with Mortenson is the people. They are talented, diverse, professional and committed to excellence. I am proud to be a part of a team and company dedicated to delivering high quality projects."

**— Tom O'Connor,
Senior Design Phase Manager**

ACKNOWLEDGMENTS

LEAD AUTHOR:

Kevin O'Rourke, Wind Energy Foundation

LEAD CONTRIBUTOR:

Charles Harper, Wind Energy Foundation

REPORT REVIEWERS:

SEIA, ESA, Mortenson, Ulteig

REPORT DESIGN:

Kate Ross

IMAGE CREDITS:

Mortenson – pages 4,8,9,10

Ulteig – pages 5,6,7

ABOUT THE ORGANIZATIONS

WIND ENERGY FOUNDATION

The Wind Energy Foundation is a 501c3 nonprofit organizations dedicated to raising public awareness of wind as a clean, domestic energy source through communication, research, and education. The Foundation is also committed to supporting ongoing research that furthers the continued growth of wind energy. For more information, visit www.windenergyfoundation.org. A Renewable America (ARA), a campaign to educate on the economic benefits of the growing wind and solar industries and the transmission and storage technologies that support them, is a project of the Foundation. To learn more, visit: www.arenewableamerica.org.

SOURCES

¹ American Wind Energy Association, Minnesota state profile (2018), available at <http://awea.files.cms-plus.com/FileDownloads/pdfs/Minnesota.pdf>; Solar Energy Industry Association, Minnesota state profile (2018), available at <https://www.seia.org/state-solar-policy/minnesota-solar>; Energy Storage Association, proprietary data.

² U.S. Energy Information Administration, Minnesota state profile, available at <https://bit.ly/2MT666u>.

³ U.S. Bureau of Labor Statistics, <https://www.bls.gov/ooh/fastest-growing.htm>

⁴ McKnight Foundation, Minnesota's Smarter Grid, July 2018, available at https://www.mcknight.org/wp-content/uploads/MinnessotasSmarterGrid_online.pdf.



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