

Job Opportunities in Renewable Energy

Chad Johnson, *Nebraska Public Power District*

Belinda Fowler, *Nebraska Department of Environment & Energy*

Chris Jorgensen, *Olsson*

John Liewer, *Northeast Community College*

John Pierce, *Southeast Community College*

Moderator: Dan McGuire, *Nebraska Wind for Schools*



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Chad Johnson, [Nebraska Public Power District](#)



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Career Pathways at Nebraska Department of Environment and Energy

2019 WIND & SOLAR CONFERENCE

BELINDA FOWLER-ENVIRONMENTAL ASSISTANCE COORDINATOR





Then-June 22, 1969



50 years later

Photo credit William Rieter

Finding the Balance



Career Pathways

- ▶ Interns/Seasonal Lab Technicians
- ▶ Biologists
- ▶ Engineers
 - ▶ Industrial, Chemical, Mechanical, Electrical, Water, Wastewater, Design
- ▶ Geologists
- ▶ Chemists
- ▶ Hydrologists
- ▶ Limnologists
- ▶ Entomologists
- ▶ Meteorologists
- ▶ Animal Science Majors
- ▶ Agricultural Science Majors
- ▶ Attorneys
- ▶ Accountants
- ▶ Public Health Specialists
- ▶ Business Administration/ Managers
- ▶ Information Technology
- ▶ Staff Assistants
- ▶ Public Health
- ▶ Geographic Information Systems Analyst
- ▶ Planners
- ▶ Statisticians
- ▶ Well Drillers
- ▶ Energy Specialists
 - ▶ Nuclear, Renewables, Traditional, Recyclables
- ▶ Regulatory Specialists/Inspectors/Compliance Assistance
- ▶ Permit Writers
- ▶ Records Management/Library Science
- ▶ Teaching/Training
- ▶ Environmental Studies
- ▶ Disaster Recovery/Emergency Management

WATER



WATER QUALITY HEALTH ALERT
HARMFUL ALGAL TOXIN PRESENT
ALERTA DE SALUD - ALGAS TOXICAS PRESENTES

Contact with water **NOT** recommended

- Do not swim or water ski
- Do not ingest water
- Keep pets away from lake
- Avoid contact with water when boating or fishing

THIS LAKE IS MONITORED FOR HARMFUL ALGAL BLOOMS AND E. COLI BACTERIA
MAY 1ST - SEPT 30TH

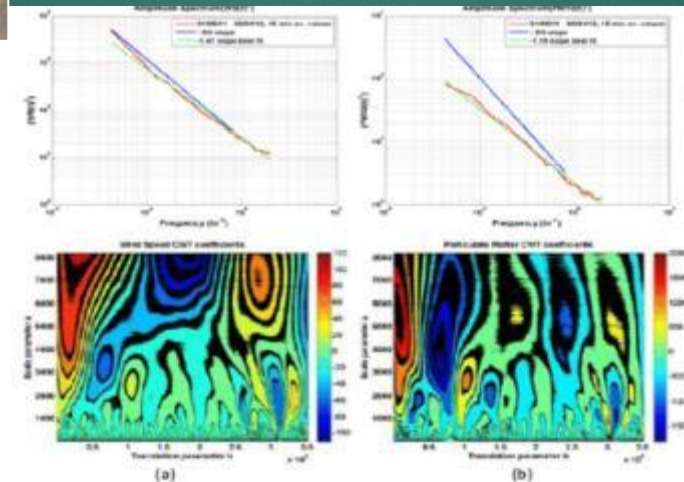
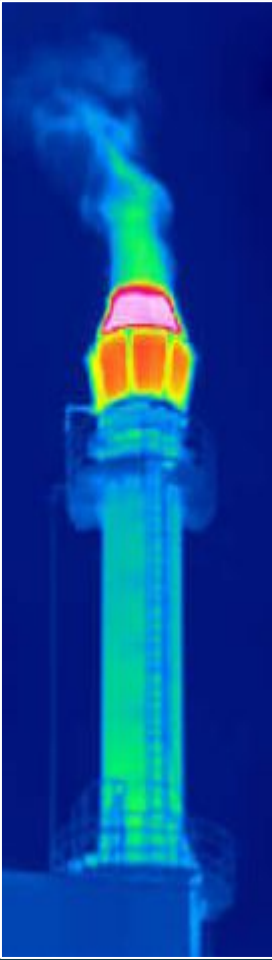
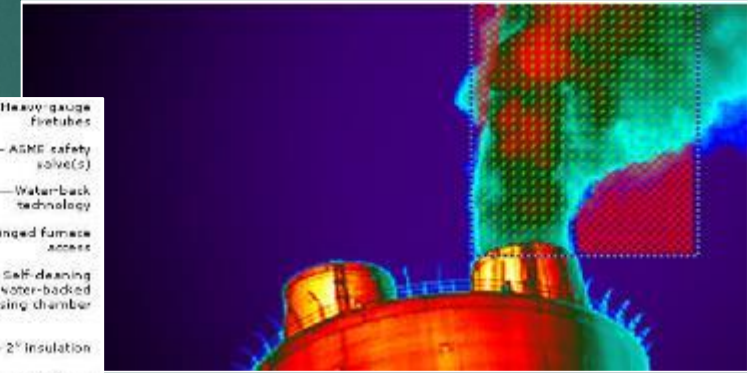
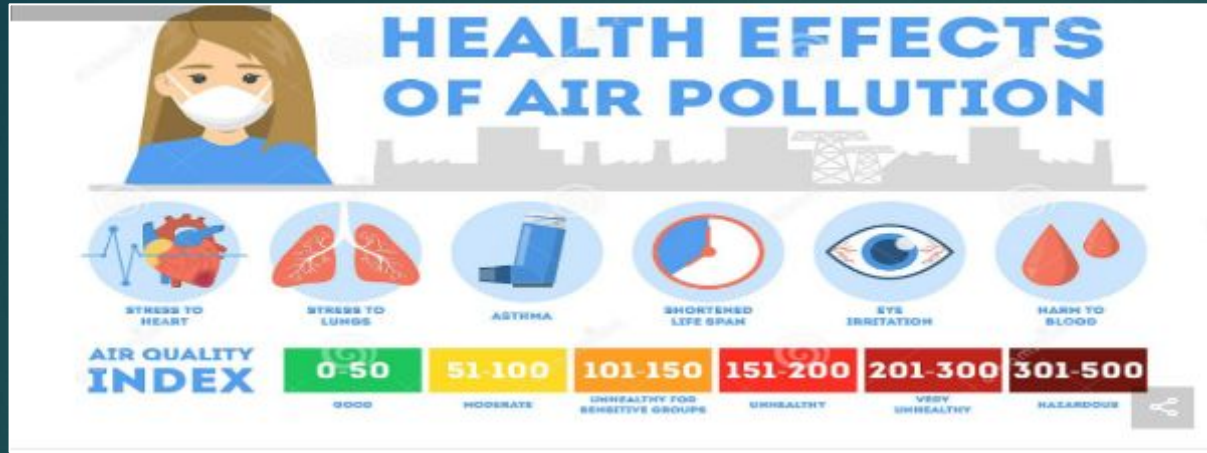
WATER QUALITY HEALTH ALERT

Statewide Sampling Results and More Information:
<http://deq.ne.gov>
(877) 283-2603
ndeq.beachwatch@nebraska.gov

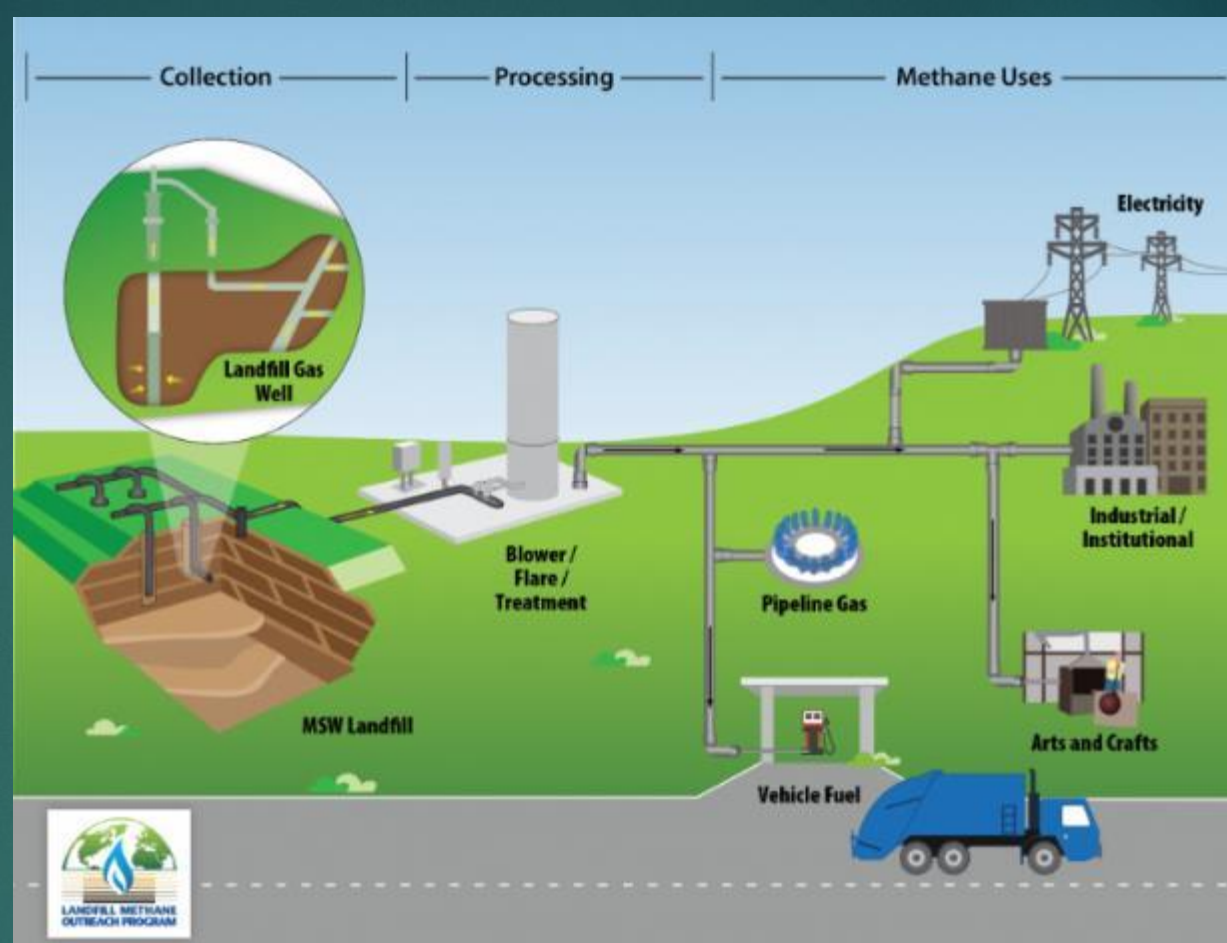
NEBRASKA



AIR



LAND & ENERGY





**FUN...CHALLENGING...REWARDING
AND SO MUCH MORE!!!!**

QUESTIONS???



Job Opportunities in Renewable Energy

Chris Jorgensen
October 30th, 2019

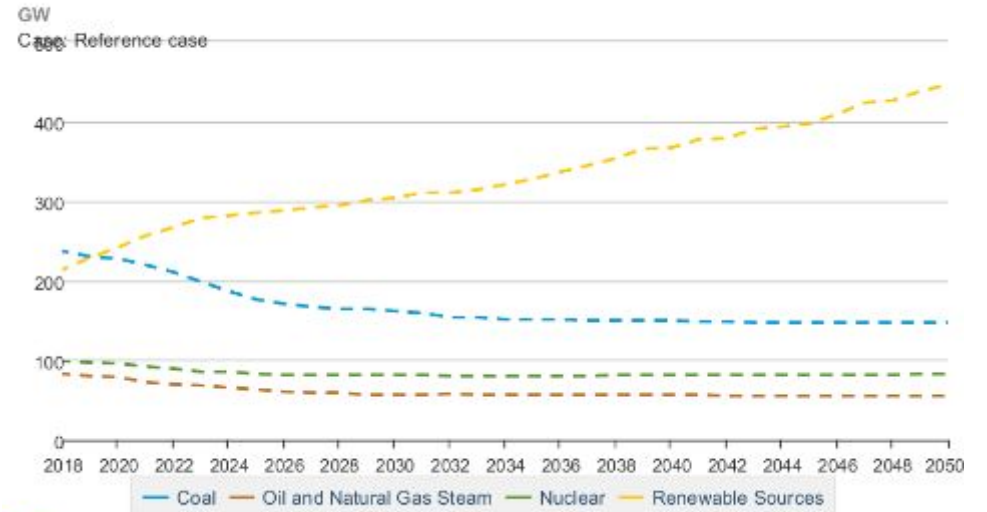


Renewable energy is the fastest growing energy source

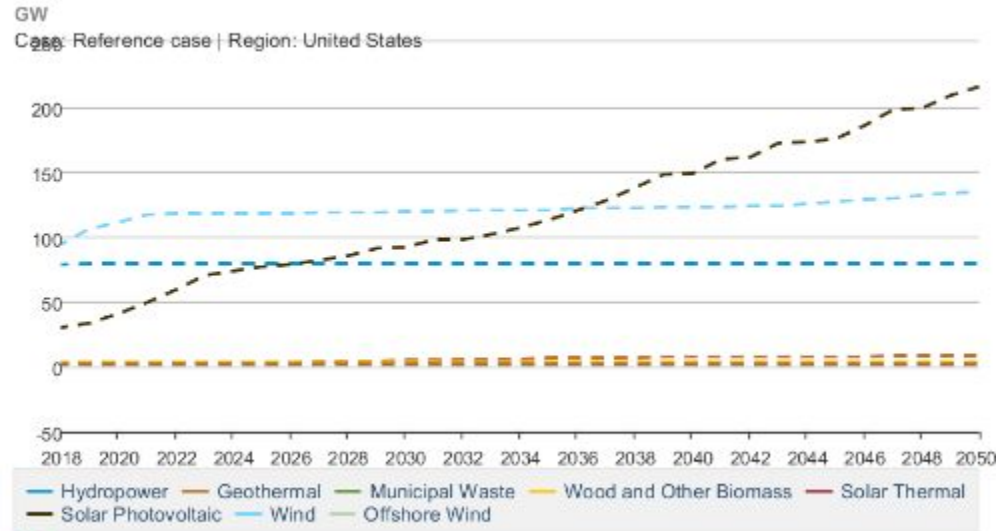
From 2018 to 2050, renewable energy generation is predicted to increase from 18% to 31% in the U.S.

U.S. Energy Information Administration 2019

Electricity Capacity: Electric Power Sector: Power Only



Renewable Energy: Electric Power Sector: Generating Capacity

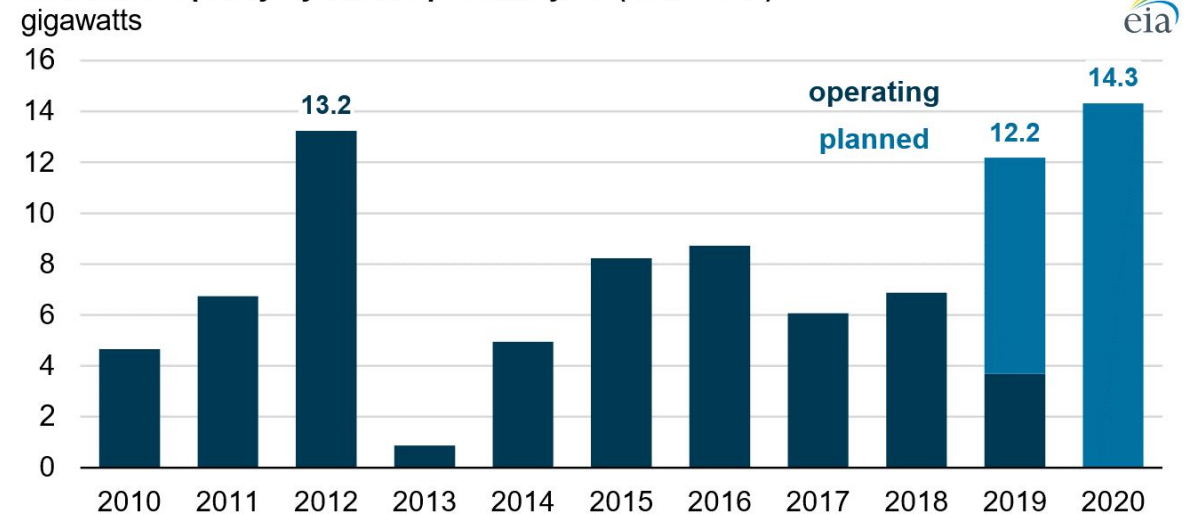


Source: U.S. Energy Information Administration

Solar power is expected to see the largest growth in generating capacity over the next 30 years

Wind capacity additions in both 2019 and in 2020 are expected to be near the annual record level set in 2012

U.S. wind capacity by initial operation year (2010-2020)



Source: U.S. Energy Information Administration, *Preliminary Monthly Electric Generator Inventory*

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An engineering and design firm with purpose.

ABOUT THE FOUNDATION FOR SUCCESS



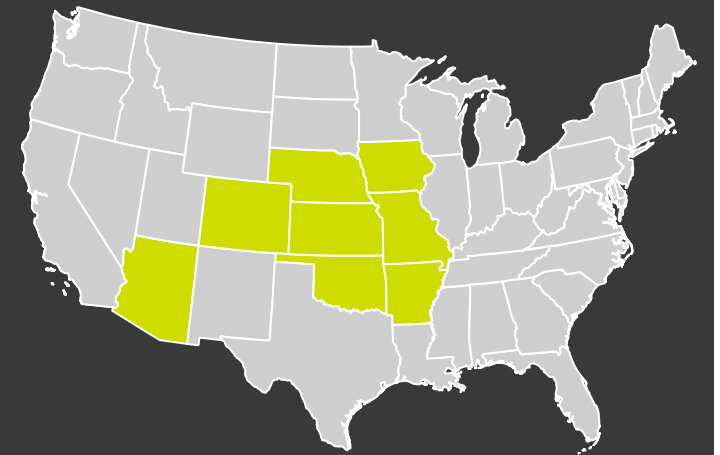
1956 ○

We've been improving communities since John E. Olsson's first project in 1956: a cemetery plat in Seward County, Nebraska, that earned his fledgling firm a mere \$56.

TODAY

EMPLOYEE'S
TODAY

1,100+





OUR PHILOSOPHY

We are Olsson, a team-based, purpose driven engineering and design firm. Our projects improve communities; our people make it possible.



We achieved Top 100 engineering firm status in the country in 2018, proving that tenacity, teamwork and a philanthropic mindset is a winning combination.

We exist to improve communities, making them more sustainable, better connected, and more efficient. Simply put, we exist to leave the world better than we found it.



MARKETS



SERVICES



Engineering



Environmental



Planning & Design



Field Services



Technology

olsson®

Environmental Services

- Experts in biology, ecology, geology, hydrology, and natural resources
- We work with our partners to navigate and proactively comply with complicated, ever-evolving regulatory processes, regulations, and permitting requirements at the local, state, and federal level



We serve our clients and communities by thoughtfully incorporating the environment into project design, allowing civilization and the natural world to coexist



Evolution of a Renewable Energy Project

- Pre-construction surveys
- During construction monitoring and compliance
- Post-construction monitoring



What you bring to the table

Collaboration



Eagerness to Learn

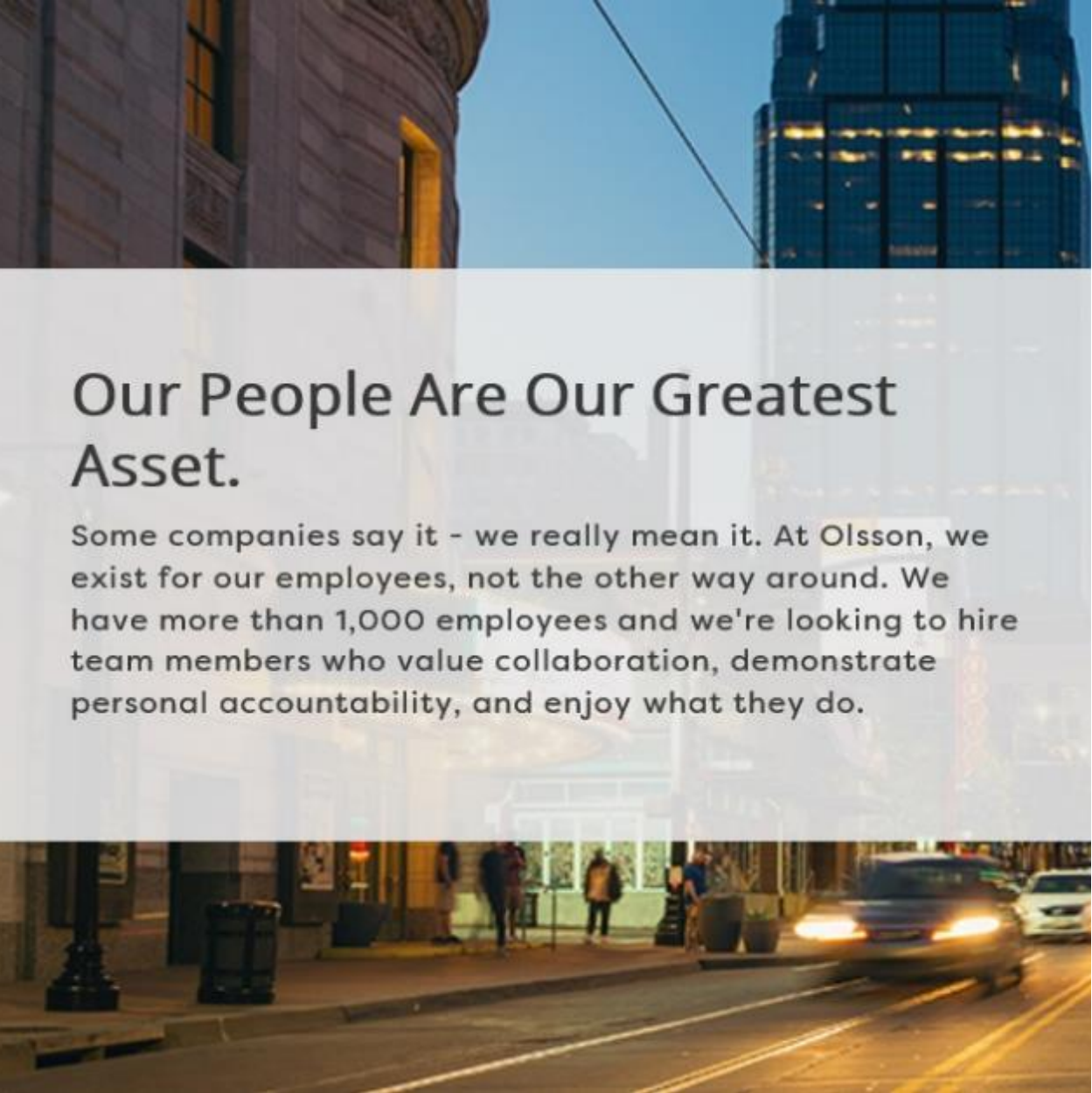


Innovation



Strong Skills





Our People Are Our Greatest Asset.

Some companies say it - we really mean it. At Olsson, we exist for our employees, not the other way around. We have more than 1,000 employees and we're looking to hire team members who value collaboration, demonstrate personal accountability, and enjoy what they do.

How to connect with us

- Explore and apply at [olsson.com](https://www.olsson.com)
- Look for us at upcoming campus events
- General applications are accepted
- Set job alerts on our website

olsson®



Wind Energy Program

October 30, 2019

Northeast
community college

Northeast
community college

Skill Based Training

With a wind industry theme.



Wind Energy Fundamentals

- History and future.
- Component identification
- Preventative and predictive maintenance procedures.
- Safety at heights-safe access and rescue



Electrical Skills

- Basic Electricity
- Motor controls
- Electronics II
- Control systems
- Programmable Logic Controllers
- SCADA



Mechanical Skills

- Mechanical Systems
- Fluid Fundamentals
- Mechanical Systems II
- Airfoils and Composite Repair



Safety Skills

- Electrical and Operations Safety- OSHA 10 Hr General
- First Aid and CPR
- Fundamentals Lab- Safe Access and Rescue



Alternative Skills

- Airfoils and composite repair Lab
- Power Generation and Distribution
- Wind Turbine Siting



Soft Skills

- Technical Math I and II
- Computer Applications
- Personal Finance
- Human Relations
- Business Communications



Team Building

- Involvement
- Inclusion
- Cooperation
- Community
- Fun
- Family





Jobs

- Immediate employment
- Local jobs starting \$20 + per hour.
- Room for rapid advancement
- Site tech, traveling tech (domestic and international), construction, blade tech, and so much more.

Northeast
community college

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