

DEVELOPING MINNESOTA'S ENERGY WORKFORCE

Powering the future.



MINNESOTA STATE
Energy Center of Excellence

Introductions

Rose Patzer

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Bruce Peterson

Energy Careers Academy Manager, Minnesota State Energy Center of Excellence

Tony Gagliardo

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Doug Barber

Director of Maintenance & Technical and Energy Supply Training, Xcel Energy

DeCarlo Canty

Student, Energy Careers Academy

Marcus Davis

Student, Energy Careers Academy



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Overview

About the Minnesota State Energy Center of Excellence

Developing the Energy Workforce in Minnesota

- Minnesota Energy Consortium
- Solar Camp
- Program Funding and Development
- Outreach and Inspiration
- Energy Education for Educators

Innovation in Collaboration

- Energy Careers Academy

Questions and Answers



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Our Mission in Action

Engaging Industry.

Minnesota Energy Consortium host and leader. The Minnesota connection to the Center for Energy Workforce Development.

Enhancing Education.

K-12 labs, customized training opportunities, and curriculum alignment.

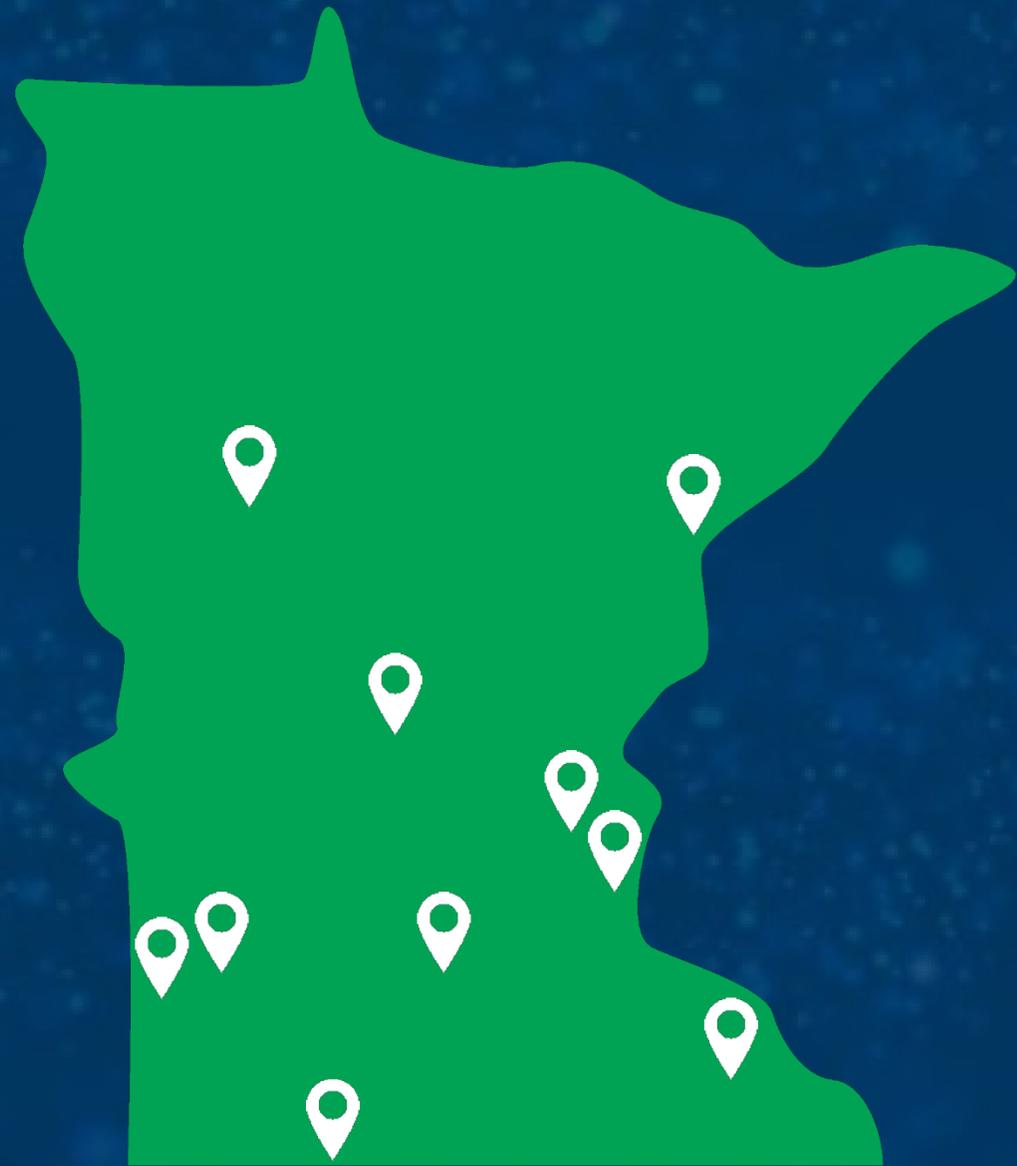
Inspiring Students.

Energy Trailer, mobile classroom, career fairs and field demonstrations.



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Energy Programs in MN



12 Campuses
30 Programs



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Energy Programs in MN

Solar Technology Programs

Advanced Solar Photovoltaic Energy Systems
 Certificate 30 Credits, 1 Year
 Century College White Bear

Solar Assessor
 Certificate 16 Credits, 1 Year
 Century College White Bear

Solar Sales and Marketing
 Certificate 16 Credits, 1 Year
 Century College White Bear

Advanced Solar Thermal Energy Systems
 Certificate 30 Credits, 1 Year
 Century College White Bear

Solar Photovoltaic Technician
 Certificate 25 Credits, 1 Year
 MN West Canby

Clean Energy Careers

Wind Energy Technology
 A.A.S. 60 Credits, 2 Years
 MN West Canby

Wind Energy Mechanic
 Diploma 34 Credits, 1 Year
 MN West Canby

Windsmith
 Certificate 16 Credits, 1 Year
 MN West Canby

Biofuels Technology Biodiesel
 Certificate 18 Credits, 1 Year
 MN West Granite Falls

Biofuels Technology Ethanol
 Certificate 18 Credits, 1 Year
 MN West Granite Falls

Renewable Energy
 Certificate 9 Credits, 1 Year
 MSU, Mankato Mankato

Clean Energy Technician
 Certificate 21 Credits, 1 Year
 FDLTCC Cloquet

Powerline Technician Programs

Electrical Lineworker
 A.A.S. 60 Credits, 2 Years
 DCTC Rosemount

Electrical Lineworker
 Diploma 45 Credits, 2 Years
 DCTC Rosemount

Electrical Lineworker Technology
 A.A.S. 68 Credits, 2 Years
 M State Wadena

Electrical Lineworker Technology
 Diploma 36 Credits, 1 Year
 M State Wadena
 M State *Minneapolis

Powerline Technology
 A.A.S. 64 Credits, 2 Years
 MN West Jackson

Powerline Technician
 Diploma 61 Credits, 2 Years
 MN West Granite Falls, Jackson

Powerline
 Diploma 38 Credits, 1 Year
 MN West Granite Falls, Jackson

Traditional Energy Careers

Electric Utility Technology
 A.A.S. 60 Credits, 2 Years
 FDLTCC Cloquet

Electric Utility Substation Technology
 A.A.S. 60 Credits, 2 Years
 MN West Jackson

Electric Utility Substation Technician
 Diploma 60 Credits, 2 Years
 MN West Jackson

Facility and Service Technology
 A.A.S. 69 Credits, 2 Years
 RCTC Rochester

Facility and Service Technology
 Diploma 69 Credits, 2 Years
 RCTC Rochester

Instrumentation & Process Control
 A.A.S. 60 Credits, 2 Years
 SCTCC St. Cloud

Energy Technical Specialist

Energy Technical Specialist
 A.A.S. 60 Credits, 2 Years

Century College
 White Bear Lake

Minnesota West
 Granite Falls

South Central College
 North Mankato

St. Cloud Technical and
 Community College
 St. Cloud

DEVELOPING THE ENERGY WORKFORCE IN MINNESOTA

Engage, Enhance, Inspire.



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Minnesota Energy Consortium

Industry, Businesses, Education, Non-Profits, and Government Agencies

- Over 15 years of industry engagement
- National Partner with the Center for Energy Workforce Development (CEWD)
- Industry led think tank for tackling MN unique workforce and talent needs

150+ Members Strong

- Steering Committee meets six times a year
- State of Energy Meeting happens twice a year

2023 Industry Challenges

- Workforce shortages continue
- New hires have less experience
- Employer offerings fall short of expectations
- Candidate Ghosting



Solar Camp

Open to ALL Minnesota State Electrical Students

- Twelve Students Completed the Program
- One Online Course March-May, Three Weeks on Site
- Free Room and Board
- Industry and Employer Engagement
 - Sponsored Meals
 - Project Showcase and Demos



Program Funding & Development

Solar For Schools Grant

- Minnesota West at Canby
- Student training and learning opportunity

FY 24 Congressionally Directed Spending Request

- Electric Vehicle Charger Technician Program
 - Five Campuses
- \$1.7 Million Request
 - Equipment
 - Lab Renovations
 - Instructor Training
 - Curriculum Development



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Program Funding & Development

Exploring Additional Offerings and Programs

- Battery Storage Programming
- Solar Skills Trainings in Minneapolis
- Hydrogen Economy



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Outreach and Inspiration Events

State Fair, Recharge MN, State FFA Career Connections

- Regional and Statewide Awareness and Influence

CTE Works! Summit

- Investment and Professional Development for Career and Technical Training

Career Exploration Events

- High School Career Fairs
- Job Fairs for Targeted Populations
- Career Exploration Workshops and Engagements



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Energy Education for Educators

Free K-12 Educator Workshop

- June 12-13, 2023, St. Cloud MN
- June 14-15 2023, Marshall MN

Benefits

- 16 CEU's
- Industry Tours
- Lunches and One Night's Stay
- Curriculum Resources
- Free Lab Kits for Classrooms
- Access to our Mobile Energy Classroom

Registration Open Through May 11



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INNOVATION IN COLLABORATION

Industry and Education



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Energy Careers Academy



Minnesota State
Community and Technical College



Energy Careers Academy

Meeting the Challenge

- Answer to the PUC call for a more diverse energy workforce
 - Matching Xcel's commitment to a diverse workforce and engaged communities
- Creating metro access to energy career training
- Recruitment efforts focused on students of color, women, and veterans

Developing Key Partnerships

- Minnesota State Community and Technical College
- Xcel Energy

Eleven Students are Currently Enrolled in Powerline Program

- Accelerated Degree
- On site instruction delivery and coaching at Xcel Energy

Gas Utility Program to Start Fall 2023



Minnesota State
Community and Technical College



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Energy Careers Academy

Systems and Support from M State

- Faculty and Curriculum
 - Accreditation
 - Degree requirements and validation
- Support Services
 - Connections to campus
 - Advising and career placement
 - Social work and counseling
 - Financial resources

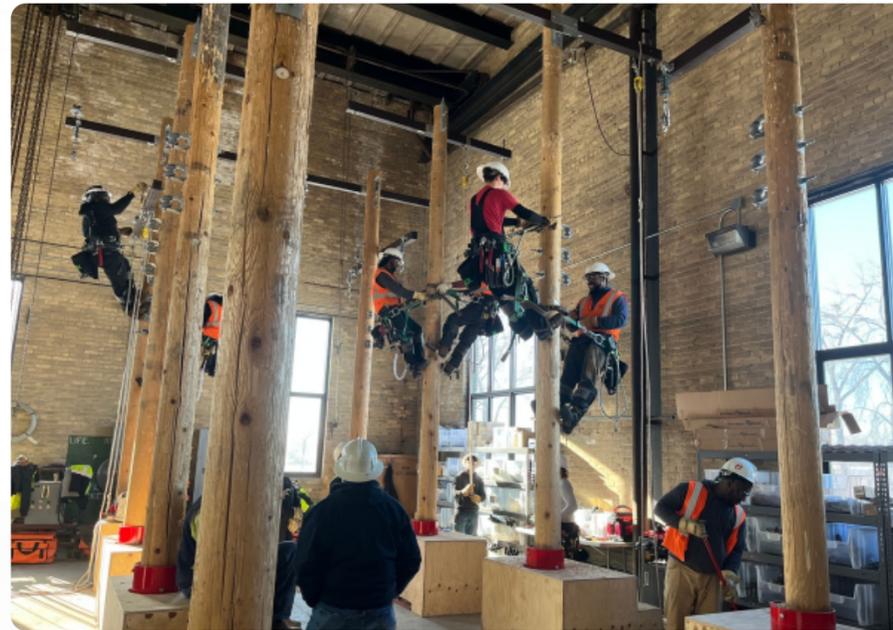
Facilities, Equipment, Commitment and Mentorship from Xcel Energy

- Training facilities in North Minneapolis on a live generation plant
- Commitment to building and lifting service communities
- Real world training and equipment
- Building industry connections and networks



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Energy Careers Academy



DeCarlo Canty



Marcus Davis



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Fundraising for the Future

- Student support needs
- Additional equipment
- Operating and staffing costs
- New program development

Student Recruitment Events

- Community events and career fairs
- Referrals, Word of Mouth, and Social Media

Graduation

- Monday, May 8, 2023
- 6:00 p.m.
- Minneapolis Central Library



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Thank You!

Questions?

Connect With Us

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Minnesota State is an [affirmative action, equal opportunity employer and educator.](#)

