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Massachusetts Climate Careers: Powering the Future

Climate Hero Spotlight: Wind Turbine Technicians



Opening Activity



Why would each of these items be necessary for keeping wind turbine technicians safe?



Today's Agenda

- The Big Question and My Climate Goals
- Intro to Wind Turbine Technician Roles
- Climate Watch and Discussion
- Turbine Troubleshoot Challenge
- Key Takeaways and Closing



The Big Question

How are wind turbine technicians essential to the offshore wind industry and our energy goals in Massachusetts?





My Climate Goals

When you finish this lesson, you'll be able to:

1. Understand wind turbine technician roles and contributions to clean energy.
2. Recognize the link between climate goals and the need for wind turbine technicians.
3. Explore the skills, training, and pathways for wind turbine technician careers.
4. Connect personal interests to possible roles in wind turbine technology.



Climate Watch: Video



Courtesy XXXXXX





Climate Watch Discussion

1. What stood out to you or surprised you about the work of a wind technician?
2. Wind technicians describe their role as mainly proactive and preventative. Why are those operations critical?
3. What skills or expertise seem important to have as a wind technician?

Wind Turbine Technicians

- Climb and inspect turbine towers.
- Replace mechanical, hydraulic, and electrical components.
- Test and analyze turbine performance.
- Train new technicians in safety and operations.



Courtesy XXXXXX





Related Roles

1. **Engineers** design and test wind turbine components.
2. **Electricians** connect wind energy systems to the grid.
3. **Assemblers** manufacture and assemble wind turbine parts.





Wind Energy Goals

- Generate 5,600 megawatts* from offshore wind by 2027.
- Install and maintain at least 120 offshore wind turbines over the next 25–30 years.

** 5,600 megawatts of wind energy will power more than 5 million houses!*



Skills and Knowledge

- Physical fitness and endurance
- Mechanical, electrical, and hydraulic systems knowledge
- Attention to safety and detail
- Willingness to work at heights





Training Pathways

- Apprenticeships
- Vocational programs





Turbine Troubleshoot Challenge

Oh no! One of our turbines isn't working correctly!

As a group, you must:

1. Identify the issue.
2. List the safety considerations.
3. Identify the necessary skills and expertise to fix the problem.
4. Present your plan to the class.



Activity Debrief

- What was most challenging about identifying the cause of the problem?
- How does the speed of problem-solving contribute to energy reliability?
- What role does safety play in a wind turbine technician's day-to-day work?



Key Points

- Wind turbine technicians are essential to expanding wind energy in Massachusetts.
- They need a combination of technical skills and physical endurance.
- Demand for technicians is growing due to the state's clean energy goals.





Closing Activity

Before You Go

1. What is one aspect of this role that matches your skills or interests?
2. How does this role contribute to Massachusetts's status as a climate leader?



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