WIND FOR SCHOOLS

Wind energy's contribution to U.S. electricity grows every year. U.S. Department of Energy research says wind could provide up to 20% of the United States' electricity mix by 2030 and 35% by 2050.[1] As wind energy companies grow to reach this potential—and to meet America's demand for clean, renewable energy—wind energy has the potential to provide an increasing number of jobs in the future.

Wind Energy Could Be In Your Future

The path to a rewarding career in wind energy starts before you fill out a college application. It begins in your own backyard. It begins in your classroom. **It begins now.**

U.S. DEPARTMENT OF ENERGY

Office of ENERGY EFFICIENCY & RENEWABLE ENERGY

[1]Wind VIsion: A New Era for Wind Power in the United States: https://www.energy.gov/eere/wind/maps/wind-vision

WIND FOR SCHOOLS


FUTURE WIND ENERGY RESEARCHER


FUTURE WIND ENERGY ENGINEER


FUTURE WIND ENERGY PLANT OWNER

BRINGING WIND TO SCHOOLS

The growing wind industry is creating thousands of good-paying jobs. According to current data from the U.S. Bureau of Labor Statistics, one of the fastest-growing jobs in the country is "wind turbine technician." But this is just the start, with other wind-related careers in research, engineering, business, and more.[2]

The sooner you begin your wind energy education, the sooner you're on your way to a fulfilling career in this field. That's why the U.S. Department of Energy developed the Wind for Schools project. By delivering hands-on learning opportunities, new educational tools, and curricula, this project generates interest in wind energy but also prepares students like you for careers in a growing industry.

Wind for Schools gives you the opportunity to experience hands-on activities designed to connect you with this exciting technology that helps diversify our nation's energy sources. With the help of your teacher, you and your classmates can engage in interactive research tasks, exercises, and discussions that will encourage your participation in this clean energy field.

Don't Wait!

Talk to your teacher about bringing the Wind for Schools project into your classroom.

[2]Wind Energy Technologies Office Wind Career Map: https://www.energy.gov/eere/wind/wind-career-map

And now it's time for... WiND TRIVIA

1 What causes wind?
a. The sun heating the atmosphere
b. Rotation of the Earth
c. Variations in the Earth's surface
d. All of the above

2 Which of the following are early recorded uses of windmills?[3]
a. Generating electricity
b. Jousting
c. Pumping water
d. Grinding grain

3 Which of these is NOT part of a modern wind turbine?
a. Compressor
b. Gearbox
c. Nacelle
d. Yaw drive

4 Which state has the highest installed capacity of wind energy?
a. Iowa
b. Kansas
c. South Dakota
d. Texas

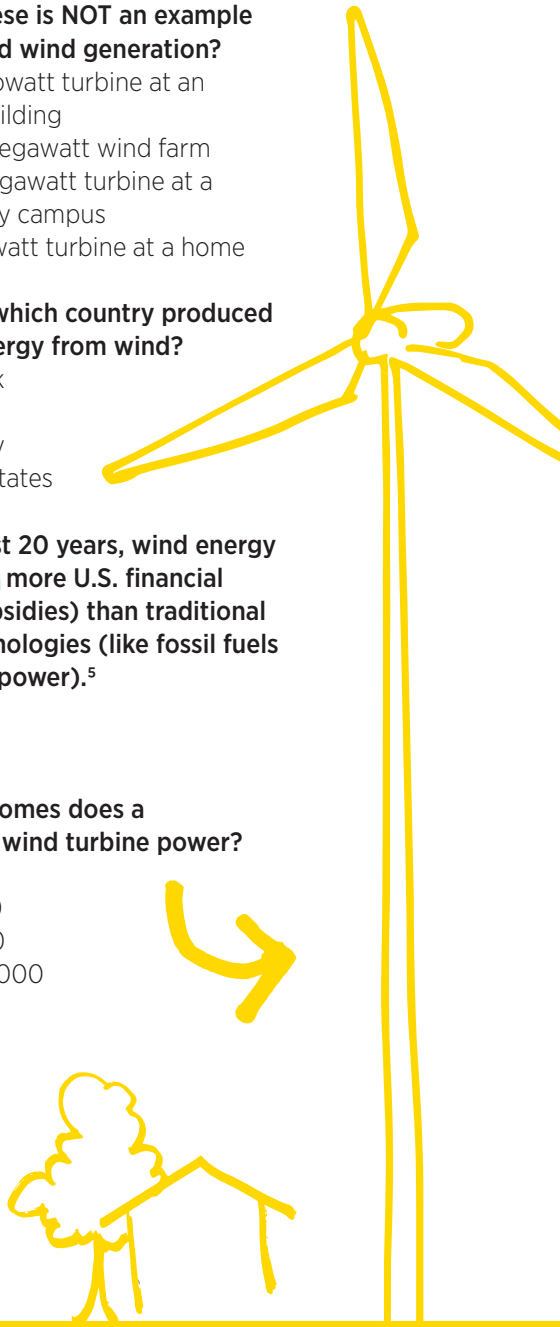
5 How many jobs were supported by the U.S. wind power industry in 2018?[4]
a. 11,000
b. 36,000
c. 55,000
d. 114,000

6 Which of these is NOT an example of distributed wind generation?
a. A 50-kilowatt turbine at an office building
b. A 100-megawatt wind farm
c. A 1.5-megawatt turbine at a university campus
d. A 5-kilowatt turbine at a home

7 As of 2018, which country produced the most energy from wind?
a. Denmark
b. China
c. Germany
d. United States

8 Over the past 20 years, wind energy has received more U.S. financial support (subsidies) than traditional energy technologies (like fossil fuels and nuclear power).[5]
a. True
b. False

9 How many homes does a 2-megawatt wind turbine power?
a. 10–20
b. 100–400
c. 500–700
d. 1,000–5,000



ANSWERS

1. d. All of the above
2. c and d
3. a. Compressor
4. d. Texas
5. d. 114,000
6. b. A 100-megawatt wind farm
7. b. China
8. b. False
9. c. 500-700

[3]U.S. Energy Information Administration Wind Explained: https://www.eia.gov/energyexplained/index.php?page=wind_history

[4]American Wind Energy Association: https://www.awea.org/resources/publications-and-reports/market-reports/2018-u-s-wind-industry-market-reports/usamr2018_executivesummary

[5]U.S. Energy Information Administration Analysis and Projections: https://www.eia.gov/analysis/requests/subsidy/

WIND FOR SCHOOLS

Designed for Educators Like You

As an educator, you play a key role in developing the wind industry workforce of the future.

The Wind for Schools project offers valuable resources you'll need to do this. From hands-on, interactive wind energy curricula to teacher-training workshops in your state, Wind for Schools supports your students' success through you.

Start a Wind for Schools Affiliate Project at Your School

Wind for Schools affiliate projects let schools leverage existing materials to implement activities. By joining the Wind for Schools affiliate project, you and your school will have access to:

- Age-based wind energy curricula
- Free Wind for Schools teaching tools
- Scholarships for teacher training
- Advice on how to fund your own turbine installation
- The Wind Application Center network
- Data-collection equipment connected to the Wind for Schools network.

An exciting way to engage your students in learning about wind energy is to install a small wind turbine at your school. More than 145 schools have installed turbines, giving their students the opportunity to study and experience an actual system that also provides power to their school. The connection to the Wind for Schools network allows you to compare your energy data to that of other school turbines.

Help your students prepare for a future in the promising wind energy industry. Contact Wind for Schools today.

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Visit windexchange.energy.gov/windforschools

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