

**By 2030, Oklahoma will be the second-largest generator of wind power in the nation.**

(Source: National Renewable Energy Laboratory)

## Access to Market

The vast wind resource in Oklahoma positions the state as one of the primary markets for wind development in the U.S. According to the Oklahoma Wind Power Initiative (OWPI) Oklahoma has about 2.3 times more wind energy potential per square mile than Texas. In addition, Oklahoma's central location in the heart of North America's wind corridor provides immediate access to the nation's wind energy market.

## Training and Education

Wind industry and related education and training programs are offered by Oklahoma's colleges, universities and technology centers:

- Wind turbine technician training
- Pre-engineering alternative energy and alternative power options
- OSHA approved safety training for incumbent wind turbine technicians
- Associate in Applied Science degree in wind turbine technology
- Introductory courses detailing the wind industry
- SCADA systems training
- Composites manufacturing with turbine blade capabilities
- Electronics technology-alternative energy option
- Meteorology and climate science undergraduate and graduate degrees
- Internships for university students with various wind power developers active in Oklahoma
- Standardized wind technician safety curriculum and training system will be available in Oklahoma by 2012

## Oklahoma's Wind Supply Chain

From castings, machining and composites to forges, fabrications, and risk management services, your potential suppliers are right here in Oklahoma. There are more than 500 Oklahoma companies equipped and ready to supply products and services to the wind industry. *"If you look at all the manufacturing possibilities, Oklahoma is one of the highest-potential states," said Ed McCallum, Senior Principal Partner, McCallum-Sweeney Consulting.*

## Reliable and Skilled Workforce

Oklahoma's certified, skills-tested workforce supports and ensures your wind energy company's success. *"In Oklahoma, DMI assembled a tremendous workforce, bringing people from a number of different manufacturing capacities," said DMI's General Manager Kevin Ishmael. "We couldn't be more proud of our workers and their accomplishments."*

## Oklahoma's World-Class R&D Support

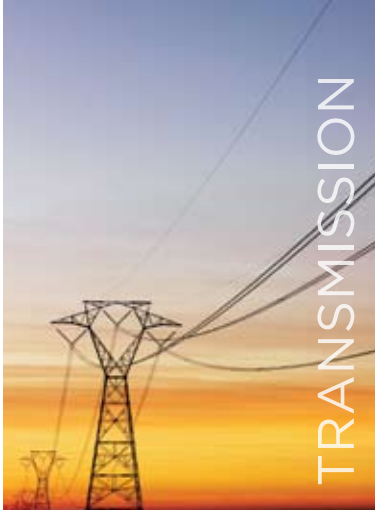
The Oklahoma Wind Power Initiative (OWPI), a joint research project between the University of Oklahoma and Oklahoma State University, provides critical information and resources to energy investors and Oklahoma wind energy stakeholders.

Weather Sphere is an international leader in meteorological and climate science research, technology development, and commercialization partnerships. More than 38 weather-related companies, agencies, and units from university, federal, state, and private-industry sectors work seamlessly together on a variety of research and commercialization activities.

Helmerich Advanced Technology Research Center at the Oklahoma State University-Tulsa campus plays a leading role in the development and commercialization of the next generation of composites and materials for advanced manufacturing. Helmerich ATRC will develop new materials from the application of nanotechnology to ceramics, composites, aerospace and blade materials, polymers and metals.

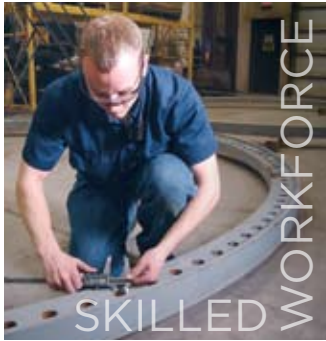
## Available, Skilled, Affordable Workforce Occupation

Occupation	2008 Jobs	Oklahoma Median Hourly Earnings	National Median Hourly Earnings
Transportation, Storage and Distribution Managers	1,328	\$22.46	\$34.01
Construction Managers	10,466	\$13.90	\$20.83
Logisticians	1,776	\$29.91	\$30.69
Aerospace Engineers	753	\$39.12	\$43.50
Chemical Engineers	216	\$33.25	\$38.90
Materials Engineers	156	\$27.64	\$36.92
Electrical Engineers	947	\$31.75	\$37.35
Mechanical Engineers	2,162	\$31.97	\$34.31
Production, Planning, and Expediting Clerks	3,750	\$19.07	\$19.05
Shipping, Receiving, and Traffic Clerks	7,528	\$12.14	\$13.00
Weighers, Measurers, Checkers and Samplers, Recordkeeping	707	\$10.54	\$12.52
First-line Supervisors/Managers of Mechanics, Installers and Repairers	5,497	\$23.71	\$26.01
Welders, Cutters, Solderers and Brazers	10,615	\$14.14	\$15.42
Power Plant Operators, Distributors and Dispatchers	628	\$27.92	\$28.56
Source: EMSI Complete Employment - Spring 2009	46,388	\$17.68	\$21.34



# OKLAHOMA IS: WIND ENERGY

And the best location in North America for your wind energy business.



**OKLAHOMA**  
DEPARTMENT OF COMMERCE

# IS:

# PRO-BUSINESS

## The Best Incentive Package in the Nation



Oklahoma is globally recognized for its outstanding incentive program and pro-business environment. Businesses can choose between a cash incentive or a tax credit package, and in some cases, qualifying businesses can take advantage of both programs.

### Quality Jobs 10-Year Cash Incentive

This incentive targets manufacturers and certain service industries that have a new payroll investment of \$2.5 million or more to receive a quarterly cash payment of up to 5% of new taxable payroll. A lower payroll threshold is available for certain research and development projects as a result of locating in targeted areas. Qualifying average wage requirements vary between counties, but do not exceed \$29,409.

### Investment / New Jobs Tax Credit Package

Targeted primarily to manufacturing companies, the incentive allows a five-year tax credit on the greater of 1% per year of investment in qualified new depreciable property or a credit of \$500 per year per new job, doubled in an Enterprise Zone.

### 21st Century Quality Jobs

Oklahoma recently enacted 21<sup>st</sup> Century Quality Jobs which will offer incentives to businesses with a highly skilled, knowledge-based workforce. As you expand your U.S. presence, your headquarters and/or R&D facility could qualify for this unique incentive that would pay your business cash back for up to 10% of your payroll for up to 10 years.

*Oklahoma is ranked fifth lowest in the nation for state and local taxes, and much lower than states in the Midwest, and on the east and west coasts.*  
 – Source: [Economy.com](http://Economy.com)

### Statewide Graduates & Enrollments (In Fields Relevant to Wind Manufacturing)

Program	Five-Year Average	
	Average Degrees Conferred Annually	Freshman Through Senior Enrollment
Engineering	1,086	6,767
Computer Support	722	3,988
Electrical, Mechanic & Other Support	727	3,789
<b>Grand Total</b>	<b>2,535</b>	<b>14,544</b>

### National Cost of Doing Business Comparison

	Overall Costs	Unit Labor Costs
Oklahoma	18th Lowest	20th Lowest
Texas	24th Lowest	28th Lowest
Kansas	27th Lowest	32nd Lowest
Illinois	32nd Lowest	42nd Lowest
California	49th Lowest	49th Lowest
New Jersey	45th Lowest	46th Lowest
Alabama	20th Lowest	27th Lowest
Connecticut	43rd Lowest	40th Lowest

**“Oklahoma is known for its oil and natural gas reserves, but it is also becoming known for its vast capacity for renewable energy. It already ranks in the top 10 U.S. states for wind energy potential. Red Hills Wind Farm represents a big step for ACCIONA and the state of Oklahoma in realizing this potential.”**

**- Peter Duprey, CEO, ACCIONA Energy North America**

## **More Reasons to Choose Oklahoma**

### **Five-Year Ad Valorem Tax Exemption**

Available for advanced manufacturing, research and development, warehouse and distribution, certain computer/data processing services, refineries, aircraft maintenance and repair, and wind power and other renewable/alternative energy.

### **Customized Employee Training**

Oklahoma's nationally lauded Training for Industry Program (TIP) is a no-cost/low-cost way for companies creating jobs in Oklahoma to get a skilled, focused, and motivated workforce. Offered through CareerTech, TIP offers a variety of customized services including:

- Job Analysis and Training Needs Assessment
- Instructional Materials and Development
- Instructors
- Training Facilities
- Pre-employment training to demonstrate the skills of potential employees before they're hired
- Post-employment technical and team-based training

### **Sales Tax Exemptions**

#### **Additional Incentives You May Qualify For:**

- Foreign Trade Zones
- Freeport Inventory Benefits
- Industrial Access Road Assistance
- State and Local Financing
- Enhanced Incentives for Locating in Opportunity or Enterprise Zones
- Accelerated Depreciation and Employment Tax Credits for locating on former Indian reservation lands

Photograph of ACCIONA's Red Hills Wind Farm courtesy of ACCIONA.



## **Regional Business Cost Comparison**

	Electric 1,000kw/40MWH	Natural Gas 1,000sf	Construction Index	New 50,000sf tilt up factory 25' ceiling per sf	Base Industrial Lease/sf	Land Costs sf/High
US Avg	\$33,046	\$11.03	100.00	\$104.05	N/A	N/A
OKC	\$21,135	\$9.33	83.10	\$84.97	\$4.25	\$3.44
Tulsa	\$23,995	\$9.33	79.60	\$79.83	\$3.00	\$3.21
Chicago	\$36,439	\$9.59	113.20	\$120.20	\$4.50	\$11.47
Dallas	\$43,810	\$9.46	84.30	\$85.44	\$3.50	\$5.00
Kansas City	\$22,681	\$11.56	100.50	\$105.03	\$3.50	\$4.59
Little Rock	\$32,895	\$11.10	84.70	\$86.63	\$4.20	\$2.50

Sources: 1. US DOE; Energy Information Administration

2. RS Means CostWorks

3. NAI Global Market Reports

# IS: WIND ENERGY

*From manufacturing to transportation, generation and transmission, the state of Oklahoma is Wind Energy.*

## ***Harness the Power of Oklahoma*** *Your Gateway to North America's Wind Corridor*

### ***Integrated Transportation Systems***

***Oklahoma has the capacity to deliver and receive wind components from every corner of the world.***

**By Road** Oklahoma industry is served by over 9,000 miles of highway. The state is a hub for I-35, I-40, I-44, US 69, and other major trade routes. In 2002, the trucking industry moved 320 million tons of freight in Oklahoma. By 2035, the amount of freight moved by truck is projected to grow to 549.5 million tons, a 71.7% increase.

**By Railway** Oklahoma operates approximately 3,853 miles of railroad track – including 2,536 miles of Class 1 service. Major rail providers are Union Pacific and Burlington Northern Santa Fe. Annually, Oklahoma's 19 freight railroads ship upwards of 225,884,348 tons of cargo and 5,042,498 carloads of freight.

**By Water** Oklahoma's strategic location is able to supply 20 states by waterway. With three inland ports, Oklahoma has ideal access to North America's growing wind clusters, including the U.S. south central states, east coast, the upper Midwest, Great Lakes states and the Gulf of Mexico, via the Mississippi River.

**By Air** Send or receive cargo from any point in the world. Oklahoma is home to 149 public-use airports, two international airports, both designated as Foreign Trade Zones, and seven airports offering commercial services.



*The Southwest Power Pool, a regional transmission organization, expects its nine-state region to produce 8,500 MW of wind power, with more than half coming from Oklahoma, between 2020 and 2025.*

### ***Transmission, a Powerful Component*** *Making the investment in the infrastructure.*

- Class 4 or higher wind power
- Woodward/OKC 345 kV transmission project (An OGE venture)
- Proposed Tallgrass 765 kV transmission project (A joint venture between OGE and ETA)
- Existing and proposed transmission lines





# WIND ENERGY: WHY OKLAHOMA?

- Central location in the heart of North America's wind corridor.
- Thriving, established manufacturing industry suited to wind component delivery.
- Skilled workforce trained specifically for wind energy manufacturing industry.
- Highly competitive cost of doing business.
- Assertive, business-friendly incentives.
- Integrated transportation systems.

## ***Ready to Grow Your Business?***

*Contact the Oklahoma Department of Commerce and learn why Oklahoma is the best location for your wind energy business.*



**OKLAHOMA**  
DEPARTMENT OF COMMERCE

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