About the American Wind Energy Association

AWEA is the national trade association of the U.S. wind energy industry. We represent 1,000 member companies and over 100,000 jobs in the U.S. economy, serving as a powerful voice for how wind works for America. Members include global leaders in wind power and energy development, turbine manufacturing, and component and service suppliers. They gather each year at the Western Hemisphere’s largest wind power trade show, the AWEA WINDPOWER® Conference & Exhibition. Find information about wind energy on the AWEA website, www.awea.org. Gain insight into industry issues on AWEA’s blog, Into the Wind. And please join us on Facebook, and follow @AWEA on Twitter.

ANNUAL MARKET REPORT

U.S. WIND INDUSTRY

EXECUTIVE SUMMARY

AUGUST 11-17

ANNUAL MARKET REPORT 2018
Wind is Powering America

The U.S. wind industry success story powered forward to reach new heights in 2018. U.S. wind capacity has increased nearly fourfold in the last 10 years to 96,433 MW. The rapid expansion of wind power in America is delivering affordable, reliable and clean energy to consumers, and economic and job growth across the nation.

Today, the U.S. wind industry powers more American homes and businesses than ever before and employs a record 114,000 men and women across all 50 states. The industry is at the center of a transformational change in the country’s electricity sector—a change that is bringing consumers affordable, clean, and reliability energy.

The U.S. is a Global Wind Power Leader

The U.S. is the second largest wind power market in the world, hosting 15% of new wind power capacity installed in 2018 and 16% of the global wind fleet. The global wind market is growing quickly, expanding 9.5% in 2018. Worldwide, there are now 591 GW of wind farms generating electricity.

Wind Reliably Supplies over 6.5% of America’s Electricity

Wind energy now delivers over 20% of the electricity produced in six states: Kansas, Iowa, Oklahoma, North Dakota, South Dakota, and Maine. In 2018, wind turbines generated 6.5% of the nation’s electricity. Installed U.S. wind capacity can power the equivalent of over 30 million American homes.

Wind Energy’s Share of Electricity Generation

Wind Energy’s Share of Electricity Generation

Top 5 Global Wind Power Markets

- China: 211,392 MW
- U.S.: 96,433 MW
- Germany: 59,503 MW
- India: 35,129 MW
- Spain: 23,494 MW

Wind Power Capacity (MW)

Source: AWEA, GWEC

Wind Energy’s Share of Electricity Generation

Source: EIA
Wind Benefits Every State

All 50 states are home to either a wind project or a wind-related manufacturing facility, and over 114,000 Americans have direct jobs in the wind industry. Over 500 wind-related manufacturing facilities make components for the wind industry, supporting over 24,000 U.S. factory jobs.

Wind Supports Local Communities

The U.S. wind industry is a major economic development driver, especially in rural areas. Every year, wind projects pay over $1 billion to state and local governments and private landowners, including $787 million in state and local tax payments.
Consumer Demand Drives Wind Energy Purchases

C&I buyers signed-up a record 4,203 MW of wind in 2018

Highest level of annual power purchase agreement activity on record: 8,547 MW

36% more wind power on its way with 35 GW in near-term pipeline

Wind Power is Red, White and Blue

Wind projects and wind-related manufacturing facilities are present in 69% of U.S. congressional districts, including 78% of Republican districts and 62% of Democratic districts. Wind power benefits all Americans through economic investment, homegrown energy, and clean air.

Congressional Districts with Online Wind Projects & Wind-related Manufacturing Facilities

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Legislative District</th>
<th>Wind Power Capacity Installed (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Texas-19 Rep. Jodey Arrington (R)</td>
<td>8,146</td>
</tr>
<tr>
<td>2</td>
<td>Oklahoma-3 Rep. Frank Lucas (R)</td>
<td>7,038</td>
</tr>
<tr>
<td>3</td>
<td>Texas-13 Rep. Mac Thornberry (R)</td>
<td>6,494</td>
</tr>
<tr>
<td>4</td>
<td>Iowa-4 Rep. Steve King (R)</td>
<td>5,050</td>
</tr>
<tr>
<td>5</td>
<td>Texas-11 Rep. Michael Conaway (R)</td>
<td>3,676</td>
</tr>
<tr>
<td>6</td>
<td>Kansas-1 Rep. Roger Conaway (R)</td>
<td>3,535</td>
</tr>
<tr>
<td>7</td>
<td>Colorado-4 Rep. Ken Buck (R)</td>
<td>3,372</td>
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<tr>
<td>8</td>
<td>California-23 Rep. Kevin McCarthy (R)</td>
<td>3,338</td>
</tr>
<tr>
<td>9</td>
<td>Oregon-2 Rep. Greg Walden (R)</td>
<td>3,213</td>
</tr>
<tr>
<td>10</td>
<td>North Dakota-1 Rep. Kelly Armstrong (R)</td>
<td>3,155</td>
</tr>
</tbody>
</table>
Wind industry contributes billions of dollars in project investment and invests heavily in local communities hosting wind farms. This investment creates career opportunities and property, state, and local tax revenues that help fund schools, roads, and emergency services.

Investing 12 billion dollars annually in new wind projects

Delivering $289 million in annual land lease payments

Creating the second fastest growing job in the country – wind turbine technician

Operating wind projects avoided 201 million metric tons of CO₂ in 2018 and helped avoid the use of 95 billion gallons of water. That is equivalent to 43 million cars worth of emissions and saving 308 gallons of water per person in the U.S.

Wind energy avoided 201 million metric tons of CO₂ per year

Equivalent to the emissions of 43 million cars

Wind energy avoided the consumption of 95 billion gallons of water

Equivalent to 308 gallons per person in the U.S.

Improved technology allows turbines to reach stronger, steadier winds, making them more productive while reducing project costs.

Evolution of the “Average” Utility-Scale Turbine

TODAY’S turbines are: 35% larger and produce 61% more electricity

At the end of 2018, the U.S. had a total potential offshore wind pipeline of over 25,000 MW spanning 10 states off the East and Great Lakes coasts.

Offshore Wind Energy Development in the U.S.
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