



AWEA U.S. Wind Industry Fourth Quarter 2012 Market Report

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EXECUTIVE SUMMARY

The U.S. wind energy industry had its strongest year ever in 2012, installing a record 13,124 megawatts (MW). A record-breaking 8,380 MW were installed during the fourth quarter alone. During 2012, utility-scale turbines were installed in 26 states and Puerto Rico.

The milestone of 60,000 MW was also reached just five months after AWEA announced in August that the U.S. industry had installed 50,000 MW. There are now 60,007 MW across 39 states plus Puerto Rico.



Table of Contents

Summary	3
Reaching 60 GW	4
U.S. Annual and Cumulative Wind Power Growth	5
U.S. Wind Power Capacity Installations by Quarter	6
U.S. Wind Power Capacity Installations, Top States	7
U.S. Wind Power Capacity Installations by State	8
Wind Project Locations	9
Wind Power Capacity Under Construction	10

Summary

Projects Online Fourth Quarter 2012

- The U.S. wind industry installed 8,380 megawatts (MW) during the fourth quarter of 2012 bringing the total U.S. wind power capacity installations to 60,007 MW and 2012 installations to 13,124 MW. There are now more than 45,100 wind turbines installed across the U.S.
- The U.S. wind industry more than doubled its previous high quarter for installations, going from 4,113 MW during the fourth quarter of 2009 to 8,384 MW during the fourth quarter of 2012.
- During the fourth quarter of 2012, Texas led the nation in new wind installations with 1,289 MW, followed by California, Kansas, Oklahoma and Iowa.
- Over the entire year, four states installed more than 1,000 MW. Texas led with 1,826 MW, California came in second place with 1,656 MW, Kansas installed 1,440 MW and Oklahoma installed 1,127 MW. Illinois rounded out the top five with 823 MW.
- The 4,414 turbines installed during the fourth quarter of 2012 had an average turbine rating of 1.92 MW. In 2012, there were 6,743 turbines installed with an average turbine rating of 1.95 MW. More than 1,000 of these turbines were on a hub height of 100 meters.
- The fourth quarter saw the installation of at least 107 projects across 26 states plus Puerto Rico. At least 190 projects were installed across 32 states and Puerto Rico were installed during 2012.
- Turbines from 16 different manufacturers, ranging from 750 kW to 3.6 MW were installed during the fourth quarter of 2012, and turbines from 25 different manufacturers were installed during 2012.
- At least 60 owners brought projects online during the fourth quarter of 2012, and over 105 owners brought online projects during 2012.
- Wind energy became the number source of new U.S. electricity generating capacity for the first time, providing some 42% of all new generating capacity; the final tally will be released in April in AWEA's annual report. In fact, 2012 was a strong year for all renewables, as together they accounted for over 55 % of all new U.S. generating capacity.

Projects Under Construction

- There are currently 42.91 MW under construction in two states.

Power Offtake

- For projects that came online during 2012, 10% of the MW are utility-owned and 90% are owned by independent power producers (IPPs). Among IPP-owned MW, 84% of the capacity has a power-purchase agreement and 16% of the MW is being sold on the spot or short-term market.
- Wind is an eligible generating resource for at least 28 different RFPs for capacity or RECs issued in 2012.
- At least 66 utilities own or have contracted wind from projects currently online during 2012, whereas projects that came online during the fourth quarter are owned by or have long term PPAs with at least 45 utilities.
- There was a rise in industrial offtakers of wind power, with at least 18 companies purchasing wind under long term PPA or direct ownership from on-site generators. At least 11 schools and universities, and eight towns or cities also joined the list of nontraditional power purchasers.

Reaching 60 GW

What does 60 GW mean?

- Powers the equivalent of **14.7 million American homes**, or the number of homes in Colorado, Iowa, Maryland, Michigan, Nevada and Ohio combined.
- Represents **\$120 billion of investment** in the U.S.
- Provides electricity generation equivalent to **14 nuclear power plants** or **52 coal plants**
- Each year, wind energy produces electricity equivalent to burning **320 million barrels of oil**
- Avoids **95.9 million tons of CO2**, or roughly 4.2% of the CO2 emissions of the entire power sector
- This CO2 avoidance is the same as taking **17.5 million cars off the road**
- Avoids the consumption of **36.6 billion gallons of water** annually

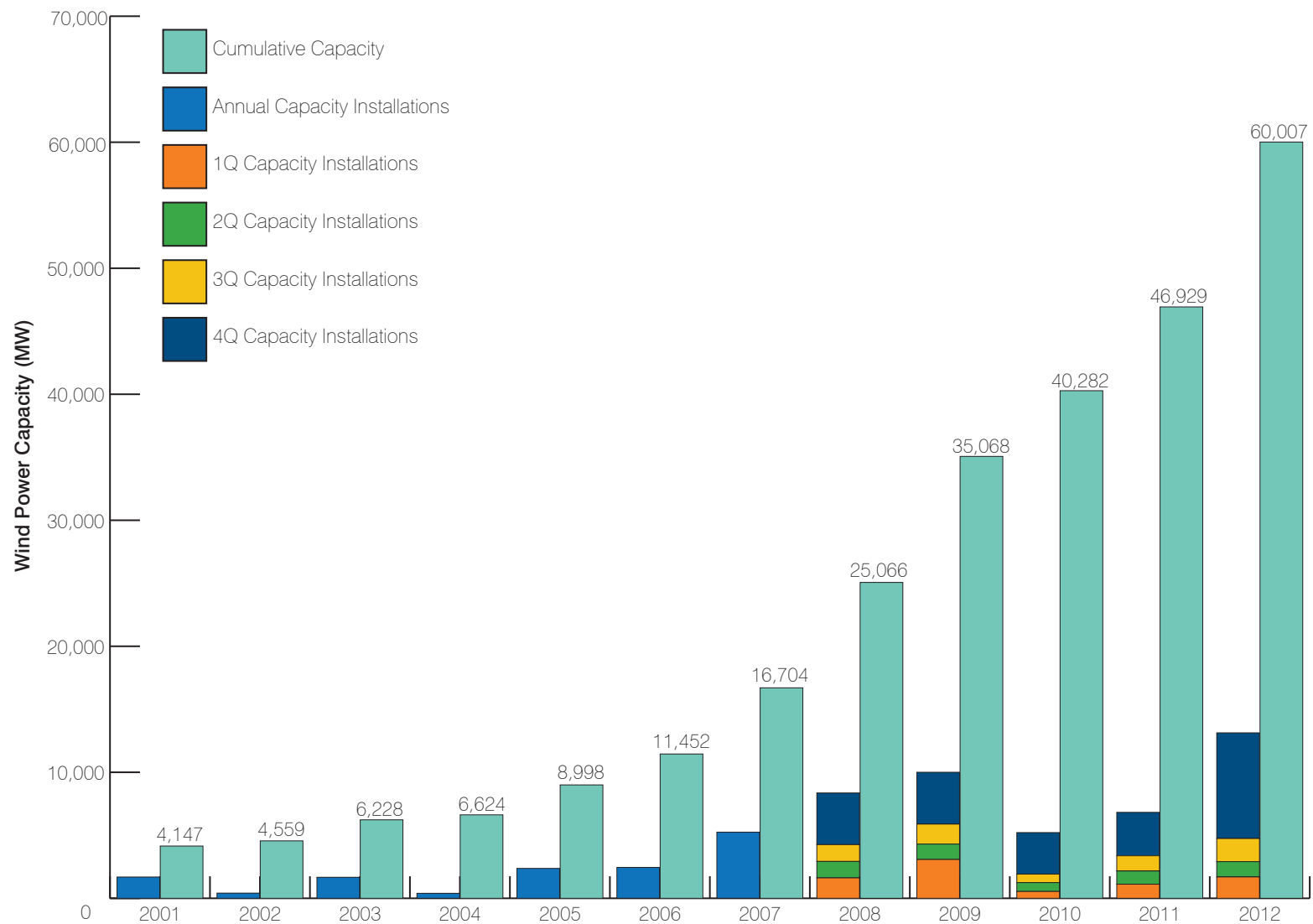
What does 60 GW look like?

- More than **45,100 wind turbines** ranging from less than 100 kW machines in Altamont Pass to 3.6 MW machines in West Texas
- Utility-scale wind installations in **39 states plus Puerto Rico**
- Over **1,050 projects** with over **400 owners** and **60 turbine manufacturers**

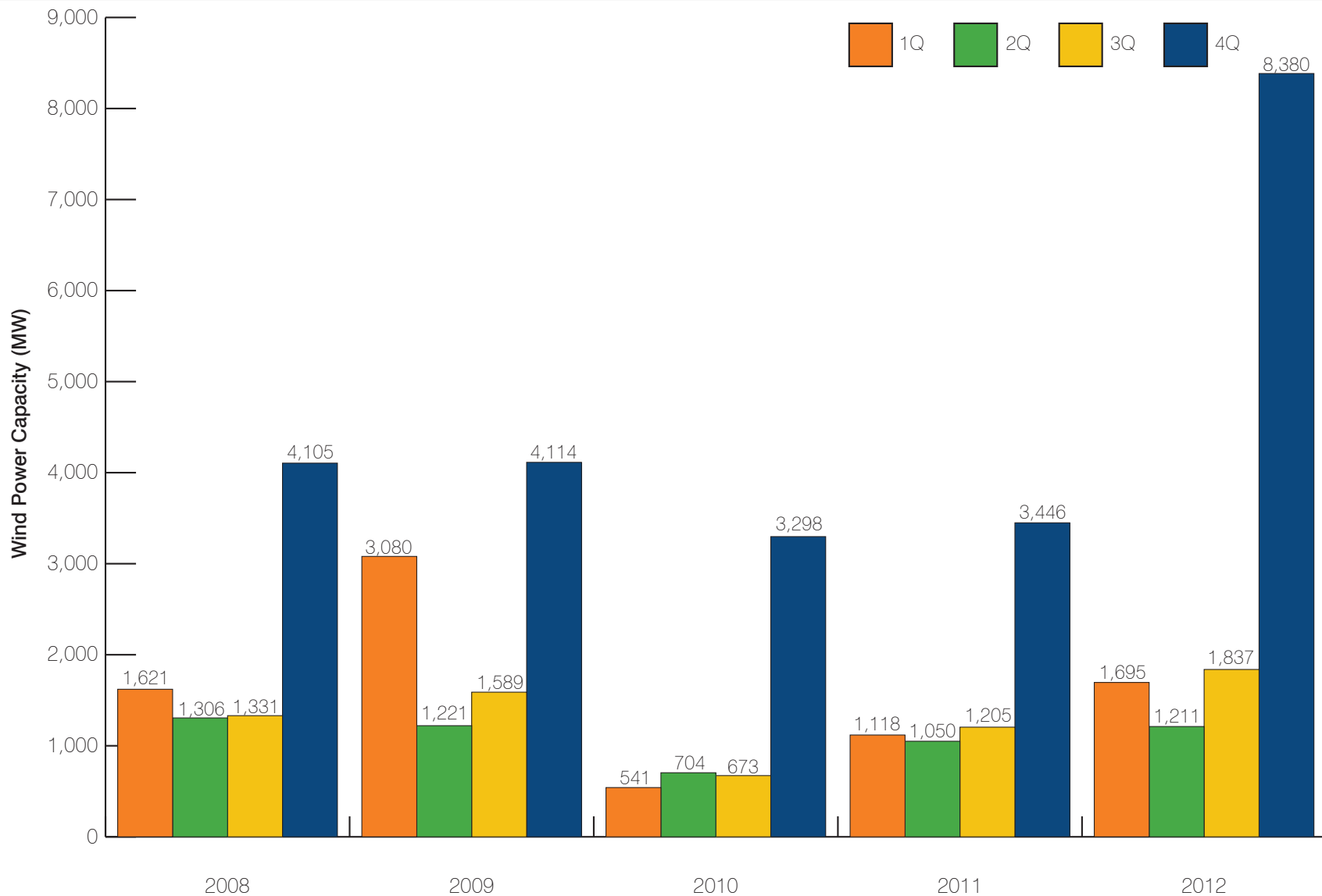
How did the industry get to 60 GW?

- It took more than 25 years to reach 10 GW (in 2006), then only 2 more years to reach 20 GW (in 2008).
- The U.S. wind industry hit 40 GW in 2010 and then in 2012 hit both the 50 GW and 60 GW milestone

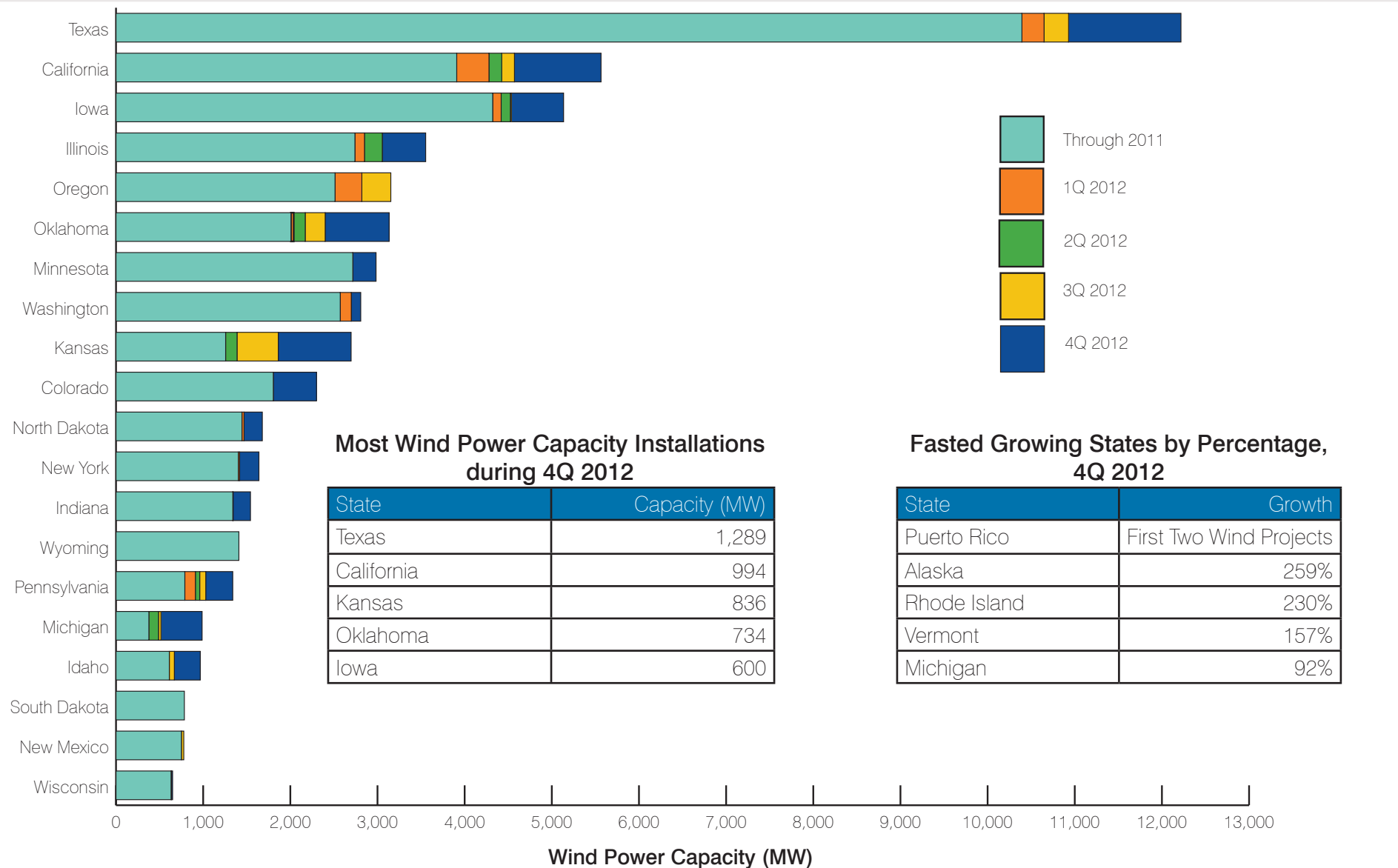
U.S. Wind Power Capacity Growth



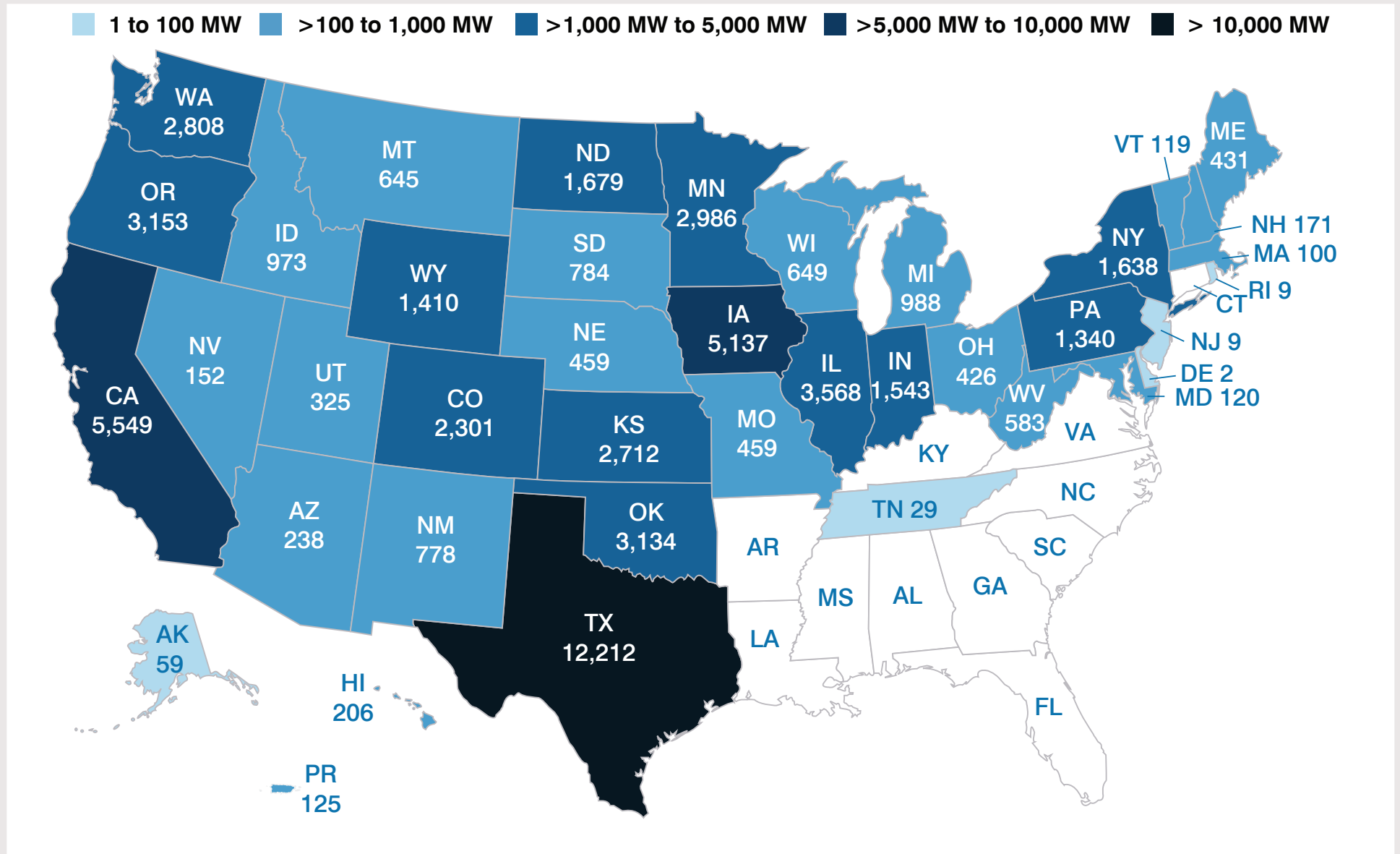
U.S. Wind Power Capacity Installations by Quarter



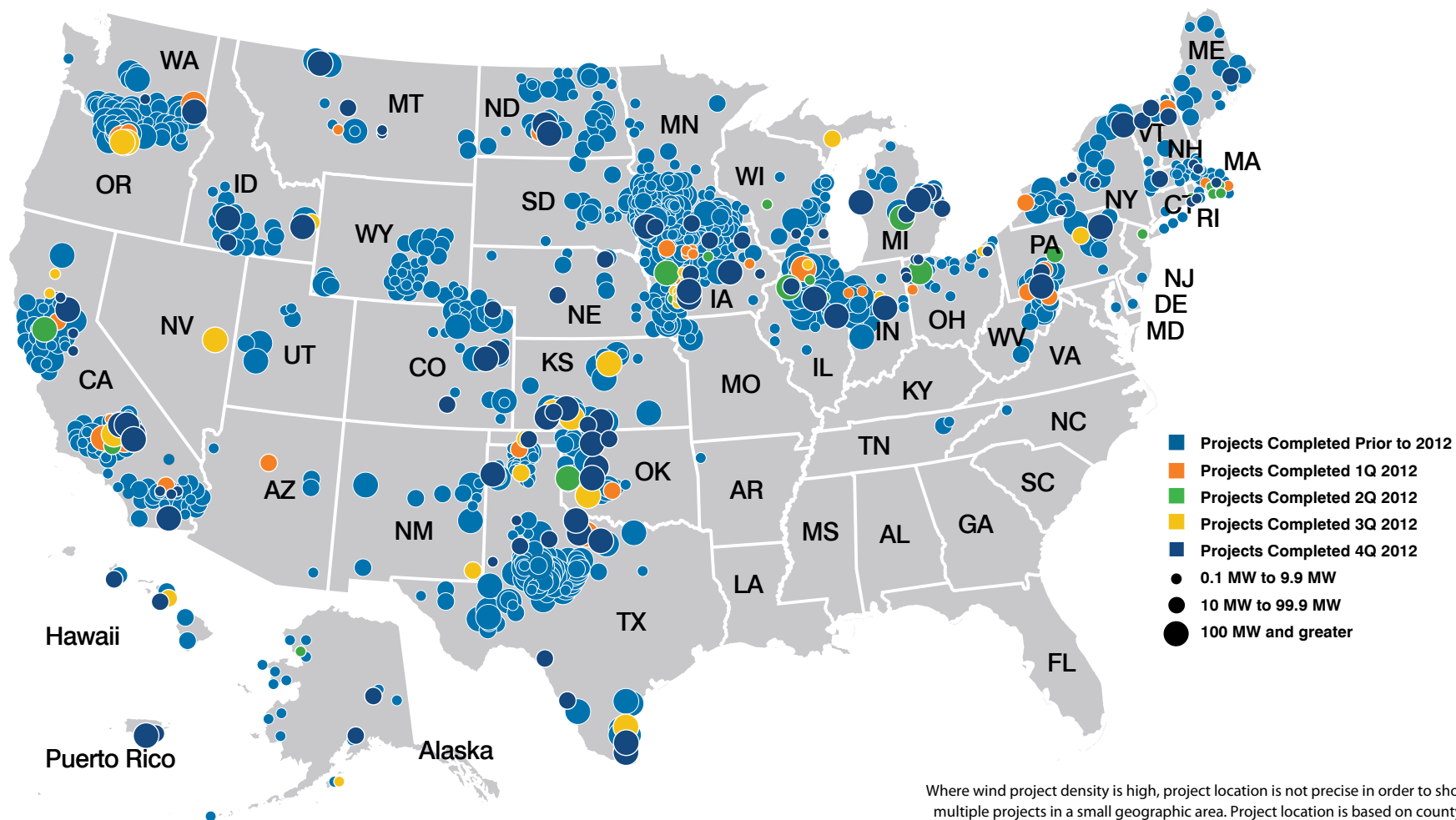
U.S. Wind Power Capacity Installations, Top 20 States



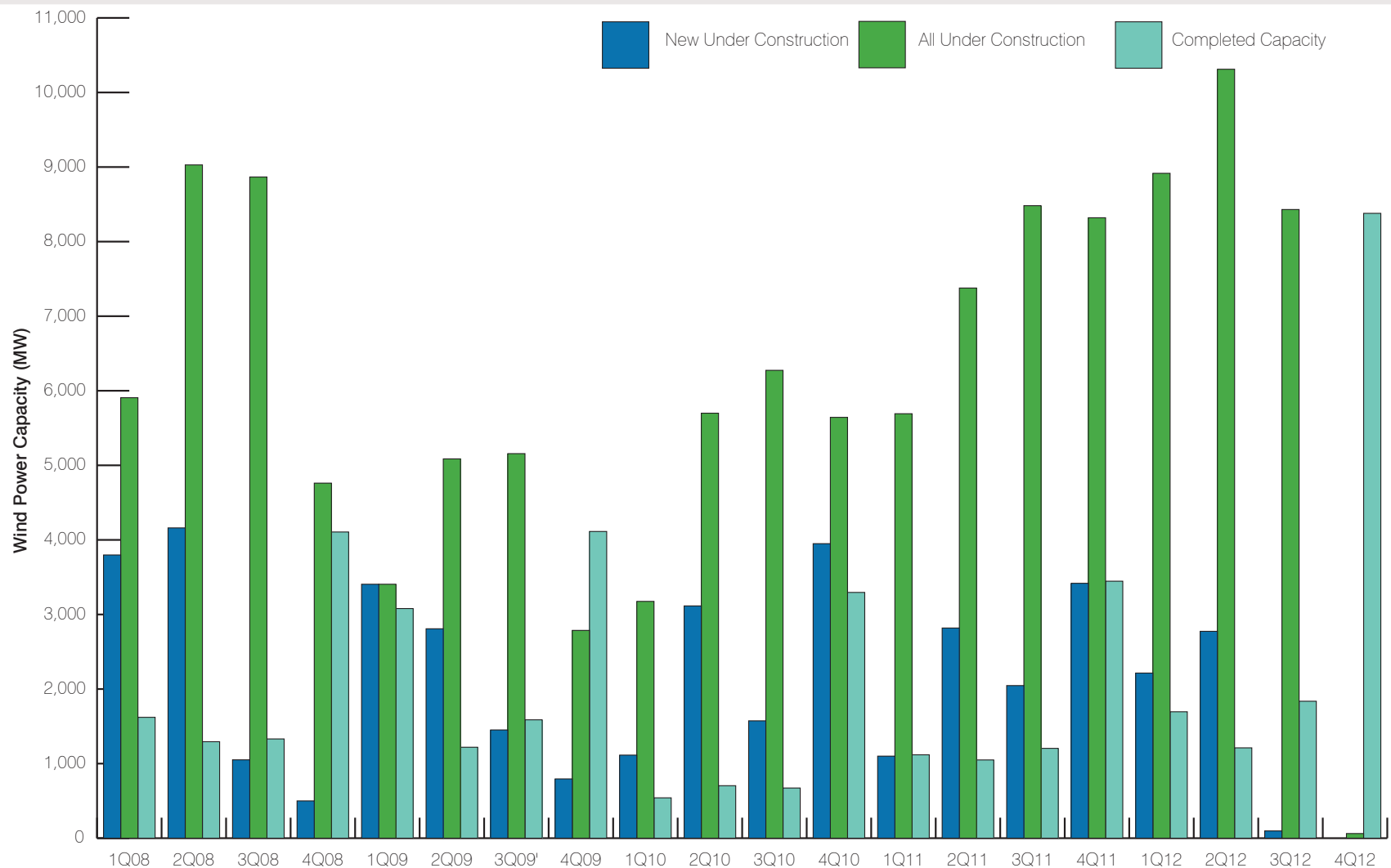
U.S. Wind Power Capacity Installations by State



Wind Project Locations



Wind Power Capacity Under Construction



For more information on AWEA market analysis, please log-in to the AWEA member center in the upper-right hand corner of www.awea.org where you can access older versions of the Quarterly Market Reports and see the latest Annual Market Report.

For a spreadsheet with underlying data or with any corrections, please contact Emily Williams at ewilliams@awea.org