

During the second quarter of 2012, mean wind speeds across much of North America deviated substantially from the long-term (1997 – 2011) average (see Figure 1). In much of the Western United States and Canada, wind speeds were 5% to 15% higher than average, while across Nunavut, Southern Alaska, and portions of the Southern and Eastern United States, wind speeds were 5% to 15% lower than average.

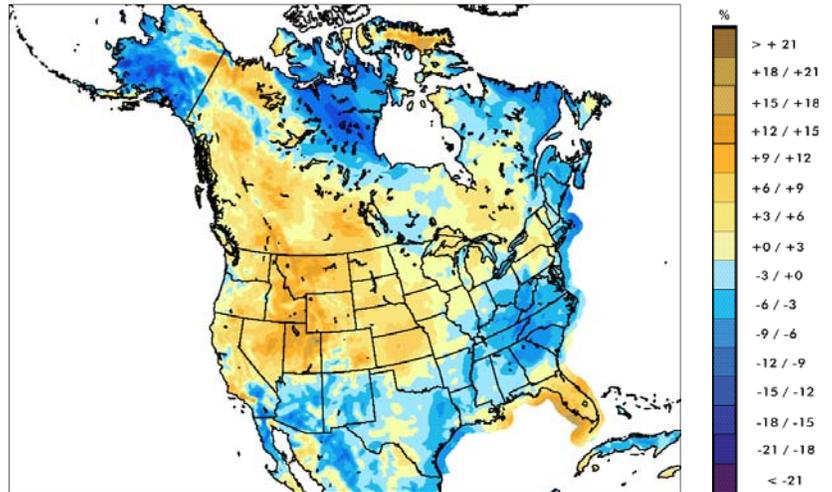


Figure 1. Wind Speed Anomaly Map: Q2 2012

The patterns are explained in part by the movement of storm tracks from month to month. The major climate indices remained largely neutral through the quarter; the negative El Niño/Southern Oscillation (ENSO) event (La Niña), which had persisted throughout the first three months of 2012, dissipated in April and remained neutral through June.

Concurrently, the North Atlantic Oscillation (NAO), Pacific-North American pattern (PNA), and Arctic Oscillation (AO), were neutral until the latter part of the quarter, when all three began to trend somewhat negative.

The monthly speed deviations across North America shifted in scale and scope throughout the quarter, with little consistency from month to month. In April, a more northerly than normal storm track brought higher than average (+10% or more) winds to the northern plains and northeast, while much of the Southern United States had relatively weak winds (-15% to -5%). May brought stark contrasts in the wind resource across the continent, as a strong ridge across the eastern third of the United States caused winds to be more than 10% below-normal, while winds were near to above-normal across much of the rest of the contiguous United States. A strong pressure gradient between a persistent low over Alaska and a high over the Canadian Archipelago resulted in anomalously strong winds (+10% or more) over Western Canada, while winds were below-average (-10% or less) in Alaska and Nunavut. In June, winds were above-average across most of North America. Wind speeds were much higher than normal (more than 30%) across Baffin Island, the North Slope of Alaska, and the Gulf Coast from Louisiana to the Florida Keys. These deviations from the long-term monthly mean were due to a the persistence of a strong pressure gradient just north of the Arctic Circle and the slow progression of tropical storm Debbie, which moved across Northern Florida in late June.

For the 12-month period from 1 July 2011 to 30 June 2012, the wind resource was near to above average over most of the continent (see Figure 2). The largest positive deviations occurred in the Rocky Mountains, especially the Canadian Rockies. This is in contrast to the previous year ending 30 June 2011, which saw lower than average winds in Western Canada and above-average winds in the Southern United States (see Figure 3).

This analysis was conducted by AWS Truepower’s meteorology team. It is based on a computer simulation of weather conditions dating back to 1997, which results in a comprehensive and detailed weather snapshot at multiple heights above ground for every hour. Project assessments, maps, data and monthly reports are available. For more information about customized analyses for your project portfolio, data or subscription options, please contact us: info@awstruepower.com.

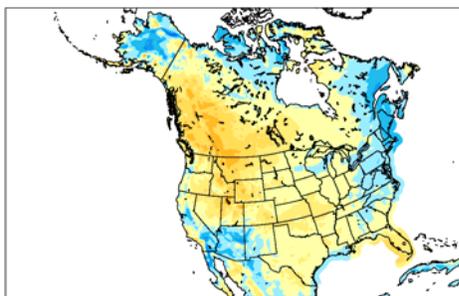


Figure 2. Wind Speed Anomaly Map: Q3 2011 – Q2 2012

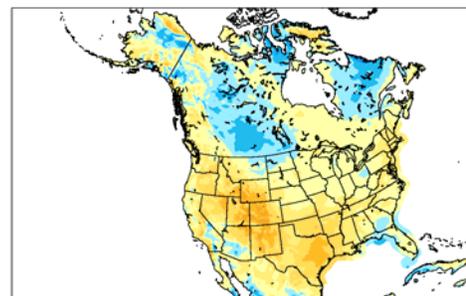


Figure 3. Wind Speed Anomaly Map: Q3 2010 – Q2 2011