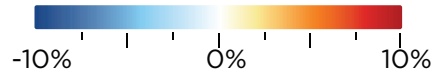
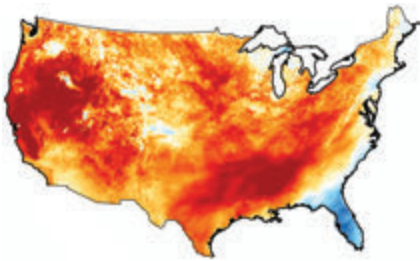


The 2014 Solar Performance Maps show the departure from average of global horizontal irradiance (GHI, the key variable for PV projects). Average is based on 18 years of solar irradiance data derived from Vaisala's global solar dataset.

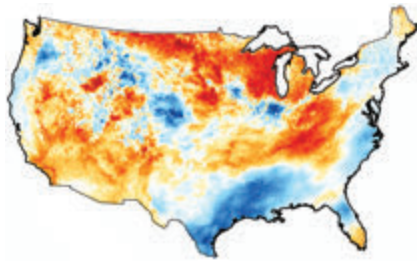
Departure from normal [GHI]



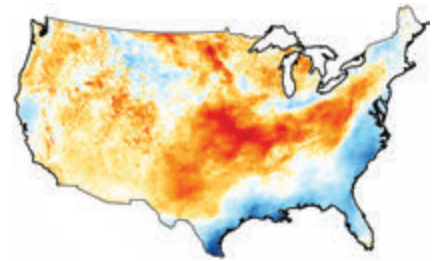
● Solar Projects 1MW or larger



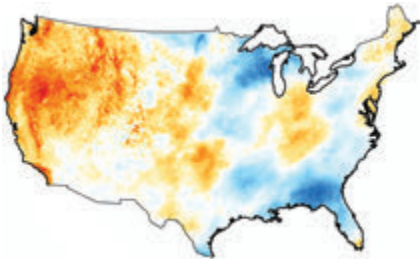
January



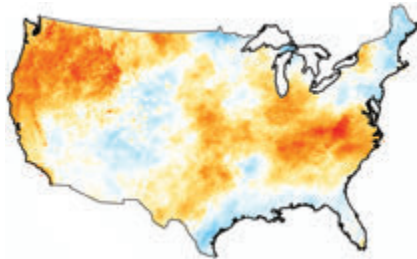
February



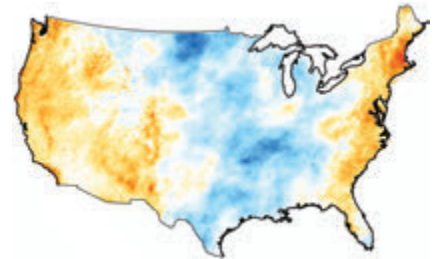
March



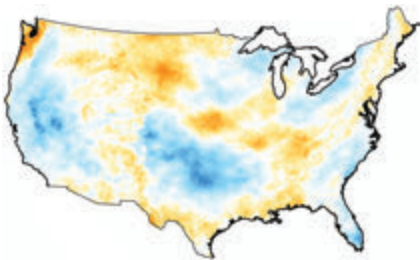
April



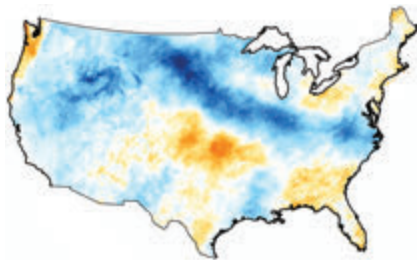
May



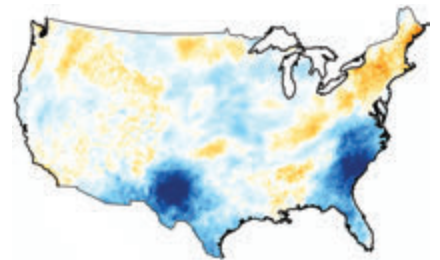
June



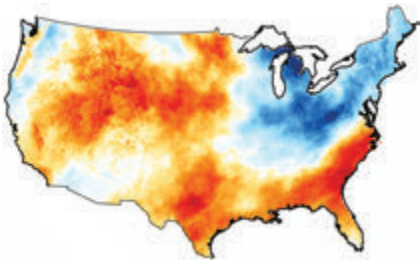
July



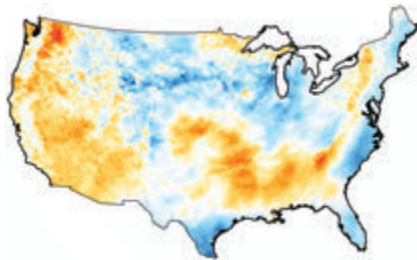
August



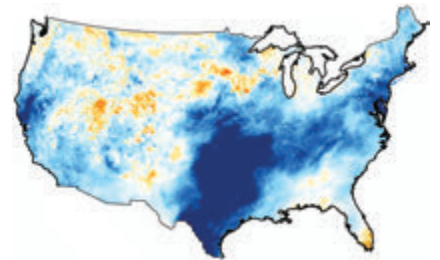
September



October

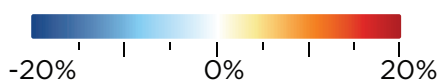


November



December

Departure from normal [GHI]



The 2014 Solar Performance Maps show the departure from average of global horizontal irradiance (GHI, the key variable for PV projects). Average is based on 18 years of solar irradiance data derived from Vaisala's global solar dataset. Key findings from the twelve-month climate analysis are summarized below.

Q1

January: The positive phase of the East Pacific-North Pacific mode of circulation caused colder temperatures east of the Rockies and warmer temperatures along the West, characterized by clear skies rather than snow, leading to above average irradiance.

February: A dominant upper-level trough bisected weather patterns across the country with changes in circulation evident in precipitation and irradiance anomaly patterns.

March: Circulation patterns stabilized bringing a return of cold, clear conditions to much of the country. Nearly two-thirds of the Great Lakes remained frozen into early April.

Q2

April: A long-wave circulation pattern generated large areas of precipitation east of the Rockies and severe weather. Strong winds contributed to above average irradiance.

May: The northward seasonal migration of the circumpolar vortex increased the influence of the subtropical high pressure region, and high pressure anomalies occurred with heavy precipitation and cloud cover in the Southwest and East, but inhibited precipitation in Northwest and Plains to Appalachians.

June: Troughs and associated surface fronts generated areas of heavy precipitation and severe weather in the Plains and Midwest, negatively impacting the solar resource and bringing severe weather, including several hail storms to the Midwest. The circulation pattern inhibited precipitation in the West, intensifying drought.

Q3

July: An active jet stream with high amplitude meridional flow led to monsoon showers over the Southwest while weather systems moving through the eastern trough brought above-normal rainfall to parts of the Southern Plains and East Coast.

August: Fronts and surface low pressure systems associated with jet stream troughs brought above-normal rainfall and areas of severe storms to the Northern Plains and Midwestern states.

September: Tropical moisture and the jet stream circulation fed monsoon showers over large parts of the West. It also brought above-normal rainfall to parts of the Plains, Midwest, and Southeast, along with areas of severe weather such as the high wind and damaging hail seen in eastern Colorado and Dallas, Texas.

Q4

October: Competing cold fronts brought southward by the jet stream and warm air from ridges and subtropical high pressure systems caused warmer than normal temperatures and clear skies for much of the country.

November: An active jet stream with a strong meridional flow over the country occurred, but drier weather accompanied a western ridge and dominant northwesterly flow east of the Rockies. The upper-level circulation, temperature, and precipitation patterns suggest influence from conditions in the North Pacific, including tropical cyclone Nuri.

December: The dominant regional anomaly was up to 20% below normal solar irradiance across a large area extending from southern Texas up to the central Plains. Texas and Oklahoma experienced a somewhat unusual situation where precipitation was well below normal while irradiance was also below normal. This was the result of frequent non-precipitating low clouds and fog, as well as upper-level cirrus bands passing over the area.