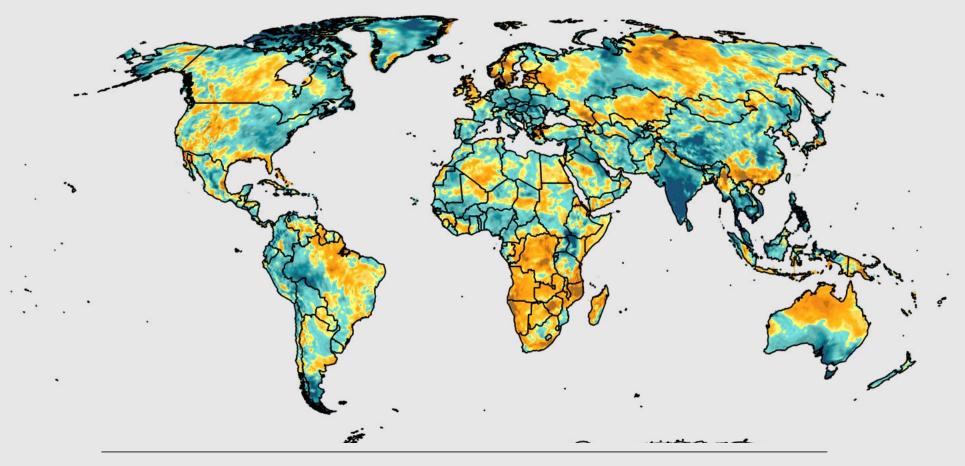
# WIND TRENDS GLOBAL WIND SPEED PERFORMANCE

#### Subscribe Now!

To receive our monthly, quarterly and annual Wind Trends Bulletins in your inbox, click here.

Global July 2020





The Wind Trends Bulletin is a report that evaluates deviations in global wind conditions from the historical norm on a monthly, quarterly, and annual basis. The maps contained in this report were derived from a custom combination of the CFSR, ERA-Interim, and MERRA reanalysis datasets. The anomalies are calculated as a percent deviation from the 1988 – 2014 mean speed at 100m above ground level for the calendar period. For more information about customized analyses for your project portfolio, data or subscription options, please contact us at renewableenergyservices@ul.com.

# Introducing real-time plant monitoring from UL

Transforming data into actionable intelligence



# Renewable Asset Monitoring Platform

Manage your renewable assets with UL's connected SaaS platform that brings the power of real-time monitoring, production KPIs, analytics, power forecasting and reporting to renewable project owners around the globe. This platform is designed to provide customized solutions to owners, O&M directors, asset managers and technicians to manage their assets through monitoring, control, advanced analytics and insights. With cloud and mobile access, your team can perform operations monitoring from any office or field location.

For more information, click here.

Contact us at renewableenergyservices@ul.com.

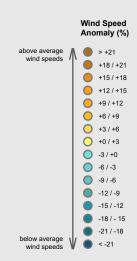
**Empowering Trust®** 



GLOBAL WIND SPEED PERFORMANCE

# Wind plant locations source: www.thewindpower.net

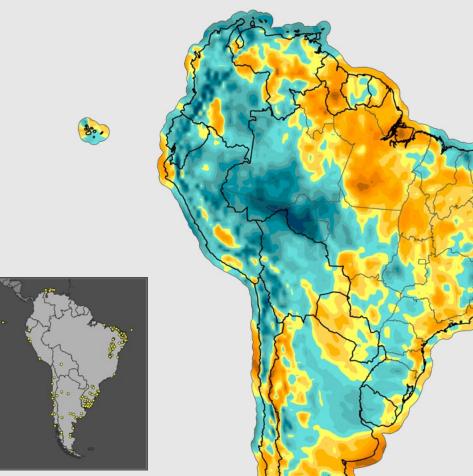
## North America July 2020

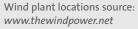


#### GLOBAL WIND SPEED PERFORMANCE

# **South America** July 2020

#### Wind Speed Anomaly (%) -15/+18 -12/+15 +9/+12 0 +0/+3 -3/+0 -18 / - 15 -21/-18

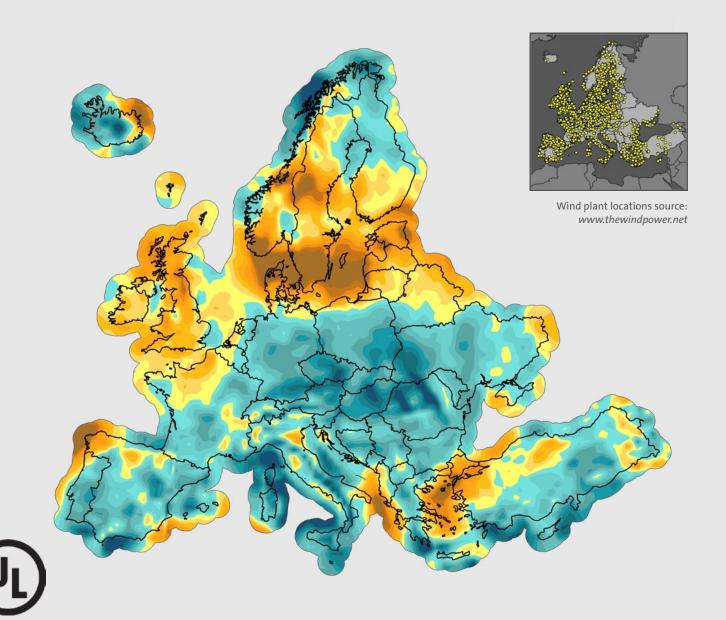




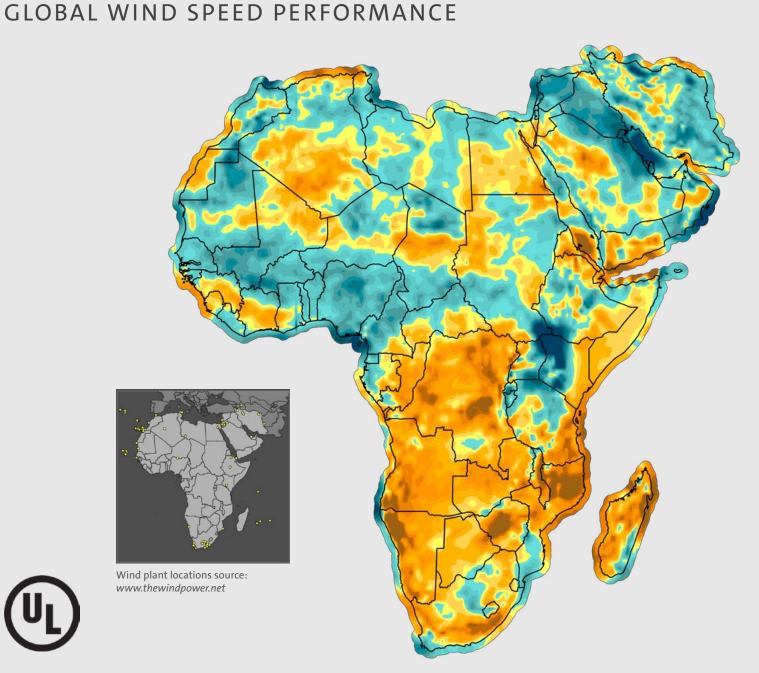


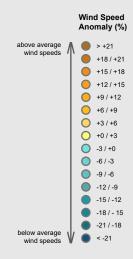
# WIND TRENDS GLOBAL WIND SPEED PERFORMANCE

# **Europe** July 2020



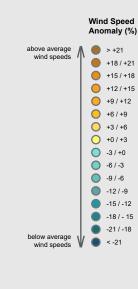
## Africa and the Middle East July 2020

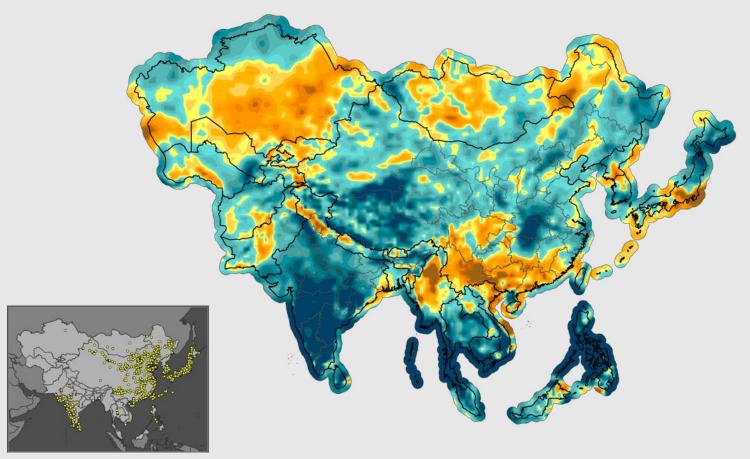




#### GLOBAL WIND SPEED PERFORMANCE

#### Asia July 2020





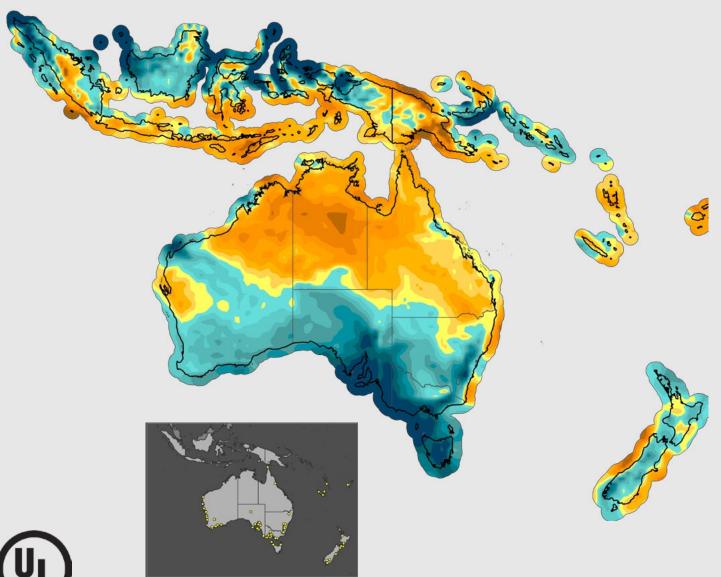
Wind plant locations source: www.thewindpower.net

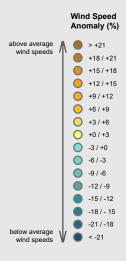


# WIND TRENDS GLOBAL WIND SPEED PERFORMANCE

Wind plant locations source: www.thewindpower.net

#### Indonesia, Australia and Oceania July 2020







#### 2020 Wind Index

This index represents the average wind anomaly (expressed as a percent deviation in mean speed from the 1988-2014 baseline for the corresponding calendar period) for each region and country shown, weighted by the location and megawatt capacity of wind projects in production by the end of 2019. The wind project locations and rated capacities are from The Wind Power database (TheWindPower.net). Note that not all operating projects are in the database, and coverage in certain countries such as China is weak. However, UL believes the findings are reasonably representative of wind conditions for the industry as a whole and for the key windproducing countries.

<u>Click HERE</u> to download index values for even more wind producing countries!



| Regions/Leading<br>Wind Producing<br>Countries | Jan   | Feb   | Mar   | 01    | Apr   | May   | Jun   | 02   | lul   | Aug | Sep | Q3 | Oct | Nov | Dec | Q4 | ANNUAL |
|--|-------|-------|-------|-------|-------|-------|-------|------|-------|-----|-----|----|-----|-----|-----|----|--------|
| North America                                  | 0.0   | 2.7   | -1.3  | 0.2   | -4.8  | -1.0  | 7.3   | 0.2  | -1.2  |     |     |    |     |     |     |    |        |
| Canada   | -9.5  | 6.3   | 4.1   | -0.1  | 5.6   | 6.2   | 1.2   | 4.5  | -4.4  |     |     |    |     |     |     |    |        |
| USA  | 1.2   | 2.2   | -1.9  | 0.2   | -5.7  | -2.0  | 8.2   | -0.2 | -0.3  |     |     |    |     |     |     |    |        |
| Mexico   | 2.4   | 5.7   | -5.9  | 0.6   | -12.2 | 3.3   | 6.5   | -2.0 | -13.3 |     |     |    |     |     |     |    |        |
| South America                                  | -8.8  | -6.7  | -12.9 | -9.3  | 0.8   | 4.5   | 2.5   | 2.7  | 0.9   |     |     |    |     |     |     |    |        |
| Brazil   | -10.8 | -9.6  | -15.9 | -11.9 | -0.5  | 3.2   | 1.8   | 1.7  | 1.6   |     |     |    |     |     |     |    |        |
| Argentina                                      | 5.1   | 1.4   | -4.1  | 1.0   | -3.8  | 2.5   | 3.1   | 0.7  | -1.9  |     |     |    |     |     |     |    |        |
| Europe   | 0.4   | 22.3  | 5.3   | 9.1   | -5.6  | 0.0   | -2.0  | -2.7 | -0.9  |     |     |    |     |     |     |    |        |
| Denmark  | 8.2   | 25.8  | 0.0   | 11.4  | 2.8   | 6.6   | -10.3 | -0.2 | 17.3  |     |     |    |     |     |     |    |        |
| France   | 0.4   | 36.6  | 11.5  | 15.7  | -10.6 | 1.2   | 0.5   | -3.2 | -0.2  |     |     |    |     |     |     |    |        |
| Germany  | 1.0   | 39.4  | 5.5   | 14.7  | -3.0  | -2.8  | -4.6  | -3.5 | -5.2  |     |     |    |     |     |     |    |        |
| Great Britain                                  | 5.0   | 35.9  | 5.2   | 15.2  | -9.4  | -1.6  | 5.2   | -2.3 | 7.1   |     |     |    |     |     |     |    |        |
| Ireland  | -1.1  | 36.0  | 5.5   | 13.2  | -18.9 | 1.7   | 7.2   | -4.0 | 5.7   |     |     |    |     |     |     |    |        |
| Italy  | -10.4 | 13.4  | -7.8  | -1.7  | -11.6 | 12.7  | 11.8  | 3.6  | -12.5 |     |     |    |     |     |     |    |        |
| Portugal                                       | -1.5  | -16.1 | 0.6   | -5.3  | -13.5 | -10.2 | 1.3   | -7.7 | -5.2  |     |     |    |     |     |     |    |        |
| Spain  | -7.8  | -15.1 | 6.5   | -5.5  | -16.8 | -4.6  | -4.5  | -9.1 | -1.2  |     |     |    |     |     |     |    |        |
| Africa / Middle East                           | -2.2  | 0.3   | 1.8   | -0.1  | -3.8  | 1.4   | 0.1   | -0.7 | 5.3   |     |     |    |     |     |     |    |        |
| South Africa                                   | 2.4   | 2.8   | 4.2   | 3.2   | 1.7   | 2.3   | 3.2   | 2.6  | 9.3   |     |     |    |     |     |     |    |        |
| Egypt  | 5.8   | -12.5 | -8.0  | -5.2  | 4.7   | 7.1   | -3.6  | 2.5  | 7.1   |     |     |    |     |     |     |    |        |
| Asia   | -11.9 | -0.1  | -0.3  | -4.1  | -5.5  | 0.4   | -3.1  | -2.8 | -6.3  |     |     |    |     |     |     |    |        |
| China  | -13.5 | -1.2  | 0.4   | -4.7  | -6.0  | 3.2   | -1.3  | -1.4 | -3.7  |     |     |    |     |     |     |    |        |
| India  | -5.5  | 6.6   | -3.4  | -1.1  | -7.9  | -14   | -13.8 | -12  | -20.3 |     |     |    |     |     |     |    |        |
| Ind, Aus, Oceania                              | 0.0   | -0.3  | 2.2   | 0.6   | 11.4  | 10.4  | -10.2 | 3.2  | -16.4 |     |     |    |     |     |     |    |        |
| Australia                                      | -0.1  | -0.2  | 2.7   | 0.8   | 11.6  | 14.1  | -11.5 | 4.0  | -18.6 |     |     |    |     |     |     |    |        |
| World  | -5.3  | 8.3   | 4.6   | 2.3   | -2.2  | -0.4  | 0.1   | -1.1 | -2.5  |     |     |    |     |     |     |    |        |