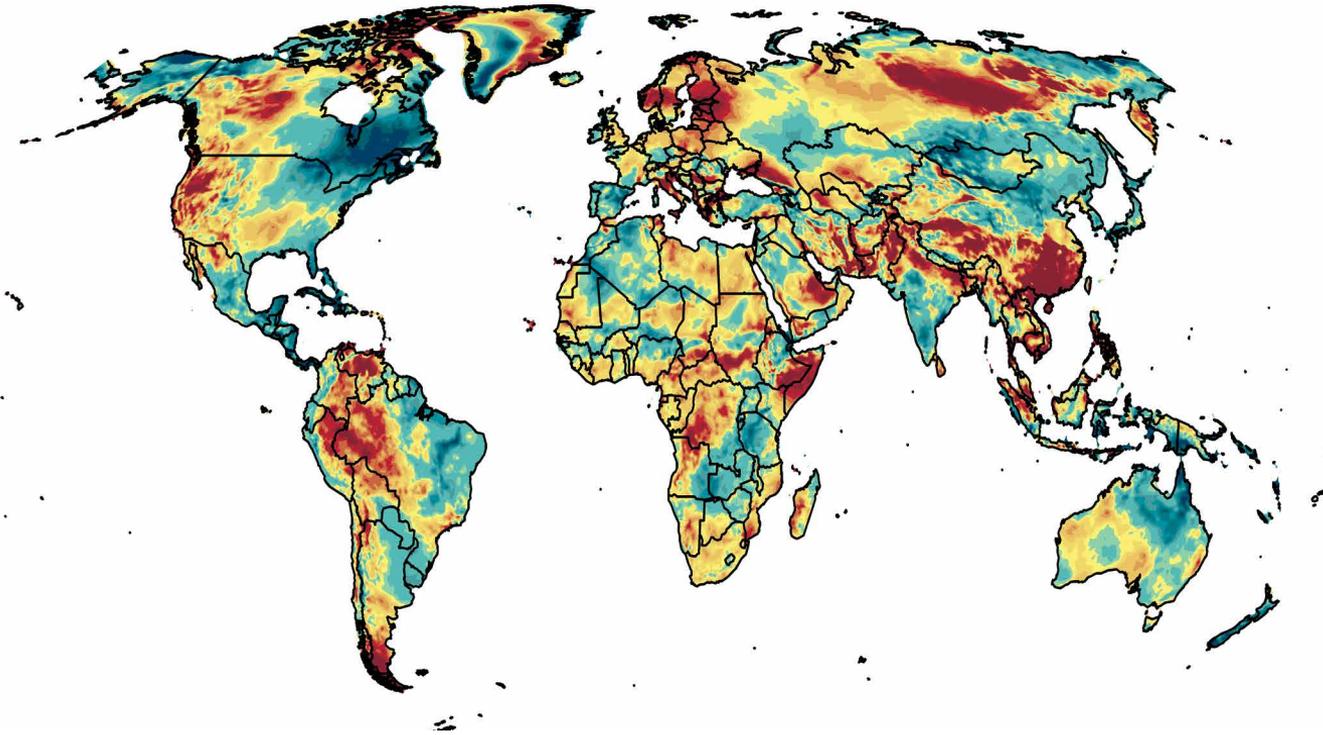




2021 | October

Wind Trends

Global wind speed performance



The Wind Trends Bulletin depicts anomalies of the global wind resource from the historical norm on a monthly, quarterly, and annual basis. The anomalies are calculated as a percent deviation from the 1995 – 2019 mean speed at 100 m above ground level for the calendar period. The latest Wind Trends dataset is derived using the ERA5, a contemporary global reanalysis dataset. For more information about customized analyses for your project portfolio, data or subscription options, please contact us at renewableenergyservices@ul.com.

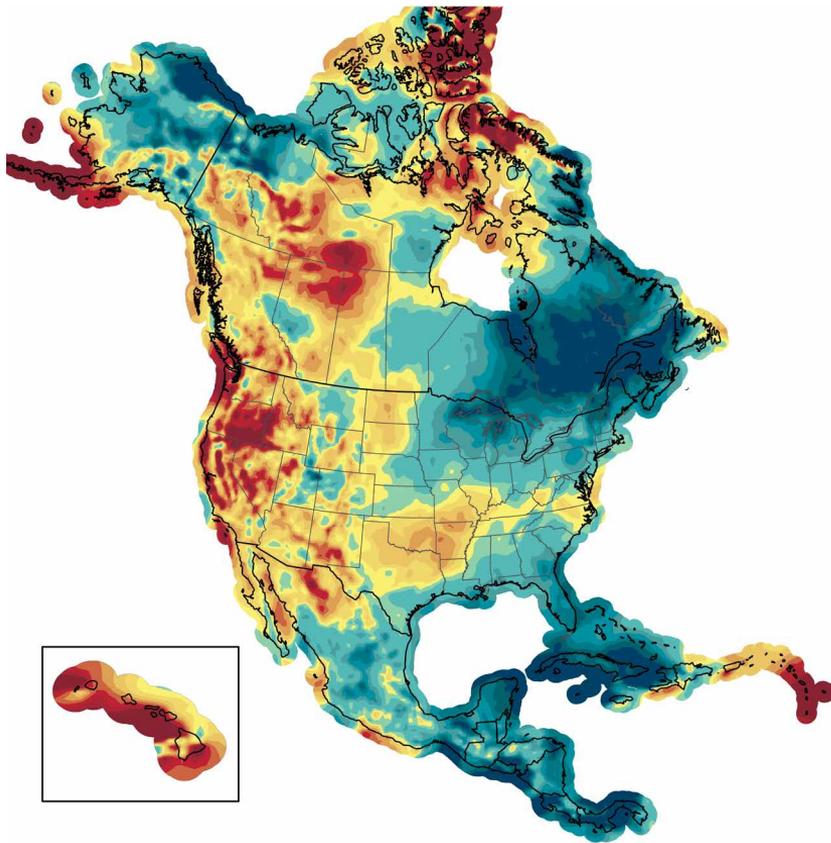
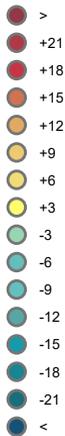
[Download](#) index values for even more wind power producing countries!



above average
wind speeds

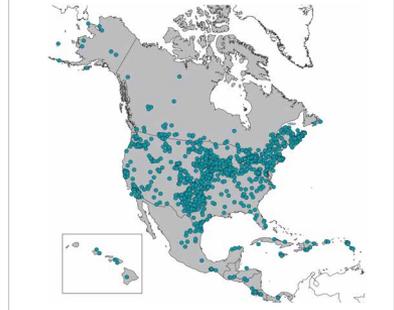
Wind Speed Anomaly (%)

below average
wind speeds



2021 | October

North America



Wind plant locations source:
Windpower Monthly Intelligence

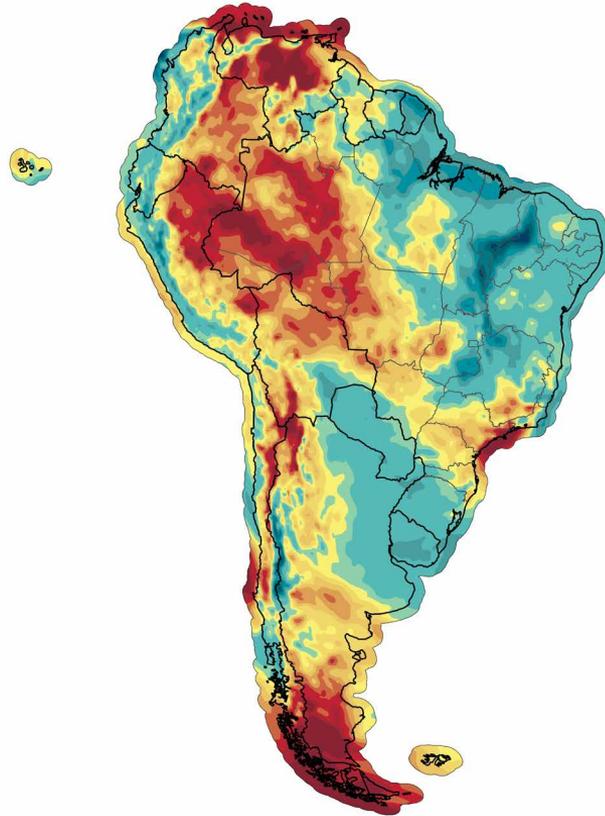
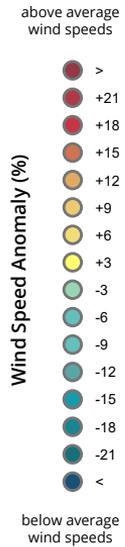


Wind Trends

Global wind speed performance

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2021 | October

South America



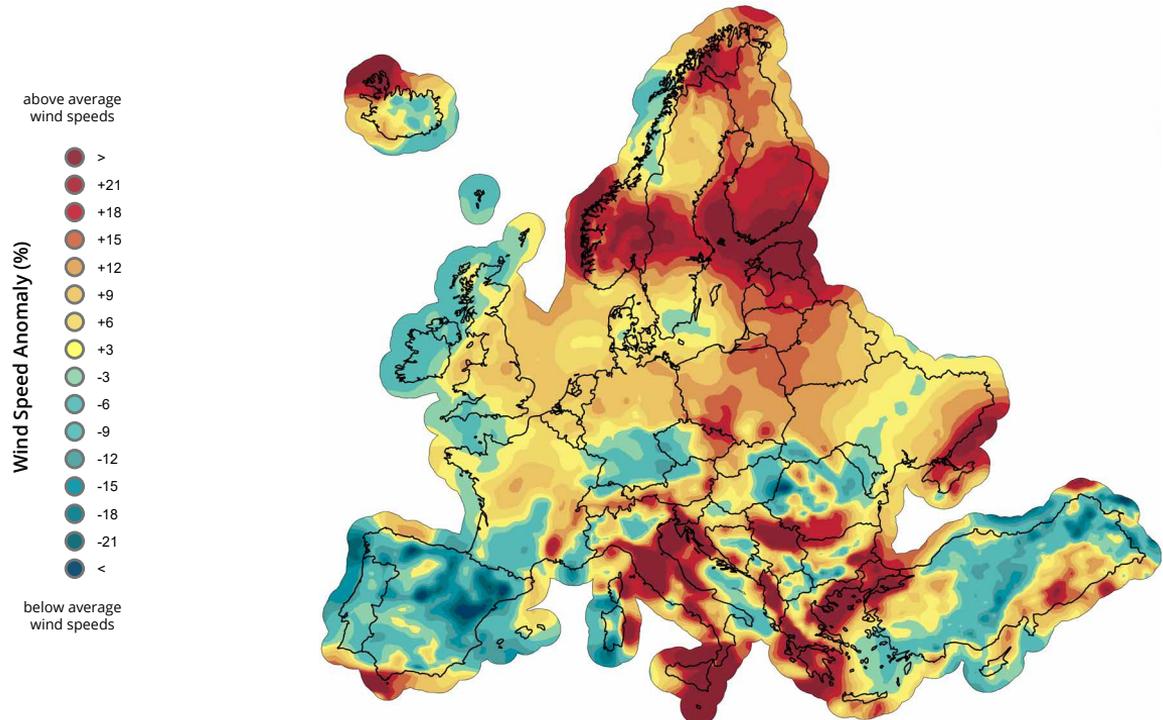
Wind plant locations source:
Windpower Monthly Intelligence



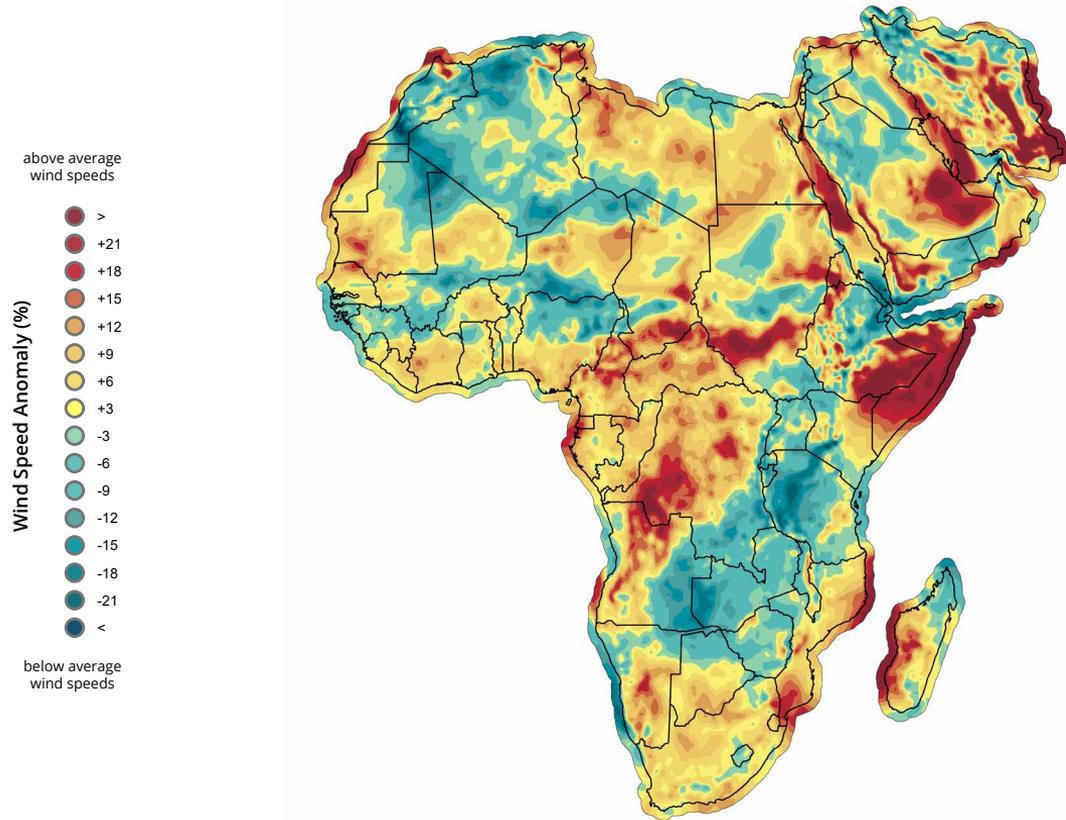
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Wind plant locations source:
Windpower Monthly Intelligence



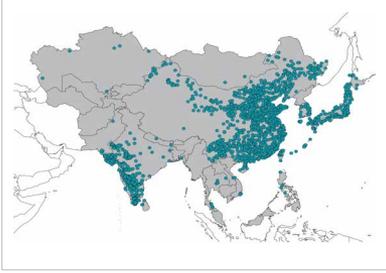
Wind plant locations source:
Windpower Monthly Intelligence



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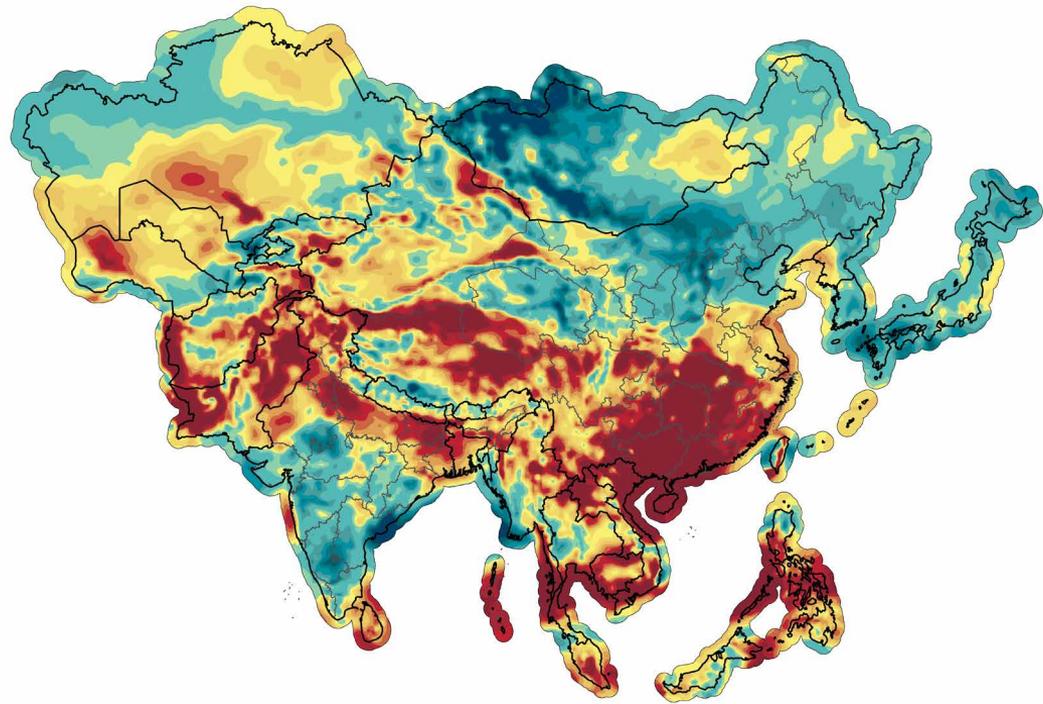


Wind plant locations source:
Windpower Monthly Intelligence

above average
wind speeds

Wind Speed Anomaly (%)

below average
wind speeds



2021 | October

Oceania

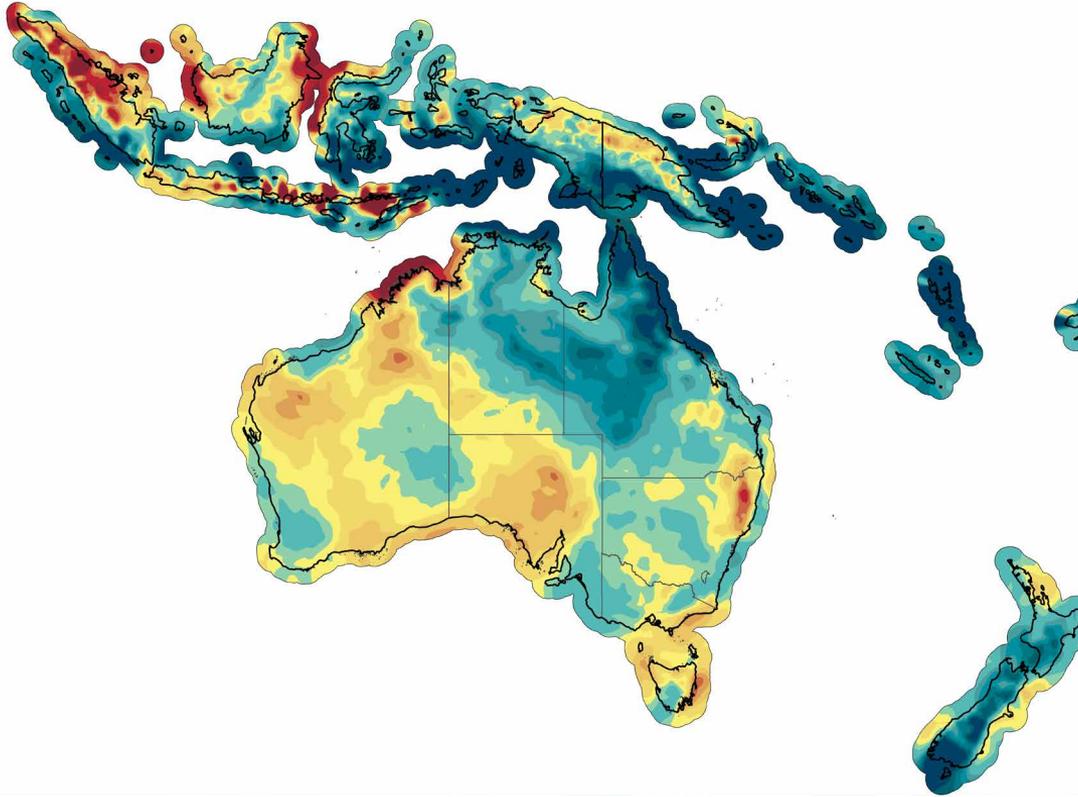


Wind plant locations source:
Windpower Monthly Intelligence

above average
wind speeds



below average
wind speeds



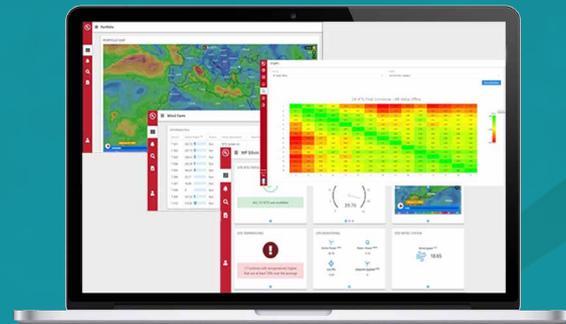
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| Locations | Jan | Feb | Mar | Q1 | Apr | May | Jun | Q2 | Jul | Aug | Sep | Q3 | Oct | Nov | Dec | Q4 | ANNUAL |
|----------------------|-------|-------|-------|------|-------|------|-------|------|-------|-------|-------|-------|-------|-----|-----|----|--------|
| North America | -4.9 | -1.5 | 8.1 | 0.5 | -3.4 | -1 | -4 | -2.9 | -6 | 4.4 | 3.7 | 0.7 | -1.6 | | | | |
| USA | -4.2 | -1.3 | 7.6 | 0.7 | -3.3 | -1.5 | -4.7 | -3.2 | -6.5 | 5.7 | 3.6 | 0.9 | 0.2 | | | | |
| Canada | -12.1 | -2.6 | 14.2 | -0.4 | -6 | -3.7 | 9.7 | -0.5 | -2.8 | -1 | 8.6 | 1.9 | -11.8 | | | | |
| Mexico | -3.7 | -4.1 | 5.8 | -0.7 | 0.2 | 9 | -18.3 | -2.3 | -5.6 | -3.8 | -1.9 | -3.9 | -9.9 | | | | |
| South America | 7.4 | -5.4 | -0.3 | 0.7 | 1.9 | -1 | -4.7 | -1.7 | -2.3 | -0.2 | -3.1 | -1.8 | -3.6 | | | | |
| Brazil | 10.2 | -5.8 | 1.2 | 2 | 3.5 | -2.5 | -5.9 | -2.2 | -3.2 | 1 | -4.2 | -2.1 | -5.7 | | | | |
| Argentina | 1.1 | -4.9 | -3.1 | -2.2 | -4.7 | 0.6 | -4.1 | -2.8 | 3.9 | 1.3 | -1 | 1.4 | 4.3 | | | | |
| Chile | -0.1 | -4.2 | -2.8 | -2.4 | -0.8 | -0.1 | -5.1 | -2.1 | -8.8 | 0.5 | -0.7 | -2.8 | 3.1 | | | | |
| Europe | -1.7 | 1.3 | -3.8 | -1.5 | -4.4 | 7.9 | -10.7 | -2.4 | -2.9 | 0.6 | -9 | -4 | 3.2 | | | | |
| Germany | -8.9 | -7.8 | -4.7 | -7.2 | 1.6 | 17.3 | -19.7 | 0.1 | -8.6 | 6.1 | -14.7 | -6.1 | 5 | | | | |
| Spain | 11.7 | 8.2 | -10.7 | 3.1 | -15.1 | 1.5 | -3.5 | -6.2 | 3.7 | -2.8 | -7.6 | -2.2 | -7.1 | | | | |
| France | -2.0 | 5.3 | -1.5 | 0.6 | -2.5 | 21 | -16.4 | 1 | 6.2 | 6.2 | -14 | -0.9 | 3.1 | | | | |
| United Kingdom | -18.5 | 14.9 | 2 | -0.7 | -21 | -8 | -6 | -12 | -28.6 | -16.4 | -16.2 | -20.1 | 2.2 | | | | |
| Italy | 19.9 | -10.3 | -10.9 | -0.6 | -4.3 | 13.2 | -8.7 | 0.3 | 1.4 | 7.9 | -13.4 | -1.8 | 11.7 | | | | |
| Portugal | 10.9 | 15.4 | -9.6 | 5.4 | -23 | 4.8 | 0 | -6.6 | 6.7 | -7.7 | 4.4 | 1.1 | -5.9 | | | | |
| Denmark | -15.1 | -3.1 | -3.4 | -7.4 | 4.5 | -6.9 | -13.7 | -5.2 | -4.3 | 5.1 | -13.6 | -4.6 | 3.1 | | | | |
| Ireland | -15.9 | 15.8 | -0.1 | -0.2 | -15 | -1.8 | -4.6 | -7.3 | -25.7 | -12.5 | -17.2 | -18.3 | -4.4 | | | | |
| Africa / Middle East | 3.8 | 0.5 | 1.8 | 2.1 | -3.7 | 2.3 | 3.4 | 0.7 | 4.4 | -3.5 | 2.9 | 1.3 | 5.3 | | | | |
| South Africa | -0.1 | 1.6 | -1.1 | 0.2 | -9 | 4.4 | 2.3 | -0.5 | 5.3 | -3.2 | 5.3 | 2.5 | 5.4 | | | | |
| Morocco | 6.7 | -4.6 | -7.1 | -1.8 | -13.3 | 4.8 | 1.3 | -2.6 | 9.3 | -3.8 | -4 | 0.5 | 8.6 | | | | |
| Egypt | 3.1 | 11.7 | 11.8 | 9.1 | 9.6 | 7 | 7.5 | 8 | 4.5 | -3.7 | 6.5 | 2.4 | 9 | | | | |
| Asia | 10.4 | 3.4 | -3.8 | 2.9 | -4.6 | 5 | -1.8 | -0.5 | 1.2 | -2.4 | -3.7 | -1.8 | 2 | | | | |
| China | 12.0 | 4.2 | -4.4 | 3.4 | -4.4 | 6.6 | -1 | 0.3 | 1.8 | -2 | -4.5 | -1.6 | 2.9 | | | | |
| India | -0.9 | -3.9 | 0.7 | -1.6 | -7.7 | -6.9 | -8.2 | -7.8 | -2.6 | -7 | 3.3 | -2.8 | -4.4 | | | | |
| Thailand | 10.4 | 5.2 | -6.5 | 3.3 | -12.5 | -7.8 | 10.5 | -1.8 | 2.5 | -14.3 | -7.1 | -6.2 | 1.4 | | | | |
| Ind, Aus, Oceania | 3.6 | -0.1 | -2.5 | 0.4 | -1.1 | 3.5 | -1.2 | 0.4 | 11.3 | 1.7 | 4 | 5.6 | -3 | | | | |
| Australia | 3.6 | 1 | -1.9 | 0.9 | -1.6 | 3.4 | -0.8 | 0.4 | 12.7 | 1.1 | 3.3 | 5.6 | -1.8 | | | | |
| New Zealand | 4.7 | -18.3 | -11.4 | -8 | 1.7 | 3.6 | -4.5 | 0.3 | -3.7 | 10.9 | 16.4 | 8 | -14.8 | | | | |
| World | 3.5 | 1.3 | -0.8 | 1.1 | -4 | 4.1 | -4.6 | -1.6 | -1.5 | 0.1 | -3.1 | -1.6 | 1.2 | | | | |

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Wind index

The wind index represents the average wind speed anomaly across all plants of the country or region in production by the end of 2020. The anomalies are calculated as a percent deviation from the 1995 – 2019 mean speed at 100 m above ground level for the calendar period, and are weighted by the location and rated capacity of wind projects.

The wind project details have been obtained from [Windpower Monthly Intelligence](#).

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