



DTU Wind Energy Department of Wind Energy

NEWS RELEASE

Mapping the World's Wind Energy Potential

AMSTERDAM, November 28, 2017 -- The World Bank and the Technical University of Denmark (DTU) today launched new <u>Global Wind Atlas</u>, a free web-based tool to help policymakers and investors identify promising areas for wind power generation, virtually anywhere in the world.

The Global Wind Atlas is expected to help governments save millions of dollars by avoiding the need for early-stage, national-level wind mapping. It will also provide commercial developers with an easily accessible platform to compare resource potential between areas in one region or across countries.

The new tool is based on the latest modeling technologies, which combine wind climate data with high-resolution terrain information—factors that can influence the wind, such as hills or valleys—and provides wind climate data at a 1km scale. This yields more reliable information on wind potential. The tool also provides access to high-resolution global and regional maps and geographic information system (GIS) data, enabling users to print poster maps and utilize the data in other applications.

The Global Wind Atlas was unveiled at an event at the Wind Europe Conference in Amsterdam, following the successful launch of the Global Solar Atlas earlier in the year.

Solar and wind are proving to be the cleanest, least-cost options for power generation in many countries. These tools will help governments assess their resource potential and understand how solar and wind can fit into their energy mix. An example of how good data can help boost renewable energy is Vietnam where solar maps from the Global Solar Atlas laid the groundwork for the <u>installation of five solar measurement stations across the country</u>.

"There is great scope in many countries for the clean, low-cost power that wind provides, but they have been hampered by a lack of good data," said Riccardo Puliti, Senior Director and Head of the World Bank's Energy & Extractives Global Practice. "By providing high quality resource data at such a detailed level for free, we hope to mobilize more private investment for accelerating the scale-up of technologies like wind to meet urgent energy needs."

The work was funded by the Energy Sector Management Assistance Program (ESMAP), a multi-donor trust fund administered by the World Bank, in close partnership with DTU Wind Energy.

"The partnership between DTU Wind Energy and the World Bank allows us to reach a broader audience, especially in developing countries while remaining at the forefront of wind energy research. We are excited by the scientific advances that the new Global Wind Atlas incorporates, and look forward to seeing how this data can enable countries to advance wind projects," said Peter Hauge Madsen, Head of DTU Wind Energy.

While the data powering the Global Wind Atlas is the most recent and most accurate currently available, it is not fully validated in many developing countries due to the lack of ground-based measurement data from high precision meteorology masts and LiDARs. ESMAP has funded a series of World Bank projects over the last four years to help fill this gap, with wind measurement campaigns under implementation in

Bangladesh, Ethiopia, Nepal, Malawi, Maldives, Pakistan, Papua New Guinea, and Zambia. All measurement data is published via https://energydata.info, a World Bank Group data sharing platform.

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