

Explore the tabs above to see interactive maps and charts of annual growth, cumulative installations, and share of generation by state and region. For more information on land-based wind energy from ...

These countries demonstrate that the world as a whole can achieve a 40-50% share of wind power in total electricity generation, as outlined by the WWEA in a long-term scenario.

68 GW of onshore wind and 97 GW of offshore wind (OFW) auctions are in the pipeline.<sup>14</sup> Table 1 shows a few commonly used competitive offtake mechanisms for wind energy.

The U.S. Department of Energy's annual offshore, land-based, and distributed wind market reports, released in August 2024, show that the passage of the Inflation Reduction Act (IRA) led to significant ...

There are now longer and lighter wind turbine blades, improvements in turbine performance, and increased power generation efficiency. Also, wind project capital expenditure costs and maintenance ...

The amount of power that can be harvested from wind depends on the size of the turbine and the length of its blades. The output is proportional to the dimensions of the rotor and to the cube of the wind speed.

The repository contains wind speeds and generation based on three different meteorological models: ERA5, MERRA2, and HRRR. Data are publicly accessible in simple csv files.

To estimate a wind turbine's annual energy output, determine its rated capacity, assess wind resources, calculate the capacity factor, and estimate the expected electricity production of a ...

This dataset contains yearly electricity generation, capacity, emissions, imports and demand data for European countries. You can find more about Ember's methodology in this document.

The Global Wind Power Tracker (GWPT) is a worldwide dataset of utility-scale, on and offshore wind facilities. It includes wind farm phases with capacities of 10 megawatts (MW) or more.

Web: <https://www.black-hat.co.za>