PIENAAR ENERGY (PTY) LTD

Reasons for the decline in wind power generation

Overview

Although the global wind energy sector had a record-breaking year in 2024, growth is still happening too slowly to meet targets The Global Wind Energy Council's 2025 report shows record installations but warns that trade barriers, grid constraints and policy are slowing progress. Although the global wind energy sector had a record-breaking year in 2024, growth is still happening too slowly to meet targets The Global Wind Energy Council's 2025 report shows record installations but warns that trade barriers, grid constraints and policy are slowing progress. U. electricity generation from wind turbines decreased for the first time since the mid-1990s in 2023 despite the addition of 6. 2 gigawatts (GW) of new wind capacity last year. Data from our Power Plant Operations Report show that U. 3 billion kWh generated in 2022. With windmill capacity increasing due to subsidies and. Rising temperatures and their impact on atmospheric circulation are expected to reduce wind speed across Europe and North America. By mid-century, wind speeds could drop by 5%, with reductions reaching up to 15% by 2100.

Reasons for the decline in wind power generation

GWEC: Why Isn't the Global Wind Sector Growing Faster?

In its 2025 Global Wind Report, the Global Wind Energy Council (GWEC) warns that current growth rates fall far short of what is required to meet the COP28 target of tripling renewable ...

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Global wind energy resources decline under climate change

This wind energy paradox needs to be recognised in planning the development of the wind energy sector and in assessing its contribution to the decarbonisation of energy systems worldwide, ...

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Low-Energy Fridays: What does less wind mean for the power industry

After decades of yearly increases, the amount of electricity generated by wind power in the United States saw a slight decline in 2023. American wind generators produced 425.2 billion ...

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Wind Generation Declined in 2023: Unpacking the Surprising Dip in

In 2023, the landscape of wind power in the United States experienced a notable shift. For the first time since the 1990s, the production of electricity from wind experienced a decline. This ...

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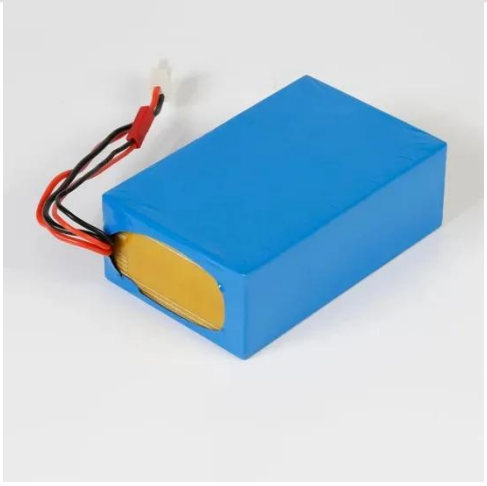

Wind Output Falls to a 33-Month Low in July

With windmill capacity increasing due to subsidies and state mandates and wind power production declining, consumers are paying more but getting less. The result has been record ...

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Decline in US wind generation raises bigger concerns than El Niño

Slower wind speeds from the naturally occurring El Niño weather phenomenon drove lower generation. Consultancy DNV, which advises on US wind projects, saw a 5 per cent decline in ...

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Why Wind Energy Is in a State of Crisis

As I wrote in a story last year, wind's

early growth enabled utilities to shut down their dirtiest and most expensive fossil fuel power plants resulting in less emissions and air pollution.

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Prolonged wind droughts in a warming climate threaten global wind ...

Prolonged low-wind events, termed wind droughts, threaten wind turbine electricity generation, yet their future trajectories remain poorly understood.

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Wind speed decline: Climate Change cuts wind power by 40%

Between 2021 and 2050, wind speeds could decrease by up to 5%, with a potential 15% decline by the end of the century. These figures signal a significant impact on wind energy generation and the ...

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Wind generation declined in 2023 for the first time since the 1990s

Last year, the average utilization rate, or capacity factor, of the wind turbine fleet fell to an eight-year low of 33.5% (compared with 35.9% in 2022, the all-time high). The 2023 decline in wind ...

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