# Global Energy Use and Emissions Hit Record Highs in 2023



### Record Highs for Energy Use and Emissions in 2023

In 2023, global energy consumption reached an unprecedented peak of 620 exajoules (EJ), according to the Energy Institute's Statistical Review of World Energy 2024. This surge in demand was marked by significant contributions from wind and solar power, which together added 4.9EJ or 40% of the net increase in energy supply. Despite this, coal and oil usage also hit new highs, contributing to record levels of carbon dioxide (CO2) emissions.

### Key Figures and Trends

* Wind and Solar: Added 4.9EJ (40% of the increase) in 2023.
* Oil: Increased by 4.8EJ (39%) to reach 196EJ.
* Coal: Grew by 2.5EJ (20%) to 164EJ, the highest level recorded.
* Nuclear and Other Renewables: Increased by 0.9EJ collectively.
* Hydro: Declined by 0.9EJ.

The data illustrates that while renewable energy sources are growing rapidly – wind and solar together supplied 3,967 terawatt hours (TWh) – the rise in global energy demand means fossil fuels still dominate, accounting for 81.5% of primary energy consumption.

### Regional and Sector Impacts

* China: Increased fossil fuel use by 6%, yet led globally in renewable energy additions.
* India: Fossil fuels accounted for almost all demand growth.
* US and EU: Emissions fell by 2.7% and 6.6%, respectively.

The report highlights that while developed regions may be peaking in fossil fuel demand, developing nations continue to see growth due to economic and quality-of-life improvements.

### Private Investment Surge

Private equity has responded with substantial investment in renewable energy sectors, totaling nearly $15 billion in 2023. Major firms like KKR & Co. Inc. and Brookfield Asset Management are actively acquiring renewable energy developers, focusing on long-term capacity growth.

### Challenges and Opportunities

Renewable energy sectors face challenges like project delays and supply chain disruptions. Yet, the valuation of renewable companies has become attractive, encouraging further investment. Data centers are particularly driving demand, with significant agreements like Brookfield's 10.5-GW deal with Microsoft.

### Future Outlook

Despite current trends, the report suggests potential peaking of emissions in the near future, driven by continued growth in renewables and possible declines in coal use. For now, fossil fuels remain pivotal, underlined by their central role in meeting global energy needs and contributing to CO2 emissions surpassing 40 gigatonnes for the first time in 2023.