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Current Date (Military Style – example: 8 May 2026)

AI in Sustainable Energy

Sustainable energy is the future of powering the world, and artificial intelligence is playing an ever-changing role in the future of renewable energy sources.

Sustainable energy refers to sources such as solar power, wind power, hydroelectric power, biomass, among others. The ability to more efficiently control these sources of renewable energy will make a difference in providing sustainable energy sources to a larger percentage of the population, reducing the environmental impact of fossil fuels.

Wind Energy

The role of artificial intelligence in wind energy involves a number of factors. Using AI, producers of such energy can easily optimize performance based on usage, weather conditions, and demand. In addition, producers can use models to forecast wind conditions for use in planning for resource allocation.[[1]](#footnote-1)

Solar Energy

Within the solar energy sector, analytics can also be useful in forecasting energy generation through evaluating sunshine and cloud cover. Predictive maintenance will allow producers to monitor infrastructure and predict when failures may be imminent, reducing costs.

Overall, AI will increase the efficiency of sustainable power and present opportunities for producers to more effectively deliver power to consumers and business. The increased performance and ability to monitor and perform preventive maintenance before failures occur will provide cost efficiencies that will reduce the overall cost of energy production. This is a positive for both producers and consumers in the world of sustainable resources.

1. Kevin McMann. “Sustainable Actions.” *The New York Times,* 24 Jan. 2024, [www.nytimes.com/38829991874/sustainable-actions.html](http://www.nytimes.com/38829991874/sustainable-actions.html). [↑](#footnote-ref-1)