California breaks record by achieving 100% renewable energy for the first time

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June 10, 2022

Climate Action

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As Earth Month drew to a close, the state of California was recently able to produce virtually all of their energy needs from renewable sources for the first time ever.

In early April, the state achieved a new record at 97.6% renewable power, and on May 2 they were able to reach 99.9%. On May 8 the record was broken yet again, with 103% of the state's power needs being met by renewables for a few hours.

This landmark moment highlights the viability of renewable energy on a large scale, proving that governments of all sizes have the capability to Invest in Our Planet. If it were an independent nation, California's $3.14 trillion economy would be the fifth largest in the world.

While state leadership played a significant role in this accomplishment, local governments made important contributions that led to California's success this spring. City leadership on renewable energy hit an all time high in the last year, having more than doubled the amount of clean power deals made in the previous year.

To set our sights on a fully carbon-free future, however, there is still work to be done to ensure that clean power is available at all times; when the sun is not shining and the wind is not blowing, California must still rely on fossil fuels to meet its energy demands.

Large-scale battery projects are essential to providing clean energy around the clock, allowing solar power generated during the day to be stored and used after sunset. The state has invested in massive efforts to scale up the grid's storage capacity in recognition of this need, and battery storage in California has already increased 20-fold since 2019. These efforts have been aided by a 97% decrease in the production cost of batteries over the last 30 years, a trend that continues to accelerate year after year. The US is also home to one of the

largest deposits of lithium (an essential mineral for battery production), of which only 1% is currently being used; sustainably extracting this resource will be necessary to achieve the speed and scale needed for the US to meet its climate goals.

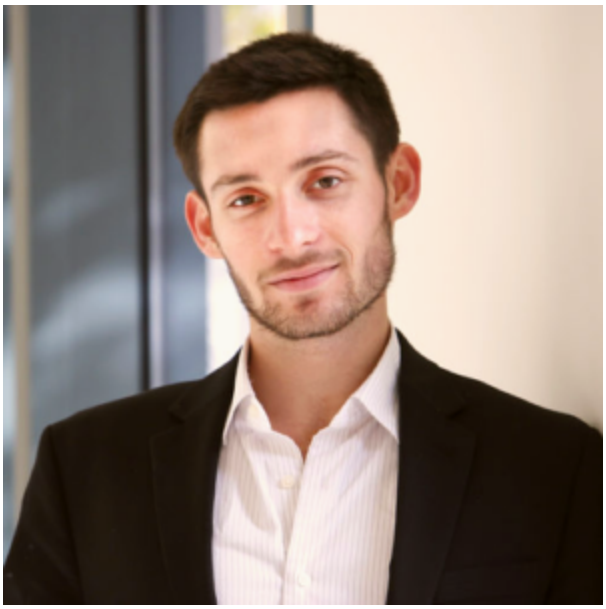
For California to achieve 24/7 carbon-free energy by 2045, solar and wind projects will need to be built 3 times faster and battery storage expansion will need to be developed 8 times faster. In addition to the trends in battery production described above, the renewable energy industry is evolving to bring this goal well within reach. Clean power production in California has tripled since 2005, largely due to increased cost efficiency in renewable energy. Over the last decade, the price of renewable energy has plummeted: wind has become 3 times more affordable and solar has become 10 times more affordable, making it more cost effective than any fossil fuel-burning power source.

Recognizing the benefits to the economy and national security, President Biden announced new executive orders on June 6th to Invest in Our Planet by accelerating the transition to renewable energy in the US. The President authorized the Department of Energy to use the Defense Production Act to increase production of key components for solar panels, while also lifting tariffs that formed significant barriers to expanding the US solar industry. This action is a significant and direct investment from the federal government to meet its climate commitments, which is likely to further fuel the progress seen recently in California and localities nationwide.

Momentum is on our side. The more we Invest in Our Planet, the more these trends will accelerate.

Tags:

renewable energy



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