Renewable energy most efficient

Renewable energy most efficient

Not that long ago, critics of renewable sources of energy had a point when they claimed wind and solar power cost more and were less dependable than fossil fuels, mostly because they depend upon the wind blowing and the sun shining.

But that is changing. The steady progression of scientific achievements are making wind and solar as cost-efficient to produce as fossil fuels, and increasingly competitive at storing energy as well.

"The myths about renewable energy are based on prices and performance that are typically out-of-date," said Bruce Usher, a professor of professional practice at Columbia Business School, where he teaches on the intersection of financial, social and environmental issues.

Advancements have both improved performance and lowered costs, said Steven Cohen, former long-time executive director of the Earth Institute at Columbia University and now senior vice dean the University"s School of Professional Studies.

In Texas, which is the only state with its own power grid, Gov. Greg Abbott falsely blamed wind and solar power for last winter"s failure of the state"s energy grid during severe storms that saw power generation disrupted and natural gas pipelines freeze. Former Energy Secretary Rick Perry piled on, claiming that the incident exposed the danger of relying of renewable energy.

A federal study actually found that renewable sources outperformed fossil fuel production during the incident, which was mostly caused by failures of equipment inadequately protected from the freezing temperatures, regardless of the energy source. National Public Radio concluded it was a systemwide failure to prepare for extreme cold.

"Due to the deregulated nature of the Texas power system, windmills which can easily be protected from cold were not protected," he said. "Windmills in northern Europe and the U.S. have no issue operating in the cold."

In California, other critics of renewables made similar claims last summer during heatwave-related blackouts, even after a state study (PDF) found that the main causes were climate change-induced extreme weather, inadequate resources and planning processes, along with market practices -- all unrelated to renewables.

Perhaps the common denominator among the energy failures caused by a frozen Texas and a blistering California is that neither state is prepared for the challenges presented by climate change.

"Wind and solar have always been reliable generators of power," Usher said, "when it"s windy and sunny." It was the storage half of the equation that, in the past, made them less dependable.

"Wind and solar projects are increasingly being paired with energy storage -- primarily in the form of batteries -- making renewable sources more reliable by addressing the intermittency of wind and solar power generation," Usher said.

Along with more and better storage, both experts identified another key to increasing renewable energy production: moving the electricity from where it is generated to where it is needed. High-capacity transmission lines will help, Cohen said.

Contact us for free full report

Web: https://www.hollanddutchtours.nl/contact-us/
Email: energystorage2000@gmail.com
WhatsApp: 8613816583346