

Renewable Energy Cleans Up the Environment

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April 22 is Earth Day. That makes it a great time to take stock of the many benefits renewable energy offers the natural world 24/7/365.

Renewable energy is a viable alternative to fossil fuels. It provides clean, reliable, low-cost electricity that leaves no carbon footprint. Cleaner air and water, and decreased greenhouse gas emissions offer a cleaner future for America.

One of the greatest environmental benefits renewable energy delivers is pollution reduction. [More than a third](#) of U.S. greenhouse gas emissions come from burning fossil fuels used in electricity generation. According to the American Wind Energy Associations 2019 Annual Report, the Midwest and Mountain West regions of the country are the most emissions-intensive regions resulting from the large share of electricity generation from coal plants. The Plains has seen the largest reduction in emission intensity from electricity generation over the last 10 years thanks at least in part to the growth of wind power capacity in the region. According to a recent [report](#) by the Business Council for Sustainable Energy, America's power sector had the largest drop in greenhouse gas emissions, with a 7.8 percent decrease last year from 2018. Overall emissions have fallen 4.1 percent from a decade ago, and 12 percent below 2005 levels. In the last 10 years, emissions declined nearly 25 percent.

Wind energy is now the number one renewable energy source, providing 7 percent of the nation's electricity needs. Last year, wind energy avoided [198 million metric tons](#) of carbon dioxide. That's the equivalent of taking 42 million cars off the road. This is beneficial for the environment, as well as our well-

being.

Solar energy has been on the rise in recent years as well, now providing an astounding 77 gigawatts (GW) of carbon-free electricity. According to the Solar Energy Industries Association (SEIA,) solar energy saves as much carbon as 1.5 billion trees. More than 14.5 million homes derive their electricity from solar, which has offset more than [88 million metric tons](#) of carbon dioxide emissions. As the demand grows and installation and operation costs continue to decline, solar will bring even more clean energy to Americans.

Renewable energy resources, like wind and solar, also reduce sulfur dioxide, nitrogen oxide and fine particulate matter, which can cause health problems. According to the Center for Disease Control and Prevention, about [25 million people](#) suffer from asthma. About 7.5 percent of the national average include our nation's children. In 2019, wind energy avoided [400,000 metric tons](#) of pollutant emissions that trigger asthma attacks.

But that's not all! Renewable energy also reduces water consumption. Fossil fuel power plants rely on water for generation and cooling, making the U.S. power sector the highest water consumer. Thankfully, wind turbines don't need water to keep them spinning. Because of this, wind power saved [103 billion gallons](#) of water in 2019 alone. That's the equivalent of approximately 312 gallons for each person in the country, or 776 billion bottles of water saved. Solar projects also use [significantly less](#) water than traditional power plants thanks to water use management programs.

The United States has been undergoing a transition to clean energy, and the last decade has shown substantial growth in the amount of renewables powering our economy. In the last 10 years, renewable energy capacity has doubled currently accounting for [18 percent](#) of the nation's electricity. Wind currently keeps the lights on in [32 million homes](#), and solar generates enough electricity to power another [14.5 million](#). Wind energy costs have declined [70 percent](#) in the last decade, and solar energy costs have fallen [88 percent](#) since 2009. Technology improvements and low installation and operation costs will open more doors (and homes) to renewable energy.

Spring is a season of renewal. Trees and flowers come to life, the days grow brighter and warmer, and many of us begin to think about growth and change - what we can do to improve the world in which we live. The renewable energy industry has come a long way, bringing with it an abundance of environmental benefits that have greatly impacted our lives. And there's more to look forward to.

Solar capacity is projected to hit [100 GW by 2021](#). There are [44 GW](#) of wind power in the pipeline for 2020, which would power an additional 15 million homes and put a stop to harmful pollutants.

As the demand for clean energy grows, the future looks bright and the air smells clean.

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