

Clean Power Technologies Help Our Economy and our Planet



Clean energy sources like wind and solar are critical parts of reducing greenhouse gas emissions and combating climate change.

Transitioning to majority zero-carbon energy sources like land-based wind, offshore wind and solar will help drive the clean energy economy forward while benefiting our planet.

#JustTheFacts Clean Power + Climate:

Clean Power Provides a Cleaner and Healthier Environment for Americans



When generating electricity, wind and solar power produce zero carbon emissions, the greenhouse gas primarily responsible for climate change A typical wind project repays its carbon footprint from construction in six months or less, providing decades of zero-emission energy



The carbon footprint of a typical solar pv plant is 11x smaller than a natural gas plant and 21x smaller than a coal plant

Clean Power Saves Water

Because clean power does not require water for cooling like conventional power plants, wind and solar projects save **208 billion gallons** of water each year.

That amount of water is enough to fill:



Olympic-sized swimming pools



single-use sized bottles of water

Clean Power Reduces Carbon Emissions

Wind and solar power avoid emitting 426 million metric tons of carbon dioxide per year.

That amount is the emissions equivalent of:



435 million one-way trips down scenic Route 66



Would equal the amount of carbon sequestered by planting 20 billion trees

HISTORIC

ROUTE

66

ROUTE

Driving 1 trillion miles in your average car. That's the emissions equivalent of:



trips around the Earth





trips around the bases on a baseball diamond

The carbon emissions saved is equivalent of not using more than 48 billion gallons of gasoline

The carbon emissions savings can prevent nearly \$22 billion in future climate-related damages each year

Clean Power Makes Communities Healthier by Improving Air Quality

Generating electricity using clean power provides public health benefits. Wind and solar power cut significant amounts of harmful air pollutants that impair the respiratory system and exacerbate asthma, like sulfur dioxide (SO2) and nitrogen oxides (NOx) from entering the Earth's atmosphere.

Decreasing these pollutants helps to reduce smog and the rates of asthma attacks and other respiratory issues

- Wind and solar power avoid 321,000 metric tons of nitrogen oxides from being emitted into the Earth's atmosphere
 - -That's the same amount of NOx emitted by an average tractor trailer driving nearly 35 billion miles
- Wind and solar power prevent 282,000 metric tons of sulfur dioxide from being emitted into the Earth's atmosphere





Clean Energy Sources are Critical in the Global Fight Against Climate Change

Climate change is a global threat that requires international collaboration to address.

- As carbon-free and cost-competitive energy sources, wind and solar power are leading climate solutions on the path toward a low-carbon future
- Reaching a majority renewable energy future by 2050 will lower emissions from the electric sector by 76 percent below 2005 values, helping meet most of the target set under the **Paris Agreement**

Clean Power is a Cost-Effective Solution to Combat Climate Change

Wind and solar costs have fallen 41% and 57% over the last decade, making them the most affordable new electricity sources in most of the U.S.



Clean Power Lifts Up Communities

Clean power expands the tax base in American communities and provides extra revenue from drought-proof land lease payments to landowners that host projects.

- \$1.4 billion in new tax revenue from clean power projects in 2021
- \$1.5 billion from land lease payments to farmers, ranchers, and private landowners

Wind and Solar Energy Can Cleanly Power Homes, **Businesses, Farms, and Entire Communities**

- Wind is the nation's #1 source of renewable electricity generation
- There's over 228 gigawatts of clean power operating in the U.S.



 Utility-scale solar is the 3rd-largest source of renewable energy

That's enough to power:

over 62 million homes

LED lightbulbs for a year

Clean Power Creates Climate-Friendly and Family-Sustaining Jobs

- Clean power supports nearly 443,000 jobs across all 50 U.S. states
- Wind turbine technician and solar installer are 2 of the fastest-growing jobs in the country
- Clean energy is set to have nearly 200,000 domestic workers in the manufacturing sector alone by 2030 as part of achieving a majority renewable electric grid
- U.S. offshore wind growth will support up to 83,000 jobs by 2030
- Renewable energy workers are paid 25-35 percent more than the national median wage and 10% of the workforce is unionized



America's clean power sector stands ready to play its role as the world works together to achieve a lower-carbon future and shift to a 21st century economy powered by clean energy.

