

# 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**

CARBON EMISSIONS

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



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:



single-use sized bottles of water

## **Clean Power Reduces Carbon Emissions**

Wind and solar power avoid emitting **413 million metric tons** of carbon dioxide per year.

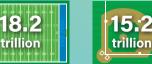
That amount is the emissions equivalent of:



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



trips around the Earth



football fields trips around long the bases on a baseball diamond



Would equal the amount of carbon sequestered by planting **19 billion** trees

HISTORIC

ROUTE

66

ROUTE

The carbon emissions saved is equivalent of not using more than **47 billion** gallons of gasoline





#### **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 **295,000 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 **32 billion miles**



• Wind and solar power prevent **264,000 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 65% and 85% 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.

- \$1.3 billion in new tax revenue from clean power projects in 2021
- \$1.4 billion from land lease payments to farmers, ranchers, and private landowners



- Wind is the nation's **#1 source** of renewable electricity generation
- There's over 200 gigawatts of clean power operating in the U.S.



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

**. 3** billion That's enough to power: nearly 58 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 top 5 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 21<sup>st</sup> century economy powered by clean energy.



Learn more at cleanpower.org



