A FACT-BASED GUIDE FOR AMERICAN LANDOWNERS & TAXPAYERS

American Energy BY THE NUMBERS

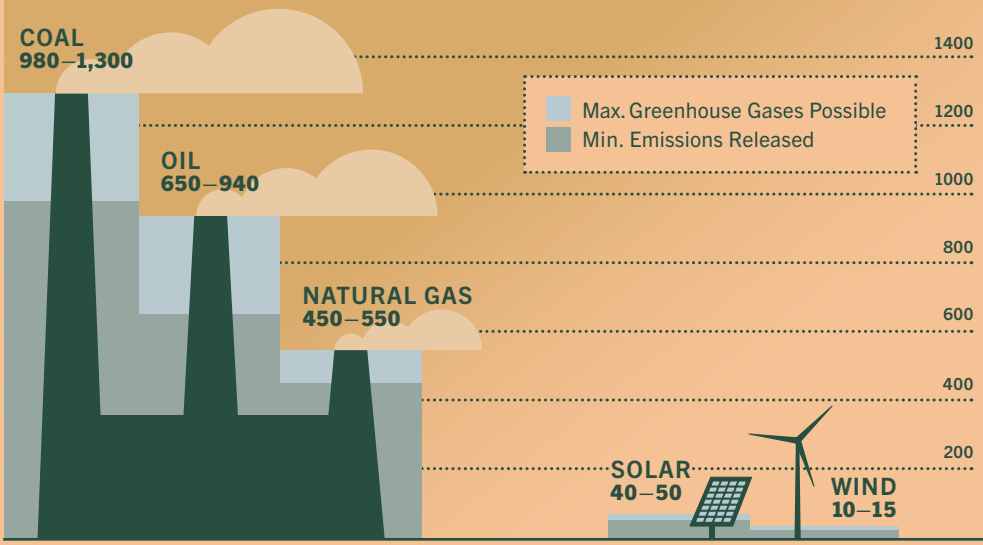
Wind and solar energy do not use eminent domain and are part of the American energy solution. But many remain hesitant due to disinformation—false claims shared to confuse or scare people. **These five facts debunk the myths and show why clean energy is a smart investment for everyone.**

1 Wind & solar are extremely low in greenhouse gas emissions throughout their life cycle and produce **zero emissions** during operation.

LIFE CYCLE EMISSIONS (gCO_2/KWh)

gCO_2/KWh stands for grams of carbon dioxide per kilowatt-hour and measures the carbon pollution released to produce one unit of electricity.

Life Cycle Emissions account for all greenhouse gases released throughout the entire lifespan of an energy source.



DISINFORMATION ALERT:
A common myth is that wind and solar are "secretly" high in emissions because of their manufacture, etc. This is false.

Wind and solar do create some emissions when manufacturing, installation, transportation of materials, etc. is considered but the amount is extremely low compared to coal, oil, and gas which are directly burned.

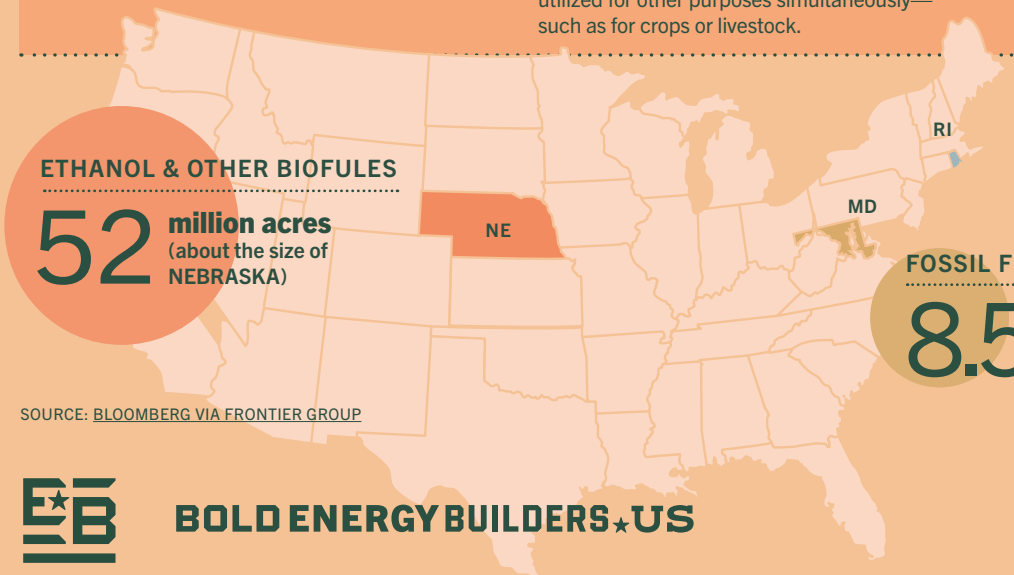
SOURCE: NATIONAL RENEWABLE ENERGY LABORATORY

2 Wind and solar provide around 13% of total U.S. electricity, while occupying less than 1% of the land area of the energy system.

LAND USE OF U.S. ENERGY SOURCES*

Land used for wind turbines can still be utilized for other purposes simultaneously—such as for crops or livestock.

IT'S A MYTH: Wind and solar don't take up more land than other energy sources.



ETHANOL & OTHER BIOFULES

52 million acres (about the size of NEBRASKA)

WIND+SOLAR (DIRECT FOOTPRINT)**

0.6 million acres (about the size of RHODE ISLAND)

FOSSIL FUELS

8.5 million acres (about the size of MARYLAND)

SOURCE: BLOOMBERG VIA FRONTIER GROUP

* Numbers rounded to nearest tenth of a million acres; Energy sources not shown: hydropower (8.7 million acres), powerlines (4.8 million acres), nuclear plants (0.23 million acres), and power plants (0.15 million acres).

** Wind + solar and fossil fuels based on direct footprints as land around wind turbines/solar panels can be used simultaneously for other purposes and the footprint of fossil fuel impacts like noise and pollution are not considered.

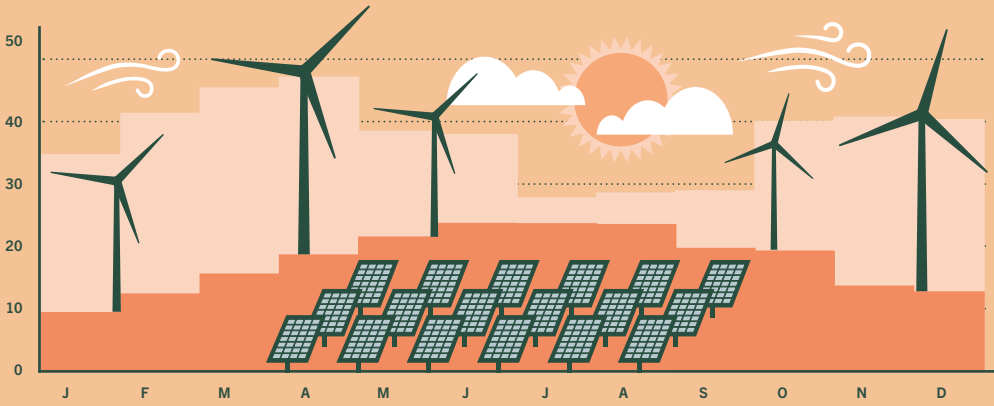
BOLD ENERGY BUILDERS★US

3 Systems that combine wind and solar with battery storage are capable of providing communities with **adequate and reliable energy.**

2024 WIND AND SOLAR ENERGY GENERATION
(IN THOUSAND MEGAWATT HOURS)

In 2024, battery storage improved the reliability and integration of renewable energy into the grid.

⚠ FACT CHECK: Energy from wind and solar is reliable and can be stored.



Solar works even on cloudy days and in cold weather.

Wind power is consistently available 24 hours a day, 7 days a week in most regions.

SOURCES: YALE SCHOOL OF THE ENVIRONMENT AND U.S. ENERGY INFORMATION ADMINISTRATION

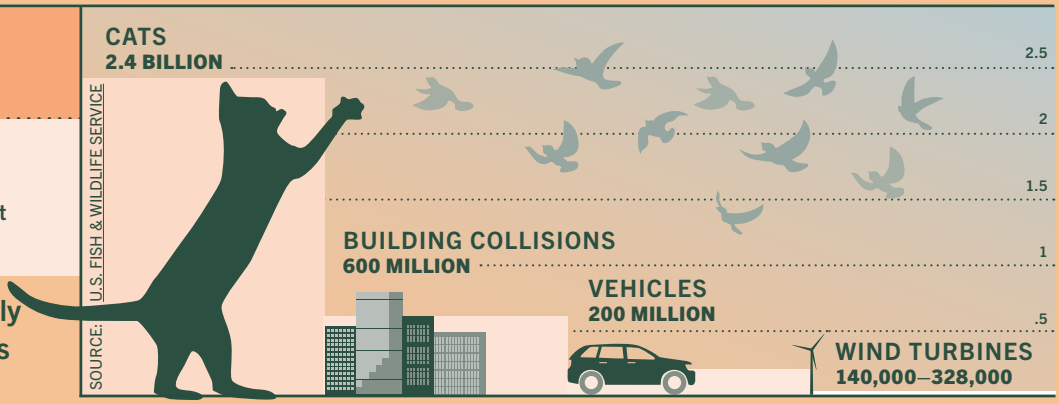


4 Cats, building collisions, and vehicles **cause at least 9756x more bird deaths** than wind turbines (yes, you read that correctly).

ANNUAL BIRD DEATHS
(IN BILLIONS)

⚠ A COMMON MISCONCEPTION: Despite widely circulated myths, wind turbines are not a significant threat to bird populations.

Wind turbines account for only a small fraction of bird deaths compared to **domestic cats.**



5 Clean energy **grows local economies** across the U.S. without sacrificing our natural resources.



- ✓ Contributes millions to local tax revenue.
- ✓ Creates long-term, American jobs that can't be outsourced.
- ✓ Protects groundwater from oil spills and coal ash.
- ✓ Generates steady income for landowners who lease to turbines or solar farms.
- ✓ Keeps American energy local.
- ✓ Reduces dependence on foreign fuels.

RURAL AMERICA FEEDS THE WORLD. NOW WE CAN HELP POWER IT.

ENERGY BUILDERS provides education, training, legal, communications and organizing support for rural communities who want to see more clean energy built in their towns. We believe an unlikely alliance of farmers, ranchers, Tribal Nations, union workers and climate advocates will transform America's energy landscape, bringing energy freedom and land justice to our rural towns, all the while building real wealth at the local level.

A PROJECT OF BOLD
BOLD
WE PROTECT THE LAND & WATER