



WE CAN DO THIS: 100% RENEWABLE IS ACHIEVABLE

Outdated Fossil Fuels Replaced by Clean Energy

Just a few years ago, powering the United States with 100% clean, renewable energy sounded like a pipe dream. Today, we have the technology to make this vision a reality.

OUR ENERGY SYSTEM IS DANGEROUSLY OUTDATED

Fossil fuels and nuclear power are outdated, 20th-century energy sources. Coal, fracked gas, and nuclear energy fluctuate rapidly in price and cause construction cost overruns. Aging power plants are becoming a liability. The average active coal plant is more than 40 years old and hundreds of plants have already been retired or are slated for retirement.

- The old model of power generation, with big, centralized fossil fuel plants transmitting electricity long distances, is built on an aging infrastructure that would cost more than five trillion dollars to overhaul. This system is not sustainable for the future energy needs of our country.¹
- Fracked gas fluctuates wildly in price. In 2005, gas nearly doubled in cost over two months and from 2011 to 2012, it lost half its value.² This uncertainty hurts our economy by passing on unpredictable cost changes to consumers and homeowners.
- Within the past decade, the Nuclear Regulatory Commission has approved seven projects, none of which were completed because of cost overruns and safety concerns. The failed V.C. Summer nuclear energy facility in South Carolina alone cost taxpayers more than ten billion dollars.³
- Coal, fracked gas, and nuclear fail during heat waves or droughts because they require massive amounts of water to generate power. Waterless sources like wind and solar are far more reliable.⁴

100% RENEWABLE ENERGY IS WITHIN REACH

More than 70% of the world's energy experts have agreed that transitioning to 100% renewable energy is achievable.⁵ In fact, many countries, states, cities, and corporations are already powered by large amounts of clean energy, proving that we have the solutions we need to move to 100% renewable energy.

- Some states already source significant amounts of energy from clean sources. More than a third of all

power in Iowa, for example, comes from wind energy.⁶

- Germany also sources more than a third of its electricity demand from clean energy. On sunny and windy days, the country reaches 85% capacity from renewables.⁷
- In Georgetown, Texas, city officials are saving money by contracting nearby wind and solar farms for 100% of the community's energy needs.⁸
- LEGO reached its 100% clean energy goal three years ahead of schedule by investing in offshore wind projects as part of its vision to protect our children's the future.⁹

The move to 100% clean energy builds on the spirit of innovation that has long been a hallmark of America's economy. Just as we switched from horses to cars, telegrams to cell phones, and typewriters to computers, we must now commit to switching from dirty fuels to clean energy.

CLEAN ENERGY PROVIDES AFFORDABLE, RELIABLE POWER

We must embrace clean, renewable energy to reliably power our country's homes and businesses. Clean and renewable energy sources offer a more resilient and stable option for all.

- Clean energy technologies that are available today could supply 80% of all U.S. electricity generation by 2050, while still meeting hourly electricity demand in every region of the country.¹⁰
- Scientists are already developing and deploying technologies that improve energy storage and efficiency that will soon help power the entire country with renewable energy.¹¹
- Emerging resources like energy storage, demand response technologies, and new transmission will create a more flexible energy system to produce even greater amounts of renewable energy.
- Renewable energy can be reliably integrated into the existing power mix without issue.¹² Energy leaders

Greensburg

Clean energy helped bring one town in Kansas back from the brink. Greensburg, which was nearly leveled by a massive tornado in 2007, rallied to rebuild in a new way after the storm. Residents' resilience led to a Sustainable Comprehensive Master Plan that called for 100% clean energy through investments in wind, small-scale solar, geothermal, and energy efficiency.

By achieving this goal, Greensburg's 13 largest buildings alone are already saving more than \$200,000 in energy costs annually. Mayor Bob Dixon summarized the remarkable turnaround: "We did not just want to be a surviving community. We wanted to be a thriving community."

from Texas, California, and an East Coast group of 13 states all agreed that renewables like wind power are readily added into the current energy mix.¹³

- In extreme weather events, like a hurricane, renewables are resilient. During Hurricane Sandy, for example, solar panels both weathered the storm and quickly repowered damaged areas.¹⁴
- Even for other uses of energy, like transportation, renewables come out on top on reliability. For example, electric vehicles require far less maintenance than fossil fuel vehicles, and their drivers avoid volatile gasoline prices.¹⁵ Many cities are opting for renewable energy buses for the same reasons, and are providing a clean rapid transit option for their residents at the same time.

Clean energy like solar offers new localized solutions to better serve those most disrupted by frequent power outages. Solar power, either on rooftops or in community

Want to see the cities and communities that are already committed to achieving 100% renewable energy? Check out our up-to-date map at: Readyfor100.org

gardens, provide reliable service anywhere even if the local energy grid infrastructure is lacking.¹⁶ Across the board, renewable energy sources like wind and solar are the reliable energy choices today and for the future.

MANY PATHS TO 100% CLEAN ENERGY

There is no one right way to power a community with 100% renewable energy. Here are some of the strategies that cities and states across the country are using right now:

- **Municipalization:** Cities or communities can form their own locally-owned utility to deliver 100% renewable energy. Georgetown, Texas succeeded with this approach.¹⁷
- **Utility partnerships:** Places like Salt Lake City are working with existing utilities to draft memorandums of understanding (MOUs) or other 100% renewable agreements.¹⁸
- **Renegotiating franchise agreements:** Cities can leverage existing franchise agreements with electric providers to negotiate investment in greater amounts of renewable energy. Minneapolis negotiated with the utility to raise funds for energy efficiency and clean energy.
- **Community Choice Aggregation (CCA):** Multiple cities and municipalities in the same region, can pool purchasing power for 100% renewables, like the San Diego area is doing.¹⁹
- **Renewable portfolio standard or goal (RPS):** A statewide renewable portfolio standard or goal can require utilities to deliver 100% renewable energy statewide by a certain year, like Hawaii's 2045 target.²⁰

Are you committed to transitioning your city, municipality, or state to 100% clean, renewable energy? Show that you are **#ReadyFor100** by joining or starting a local campaign, signing a petition, or contacting your local decision-makers. For more information about how to get involved in the movement, go to ReadyFor100.org

ENDNOTES

1 *Business Insider*

2 Energy Information Administration

3 *Washington Post*

4 Union of Concerned Scientists

5 Renewable Energy Policy Network

6 Energy Information Administration

7 Reuters

8 NPR

9 EcoWatch

10 National Renewable Energy Lab

11 National Renewable Energy Lab

12 Environmental Defense Fund

13 Reuters

14 *Christian Science Monitor*

15 Department of Energy

16 Power for All

17 City of Georgetown

18 Salt Lake City Sustainability Department

19 City of San Diego

20 Hawaii State Energy Office

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