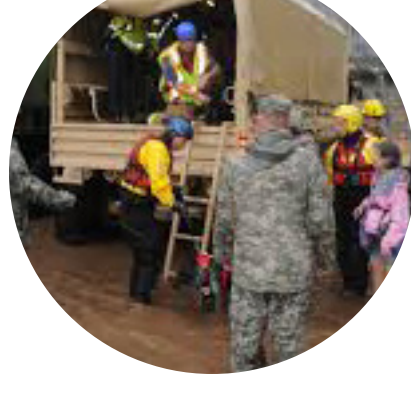


CLIMATE URGENCY



NEXTGEN CLIMATE AMERICA

2015 was the hottest year since modern recordkeeping began and **2016 is on track to be even hotter.**

The 2015 annual average CO₂ concentration was above 400 ppm, jumping 3 ppm from 2014: **the largest one-year increase ever** measured.

The EPA recently revised 2014 U.S. methane emissions to be **34 percent higher** than previously estimated.

The world is warming. Fast.

And Mother Nature is not waiting for us to act. The impacts of climate change are occurring faster and stronger than predicted. The human health and economic damages of these changes are happening now and, without bold action, will become increasingly severe.



LATEST CLIMATE FACTS

The Planet is Getting Hotter:

- 2015 was the hottest year on record, more than 1°C above the late 19th century average.
- 2016 is expected to surpass that record according to the UK Met Office estimates.
- January to March in 2016 was the hottest three-month start of any year on record. February was 1.74°C hotter than the average February (benchmarked to the mid-19th century), making it the month with the largest temperature increase from its pre-industrial average ever observed by NASA (approximately 0.2°C of 2016 warming is attributed to El Niño and the rest to anthropogenic climate change, according to the UK Met Office models).

Methane Emissions Are Rising:

- United States methane emissions—with 84x the warming potential of CO₂ in the first 20 years after release — increased more than 30 percent between 2002–2014; the U.S. accounts for 30–60 percent of global growth.
- The average global methane concentration leaped up 12.5 parts per billion in 2014, the third highest increase since recordkeeping began in 1984.
- In 2014, the oil and gas industry dumped more than 9.8 million metric tons of methane pollution into our atmosphere. That is the pollution equivalent of adding more than 175 million cars to the road and enough wasted natural gas to heat over 7 million American homes.
- The Aliso Canyon leak in California caused devastating public health impacts, the forced evacuation of Porter Ranch, and irreparable harm to the climate while emitting the same amount of carbon pollution as nearly 1 billion gallons of gasoline.



Public Health Is at Risk:

- Climate change decreases air quality with increased particulate matter and smog formation, increasing asthma rates, heart and lung disease, and allergies.
- Climate change decreases water quality. Floods drive toxic algae blooms and bacterial hot spots, while providing a breeding ground for mosquitos and other vectors.
- Climate change makes it more difficult to grow crops and raise animals. According to the U.S. Global Change Research Program, climate disruptions —like drought and intensified storms— to agricultural production have increased in the past 40 years and are projected to increase even more over the next 25 years.



Wildfires and Water Scarcity Are Increasing:

- Temperatures in the U.S. West have increased at roughly twice the global pace since the 1970s, causing spring snowmelt to occur roughly 1–4 weeks earlier today than it did in the 1940s, affecting agricultural production and wildfire fuel loads.
- By mid-century, temperatures in the Western United States are expected to rise an additional 1.4–3.6°C leading to increased water stress and wildfire risk.

Sea Level is Rising Fast:

- A recent study predicts several meters of sea level rise in 50–150 years. The EPA, using more conservative models, estimates that unmitigated climate change will result in \$5.0 trillion of coastal property damages in the contiguous United States through 2100. Globally, 50–200 million people could be displaced by 2050.
- Miami is already flooding regularly, affecting property values and public health.
- Several communities in Alaska are already in the process of relocating due to increased coastal erosion. The \$48 million HUD grant in January 2016 marked the first federal dollars allocated to relocating an entire community of climate refugees —approximately 60 residents of Isle de Jean Charles, Louisiana.



Coral Reefs Are Disappearing:

- Almost 40 percent of the planet's coral reefs are experiencing bleaching from thermal stress.
- Over 90 percent of reefs on the Great Barrier Reef have been hit by coral bleaching, and about 80 percent of the coral colonies at Kiritimati—the largest coral atoll in the world—are now dead.



Ice Caps and Permafrost Are Melting:

- Summer and winter sea ice has markedly decreased to 400,000 to 700,000 square-miles lower than average.
- Greenland now absorbs 2 percent more solar energy than it was a decade before due to the darkening of the ice with black carbon. On April 11, a stunning 12 percent of Greenland's massive ice sheet was melting.
- A key area of the Western Antarctic shelf may already be irreversibly unstable—threatening to cause a 3-meter sea level rise by the end of the century, according to new research by Potsdam Institute scientists.
- A recent Nature Geoscience article shows permafrost—which holds an estimated 2x the carbon held in the global atmosphere—melting at 10 of 11 arctic sites studied, releasing methane into the atmosphere.



The next steps are clear.

Without delay, the United States must:

- Implement the Clean Power Plan without delay.
- Plug every methane leak along the natural gas supply chain.
- Double funding for clean energy R&D to deliver our Mission Innovation pledge.
- Accelerate the development of a clean transportation system.

As our nation delivers on these policies in progress, the United States must show global leadership and work to power America with more than 50 percent clean energy by 2030, charting the course to **100 percent clean energy by 2050.**