



American Bridge

Trump Policy Brief: Dismantling Of The Clean Power Plan and Other Environmental Milestones

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DONALD TRUMP'S CLIMATE DESTRUCTION

On March 28, 2017, President Trump signed an executive order dismantling a series of Obama-era environmental milestones, including the former president's signature Clean Power Plan. The order called on the federal government to "suspend, revise, or rescind" regulations limiting domestic energy use and development, including regulations on federal coal leasing, methane emissions, "fracking," and the social costs of carbon.

- ✓ Trump's order began the process of reversing the Clean Power Plan. The CPP was designed to mitigate the effects of climate change by reducing carbon emissions and prioritizing use of cleaner energy sources.
- ✓ The coal industry welcomed Trump's reversal of the CPP, but the move is unlikely to restore the industry to its former glory. Natural gas has taken coal's place as the nation's preferred source of energy, and coal companies are finding ways to extract the same amounts of coal with fewer workers.
- ✓ Trump's order ended the moratorium on coal mining on federal lands, a move that will contribute to climate change while at the same time ripping off taxpayers. Coal mined on federal lands is responsible for 13% of U.S. carbon emissions, and federal coal is made available to companies at below-market rates. This distorts the energy market and makes transitioning away from fossil fuels even more difficult.
- ✓ Removing the federal coal leasing moratorium is another move unlikely to revive the coal industry. Few coal companies are in need of new federal coal leases at this time and do not plan to be for years to come.
- ✓ Trump's order reversed restrictions on methane emissions. Methane contributes to climate change at 25 times the rate of carbon dioxide per pound.
- ✓ Trump's order called for a rewrite of federal and tribal "fracking" restrictions. Fracking has been linked to air pollution, water pollution, and increased rates of serious health conditions.
- ✓ Trump's order called for the federal government to revise its "social cost of carbon" estimate. The social cost of carbon is an estimate of the societal damage caused by one ton of carbon monoxide emitted into the atmosphere. The current cost is estimated at \$37 per ton, but critics worried Trump could revise the figure down into the single digits.

As long as President Trump occupies the White House, the country is unlikely to see any meaningful steps to address climate change. Trump himself has repeatedly referred to climate change as a "hoax," and his EPA Director, Scott Pruitt, has expressed doubt about the human role in climate change.

- ✓ Without the Clean Power Plan, pollution-related deaths and health conditions will continue unabated. The CPP was predicted to prevent thousands of annual premature deaths and hundreds of thousands of asthma attacks in children. Climate change has led to a rise in heat-related deaths, and 36 U.S. cities could soon be completely submerged.
- ✓ Climate change has already devastated indigenous communities around the country. At least 31 Alaskan cities are at "imminent risk of destruction," as is the Isle de Jean in Louisiana.

President Trump Signed An Executive Order Rolling Back The Obama-Era Clean Power Plan And Other Environmental Milestones

TRUMP'S ORDER CALLED ON THE FEDERAL GOVERNMENT TO "SUSPEND, REVISE, OR RESCIND" REGULATIONS LIMITING DOMESTIC ENERGY USE AND DEVELOPMENT

President Trump Signed An Executive Order Calling On The Federal Government To "Immediately Review Existing Regulations That Potentially Burden The Development Or Use Of Domestically Produced Energy Resources." According to an executive order titled Promoting Energy Independence and Economic Growth signed by President Donald Trump, "Accordingly, it is the policy of the United States that executive departments and agencies (agencies) immediately review existing regulations that potentially burden the development or use of domestically produced energy resources and appropriately suspend, revise, or rescind those that unduly burden the development of domestic energy resources beyond the degree necessary to protect the public interest or otherwise comply with the law." [White House Office of the Press Secretary, "Presidential Executive Order on Promoting Energy Independence and Economic Growth," [3/28/17](#)]

Trump Ordered Executive Departments And Agencies To "Suspend, Revise, Or Rescind" Regulations "That Unduly Burden The Development Of Domestic Energy Resources Beyond The Degree Necessary To Protect The Public Interest Or Otherwise Comply With The Law." According to an executive order titled Promoting Energy Independence and Economic Growth signed by President Donald Trump, "Accordingly, it is the policy of the United States that executive departments and agencies (agencies) immediately review existing regulations that potentially burden the development or use of domestically produced energy resources and appropriately suspend, revise, or rescind those that unduly burden the development of domestic energy resources beyond the degree necessary to protect the public interest or otherwise comply with the law." [White House Office of the Press Secretary, "Presidential Executive Order on Promoting Energy Independence and Economic Growth," [3/28/17](#)]

Trump Ordered The Heads Of Federal Agencies To Focus On Regulations Addressing Oil, Natural Gas, Coal, And Nuclear Energy. According to an executive order titled Promoting Energy Independence and Economic Growth signed by President Donald Trump, "The heads of agencies shall review all existing regulations, orders, guidance documents, policies, and any other similar agency actions (collectively, agency actions) that potentially burden the development or use of domestically produced energy resources, with particular attention to oil, natural gas, coal, and nuclear energy resources." [White House Office of the Press Secretary, "Presidential Executive Order on Promoting Energy Independence and Economic Growth," [3/28/17](#)]

Trump Specified That Environmental Regulations Must Be "Of Greater Benefit Than Cost, When Permissible." According to an executive order titled Promoting Energy Independence and Economic Growth signed by President Donald Trump, "It is also the policy of the United States that necessary and appropriate environmental regulations comply with the law, are of greater benefit than cost, when permissible, achieve environmental improvements for the American people, and are developed through transparent processes that employ the best available peer-reviewed science and economics." [White House Office of the Press Secretary, "Presidential Executive Order on Promoting Energy Independence and Economic Growth," [3/28/17](#)]

TRUMP'S ORDER BEGAN THE PROCESS OF REVERSING THE CLEAN POWER PLAN

Trump Ordered The EPA To “Suspend, Revise, Or Rescind” Aspects Of The Clean Power Plan That Weren’t Necessary To “Protect The Public Interest.” According to an executive order titled Promoting Energy Independence and Economic Growth signed by President Donald Trump, “The Administrator of the Environmental Protection Agency (Administrator) shall immediately take all steps necessary to review the final rules set forth in subsections (b)(i) and (b)(ii) of this section [...] and, if appropriate, shall, as soon as practicable, suspend, revise, or rescind the guidance, or publish for notice and comment proposed rules suspending, revising, or rescinding those rules. [...] This section applies to [...] The final rule entitled ‘Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units,’ 80 Fed. Reg. 64661 (October 23, 2015) (Clean Power Plan)” [White House Office of the Press Secretary, “Presidential Executive Order on Promoting Energy Independence and Economic Growth,” [3/28/17](#)]

TRUMP’S ORDER RESCINDED THE CLIMATE ACTION PLAN

President Trump Signed An Executive Order Rescinding The Obama Administration’s Climate Action Plan. According to an executive order signed by President Donald Trump, “The following reports shall be rescinded: (i) The Report of the Executive Office of the President of June 2013 (The President’s Climate Action Plan)” [White House Office of the Press Secretary, “Presidential Executive Order on Promoting Energy Independence and Economic Growth,” [3/28/17](#)]

TRUMP’S ORDER ENDED THE MORATORIUM ON COAL MINING ON FEDERAL LANDS

President Trump Signed An Executive Order Instructing The Secretary Of The Interior To “Amend Or Withdraw” An Obama Administration Moratorium On Federal Coal Leasing. According to an executive order titled Promoting Energy Independence and Economic Growth signed by President Donald Trump, “The Secretary of the Interior shall take all steps necessary and appropriate to amend or withdraw Secretary’s Order 3338 dated January 15, 2016 (Discretionary Programmatic Environmental Impact Statement (PEIS) to Modernize the Federal Coal Program), and to lift any and all moratoria on Federal land coal leasing activities related to Order 3338. The Secretary shall commence Federal coal leasing activities consistent with all applicable laws and regulations.” [White House Office of the Press Secretary, “Presidential Executive Order on Promoting Energy Independence and Economic Growth,” [3/28/17](#)]

- **On Inauguration Day, The Trump Administration Stated It Would “Take Advantage Of The Estimated \$50 Trillion In Untapped Shale, Oil, And Natural Gas Reserves, Especially Those On Federal Lands.”** According to The White House, “The Trump Administration will embrace the shale oil and gas revolution to bring jobs and prosperity to millions of Americans. We must take advantage of the estimated \$50 trillion in untapped shale, oil, and natural gas reserves, especially those on federal lands that the American people own.” [White House, accessed [1/20/17](#)]

TRUMP’S ORDER REVERSED RESTRICTIONS ON METHANE EMISSIONS

President Trump Signed An Executive Order Rescinding The Climate Action Plan Strategy To Reduce Methane Emissions. According to an executive order titled Promoting Energy Independence and Economic Growth signed by President Donald Trump, “The following reports shall be rescinded: [...] The Report of the Executive Office of the President of March 2014 (Climate Action Plan Strategy to Reduce Methane Emissions).” [White House Office of the Press Secretary, “Presidential Executive Order on Promoting Energy Independence and Economic Growth,” [3/28/17](#)]

TRUMP'S ORDER INSTRUCTED THE INTERIOR DEPARTMENT TO REWRITE FEDERAL AND TRIBAL "FRACKING" RESTRICTIONS

President Trump Signed An Executive Order Instructing The Interior Department To Review An Obama Administration Rule On Hydraulic Fracturing On Federal And Indian Lands. According to an executive order titled Promoting Energy Independence and Economic Growth signed by President Donald Trump, "The Secretary of the Interior shall review the following final rules, and any rules and guidance issued pursuant to them, for consistency with the policy set forth in section 1 of this order and, if appropriate, shall, as soon as practicable, suspend, revise, or rescind the guidance, or publish for notice and comment proposed rules suspending, revising, or rescinding those rules: (i) The final rule entitled 'Oil and Gas; Hydraulic Fracturing on Federal and Indian Lands,' 80 Fed. Reg. 16128 (March 26, 2015)" [White House Office of the Press Secretary, "Presidential Executive Order on Promoting Energy Independence and Economic Growth," [3/28/17](#)]

- **The Rule Intended To Impose Restrictions On Hydraulic Fracturing On Federal And Tribal Lands.** According to The Washington Post, "President Trump on Tuesday took the most significant step yet in obliterating his predecessor's environmental record, instructing federal regulators to rewrite key rules curbing U.S. carbon emissions. [...] The president will also instruct the Interior Department to rewrite a 2015 rule, currently stayed in court, that imposes restrictions on hydraulic fracturing on federal and tribal lands." [Washington Post, [3/28/17](#)]

TRUMP ORDERED THE FEDERAL GOVERNMENT TO REVISE ITS "SOCIAL COST OF CARBON" ESTIMATE

President Trump Signed An Executive Order Commanding The U.S. Government To Review Its Social Cost Of Carbon Analysis. According to an executive order titled Promoting Energy Independence and Economic Growth signed by President Donald Trump, "Review of Estimates of the Social Cost of Carbon, Nitrous Oxide, and Methane for Regulatory Impact Analysis. (a) In order to ensure sound regulatory decision making, it is essential that agencies use estimates of costs and benefits in their regulatory analyses that are based on the best available science and economics." [White House Office of the Press Secretary, "Presidential Executive Order on Promoting Energy Independence and Economic Growth," [3/28/17](#)]

- **The "Social Cost Of Carbon" Was An Actuarial Estimate Of The Societal Damage Caused By One Ton Of Carbon Monoxide Emitted Into The Atmosphere.** According to The Atlantic, "On Tuesday, President Donald Trump will sign an executive order that will demolish his predecessor's attempts to slow the pace of climate change. [...] As part of this change, he will command the U.S. government to revise its 'social cost of carbon,' an actuarial estimate of the societal damage wrought by every additional ton of carbon dioxide emitted into the atmosphere. The social cost of carbon is used to estimate when climate-mitigating policies are a good investment." [The Atlantic, [3/28/17](#)]
- **As Of March 2017, The U.S. Government Calculated The Social Cost Of Carbon At Approximately \$37 Per Ton.** According to The Atlantic, "As part of this change, he will command the U.S. government to revise its 'social cost of carbon,' an actuarial estimate of the societal damage wrought by every additional ton of carbon dioxide emitted into the atmosphere. The social cost of carbon is used to estimate when climate-mitigating policies are a good investment. Right now, the U.S. government's social cost of carbon is priced at about \$37 per ton." [The Atlantic, [3/28/17](#)]

In Signing The Order, Trump Has Chosen To Put The Fossil Fuel Industry Before The Lives Of Current And Future Generations Of Americans

THE CLEAN POWER PLAN WAS DESIGNED TO MITIGATE THE EFFECTS OF CLIMATE CHANGE BY CUTTING CARBON EMISSIONS AND PRIORITIZING CLEANER SOURCES OF ENERGY

The Clean Power Plan Sought To Cut Carbon Emissions From Coal-Fired Power Plants While Encouraging The Use Of Wind, Solar, Natural Gas, And Energy Efficiency

The Clean Power Plan Intended To Substitute Energy From Coal-Fired Power Plants With Energy From Renewable Sources Like Wind And Solar. According to the U.S. Environmental Protection Agency's overview of the Clean Power Plan, "On August 3, 2015, President Obama and EPA announced the Clean Power Plan – a historic and important step in reducing carbon pollution from power plants that takes real action on climate change. [...] In the final Clean Power Plan, EPA determined that BSER consists of three building blocks: [...] Building Block 3 - substituting increased electricity generation from new zero-emitting renewable energy sources (like wind and solar) for reduced generation from existing coal-fired power plants." [U.S. Environmental Protection Agency, accessed [3/30/17](#)]

The Clean Power Plan Intended To Substitute Energy From Coal-Fired Power Plants With Energy From Natural Gas Plants. According to the U.S. Environmental Protection Agency's overview of the Clean Power Plan, "On August 3, 2015, President Obama and EPA announced the Clean Power Plan – a historic and important step in reducing carbon pollution from power plants that takes real action on climate change. [...] In the final Clean Power Plan, EPA determined that BSER consists of three building blocks: [...] Building Block 2 -substituting increased electricity generation from lower-emitting existing natural gas plants for reduced generation from higher-emitting coal-fired power plants." [U.S. Environmental Protection Agency, accessed [3/30/17](#)]

The Clean Power Plan Included Incentives For Investment In Wind/Solar Development And Energy Efficiency Programs. According to the U.S. Environmental Protection Agency's overview of the Clean Power Plan, "On August 3, 2015, President Obama and EPA announced the Clean Power Plan – a historic and important step in reducing carbon pollution from power plants that takes real action on climate change. [...] EPA is creating a Clean Energy Incentive Program (CEIP) to reward early investments in wind and solar generation, as well as demand-side energy efficiency programs implemented in low-income communities, that deliver results during 2020 and/or 2021.

The Clean Power Plan Restricted Greenhouse Gas Emissions At Coal-Fired Power Plants. According to PBS NewsHour, "As part of the roll-back, Trump will initiate a review of the Clean Power Plan, which restricts greenhouse gas emissions at coal-fired power plants. The regulation, which was the former president's signature effort to curb carbon emissions, has been the subject of long-running legal challenges by Republican-led states and those who profit from burning oil, coal and gas." [PBS NewsHour, [3/27/17](#)]

Wind Energy Would Account For More Than Half Of The Most Cost-Effective Plan To Comply With The Clean Power Plan. According to a press release by the American Wind Energy Association, "American wind power can help states affordably and reliably comply with the pending Clean Power Plan to cut carbon pollution from power plants, with independent studies confirming wind will play the largest role in the lowest-cost compliance mix. Wind energy consistently emerged as the best way to cost-effectively reduce emissions in a recent study by the nonpartisan Energy Information Administration (EIA). [...] 'Wind

accounts for 57 percent of the optimal energy mix to comply with the Clean Power Plan, according to the EIA,' said Michael Goggin, Senior Director of Research for AWEA, author of a white paper summarizing the EIA findings." [American Wind Energy Association, [7/29/15](#)]

- **American Wind Energy Association Senior Research Director Michael Goggin: "Wind Accounts For 57 Percent Of The Optimal Energy Mix To Comply With The Clean Power Plan."** According to the American Wind Energy Association, "'Wind accounts for 57 percent of the optimal energy mix to comply with the Clean Power Plan, according to the EIA,' said Michael Goggin, Senior Director of Research for AWEA, author of a white paper summarizing the EIA findings. 'Thanks to its combination of low cost and zero emissions, wind energy has the largest role in cost-effectively meeting the carbon rule.'" [American Wind Energy Association, [7/29/15](#)]

The Clean Power Plan Was "The Strongest Action The U.S. Had Ever Taken To Combat Climate Change" And The First Rule To Reduce Carbon Emissions From Power Plants

New York Times: The EPA's Clean Power Plan "Would Represent The Strongest Action Ever Taken By The United States To Combat Climate Change." According to the New York Times, "President Obama on Monday unveiled the final version of his Clean Power Plan, a set of Environmental Protection Agency regulations that, if implemented, would represent the strongest action ever taken by the United States to combat climate change." [New York Times, [8/3/15](#)]

The Clean Power Plan Was The First Rule To Reduce Carbon Emissions From Power Plants.

According to the Union of Concerned Scientists, "On August 3, 2015, the Environmental Protection Agency (EPA) finalized new rules, or standards, that will reduce carbon emissions from power plants for the first time. Previously, power plants were allowed to dump unlimited amounts of carbon pollution into the atmosphere — no rules were in effect that limited their emissions of carbon dioxide, the primary driver of global warming. These standards, known as the Clean Power Plan, have been developed under the Clean Air Act, an act of Congress that requires the EPA to take steps to reduce air pollution that harms the public's health." [UCUSA.org/our-work, accessed [1/19/17](#)]

- **EPA: "Power Plants Are The Largest Concentrated Source Of Carbon Dioxide Emissions In The United States, Making Up Roughly One-Third Of All Domestic Greenhouse Gas Emissions."** According to the EPA, "Power plants are the largest concentrated source of carbon dioxide emissions in the United States, making up roughly one-third of all domestic greenhouse gas emissions. While the United States has limits in place for the level of arsenic, mercury, sulfur dioxide, nitrogen oxides, and particle pollution that power plants can emit, there are currently no national limits on carbon pollution levels." [EPA, accessed [2/21/17](#)]
- **The Clean Power Plan Was Designed To Cut Private-Sector Carbon Pollution By 30 Percent From 2005 Levels.** According to the EPA, "Nationwide, by 2030, the Clean Power Plan will help cut carbon pollution from the power sector by approximately 30 percent from 2005 levels. It will also reduce pollutants that contribute to the soot and smog that make people sick by over 25 percent" [EPA, accessed [2/21/17](#)]

The Importance Of The Clean Power Plan Was Broadly Recognized

Scientific American: The Clean Power Plan Ensures That "The U.S. Power Industry Doesn't Backslide Into More Polluting Forms Of Energy Generation." According to Scientific American, "But natural gas has already displaced coal over the past decade, cutting U.S. CO2 emissions from the electricity sector by roughly 16 percent. That's half of the ultimate total reduction the Obama administration expects under the Clean Power Plan—a full seven years before the program even begins. In other words, the plan is

really a way to ensure that the U.S. power industry doesn't backslide into more polluting forms of electricity generation." [Scientific American, [8/6/15](#)]

National Resources Defense Council Director Of Climate And Clean Air David Doniger: If The CPP's Carbon Limits Are Not Upheld "We Will Bequeath To Our Children And All Future Generations A World Of Climate Catastrophe." According to The Guardian, "David Doniger, director of the climate and clean air program at the Natural Resources Defense Council, said: "The Clean Power Plan had a very good day. But we aren't taking that to the bank just yet. What is certain, though, is we need to take swift and decisive action to combat climate change. This plan is our best available tool, and the court should uphold it. If we don't limit carbon pollution, and quickly, we will bequeath to our children and all future generations a world of climate catastrophe." [The Guardian, [9/28/16](#)]

A Diverse Group Of Companies Including General Mills, Nestle, Unilever, Mars, And VF Corporation Called On States To Support The Clean Power Plan. According to Forbes, "In letters sent to 29 governors last week, diverse companies from General Mills and Nestle to Unilever, Mars and VF Corporation called on states to seize the wide-ranging benefits of energy efficiency and renewable energy as the best way to meet the EPA's goal of reducing power plant carbon pollution by 32 percent by 2030. This unprecedented support from the business community is exciting but should come as no surprise, as the Clean Power Plan will drive economic value for companies in all 50 states. It gives states the unique flexibility to chart their own energy futures, offering opportunities to expand clean energy solutions, attract new industries and create thousands of jobs. And there's more: based on the draft rule, consumers could save up to \$41 billion in electricity costs in the next 15 years under the plan." [Forbes, [8/3/15](#)]

A Group Of State Attorneys General And City Attorneys Wrote A Letter Opposing The Repeal Of The Clean Power Plan. According to a press release from New York Attorney General Eric Schneiderman, "A broad coalition of 19 states and localities, led by New York Attorney General Eric T. Schneiderman, called on President-Elect Trump to continue the federal government's defense of the Clean Power Plan in a letter sent today, urging him to reject 'misguided advice' from a group of Attorneys General led by West Virginia to discard the plan. The letter details why the Clean Power Plan is vital to efforts to limit carbon pollution, and pushes back against ill-conceived efforts to urge the President-Elect to unravel the plan -- which, the letter explains, would be contrary to the law." [New York Attorney General Press Release, [12/29/16](#)]

- **Attorneys Letter: "We See Firsthand The Significant Human And Economic Costs Inflicted By Unchecked Carbon Pollution."** According to a letter sent by state and city attorneys to Donald Trump, "Our states and local governments are on the front lines of climate change. We see firsthand the significant human and economic costs inflicted by unchecked carbon pollution: whether it is harms from severe drought in California, catastrophic storm surge in New York City, a record deluge on the Front Range in Colorado, routine high tide flooding in Hampton Roads, Virginia and in South Florida, or diminished shellfish harvest in Oregon and Washington state. Therefore, we urge you to continue the federal government's defense of the Clean Power Plan, a well-considered and critical rule that reasonably limits emissions from fossil-fueled power plants, our nation's largest source of carbon pollution. We joined in EPA's defense of the Clean Power Plan in court mindful of the grave threats that carbon pollution poses to our residents, economies, infrastructure, and natural resources." [State and City Attorneys Letter, [12/28/16](#)]
- **Attorneys Letter: Continuing With The Clean Power Plan Would "Eliminate 870 Million Tons Of Greenhouse Gases By 2030."** According to a letter sent by state and city attorneys to Donald Trump, "The Clean Power Plan builds on successful strategies that states, local governments and the power sector have used to cost effectively cut greenhouse gas emissions from power plants, while at the same time creating jobs and growing our economies. It establishes a nationwide framework to achieve substantial reductions of carbon-dioxide emissions while providing states and

power plants the flexibility to decide how best to achieve these reductions. The rule is expected to eliminate 870 million tons of greenhouse gases by 2030, equivalent to the annual emissions of about 160 million cars. And the rule satisfies EPA's legal obligation under the Clean Air Act to limit harmful pollution from power plants that endangers public health and welfare." [State and City Attorneys Letter, [12/28/16](#)]

Polls Showed Most Americans Supported The Clean Power Plan

A Quinnipiac Poll Showed That 59% Of Respondents Believed Trump Should Not "Remove Specific Regulations Intended To Combat Climate Change." According to a Quinnipiac University polling memo, "A total of 68 percent of American voters are 'very concerned' or 'somewhat concerned' about climate change and say 59 – 31 percent that Trump should not 'remove specific regulations intended to combat climate change.'" [Quinnipiac University Polling Memo, [11/23/16](#)]

Two-Thirds Of Registered Voters In States Suing Over The Clean Power Plan Supported The Clean Power Plan. According to a Governors' Wind & Solar Energy Coalition web post, "Two weeks ahead of oral arguments on legal challenges to the Clean Power Plan, backers of U.S. EPA's rule are touting support from voters in states suing to halt its implementation. A survey found that 67 percent of registered voters in the 24 states challenging the rule said they favored the program for cutting carbon emissions, pollsters said during an event at the Brookings Institution in Washington, D.C., this morning. Researchers with the University of Maryland School of Public Policy's Program for Public Consultation reached out to several thousand people around the country and in certain states between April 16 and June 10." [GovernorsWindEnergyCoalition.org, [9/14/16](#)]

THE FOSSIL FUEL INDUSTRY SUPPORTED REVERSAL OF THE CLEAN POWER PLAN, BUT REVERSAL IS UNLIKELY TO REVIVE THE NATION'S COAL INDUSTRY

Members Of The Coal Industry Welcomed Trump's Order...

Large Coal Companies Hoped To Profit Off Trump Administration Promises To Ease Coal Regulations By Issuing Stock Or Selling Bonds. According to The Washington Post, "The stocks of coal companies have enjoyed a 'Trump bump,' thanks to the president's pledges to 'bring the coal industry back' and 'put our great miners and steelworkers back to work.' Half a dozen big companies have seized the moment to issue stock or sell bonds to raise money from investors willing to wager on the effects of a friendlier Trump administration." [Washington Post, [3/17/17](#)]

Trump's Order Reversing Environmental Regulations Was Welcomed By Some Energy Interest Groups. According to Time, "President Donald Trump signed a sweeping executive order Tuesday intended to shift the direction of U.S. environmental policy and begin the process of undoing some of the most significant Obama-era environmental regulations. The executive order, billed as a measure to promote 'energy independence' and create jobs, will target a slew of environmental measures aimed at combating climate change including the Clean Power Plan, the centerpiece of President Obama's global warming efforts. [...] The move drew praise from some energy interest groups that have long-complained about regulation of their industry, but experts do not expect the order to alter market trends significantly or contribute to a revival of the ailing coal industry." [Time, [3/28/17](#)]

Peabody Energy President Glenn Kellow: Trump's Actions Toward Rescinding The Clean Power Plan Made "Great Strides Toward Repealing Onerous Regulations That Damage The Ability Of American Consumers And Industry To Access Reliable, Affordable Electricity." According to the St. Louis Post-Dispatch, "Through an executive order issued Tuesday, President Donald Trump launched his

long-anticipated assault on his predecessor's climate policies. One of the cornerstones targeted by Trump's 'Energy Independence' order is the Clean Power Plan — a rule from the Environmental Protection Agency that would reduce by 2030 carbon emissions from electricity generation by 32 percent from 2005 levels, with each state required to meet certain thresholds. [...] St. Louis-based Peabody Energy, meanwhile, was effusive in its praise for Trump's announcement. 'Today's actions make great strides toward repealing onerous regulations that damage the ability of American consumers and industry to access reliable, affordable electricity,' said Peabody President and Chief Executive Officer Glenn Kellow in a released statement." [St. Louis Post-Dispatch, [3/28/17](#)]

...But The Coal Industry Is Expected To Continue To Shrink For Reasons Other Than Obama-Era Regulations

Experts Expected U.S. Coal Sales To Decline In 2018 And Beyond. According to The Washington Post, "The stocks of coal companies have enjoyed a 'Trump bump,' thanks to the president's pledges to 'bring the coal industry back' and 'put our great miners and steelworkers back to work.' [...] Bountiful supplies of U.S. shale gas are keeping natural gas prices low and competitive, and renewable sources of power generation are growing rapidly. Though most experts expect U.S. coal sales and output to top last year's levels, they also expect the decline to resume in 2018." [Washington Post, [3/17/17](#)]

Natural Gas Is Taking Over Coal's Role As The Nation's Preferred Source Of Energy

Washington Post: "Industry Experts Say Coal Mining Jobs Will Continue To Be Lost, Not Because Of Blocked Access To Coal, But Because Power Plant Owners Are Turning To Natural Gas."

According to The Washington Post, "'I made them this promise,' Trump said, 'we will put our miners back to work.' But industry experts say coal mining jobs will continue to be lost, not because of blocked access to coal, but because power plant owners are turning to natural gas. At least six plants that relied on coal have closed or announced they will close since Trump's victory in November, including the main plant at the Navajo Generating Station in Arizona, the largest in the West. Another 40 are projected to close during the president's four-year term. As power companies switch fuels, 'the amount of coal in the national energy generation mix (both Fuels and Electricity Generation) has declined by 53 percent since 2006,' according to a Department of Energy report released in January. Over the same period, electricity generation from natural gas increased 33 percent." [Washington Post, [3/29/17](#)]

IEEFA Finance Director Tom Sanzillo: "Market Forces Overwhelmingly Favor Natural Gas-Fired Electricity Generation And Renewable Energy, And The Trend Away From Coal Will Continue."

According to a press release from the Institute for Energy Economics and Financial Analysis, "The Institute for Energy Economics and Financial Analysis today dismissed job-production claims that the Trump administration made this week with its rollback of emissions regulations and federal mining policies. Tom Sanzillo, IEEFA's director of finance, said the coal industry especially remains unlikely to recover, regardless of what the administration does. 'Market forces overwhelmingly favor natural gas-fired electricity generation and renewable energy, and the trend away from coal will continue,' Sanzillo said. 'Coal is simply being outpaced. It is an industry in decline, and the fundamentals are inescapable.'" [Institute for Energy Economics and Financial Analysis, press release, [3/29/17](#)]

University Of Michigan Energy Institute Director Mark Barteau Said That President Trump's Promise To Revive The Coal Industry Was "Nonsense," And That The Industry Would "Continue To Lose To Cheap Natural Gas." According to Time, "'It's nonsense,' says Mark Barteau, director of the University of Michigan Energy Institute, of Trump's promise to restore coal. 'Coal is not coming back. It's going to continue to lose to cheap natural gas.'" [Time, [3/28/17](#)]

Coal Companies Are Moving From Appalachian Mines To Mines Further West, And Not Hiring Net New Workers

Washington Post: Coal Companies Have To Shift From Old, Inefficient Mines In Appalachia To Big, Open-Pit Mines Further West In Order To Make A Profit – “Doing Nothing To Help Trump Bring Back Jobs” For Coal Miners. According to The Washington Post, “Some coal companies will survive, and some could thrive. Metallurgical coal will be needed to make steel in India and China and in the United States, especially if there is a boost in infrastructure spending. And thermal coal will still be used to generate electricity for years, even if at lower rates. But to show profits, coal operators will have to trim output from the oldest, least-efficient mines in Appalachia (where Trump garnered crucial votes in the election) and shift their focus to the Illinois Basin and the Powder River Basin in Wyoming. Those big open-pit mines need fewer workers — doing nothing to help Trump bring back jobs for ‘our great miners.’” [Washington Post, [3/17/17](#)]

- **Standard & Poor Coal Analyst Chiza B. Vitta: “Even If The Coal Industry Were To Do Better, That Doesn’t Translate Into Coal Jobs.”** According to The Washington Post, “A lot of people conflate two primary things: the coal industry and coal jobs,’ said Chiza B. Vitta, a coal analyst at Standard & Poor’s. ‘Even if the coal industry were to do better, that doesn’t translate into coal jobs. Over time the process has become more and more efficient, and they’re able to mine with fewer and fewer people working.’” [Washington Post, [3/17/17](#)]

The Institute For Energy Economics And Financial Analysis Said Coal Companies’ Long-Term Business Models Included “Producing More Coal With Fewer Workers.” According to The Washington Post, “As Trump vowed to resurrect the coal industry and jobs at the Environmental Protection Agency, he promised to increase production of the resource that experts say is killing them. ‘We will unlock job producing natural gas, oil and shale energy. We will produce American coal to power American industry.’ The IEEFA disagreed. ‘Promises to create more coal jobs will not be kept — indeed the industry will continue to cut payrolls,’ the group said in its 2017 U.S. Coal Outlook. ‘These losses will be related in part to the coal industry’s long-term business model of producing more coal with fewer workers.’” [Washington Post, [3/29/17](#)]

Experts And Industry Stakeholders Alike Agree That The Coal Industry Will Never Go Back To What It Was

Institute For Energy Economics & Financial Analysis Director Tom Sanzillo Said That Attempts To Revive The Coal Industry Were “A Fool’s Errand.” According to The Washington Post, “Bountiful supplies of U.S. shale gas are keeping natural gas prices low and competitive, and renewable sources of power generation are growing rapidly. Though most experts expect U.S. coal sales and output to top last year’s levels, they also expect the decline to resume in 2018. ‘The coal industry is saying it’s back. It’s not back,’ said Tom Sanzillo, director of finance at the Institute for Energy Economics & Financial Analysis. ‘This is a fool’s errand.’” [Washington Post, [3/17/17](#)]

Murray Energy CEO Robert Murray Told President Trump To “Temper His Expectations” Regarding Bringing The Coal Industry Back. According to The Columbus Dispatch, “The Dispatch: How are you feeling these days about where the coal market stands? Robert Murray: Mixed feelings. The destruction of the last eight years under Barack Obama and the Democrats has permanently and severely destroyed reliable and affordable electricity in the United States. [...] Can the coal industry be brought back? The answer is, I’ve suggested to President Trump that he temper his expectations.” [Columbus Dispatch, [3/26/17](#)]

- **Murray Said That The Decline In Coal Jobs Was “Because Of The Decline Of Coal Usage” Due To The Inefficiency Of Coal Energy.** According to The Columbus Dispatch, “[MURRAY:]

This is my 60th year mining coal. ... If you go back over my career, the improvement in productivity in the mines ended in the late-1990s and early 2000s. Since then, the decline (in jobs) has been because of the decline of coal usage. ... We couldn't get it more efficient. I have the most-efficient mines. That's why we have the best company left." [Columbus Dispatch, [3/26/17](#)]

- **Murray, In 2014, On The Coal Industry: “If You Think It’s Coming Back, You Don’t Understand The Business. Or You’re Smoking Dope.”** According to Bloomberg, “Robert Murray is pumped -- as though coal-fired steam might be coursing through his veins. [...] Murray, 74, pauses for effect and then lowers his voice. ‘We have the absolute destruction of the United States coal industry. It isn’t coming back. It’s permanent. Virtually all of it is permanent. And if you think it’s coming back, you don’t understand the business. Or you’re smoking dope.’” [Bloomberg, [12/11/14](#)]

MINING COAL ON FEDERAL LANDS WOULD CONTRIBUTE TO CLIMATE CHANGE WHILE RIPPING OFF TAXPAYERS

The Obama Administration’s Moratorium On Federal Coal-Mining Leases Could Have Had A Significant Long-Term Impact On Climate Change

According To Bloomberg, The Obama Administration’s Moratorium On Federal Coal-Mining Leases Had The Potential To “Surpass” The Clean Power Plan “As The Obama Administration’s Most Significant Climate Change Policy.” According to Bloomberg, “President Donald Trump is expected to lift a moratorium on federal coal-mining leases Tuesday -- and it probably won’t do the industry much good until years after he’s left office. [...] The prohibition had the potential, over several decades, to surpass the controversial Clean Power Plan as the Obama administration’s most significant climate change policy, according to Bloomberg Intelligence.” [Bloomberg, [3/28/17](#)]

Coal Mined On Federal Land Is Responsible For 13% Of U.S. CO2 Emissions

Brookings: “Federal Coal Generates 13 Percent Of U.S. Energy-Related Carbon Dioxide Emissions.” According to Brookings, “Given that the use of federal coal generates 13 percent of U.S. energy-related carbon dioxide (CO2) emissions, federal coal policy also has important climate change implications.” [Brookings, [12/8/16](#)]

Center For American Progress: “Fossil Fuels Extracted From Federal Lands And Waters Account For One-Fifth Of All Energy-Related Greenhouse Gas Emissions In The United States.” According to the Center for American Progress, “A 2015 study commissioned by the Center for American Progress and The Wilderness Society found that fossil fuels extracted from federal lands and waters account for one-fifth of all energy-related greenhouse gas emissions in the United States.” [Center for American Progress, [10/4/16](#)]

Washington Post: Government-Owned Coal Harvested In The Powder River Basin Has Accounted For About 10 Percent Of All U.S. Greenhouse Gas Emissions. According to the Washington Post, “Government-owned coal harvested in the Powder River basin—the country’s biggest coal-producing region, straddling Wyoming and Montana—accounts for about 10 percent of all U.S. greenhouse gas emissions, according to a study last year by the Center for American Progress and the Wilderness Society.” [Washington Post, [1/14/16](#)]

Federal Coal Is Made Available To Companies At Below-Market Rates, Undercompensating Tax Payers For Its Harms And Distorting Energy Markets

Federal Coal Is Made Available To Companies At Below-Market Rates, Making Coal Cheaper And Therefore Making The Transition Away From Its Use More Difficult. According to the Center for American Progress, “The United States cannot meet its goals of cutting greenhouse gas emissions and accelerating the production of cleaner energy sources without structural reforms to the federal coal program. Federal coal, 90 percent of which is produced in the Powder River Basin in Wyoming and Montana, is made available to coal companies through a noncompetitive process at below-market rates. As a result, undervalued federal coal helps drive down the price of coal nationally. This distortion of U.S. energy markets works against the country’s transition to clean and affordable alternative energy sources.” [Center for American Progress, [10/4/16](#)]

Washington Post: Critics “Have Long Argued That Taxpayers Are Under-Compensated For Coal Extracted From Vast Mines On Federally Owned Land Across The West, And That Prices Do Not Reflect Societal Costs From Pollution From Coal-Burning.” According to the Washington Post, “Environmental groups and some independent analysts have long argued that taxpayers are under-compensated for coal extracted from vast mines on federally owned land across the West, and that prices do not reflect societal costs from pollution from coal-burning.” [Washington Post, [1/14/16](#)]

Center For American Progress: “Preserving The Status Quo” Would “Continue To Saddle Taxpayers With The Costs Of The Industry’s Pollution.” According to the Center for American Progress, “Preserving the status quo, which the coal industry is fiercely defending, would undercut the United States’ ability to cut greenhouse gas emissions, impede the advancement of cleaner and renewable energy sources, and continue to saddle taxpayers with the costs of the industry’s pollution.” [Center for American Progress, [10/4/16](#)]

According To Coal Executives And Analysts, Lifting The Coal Moratorium Would Not Be Enough To Overcome Market Forces To Put Coal Miners Back To Work. According to Bloomberg, “President Donald Trump is expected to lift a moratorium on federal coal-mining leases Tuesday -- and it probably won’t do the industry much good until years after he’s left office. [...] While Trump’s rolling back a policy that may have loomed over coal producers in coming decades, it’s going to take more to overcome market forces and raise demand for the fossil fuel to a level that’ll put miners back to work, coal executives and analysts say.” [Bloomberg, [3/28/17](#)]

Lifting The Moratorium Will Do Little To Revive The Coal Industry Because Most Coal Companies Are Not Interested In New Federal Leases To Begin With

Bloomberg Reported That Lifting The Moratorium On Federal Coal-Mining Leases Wouldn’t Impact The Coal Industry Until “Years After” President Trump Leaves Office. According to Bloomberg, “President Donald Trump is expected to lift a moratorium on federal coal-mining leases Tuesday -- and it probably won’t do the industry much good until years after he’s left office. That’s because U.S. coal companies including Peabody Energy Corp. won’t be looking to secure new reserves of the fossil fuel on federal land for years, especially as mining slows amid the sector’s worst downturn in generations.” [Bloomberg, [3/28/17](#)]

According To Bloomberg, U.S. Coal Companies Will Not Try To New Coal Reserves On Federal Lands For Years, Given The Substantial Downturn In Coal Mining. According to Bloomberg, “President Donald Trump is expected to lift a moratorium on federal coal-mining leases Tuesday -- and it probably won’t do the industry much good until years after he’s left office. That’s because U.S. coal companies including Peabody Energy Corp. won’t be looking to secure new reserves of the fossil fuel on federal land for years, especially as mining slows amid the sector’s worst downturn in generations.” [Bloomberg, [3/28/17](#)]

University Of Wyoming Energy Economics Professor Robert Godby: “The Decline In Coal Demand Has Meant Existing Reserves Will Last A Lot Longer.” According to Bloomberg, “President Donald Trump is expected to lift a moratorium on federal coal-mining leases Tuesday -- and it probably won’t do the industry much good until years after he’s left office. That’s because U.S. coal companies including Peabody Energy Corp. won’t be looking to secure new reserves of the fossil fuel on federal land for years, especially as mining slows amid the sector’s worst downturn in generations. [...] ‘No one’s looking for new coal reserves,’ said Robert Godby, a professor of energy economics at the University of Wyoming. ‘The decline in coal demand has meant existing reserves will last a lot longer.’” [Bloomberg, [3/28/17](#)]

Vic Svec, President Of The U.S.’s Largest Coal Mining Company Peabody Energy, Said The Company Would Not Need A New Federal Coal Lease For “Approximately A Decade At This Point.” According to Bloomberg, “President Donald Trump is expected to lift a moratorium on federal coal-mining leases Tuesday -- and it probably won’t do the industry much good until years after he’s left office. That’s because U.S. coal companies including Peabody Energy Corp. won’t be looking to secure new reserves of the fossil fuel on federal land for years, especially as mining slows amid the sector’s worst downturn in generations. [...] For its part, Peabody, the largest U.S. coal miner by volume, won’t need another federal coal lease in Wyoming and Montana’s Powder River Basin for ‘approximately a decade at this point,’ spokesman Vic Svec said by phone.” [Bloomberg, [3/28/17](#)]

Bloomberg Intelligence Analyst Rob Barnett Said That The Obama Administration’s Moratorium On Federal Coal-Mining Leases Was “All With An Eye Toward 2040 As Opposed To 2018.” According to Bloomberg, “President Donald Trump is expected to lift a moratorium on federal coal-mining leases Tuesday -- and it probably won’t do the industry much good until years after he’s left office. [...] While Trump’s policy reversal could prove pivotal for the Powder River Basin in the long term, it may not help miners much during Trump’s tenure, said Rob Barnett, an analyst at Bloomberg Intelligence. Coal companies have much more pressing matters including how many coal-fired power plants stay open and how competitive coal remains compared with gas and renewables. ‘It’s not like companies will suddenly say, ‘Oh great, we can lease on more federal land, let’s do it and boost production,’ Barnett said. Obama’s ‘policy was all with an eye toward 2040 as opposed to 2018.’” [Bloomberg, [3/28/17](#)]

“FRACKING” HAS BEEN LINKED TO WATER POLLUTION, AIR POLLUTION, AND SERIOUS HEALTH CONDITIONS

Fracking Not Only Requires A Tremendous Amount Of Water, But It Also Causes Toxic Water Pollution

BBC: Fracking Relies On “Huge Amounts Of Water, Which Must Be Transported To The Fracking Site, At Significant Environmental Cost.” According to the BBC, “Fracking uses huge amounts of water, which must be transported to the fracking site, at significant environmental cost.” [BBC, [12/16/15](#)]

USA Today: Extracting Gas From Shale Has Required “Pumping Hundreds Of Thousands Of Gallons Of Water, Sand And Chemicals Into The Ground” With Some Of The Water Returning To The Surface Polluted. According to USA Today, “Extracting fuel from shale formations requires pumping hundreds of thousands of gallons of water, sand and chemicals into the ground to break apart rock and free the gas. Some of that water, along with large quantities of existing underground water, returns to the surface, and it can contain high levels of salt, drilling chemicals, heavy metals and naturally occurring low-level radiation.” [USA Today, [1/5/14](#)]

The EPA Has Concluded That Fracking Has Contaminated Drinking Water. According to the New York Times, “The Environmental Protection Agency has concluded that hydraulic fracturing, the oil and gas

extraction technique also known as fracking, has contaminated drinking water in some circumstances, according to the final version of a comprehensive study first issued in 2015.” [New York Times, [12/13/16](#)]

Former EPA Scientist Dominic DiGiulio Found That Fracking Contaminated Ground Water In Pavillion, Wyoming. According to Scientific American, “Former EPA scientist Dominic DiGiulio never gave up. Eight years ago, people in Pavillion, Wyo., living in the middle of a natural gas basin, complained of a bad taste and smell in their drinking water. U.S. EPA launched an inquiry, helmed by DiGiulio, and preliminary testing suggested that the groundwater contained toxic chemicals. Then, in 2013, the agency suddenly transferred the investigation to state regulators without publishing a final report. Now, DiGiulio has done it for them. He published a comprehensive, peer-reviewed study last week in Environmental Science and Technology that suggests that people’s water wells in Pavillion were contaminated with fracking wastes that are typically stored in unlined pits dug into the ground. The study also suggests that the entire groundwater resource in the Wind River Basin is contaminated with chemicals linked to hydraulic fracturing, or fracking.” [Scientific American, [4/4/16](#)]

New Fracking Spills And Accidents Have Occurred With “Disturbing Frequency” With The EPA Finding 457 Over 8 Years And Other Reports Finding Over 6,500 In 10 Years. According to Forbes, “With disturbing frequency, new spills or accidents are reported at the same time as industry tries to reassure that fracking brings safe and clean energy. Tell that to the residents of Dimock, Pa., who have had their drinking water destroyed, or those in many other communities. A newly released study found 6,648 spills in just four states over the past 10 years. Once again, the EPA had reported a far lower number—457 in eight states over a six-year period. Why the huge difference? Because the EPA chose to only look at the actual fracturing stage, rather than the whole life cycle of the gas and oil production.” [Forbes, [2/23/17](#)]

Fracking Has Brought Toxic Air Pollution To Rural Areas

Johns Hopkins School Of Public Health Research Found That Fracking Has Converted The Air Quality Of Some “Pristine” Rural Areas To Those Of “Heavily Trafficked Industrial Areas.”

According to Forbes, “Cough, shortness of breath and wheezing are the most common complaints of residents living near fracked wells. Toxic gases like benzene are released from the rock by fracking. Similarly, a toxic waste brew of water and chemicals is often stored in open pits, releasing volatile organic compounds into the air. These noxious chemicals and particulates are also released by the diesel powered pumps used to inject the water. An epidemiological study of more than 400,000 patients of Pennsylvania’s Geisinger clinic, done with Johns Hopkins School of Public Health, found a significant association between fracking and increases in mild, moderate and severe cases of asthma (odds ratios 4.4 to 1.5). Hopkins’ Dr. Brian Schwartz cautions that residents should be aware of this hazard as ‘some ‘pristine’ rural areas are converted to heavily trafficked industrial areas.’” [Forbes, [2/23/17](#)]

Natural Resources Defense Council: “Studies Have Shown Dangerous Levels Of Toxic Air Pollution Near Fracking Sites,” Where “Oil And Gas Extraction Have Caused Smog In Rural Areas At Levels Worse Than Downtown Los Angeles.” According to the Natural Resources Defense Council, “Studies have shown dangerous levels of toxic air pollution near fracking sites; and oil and gas extraction have caused smog in rural areas at levels worse than downtown Los Angeles.” [Natural Resources Defense Council, accessed [3/29/17](#)]

- **Associated Press: Ozone Levels In Wyoming’s Upper Green River Basin “Got As High As 124 Parts Per Billion,” Which Is “Above The Worst Day In Los Angeles All Last Year.”** According to the Associated Press, “Wyoming, famous for its crisp mountain air and breathtaking, far-as-the-eye-can-see vistas, is looking a lot like smoggy Los Angeles these days because of a boom in natural gas drilling. [...] [I]n the Upper Green River Basin [...] some wonder if they've made a bargain with the devil. [...] Preliminary data show ozone levels last Wednesday got as high as 124 parts per billion. That's two-thirds higher than the Environmental Protection Agency's maximum

healthy limit of 75 parts per billion and above the worst day in Los Angeles all last year, 114 parts per billion, according to EPA records.” [Associated Press via NBC News, [3/9/11](#)]

Fracking Has Known Health Consequences For Residents Living Near Extraction Sites

USA Today: Research Has Shown That “People Living Near Natural-Gas Wells Were More Than Twice As Likely To Report Upper-Respiratory And Skin Problems Than Those Farther Away.”

According to USA Today, “Another study this year in Environmental Health Perspectives found that people living near natural-gas wells were more than twice as likely to report upper-respiratory and skin problems than those farther away.” [USA Today, [12/17/14](#)]

Fracking Has Been Linked To Cough, Shortness Of Breath, Wheezing, And Asthma. According to Forbes, “Cough, shortness of breath and wheezing are the most common complaints of residents living near fracked wells. Toxic gases like benzene are released from the rock by fracking. Similarly, a toxic waste brew of water and chemicals is often stored in open pits, releasing volatile organic compounds into the air. These noxious chemicals and particulates are also released by the diesel powered pumps used to inject the water. An epidemiological study of more than 400,000 patients of Pennsylvania’s Geisinger clinic, done with Johns Hopkins School of Public Health, found a significant association between fracking and increases in mild, moderate and severe cases of asthma (odds ratios 4.4 to 1.5). Hopkins’ Dr. Brian Schwartz cautions that residents should be aware of this hazard as ‘some ‘pristine’ rural areas are converted to heavily trafficked industrial areas.” [Forbes, [2/23/17](#)]

Fracking Chemicals Have Been Harmful To Pregnant Women As Polluted Waters Can Hurt The Developing Fetus. According to Forbes, “Fracking chemicals are harmful to pregnant women and their developing babies. West Virginia researchers found endocrine-disrupting chemicals in surface waters near wastewater disposal sites; these types of chemicals can hurt the developing fetus even when present at very low concentrations. Another Hopkins/Geisinger study looked at records of almost 11,000 women with newborns who lived near fracking sites and found a 40% increased chance of having a premature baby and a 30% risk of having the pregnancy be classified as ‘high-risk,’ though they controlled for socioeconomic status and other risk factors. Contributing factors likely include air and water pollution, stress from the noise and traffic (1,000 tankers/well on average).” [Forbes, [2/23/17](#)]

Forbes: Fracking Has Been Linked To A “40% Increase In Having A Premature Baby And A 30% Risk Of Having The Pregnancy Be Classified As High-Risk.” According to Forbes, “Fracking chemicals are harmful to pregnant women and their developing babies. West Virginia researchers found endocrine-disrupting chemicals in surface waters near wastewater disposal sites; these types of chemicals can hurt the developing fetus even when present at very low concentrations. Another Hopkins/Geisinger study looked at records of almost 11,000 women with newborns who lived near fracking sites and found a 40% increased chance of having a premature baby and a 30% risk of having the pregnancy be classified as ‘high-risk,’ though they controlled for socioeconomic status and other risk factors. Contributing factors likely include air and water pollution, stress from the noise and traffic (1,000 tankers/well on average).” [Forbes, [2/23/17](#)]

METHANE GAS HAS A 25X GREATER IMPACT ON CLIMATE CHANGE THAN CARBON DIOXIDE

According To The EPA, The Impact Of Methane On Climate Change Is 25 Times Greater Than CO2 “Pound For Pound.” According to the U.S. Environmental Protection Agency, “Methane’s lifetime in the atmosphere is much shorter than carbon dioxide (CO₂), but CH₄ is more efficient at trapping radiation than CO₂. Pound for pound, the comparative impact of CH₄ on climate change is more than 25 times greater than CO₂ over a 100-year period.” [U.S. Environmental Protection Agency, accessed [3/28/17](#)]

- **Methane Is More Efficient At Trapping Radiation Than Carbon Dioxide.** According to the U.S. Environmental Protection Agency, “Methane’s lifetime in the atmosphere is much shorter than carbon dioxide (CO₂), but CH₄ is more efficient at trapping radiation than CO₂.” [U.S. Environmental Protection Agency, accessed [3/28/17](#)]

2014: Methane Accounted For Approximately 11 Percent Of All U.S. Human-Based Greenhouse Gas Emissions. According to the U.S. Environmental Protection Agency, “Methane (CH₄) is the second most prevalent greenhouse gas emitted in the United States from human activities. In 2014, CH₄ accounted for about 11 percent of all U.S. greenhouse gas emissions from human activities.” [U.S. Environmental Protection Agency, accessed [3/28/17](#)]

Natural Gas And Petroleum Systems Are The Largest Source Of Industry-Related Methane Emissions In The U.S. According to the U.S. Environmental Protection Agency, “Natural gas and petroleum systems are the largest source of CH₄ emissions from industry in the United States. Methane is the primary component of natural gas.” [U.S. Environmental Protection Agency, accessed [3/28/17](#)]

THE CLIMATE ACTION PLAN HAD A SIZEABLE IMPACT ON RENEWABLE ENERGY AND CLIMATE PREPAREDNESS

The Obama Administration’s Climate Action Plan Intended To Prepare The Nation For The Impacts Of Climate Change, And Guide The World’s Response To Global Warming. According to CNBC, “Trump will also aim to rescind the Climate Action Plan, Obama’s overarching strategy for cutting carbon emissions, preparing the country for the impacts of climate change and leading the international community’s response to global warming.” [CNBC, [3/28/17](#)]

The Climate Action Plan Implemented The First National Limits On Carbon Pollution Levels. According to Compliance Week, “In speeches and conference calls, EPA officials at the time reiterated claims that power plants are the single largest source of carbon pollution in the U.S. and account for roughly one-third of all its domestic greenhouse gas emissions. While there are limits in place for the level of arsenic, mercury, sulfur dioxide, nitrogen oxides, and particle pollution that power plants can emit, there were no national limits on carbon pollution levels until the Climate Action Plan.” [Compliance Week, [3/29/17](#)]

Under The Climate Action Plan, Renewable Energy Generation From Wind And Solar Increased By 38 Percent Between January 2013 And December 2014. According to a report by the Center for Climate and Energy Solutions, “President Obama’s Climate Action Plan relies almost entirely on executive powers under existing laws—steps the administration can take on its own. [...] Between January 2013 and December 2014, renewable generation (from wind and solar) increased by 38 percent.” [Center for Climate and Energy Solutions, [June 2015](#)]

- **Wind And Solar Generation Was Expected To Grow By 97 Percent Between 2013 And 2020 Under The Climate Action Plan.** According to a report by the Center for Climate and Energy Solutions, “President Obama’s Climate Action Plan relies almost entirely on executive powers under existing laws—steps the administration can take on its own. [...] According to the latest Energy Information Administration Annual Energy Outlook 2015 reference case, wind and solar generation are expected to be 97 percent higher than at the end of the president’s first term by 2020, effectively meeting the target.” [Center for Climate and Energy Solutions, [June 2015](#)]

Appliance Standards Issued Under The Climate Action Plan Were Projected To Reduce CO₂ Emissions By More Than 2.165 Billion Metric Tons Through 2030. According to a report by the Center for Climate and Energy Solutions, “According to a report by the Center for Climate and Energy Solutions,

“President Obama's Climate Action Plan relies almost entirely on executive powers under existing laws—steps the administration can take on its own. [...] Appliance standards issued by the administration through January 2015 are projected to reduce CO2 emissions by more than 2.165 billion metric tons through 2030.” [Center for Climate and Energy Solutions, [June 2015](#)]

Under The Climate Action Plan, USAID Launched Projects In The Dominican Republic, Ethiopia, And Senegal To Help Insurance Companies Provide Weather-Based Insurance To Rural Households. According to a report by the Center for Climate and Energy Solutions, “President Obama's Climate Action Plan relies almost entirely on executive powers under existing laws—steps the administration can take on its own. [...] USAID launched pilot projects in December 2013 in the Dominican Republic, Ethiopia and Senegal to help local insurance companies develop weather-based insurance for rural households.” [Center for Climate and Energy Solutions, [June 2015](#)]

Pocahontas Coal Association President Rick Taylor Said That Reviewing The Climate Action Plan Took The “Ball And Chain” Off The Coal Industry. According to the Bluefield Daily Telegraph, “President Trump’s executive order to review the previous administration’s Climate Action Plan might not cause a surge in new coal jobs, but it could give the coal business a gradual boost, one person who follows the industry said Wednesday. ‘Yes, it will,’ Rick Taylor, president of the Pocahontas Coal Association, replied when asked if the president’s action will help the industry. Trump’s action takes off the ‘ball and chain,’ the instability caused by current and possible future regulations on the coal industry, he said. And this stability will add to more willingness to make coal industry investments.” [Bluefield Daily Telegraph, [3/30/17](#)]

CRITICS WORRIED THAT THE TRUMP ADMINISTRATION COULD UNDERESTIMATE THE SOCIAL COST OF CARBON BY A FACTOR OF HUNDREDS OF DOLLARS PER TON

According To Environmental Advocates, The Trump Administration Could Reduce The Calculated Social Cost Of Carbon By Accounting Only For The Costs To The U.S. And Changing Inflation Calculations. According to The Atlantic, “As part of this change, he will command the U.S. government to revise its ‘social cost of carbon,’ an actuarial estimate of the societal damage wrought by every additional ton of carbon dioxide emitted into the atmosphere. The social cost of carbon is used to estimate when climate-mitigating policies are a good investment. Right now, the U.S. government’s social cost of carbon is priced at about \$37 per ton. By forcing it to account only for carbon’s social cost to the United States, and by changing how it calculates future inflation, advocates fear that a new social cost figure could dwindle to the single digits.” [The Atlantic, [3/28/17](#)]

- **Altering Calculations For The Social Cost Of Carbon Could Reduce The Figure Into The Single Digits, From \$37 Per Ton As Of March 2017.** According to The Atlantic, “Right now, the U.S. government’s social cost of carbon is priced at about \$37 per ton. By forcing it to account only for carbon’s social cost to the United States, and by changing how it calculates future inflation, advocates fear that a new social cost figure could dwindle to the single digits.” [The Atlantic, [3/28/17](#)]

Scholars At Stanford University And The University Of California Berkeley Found That The Actual Social Cost Of Carbon Should Be \$220 Per Ton. According to The Atlantic, “Right now, the U.S. government’s social cost of carbon is priced at about \$37 per ton. By forcing it to account only for carbon’s social cost to the United States, and by changing how it calculates future inflation, advocates fear that a new social cost figure could dwindle to the single digits. By contrast, a team at Stanford University and the University of California Berkeley have argued since the Obama era that the ‘real’ social cost of carbon should be \$220 per ton.” [The Atlantic, [3/28/17](#)]

As Long As Trump Occupies The White House, The Country Is Unlikely To See Any Meaningful Steps To Address Climate Change

TRUMP CALLED CLIMATE CHANGE A “HOAX” AND SAID IT WAS “CREATED BY AND FOR THE CHINESE”

November 2012: Donald Trump Tweeted That The “Concept Of Global Warming Was Created By And For The Chinese In Order To Make U.S. Manufacturing Non-Competitive.” According to a Tweet by Donald J. Trump, “The concept of global warming was created by and for the Chinese in order to make U.S. manufacturing non-competitive.” [Donald J. Trump – Twitter, [11/6/12](#)]

Trump Tweet: “Is Our Country Still Spending Money On The GLOBAL WARMING HOAX?” According to a Tweet by Donald J. Trump, “NBC News just called it the great freeze - coldest weather in years. Is our country still spending money on the GLOBAL WARMING HOAX?” [Donald J. Trump – Twitter, [1/25/14](#)]

Trump Tweet: “Snowing In Texas And Louisiana, Record Setting Freezing Temperatures Throughout The Country And Beyond. Global Warming Is An Expensive Hoax!” According to a Tweet by Donald J. Trump, “Snowing in Texas and Louisiana, record setting freezing temperatures throughout the country and beyond. Global warming is an expensive hoax!” [Donald J. Trump – Twitter, [1/29/14](#)]

Trump Tweet: “We Should Be Focused On Clean And Beautiful Air-Not Expensive And Business Closing GLOBAL WARMING-A Total Hoax!” According to a Tweet by Donald J. Trump, “We should be focused on clean and beautiful air-not expensive and business closing GLOBAL WARMING-a total hoax!” [Donald J. Trump – Twitter, [12/28/13](#)]

Trump Tweet: “We Should Be Focused On Magnificently Clean And Healthy Air And Not Distracted By The Expensive Hoax That Is Global Warming!” According to a Tweet by Donald J. Trump, “We should be focused on magnificently clean and healthy air and not distracted by the expensive hoax that is global warming!” [Donald J. Trump – Twitter, [12/6/13](#)]

Trump Tweet: “Ice Storm Rolls From Texas To Tennessee - I'm In Los Angeles And It's Freezing. Global Warming Is A Total, And Very Expensive, Hoax!” According to a Tweet by Donald J. Trump, “Ice storm rolls from Texas to Tennessee - I'm in Los Angeles and it's freezing. Global warming is a total, and very expensive, hoax!” [Donald J. Trump – Twitter, [12/6/13](#)]

TRUMP’S EPA DIRECTOR DOUBTS THE HUMAN ROLE IN GLOBAL CLIMATE CHANGE

Pruitt Claimed “Scientists Continue To Disagree About The Degree And Extent Of Global Warming And Its Connection To The Actions Of Mankind.” According to an opinion by Scott Pruitt & Luther Strange in the National Review, “Healthy debate is the lifeblood of American democracy, and global warming has inspired one of the major policy debates of our time. That debate is far from settled. Scientists continue to disagree about the degree and extent of global warming and its connection to the actions of mankind. That debate should be encouraged — in classrooms, public forums, and the halls of Congress. It should not be silenced with threats of prosecution. Dissent is not a crime.” [Scott Pruitt & Luther Strange – National Review, [5/17/16](#)]

Pruitt Framed Disagreement About Climate Change As A Matter Of The Right To Dissent.

According to an opinion by Scott Pruitt & Luther Strange in the National Review, “Healthy debate is the lifeblood of American democracy, and global warming has inspired one of the major policy debates of our time. That debate is far from settled. Scientists continue to disagree about the degree and extent of global warming and its connection to the actions of mankind. That debate should be encouraged — in classrooms, public forums, and the halls of Congress. It should not be silenced with threats of prosecution. Dissent is not a crime.” [Scott Pruitt & Luther Strange – National Review, [5/17/16](#)]

Pruitt Said The “Debate” About “Global Warming” Was “Far From Settled”

Pruitt: The “Debate Is Far From Settled” On Climate Change. In a National Review op-ed by Scott Pruitt and Luther Strange, “Healthy debate is the lifeblood of American democracy, and global warming has inspired one of the major policy debates of our time. That debate is far from settled. Scientists continue to disagree about the degree and extent of global warming and its connection to the actions of mankind. That debate should be encouraged — in classrooms, public forums, and the halls of Congress. It should not be silenced with threats of prosecution. Dissent is not a crime.” [Op-Ed – National Review, [5/17/16](#)]

Climate Law Expert: Pruitt Leading The EPA Would Make Achieving Paris Summit Goals More Unlikely

Environmental Law Expert Michael Gerrard: Pruitt's Selection “Stalls The Momentum, And Makes Much Lower The Already Slim Chance Of Achieving A Temperature In The 1.5- To 2-Degree Range.” According to the Desert Sun, “At the Paris climate summit last year, the United States and nearly 200 other nations agreed to limit global temperatures to 2 degrees Celsius above pre-industrial levels, which many scientists see as a dangerous tipping point. The countries also set an aspirational goal of 1.5 degrees, which scientists consider safer. Already, just 1 degree of warming has brought deadly consequences. ‘Before the election, we were on the precipice of no longer being able to achieve those targets,’ said Gerrard, the Columbia University climate law expert. ‘(Pruitt's) selections stalls the momentum, and makes much lower the already slim chance of achieving a temperature in the 1.5- to 2-degree range.’” [Desert Sun, 12/10/16]

Pruitt Claimed That The Clean Power Plan Was Part Of An Effort By The Obama Administration To “Kill Jobs”

Pruitt Said That President Trump Would Sign An Executive Order To “Address The Past Administration's Effort To Kill Jobs” Through The Clean Power Plan. According to CNN, “EPA Administrator Scott Pruitt said Sunday that President Donald Trump is expected to sign an executive order Tuesday that will begin to undo the ‘Clean Power Plan,’ a major initiative of the Obama administration to deal with climate change by reducing carbon pollution from power plants. [...] ‘We've made tremendous progress on our environment, and we can be both pro-jobs and pro-environment,’ Pruitt told ABC's George Stephanopoulos on ‘This Week.’ ‘And the executive order's going to address the past administration's effort to kill jobs across this country through the Clean Power Plan.’” [CNN, [3/26/17](#)]

A WHITE HOUSE OFFICIAL WAS UNFAMILIAR WITH CONCERNS THAT CLIMATE CHANGE COULD IMPACT THE ECONOMY

An Unnamed White House Official Denied Familiarity With Concerns That Climate Change Could Have Adverse Effects On The Economy. According to the Associated Press, “The contents of the order were outlined to reporters in a sometimes tense briefing with a senior White House official, whom aides insisted speak without attribution, despite President Trump's criticism of the use of unnamed sources. The official at one point appeared to break with mainstream climate science, denying familiarity with widely

publicized concerns about the potential adverse economic impacts of climate change, such as rising sea levels and more extreme weather.” [Associated Press, [3/27/17](#)]

Trump’s Action Will Ensure The Devastating Effects Of Pollution And Climate Change Are Felt Across The Nation For Generations To Come

WITHOUT THE CLEAN POWER PLAN, POLLUTION-RELATED DEATHS AND HEALTH CONDITIONS WILL CONTINUE UNABATED

The CPP Was Projected To Provide Billions In Annual Climate And Health Benefits

The Clean Power Plan Was Expected To Generate An Estimated \$55 - \$93 Billion In Annual Climate And Health Benefits In 2030. According to the EPA, “These reductions will lead to climate and health benefits worth an estimated \$55 billion to \$93 billion per year in 2030.” [EPA, accessed [2/21/17](#)]

- **EPA: “From The Soot And Smog Reductions Alone, For Every Dollar Invested Through The Clean Power Plan, American Families Will See Up To \$7 In Health Benefits.”** According to the EPA, “These climate and health benefits far outweigh the estimated annual costs of the plan, which are \$7.3 billion to \$8.8 billion in 2030. From the soot and smog reductions alone, for every dollar invested through the Clean Power Plan, American families will see up to \$7 in health benefits.” [EPA, accessed [2/21/17](#)]

The CPP Was Projected To Prevent Thousands Of Annual Premature Deaths And Hundreds Of Thousands Of Asthma Attacks In Children

The Clean Power Plan Was Expected To Prevent 700 To 6,600 Premature Deaths And 140,000 To 150,000 Asthma Attacks In Children In 2030. According to the EPA, “These reductions will lead to climate and health benefits worth an estimated \$55 billion to \$93 billion per year in 2030. This includes avoiding 2,700 to 6,600 premature deaths and 140,000 to 150,000 asthma attacks in children.” [EPA, accessed [2/21/17](#)]

- **Without Even Quantifying Direct Benefits From Climate Change Mitigation, Harvard Researchers Found That Reducing Carbon Emissions Through The CPP And Simultaneous Sulfur Dioxide, Nitrogen Oxides, Ozone, And Particulate Matter Emissions Would Save 3,500 Lives Every Year.** According to Think Progress, “But now, a new study led by researchers from Harvard University finds that nearly all regions of the U.S. stand to gain economically from a power plant carbon standard like the Clean Power Plan, and do so fairly quickly. [...] Reducing carbon dioxide emissions from power plants can have public health ‘co-benefits,’ according to the study, by simultaneously decreasing sulfur dioxide, nitrogen oxides, ozone, and particulate matter emissions—tiny particles that can harm the heart and lungs. The study analyzed the anticipated health co-benefits of a power plant carbon standard that would achieve a 35 percent reduction in carbon dioxide emissions by 2020 through cleaner fuels, energy efficiency, emissions trading, and other measures. Researchers didn’t calculate direct health benefits due to climate change mitigation, such as fewer heat-related illnesses, reduction in extreme weather, and avoided increases in vector-borne diseases, though Buonocore said creating such a study is on their wish list. Still, even without quantifying these factors, he said some 3,500 lives could be saved every year with a power plant carbon standard. The health burden of electricity generation is about 17,000 lives a year, according to Buonocore.” [Think Progress, [6/9/16](#)]

- **Think Progress: “Research Has Repeatedly Shown That Improved Air Quality Is Associated With Health Benefits Such As Fewer Premature Deaths, Heart Attacks, And Hospitalizations From Respiratory And Cardiovascular Illnesses.”** According to Think Progress, “Fossil fuel-fired power plants make up about 31 percent of U.S. greenhouse gas emissions—largely carbon dioxide emissions. [...] Research has repeatedly shown that improved air quality is associated with health benefits such as fewer premature deaths, heart attacks, and hospitalizations from respiratory and cardiovascular illnesses.” [Think Progress, [6/9/16](#)]

Climate Change Increases The Risk Of Gastrointestinal Illness As Well As Nervous And Respiratory Illness. According to the EPA, “People can become ill if exposed to contaminated drinking or recreational water. Climate change increases the risk of illness through increasing temperature, more frequent heavy rains and runoff, and the effects of storms. Health impacts may include gastrointestinal illness like diarrhea, effects on the body's nervous and respiratory systems, or liver and kidney damage.” [EPA, accessed [2/21/17](#)]

Pollution And Climate Change Has Negatively Impacted The Health Of Everyday Americans

Boston Resident Chiamaka Obiolo Testified To The Effect Of Climate Change And Pollution On Minority Neighborhoods As Half Of Her Classmates In Elementary School Had Asthma. According to the Boston Globe, “[Chiamaka] Obiolo said the threat against science is a social justice issue. She said half of her classmates in elementary school had asthma, and she sees how pollution and climate change have affected minority neighborhoods in Boston.” [Boston Globe, [2/19/17](#)]

University Of Michigan Professor Of Pediatrics And Director Of The Cystic Fibrosis Center Dr. Samya Nasr: Climate Change Has Had A Direct Impact On Child Health, Exacerbating Child Lung Disease. According to an opinion by University of Michigan Professor of Pediatrics and Director of the Cystic Fibrosis Center Dr. Samya Nasr in the Detroit Free Press, “Despite what the court and governor might think, the climate will keep changing and those changes will have direct impact on human health. As a physician who treats children with lung diseases, I already see the impact of global climate change on my patients.” [Dr. Samya Nasr - Detroit Free Press, [2/26/16](#)]

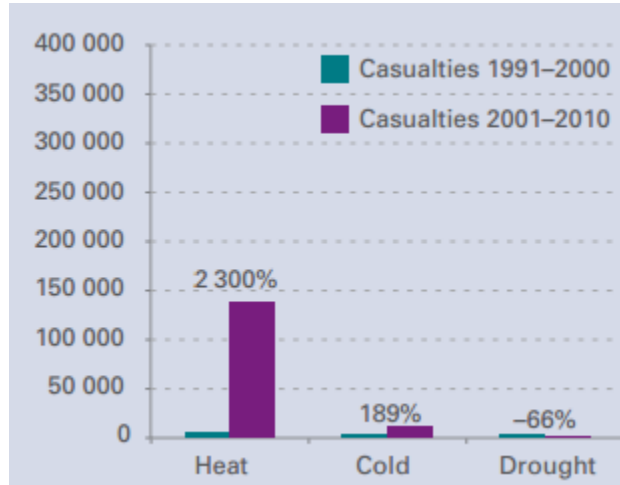
CLIMATE CHANGE HAS LEAD TO A SPIKE IN HEAT-RELATED DEATHS, AND COULD COMPLETELY SUBMERGE 36 U.S. CITIES

Zillow Reported That Rising Sea Levels Could Completely Submerge 36 U.S. Cities By 2100, And Almost 300 U.S. Cities Could Lose More Than Half Of Their Homes. According to Zillow, “If sea levels rise as much as climate scientists predict by the year 2100, almost 300 U.S. cities would lose at least half their homes, and 36 U.S. cities would be completely lost.” [Zillow, [8/2/16](#)]

- **By 2100, Over 12 Percent Of Homes In Florida Could Be Underwater.** According to Zillow, “If sea levels rise as much as climate scientists predict by the year 2100, almost 300 U.S. cities would lose at least half their homes, and 36 U.S. cities would be completely lost. One in eight Florida homes would be underwater, accounting for nearly half of the lost housing value nationwide.” According to a Zillow chart using data from the National Oceanic and Atmospheric Administration, 12.56% would be underwater if sea levels rise by six feet. [Zillow, [8/2/16](#)]
- **By 2100, Almost 1.9 Million Homes Could Be Underwater, Worth A Combined \$882 Billion.** According to Zillow, “Nationwide, almost 1.9 million homes (or roughly 2 percent of all U.S. homes) – worth a combined \$882 billion – are at risk of being underwater by 2100.” [Zillow, [8/2/16](#)]

- **By 2100, More Than 1 In 6 Homes In Boston Could Be Submerged, Along With Almost 3 Percent Of Homes In New York City.** According to Zillow, “More than 1 in 6 Boston homes are at risk, and New Yorkers may find almost 3 percent of homes in the city underwater if sea levels rise in line with climatologists’ predictions.” [Zillow, [8/2/16](#)]

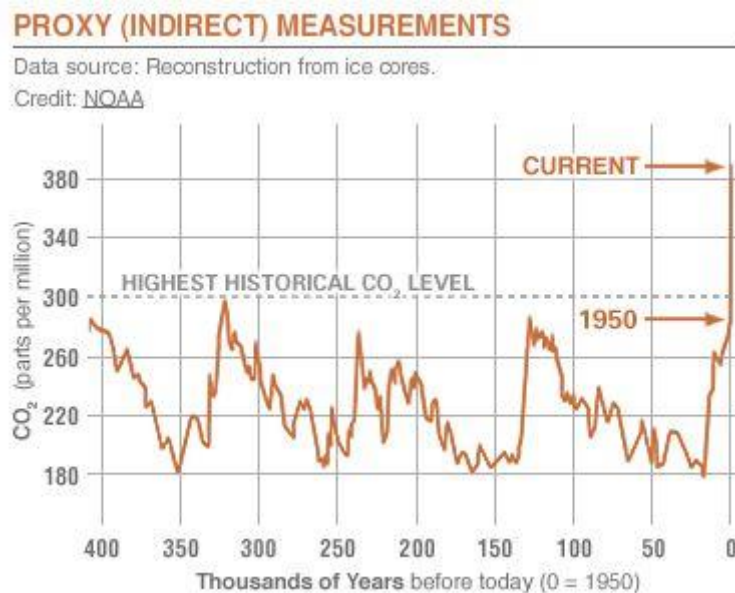
Between The 1990s And The 2000s, There Was A 2,300 Percent Increase In Deaths Related To Heat Worldwide. According to a World Meteorological Organization chart, casualties related to heat increased by 2,300% between 1991-2000 and 2001-2010. This information is further detailed in the following chart:



[World Meteorological Organization, [2013](#)]

CO2 LEVELS HAVE NEVER BEEN HIGHER THAN THEY ARE TODAY

Carbon Dioxide Content Is The Highest It’s Ever Been. The following chart from NASA shows the carbon dioxide levels in the atmosphere from over 400,000 years ago to the present day:



[Climate.NASA.gov, accessed [2/21/17](#)]

Carbon Dioxide Emissions Jumped By The Largest Amount On Record In 2010. According to the New York Times: “Global emissions of carbon dioxide from fossil-fuel burning jumped by the largest amount on record last year, upending the notion that the brief decline during the recession might persist through the recovery. Emissions rose 5.9 percent in 2010, according to an analysis released Sunday by the Global Carbon Project, an international collaboration of scientists tracking the numbers. Scientists with the group said the increase, a half-billion extra tons of carbon pumped into the air, was almost certainly the largest absolute jump in any year since the Industrial Revolution, and the largest percentage increase since 2003.” [New York Times, [12/4/11](#)]

UNCHECKED CLIMATE CHANGE COULD LEAD TO NATURAL DISASTERS AND MORE EXTREME WEATHER

At Least 14 Extreme Weather Events In 2014, Ranging From Droughts In Syria And East Africa To An Extremely Active Hawaiian Hurricane Season, Were Linked To Climate Change. According to National Geographic, “From a deadly snowstorm in Nepal to a heat wave in Argentina that crashed power supplies, at least 14 extreme weather events last year bore the fingerprints of human-induced climate change, an international team of scientists reported Thursday. Researchers examined 28 weather extremes on all seven continents to see if they were influenced by climate change or were just normal weather. Their conclusion: Half of them showed some role of climate change. [...] Droughts in Syria and East Africa, record rains in New Zealand and France, Nepal’s extreme Himalayan snowstorm, flooding in southeastern Canada, and an extremely active Hawaiian hurricane season also had direct or indirect climate links, the report finds. So did increased Antarctic sea ice and hotter Pacific and Atlantic sea-surface temperatures.” [National Geographic, [11/2/15](#)]

Climate Change Models Have Predicted That An Increase In Global Temperatures Will Lead To A Higher Risk Of Drought, High Intensity Storms Including Cyclones, Wetter Monsoons, And More Mid-Latitude Storms. According to NASA, “Climate change may not be responsible for the recent skyrocketing cost of natural disasters, but it is very likely that it will impact future catastrophes. Climate models provide a glimpse of the future, and while they do not agree on all of the details, most models predict a few general trends. First, according to the Intergovernmental Panel on Climate Change, an increase of greenhouse gases in the atmosphere will probably boost temperatures over most land surfaces, though the exact change will vary regionally. More uncertain—but possible—outcomes of an increase in global temperatures include increased risk of drought and increased intensity of storms, including tropical cyclones with higher wind speeds, a wetter Asian monsoon, and, possibly, more intense mid-latitude storms.” [NASA, accessed [2/22/17](#)]

- **Researchers Have Found That Climate Change Will Make Hurricanes More Intense.** According to the Washington Post, “Researchers now think that a warming climate, by heating the oceans, will indeed make hurricanes more intense (on average), even though it may not increase their overall numbers (in fact, those may decrease). These storms will also dump more damaging rain in the future, as the atmosphere holds more water vapor on a warming planet.” [Washington Post, [10/6/16](#)]

Without Cuts In Greenhouse Emissions, The U.S. Could See A 50 Percent Increase In Lightning Strikes By 2100. According to Live Science, “A 50 percent increase in the number of lightning strikes within the United States can be expected by 2100 if temperatures continue to rise due to greenhouse gas emissions, a new study claims. Researchers found a 12 percent increase in lightning activity for every 1.8 degrees Fahrenheit (1 degree Celsius) of warming in the atmosphere, according to the study, published today (Nov. 13) in the journal Science. Without emissions cuts, scientists expect this century to end with global temperatures that are about 7 F (4 C) higher than current global temps.” [Live Science, [11/13/14](#)]

- **According To UC Berkeley Professor David Romps, An Increase In Lightning Strikes Could Lead To An Increase In Wildfires.** According to Live Science, “‘This is yet another noticeable change to climate and weather in the U.S. if we stay on our current [emissions] (*brackets in original*) trajectory,’ said lead study author David Romps, an atmospheric scientist at the University of California, Berkeley. ‘It’s certainly reasonable that a 50 percent increase will lead to an increase in wildfires.’” [Live Science, [11/13/14](#)]

THE CLEAN POWER PLAN WAS EXPECTED TO SAVE THE COUNTRY BILLIONS OF DOLLARS, WHICH WILL NOW HAVE TO BE PAID

The EPA Projected That By 2030, The CPP Would Save Americans An Average Of \$8 Per Month Through Increased Energy Efficiency. According to the EPA, “States, cities, businesses and homeowners have been working for years to increase energy efficiency and reduce growth in demand for electricity. EPA projects that the Clean Power Plan will continue – and accelerate – this trend. Nationally, this means that, in 2030 when the plan is fully implemented, electricity bills would be expected to be roughly 8 percent lower than they would be without the actions in state plans. That would save Americans about \$8 on an average monthly residential electricity bill, savings they wouldn’t see without the states’ efforts under this rule.” [EPA, accessed [2/21/17](#)]

A Harvard University Study Showed That Nearly All Regions Of The U.S. Stand To Gain Economically From The CPP Quickly, From Net Benefits Of \$38 Billion Per Year. According to Think Progress, “When the Environmental Protection Agency published a rule to reduce carbon emissions from power plants last year, critics quickly said the plan was too economically costly for businesses and home electricity bills. But now, a new study led by researchers from Harvard University finds that nearly all regions of the U.S. stand to gain economically from a power plant carbon standard like the Clean Power Plan, and do so fairly quickly. Using a scenario that somewhat resembles the Clean Power Plan (CPP)—a policy moderately stringent and highly flexible—researchers calculated net benefits of some \$38 billion a year, according to the study published Wednesday in the online journal PLOS ONE.” [Think Progress, [6/9/16](#)]

The National Resources Defense Council Said That The CPP Would Save “Up To \$54 Billion” Per Year. According to a National Resources Defense Council web post, “By starting to cut the carbon pollution created by power plants in 2022—ramping up to a 32 percent reduction from 2005 levels by 2030—the Clean Power Plan represents the most important step the United States can take right now to combat climate change and help spur climate action around the globe. It will aid in mitigating many of the health threats air pollution causes and that climate change enhances. And it will help America build a cleaner, healthier environment for future generations while ensuring an ongoing supply of reliable, affordable energy for economic growth. The plan would save up to \$54 billion and thousands of lives a year—plus create tens of thousands of new jobs.” [NRDC.org/issues, accessed [1/19/17](#)]

CLIMATE CHANGE HAS ALREADY DEVESTATED INDIGENOUS COMMUNITIES ACROSS THE COUNTRY

Climate Change Has Left 31 Alaskan Villages At “Imminent Risk Of Destruction”

Due To Its Proximity To The Arctic, Alaska Has Warmed Twice As Fast As The Rest Of The U.S., Leaving At Least 31 Alaskan Towns And Cities At “Imminent Risk Of Destruction.” According to the New York Times, “With its proximity to the Arctic, Alaska is warming about twice as fast as the rest of the United States and the state is heading for the warmest year on record. The government has identified at least 31 Alaskan towns and cities at imminent risk of destruction, with Shaktoolik ranking among the top

four. Some villages, climate change experts predict, will be uninhabitable by 2050, their residents joining a flow of climate refugees around the globe, in Bolivia, China, Niger and other countries.” [New York Times, [11/29/16](#)]

- **The Alaskan Villages Shishmaref And Kivalina Have Voted To Relocate Due To Climate Change And A Third, Newtok, Has Taken The First Steps Toward A Move.** According to the New York Times, “These endangered Alaskan communities face a choice. They could move to higher ground, a wrenching prospect that for a small village could cost as much as \$200 million. Or they could stand their ground and hope to find money to fortify their buildings and shore up their coastline. At least two villages farther up the western coast, Shishmaref and Kivalina, have voted to relocate when and if they can find a suitable site and the money to do so. A third, Newtok, in the soggy Yukon-Kuskokwim Delta farther south, has taken the first steps toward a move.” [New York Times, [11/29/16](#)]

Kivalina, Alaska

The Threat Of Climate Change Has Cut Off Investment In The Town, Leaving 80 Percent Of Homes Without Toilets

Since Climate Change Has Threatened Kivalina’s Long-Term Future, No Money Has Been Invested To Improve Residents’ Lives; Eighty Percent Of The Homes Do Not Even Have Toilets. According to the Los Angeles Times, “Because the [Kivalina’s] days on the edge of the Chukchi Sea are numbered, no money has been invested to improve residents’ lives. Eighty percent of the homes do not have toilets. Most rely on homemade honey buckets — a receptacle lined with a garbage bag topped by a toilet seat.” [Los Angeles Times, [8/30/15](#)]

Climate Change Has Threatened Kivalina Food Staples And Thus The Inupiat Culture

Kivalina Tribal President Millie Hawley: The Increasingly Warm Weather Has Threatened Many Of The Food Staples On Which Alaska Natives Here Depend. According to the Los Angeles Times, “The Inupiat who live in Kivalina get most of their food from the land and sea around them. The increasingly warm weather means an abundance of cloudberries and low-bush blackberries, said Millie Hawley, Kivalina tribal president, but it also threatens many of the food staples on which Alaska natives here depend.” [Los Angeles Times, [8/30/15](#)]

- **Thinner Ice Has Made It More Difficult And Dangerous For The Alaskan Inupiat Of Kivalina To Go Whaling.** According to the Los Angeles Times, “Thinner ice also makes it harder for the Inupiat to go whaling. Normally, crews will build camps at the edge of the so-called shore-fast ice and hunt bowhead and beluga whales as they swim north in spring. ‘If the shore-fast ice is thin and weak, it’s not safe to make a camp,’ said Timothy Schuerch, president of the Maniilaq Assn., a tribally operated health services organization with clinics in Kivalina and the other borough villages. ‘Whaling crews have drifted out to sea.’” [Los Angeles Times, [8/30/15](#)]
- **Kivalina Tribal President Millie Hawley: The Inupiat Residents Of Kivalina Has Had To Go Without Their Staples Of Dried Meat And Oil After The Weather Has Caused Sharp Reductions In Caribou And Seal Catches.** According to the Los Angeles Times, “‘With the caribou, usually it’s like clockwork,’ Hawley said. ‘Every June, we’d hunt. We haven’t done that in years. It’s unpredictable. We don’t know when we’ll see them.’ Kivalina residents hang the caribou’s hindquarters outside of their homes to age. The frozen meat is eaten raw, dipped in seal oil, which is also harvested in June. Trout is eaten the same way. The Inupiat also depend on seal for meat.

‘Usually we get 80 to 100 seals for the whole community,’ Hawley said. ‘This year, we were looking to get eight. The community now has to go without dried meat and oil.’” [Los Angeles Times, [8/30/15](#)]

Storms Forced The Relocation Of 13 Year Old Shelby

As Warming Temperatures Have Stripped Kivalina Of Its Crucial Ice Protection, 13 Year Old Shelby Had To Relocate In 2011 Due To A Storm That Flooded The Island. According to the Los Angeles Times, “Shelby, who just turned 13, has lived in Kivalina her entire life, and she loves her island home dearly. ‘It’s where I grew up, where everybody I know is,’ she said five days before Obama was scheduled to land in Kotzebue. ‘We need to relocate because the ocean is slowly eating away our island.’ Shelby was in fourth grade when much of Kivalina was forced to evacuate during a fierce storm in 2011. She and her family were on one of the few planes that made it to the mainland before flying conditions became too dangerous. Everyone else sheltered in the school, the highest point on the nearly flat island. ‘We had people sleeping in all the classrooms and the gym,’ said Emma Knowles, who was Shelby’s teacher at McQueen School that year. ‘Someone had gotten a caribou the day before, so we made a huge pot of caribou stew.... The school didn’t even budge. As dilapidated as it looks, it survived.’ Kivalina is no stranger to harsh weather, and erosion worries have dogged the 27-acre town almost since its inception in 1905. In the 21st century, however, warming temperatures and the perilous changes that cascade from them have stripped the island of its major source of protection: ice.” [Los Angeles Times, [8/30/15](#)]

Shaktoolik, Alaska

Shaktoolik Has Experienced Severe Flooding, Erosion, And Storms Related To Climate Change

Shaktoolik Has Faced An Imminent Threat From The Increased Flooding And Erosion That Have Come With A Changing Climate. According to the New York Times, “But here in Shaktoolik, one need not be a prophet to predict flooding, especially during the fall storms. Laid out on a narrow spit of sand between the Tagoomenik River and the Bering Sea, the village of 250 or so people is facing an imminent threat from increased flooding and erosion, signs of a changing climate.” [New York Times, [11/29/16](#)]

- **Shaktoolik Residents Have Testified To More Frequent And Intense Storms.** According to the New York Times, “Some residents here say that the storms are becoming more frequent and more intense, although scientists do not have data to confirm this. But there is no question that higher ocean temperatures have resulted in less offshore ice, allowing storm surges and waves to hit with greater force and bringing more flooding and erosion. The loss of sea ice, said David Atkinson, a climate scientist at the University of Victoria in British Columbia, is ‘undeniably linked’ to a warming climate, as is the rising level of the sea as a result of melting glaciers, the increased volume of water lending even more strength to the ocean’s assault. Fifty years ago, when the beach was a quarter of a mile away, the increasing violence of the ocean might not have bothered Shaktoolik’s residents. But now the sea is almost at their doorsteps.” [New York Times, [11/29/16](#)]
- **Erosion Has Threatened Shaktoolik’s Fuel Tanks, Airport, And Drinking Water Supply.** According to the New York Times, “Erosion is threatening the village’s fuel tanks, its airport and its drinking water supply, which is pumped from the Tagoomenik River. The boundary between river and sea has been so thinned by erosion in some spots that salt water from the ocean, normally a benign source of sustenance, briefly overtopped the bank and poured into the river during a recent storm.” [New York Times, [11/29/16](#)]

Shaktoolik Has Been Periled By How To Best Preserve Their Community And Culture

Shaktoolik Residents Have Been Faced With The Need To Relocate, Which Can Take Many Years, And Staying, Which Requires Stable Schools, Doctors, And Shelter. According to the New York Times, “As Shaktoolik and other threatened villages have discovered, both staying and moving have their perils. The process of relocation can take years or even decades. In the meantime, residents still need to send their children to school, go to the doctor when they are sick, have functioning water lines and fuel tanks and a safe place to go when a severe storm comes.” [New York Times, [11/29/16](#)]

- **Just Announcing Its Intention To Move, Shaktoolik Lost Funds For Its Clinic.** According to the New York Times, “Even announcing the intention to relocate can scuttle a community’s request for financing. Some years ago, when Shaktoolik indicated on a grant proposal that it was hoping to move, it lost funds for its clinic, said Isabel Jackson, the city clerk.” [New York Times, [11/29/16](#)]
- **Shaktoolik Residents Fear Relocating Will Harm Their Culture.** According to the New York Times, “Shaktoolik’s leaders have identified a potential relocation site 11 miles southeast, near the foothills. But some residents say they fear that their culture, dependent on fishing and hunting, will suffer if they move.” [New York Times, [11/29/16](#)]

Barrow, Alaska

Climate Change Is Projected To Destroy Barrow And Its Eight Surrounding Villages, Forcing A 250-Mile Relocation

Washington Post: “Warming Air, Melting Permafrost And Rising Sea Levels” Have Threatened Barrow And Its Eight Surrounding Villages And “Researchers Predict That By Midcentury, The Homes, Schools And Land” Will Be Underwater. According to the Washington Post, “Here in the northernmost municipality of the United States, 320 miles above the Arctic Circle, people are facing the idea that they may soon be among the world’s first climate-change refugees. Warming air, melting permafrost and rising sea levels are threatening their coastline, and researchers predict that by midcentury, the homes, schools and land around Barrow and its eight surrounding villages will be underwater. This despite decades of erecting barriers, dredging soil and building berms to hold back the water.” [Washington Post, [9/12/16](#)]

- **The Only Way To Protect Barrow And Its Surrounding Villages Of The North Slope Borough From Rising Seas Would Be To Move The Town 250 Miles South.** According to the Washington Post, “The only thing we can do, as far as I’m concerned, is move our towns inland,” says Mike Aamodt, the former acting mayor of Barrow and its surrounding villages of the North Slope Borough, which stretches over 89,000 square miles, an area larger than Utah. Pointing out a window in his second-floor office, Aamodt isn’t joking when he declares that the sole refuge from erosion and rising seas is the Brooks mountain range — more than 250 miles south.” [Washington Post, [9/12/16](#)]

Climate Change Has Led To Frequent States Of Emergency In Barrow And The Constant Threat Of Total Destruction

Washington Post: States Of Emergency Have Been Common In Barrow And “Given The Rising Seas And Coastal Erosion, Every Year Brings The Threat Of A Storm That Could Wipe The Town Off The Map.” According to the Washington Post, “When cyclones came through in 2000 and 2004, knocking out Barrow’s power supply, the result was flooded and contaminated drinking water. States of emergency are common occurrences here, and given the rising seas and coastal erosion, every year brings the threat of a storm that could wipe the town off the map, Aamodt says.” [Washington Post, [9/12/16](#)]

Storms In Barrow Frequently Penetrate Sea Walls, Sometimes Sending Houses Floating Inland For Miles. According to the Washington Post, “A stroll along one of Barrow’s handful of roads shows just how tenuous civilization’s perch is. Bulldozed mounds of sand and soil more than 20 feet high are all around town. But these sea walls are frequently penetrated as swells and storms overtop the walls, sometimes sending houses, built on stilts because of the impenetrability of permafrost, floating inland for miles.” [Washington Post, [9/12/16](#)]

Climate Change Has Had A Devastating Impact On Barrow’s Cultural And Historical Preservation

Barrow’s Climate Change Problem Has Destroyed Remains Of Early Human Settlements, Creating A Knowledge Gap In Indigenous History. According to the Washington Post, “Barrow’s climate-change problem has been years in the making, says Anne Jensen, an ethnographic archaeologist who arrived in Barrow in 1983 and has been excavating some of the earliest human settlements found in this frigid area. The increasing floods and erosion have made her job a scramble against nature. By the time she secures funding and gets ready to enlarge a dig, a site that is often now at water’s edge, surging oceans washes everything away. It’s a frustrating way to make a living, she says. “The entire north coast of the North Slope — most of the sites are already gone. We have a big knowledge gap up there.” [Washington Post, [9/12/16](#)]

Isle De Jean Charles, Louisiana

Louisiana Has Lost An Area The Size Of Delaware Since The 1930s

Louisiana Has Coped With Some Of The Fastest Rates Of Land Loss In The World, Losing An Area The Size Of Delaware Since The 1930s. According to the New York Times, “Louisiana officials have been coping with some of the fastest rates of land loss in the world — an area the size of Delaware has disappeared from south Louisiana since the 1930s.” [New York Times, [5/3/16](#)]

Climate Change Has Forced Isle De Jean Charles Tribes To Relocate, Giving Rise To Logistical And Moral Problems In The Process

Two Tribes Living On Isle De Jean Charles Have Been Forced Off Their Land From Climate Change. According to BuzzFeed, “Last year, two tribes living on Isle de Jean Charles, off the Louisiana coast, made the news as ‘climate refugees.’ The Isle de Jean Charles Band of Biloxi Chitimacha Choctaw were named awardees of a Department of Housing and Urban Development grant to cities and states facing effects of changing climate. The money funds an effort to relocate the entire community to yet-to-be-chosen site on shore..” [BuzzFeed, [2/17/17](#)]

- **New York Times: “Since 1955, More Than 90 Percent Of The Island’s Original Land Mass Has Washed Away” And What Little Remains “Will Eventually Be Inundated As Burning Fossil Fuels Melt Polar Ice Sheets And Drive Up Sea Levels.”** According to the New York Times, “For over a century, the American Indians on the island fished, hunted, trapped and farmed among the lush banana and pecan trees that once spread out for acres. But since 1955, more than 90 percent of the island’s original land mass has washed away. Channels cut by loggers and oil companies eroded much of the island, and decades of flood control efforts have kept once free-flowing rivers from replenishing the wetlands’ sediments. Some of the island was swept away by hurricanes. What little remains will eventually be inundated as burning fossil fuels melt polar ice sheets and drive up sea levels, projected the National Climate Assessment, a report of 13 federal agencies that highlighted the Isle de Jean Charles and its tribal residents as among the nation’s most vulnerable.” [New York Times, [5/3/16](#)]

NYT: The Department Of Housing And Urban Development Gave Isle De Jean Charles “The First Allocation Of Federal Tax Dollars To Move An Entire Community Struggling With The Impacts Of Climate Change,” Which “Exposed Logistical And Moral Dilemmas” In The Process. According to the New York Times, “In January, the Department of Housing and Urban Development announced grants totaling \$1 billion in 13 states to help communities adapt to climate change, by building stronger levees, dams and drainage systems. One of those grants, \$48 million for Isle de Jean Charles, is something new: the first allocation of federal tax dollars to move an entire community struggling with the impacts of climate change. The divisions the effort has exposed and the logistical and moral dilemmas it has presented point up in microcosm the massive problems the world could face in the coming decades as it confronts a new category of displaced people who have become known as climate refugees.” [New York Times, [5/3/16](#)]

- **The HUD Grant Won’t Cover The Entire Cost Of Relocation, But Secretary For The Isle De Jean Charles Band Of Biloxi Chitimacha Choctaw Chantel Comardelle Feels The Plan Is The Tribe’s Last Shot At Preserving History.** According to BuzzFeed, “But the HUD grant won’t cover the whole cost of relocation, and there is some concern that the new administration may not make future grants available. [...] The relocation plan is the tribe’s last shot at preserving history, [Chantel Comardelle, secretary for the Isle de Jean Charles Band of Biloxi Chitimacha Choctaw] said. ‘If we lose that one central space and everybody continues to spread out, we’ll lose our culture completely. This is our tribe’s only hope for future survival.’” [BuzzFeed, [2/17/17](#)]

Climate Change Has Had A Devastating Impact On The Lives Of Isle De Jean Charles Residents

Buzzfeed: Secretary For The Isle De Jean Charles Band Of Biloxi Chitimacha Choctaw Chantel Comardelle “Was Four When A Hurricane Flooded The Trailer Her Family Lived In, And Moved Off The Island When The Mold Started Making Her Ill.” According to BuzzFeed, “‘We’re just trying to stay hopeful,’ Chantel Comardelle, secretary for the Isle de Jean Charles Band of Biloxi Chitimacha Choctaw. Comardelle was four when a hurricane flooded the trailer her family lived in, and moved off the island when the mold started making her ill. As successive storms sank gardens and drowned backyards, others followed; the island population has shrunk to about two dozen families, including Comardelle’s aunt and grandparents.” [BuzzFeed, [2/17/17](#)]

Joann Bourg Lives In A Mildewed And Rusted House On The Isle De Jean Charles And Frequently Is Kept From Work When The Bridge From The Island Floods. According to the New York Times, “Each morning at 3:30, when Joann Bourg leaves the mildewed and rusted house that her parents built on her grandfather’s property, she worries that the bridge connecting this spit of waterlogged land to Louisiana’s terra firma will again be flooded and she will miss another day’s work. Ms. Bourg, a custodian at a sporting goods store on the mainland, lives with her two sisters, 82-year-old mother, son and niece on land where her ancestors, members of the Native American tribes of southeastern Louisiana, have lived for generations. That earth is now dying, drowning in salt and sinking into the sea, and she is ready to leave.” [New York Times, [5/3/16](#)]

Violet Handon Parfait Saw Her House Destroyed By Hurricane Gustav In 2008 And Show Now Lives In Fear That Weather May Prevent Her From Reaching A Doctor To Treat Her Lupus And Her Children From Going To School And Achieving Her Dream Of College For Them. According to the New York Times, “Violet Handon Parfait sees nothing but a bleak future in the rising waters. She lives with her husband and two children in a small trailer behind the wreckage of their house, which Hurricane Gustav destroyed in 2008. The floods ruined the trailer’s oven, so the family cooks on a hot plate. Water destroyed the family computer, too. Ms. Parfait, who has lupus, is afraid of what will happen if she is sick and cannot reach a doctor over the flooded bridge. Ms. Parfait, who dropped out of high school, hopes for a brighter future, including college, for her children, Heather, 15, and Reggie, 13. But the children often miss school when flooding blocks their school bus. ‘I just want to get out of here,’ she said.” [New York Times, [5/3/16](#)]

