

NEVADA CAN CREATE 1,217 EFFICIENCY-RELATED JOBS, CUT ELECTRICITY BILLS, AND CURB CARBON POLLUTION



“Earth’s climate is on a path to warm beyond the range of what has been experienced over the past millions of years. By making informed choices now, we can reduce risks for future generations and ourselves, and help communities adapt to climate change. People have responded successfully to other major environmental challenges such as acid rain and the ozone hole with benefits greater than costs, and scientists working with economists believe there are ways to manage the risks of climate change while balancing current and future economic prosperity.”

—“WHAT WE KNOW,” AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, 2014

That sobering prospect and challenge from leading scientists makes it clear that **Nevadans and all Americans** have an obligation to address climate change now, chiefly by reducing the carbon pollution fueling changes we’re already seeing. In doing so, we can reap substantial benefits to our economy while protecting future generations. Under the Clean Air Act, the U.S. Environmental Protection Agency is moving now to curb power plant carbon pollution, which makes up 40 percent of our nation’s total carbon footprint.

NEVADA CAN ADDRESS CLIMATE CHANGE, WITH GREAT BENEFIT TO FUTURE GENERATIONS AND OUR ECONOMY



SETTING THE FIRST-EVER NATIONAL CARBON LIMITS... will cut Nevada’s dangerous carbon pollution by 4 million tons.¹



USING SMART STRATEGIES... can put 1,217 Nevadans to work in efficiency-related jobs.



AND THAT WILL SAVE NEVADA HOUSEHOLD CONSUMERS... \$3 million per year on their electric bills.

All figures for 2020

WE MUST ACT NOW TO MEET THE ENVIRONMENTAL CHALLENGE OF OUR TIME



For more information, please contact:

Kelly Henderson
khenderson@nrdc.org
(202) 289-2401
 switchboard.nrdc.org/
blogs/khenderson

www.nrdc.org/policy
www.facebook.com/nrdc.org
www.twitter.com/nrdc

THE EPA'S PLAN TAKES AIM AT THE HEART OF THE PROBLEM

- Electric power plants are the largest source of dangerous carbon pollution that is driving climate change and extreme weather.
- In 2011, the nation's 100 largest electric power companies, which account for 86 percent of electricity production and 88 percent of the industry's carbon pollution, released 2.1 billion tons of carbon pollution, according to reporting by the industry.²
- In Nevada, power plants released 16 million tons of carbon pollution in 2011. That ranks 39th in the nation, according to air emissions tracking from the 100 largest electricity providers.³
- Today, we limit the amount of arsenic, mercury and soot these plants emit. But there are no limits on carbon pollution. That is wrong and it must change.

In response, the president has directed the U.S. Environmental Protection Agency to end the limitless dumping of carbon pollution from these power plants. The EPA has both the authority and responsibility to reduce carbon pollution under the Clean Air Act, and it should move forward to help protect future generations. The EPA has proposed standards for future power plants and is scheduled to issue the first federal standards for existing power plants in June 2014.

NRDC'S CARBON POLLUTION SOLUTION: EMPOWER STATES TO CURB CLIMATE CHANGE

In December of 2012, the Natural Resources Defense Council unveiled a proposal showing one way the EPA can significantly cut carbon pollution from the nation's power plants with low cost and big benefits.⁴ This approach:

- **Allows states to tailor policies to meet the standards**, such as including cleaning up existing power plants, shifting power generation to plants with lower emissions or none at all, and improving the efficiency of electricity use.
- **Sets carbon intensity-based emissions standards** for all large fossil-fueled power plants. Each state would have a different target; states relying more on coal wouldn't have as low a carbon target as those depend less on coal.
- **Charts a path to affordable and effective emissions reductions** by tapping into the ingenuity of the states and leveraging their existing efforts to reduce pollution and provide more clean energy options. . This state-based approach has been used for decades to cut other pollutants.
- **Can be implemented now** using the authority the EPA has now under the Clean Air Act.

BENEFITS FOR NEVADA AND THE U.S. FROM ACTING ON POWER PLANT CARBON POLLUTION

NRDC selected a respected firm, ICF International, Inc., often used by industry and government to model impacts of regulations, to analyze the impact of its power plant plan on jobs and electricity bills. In a 2014 analysis conducted by ICF for NRDC and based on NRDC's policy designs and assumptions, it was found that the EPA could design carbon pollution standards to help the nation reduce carbon pollution 29 percent by 2020 and 38 percent by 2025, compared with 2012 levels.⁵

These carbon reductions would generate between \$28 billion and \$63 billion in benefits through avoided climate change impacts and avoided pollution-related illnesses and deaths.

NEW JOBS AND LOWER BILLS

In addition, this approach could help the country in 2020:

- Create 274,000 new efficiency-related jobs.
- Save U.S. household and business customers \$37.4 billion per year on their electricity bills, including:
 - Save U.S. household customers \$13 billion, or an average of \$103 per household.
 - Save U.S. business customers \$24.3 billion.
- Reduce U.S. carbon pollution by 531 million tons.⁶
- Stimulate significant growth in the energy efficiency industry.

In Nevada, the impacts would be substantial. Using the Clean Air Act in this way to reduce carbon pollution, the state could in 2020:

- **Put 1,217 Nevadans to work** in energy efficiency-related jobs.
- **Save Nevada residents a total of \$2.78 million every month, or \$2 million every year**, on their electricity bills, NRDC estimates.⁷
- **Save Nevada business interests \$4 million on their electricity bills.**
- **Curb carbon pollution by 4 million tons per year.**
- **Stimulate significant growth in the state's energy efficiency industry.**

Because the bulk of investment in energy efficiency focuses on making our buildings and homes more efficient, such investment creates a lot of jobs that require a broad range of homegrown expertise, in industries that have been especially hard hit by the recent recession. There will be greater demand for electricians, heating/air conditioning installers, carpenters, construction equipment operators, roofers, insulation workers, industrial truck drivers, construction managers, and building inspectors.

NEVADA ALREADY LEADS ON CLEAN ENERGY

Already, Nevada's clean energy policies and growing energy efficiency and renewable energy industries have provided big benefits to the state. Some examples include:

- Clean energy projects announced in Nevada over the past two years are poised to create more than 5,400 jobs in industries like solar and wind, according to Environmental Entrepreneurs (E2).⁸
- Nevada ranked 7th nationally in 2013 alone for clean energy jobs announced, with more than 3,300 jobs in solar and geothermal energy.⁹
- There is enough solar energy installed in the state to power 64,300 homes.¹⁰
- Nevada wind farms provide enough energy currently to power 45,000 homes.¹¹
- Currently, more than 80 solar companies are at work throughout the value chain in Nevada, employing 2,400 people.¹²
- Copper Mountain 2 was completed in 2012 by developer Sempra Generation. This photovoltaic project has the capacity to generate 92 MW of electricity—enough to power over 13,200 Nevada homes.¹³
- At 75 MW, Nevada Solar One in Boulder City is among the largest solar installations in Nevada. Completed in 2009 by Acciona, this concentrating solar power project has enough electric capacity to power more than 14,400 homes.¹⁴

THE IMPACT OF POLLUTION AND CLIMATE CHANGE IN NEVADA AND THE U.S. SHOW WHY WE NEED TO ACT NOW

Rising temperatures are a health concern

As of 2013, asthma sickens about 39,201 children and 165,462 adults in the state.¹⁵ Climate change, driven by rising carbon pollution, leads to higher concentrations of ground-level ozone, or the pollutant smog, which aggravates asthma.

It is driving extreme weather

In 2012, there were 3,527 monthly weather records broken for heat, rain, and snow in the U.S., according to information from the National Climatic Data Center (NCDC). That's even more than the 3,251 records smashed in 2011—and some of the newly-broken records had stood for 30 years or more.¹⁶

And it is imposing growing and grievous costs

Nationally, in 2012 alone crop losses, flood damage, wildfires, and other climate-related disasters cost our country more than \$140 billion. Taxpayers picked up the lion's share of the tab, to the tune of \$1,100 per taxpayer.¹⁷

Nevada's share is significant

In 2012 an estimated \$563 million Nevadans paid went to clean up after extreme weather, according to Natural Resources Defense Council calculations.

Extreme Weather And Pollution Are Affecting Nevadans Now

Although we cannot say climate change is responsible for any individual event, climate change is increasing risks from these events:

- Smoke pollution will increase as wildfires become more frequent and affect air quality in nearby communities.¹⁸
- In 2012, Nevada residents endured intense high temperatures that broke 36 heat records, drenching rainstorms that broke 14 precipitation records, and 86 large wildfires.¹⁹
- Climate change will worsen smog and causes plants to produce more pollen pollution, increasing respiratory health threats, particularly for people with allergies and asthma. Residents in 3 Nevada counties have ragweed pollution, and residents in Clark County suffer from unhealthy smog levels.²⁰
- Nevada has been declared a disaster area 4 times since 2000 due to severe storms, fires and flooding.²¹
- In the future, with climate change, average temperatures could rise another 6.1°F (3°C) by 2100. Residents will face greater health risks from water shortages as well as flooding, dangerous heat waves, and declining air quality.²²
- About 94 percent of the state's counties now face higher risks of water shortages by mid-century as the result of climate change.²³

THE LONGER WE DELAY TAKING SUBSTANTIAL STEPS TO CURB CARBON POLLUTION, THE WORSE THESE CHANGES WILL BECOME. TO PROTECT OUR CHILDREN AND FUTURE GENERATIONS FROM CATASTROPHIC CLIMATE CHANGE, WE MUST ACT NOW.

ENDNOTES

- 1 Laurie Johnson, Starla Yeh, and David Hawkins, *Retail Electric Bill Savings and Energy Efficiency Job Growth from NRDC Carbon Standard: Methodology Description*, Natural Resources Defense Council, May 2014.
- 2 Benchmarking Air Emissions of the 100 Largest Electric Power Producers in the U.S., 2013: <http://www.nrdc.org/air/pollution/benchmarking/files/benchmarking-2013.pdf>.
- 3 "Benchmarking Air Emissions of the 100 Largest Electric Power Producers in the United States," *M.J. Bradley & Associates*, May 2013, <http://www.mjbradley.com/sites/default/files/Benchmarking-Air-Emissions-2013.pdf>.
- 4 Using the Clean Air Act to Sharply Reduce Carbon Pollution from Existing Power Plants, Creating Clean Energy Jobs, Improving Americans' Health, and Curbing Climate Change: <http://www.nrdc.org/air/pollution-standards/files/pollution-standards-IB.pdf>.
- 5 NRDC: Cleaner and Cheaper: Using the Clean Air Act to Sharply Reduce Carbon Pollution from Existing Power Plants: <http://www.nrdc.org/air/pollution-standards/>
- 6 Laurie Johnson, Starla Yeh, and David Hawkins, *Retail Electric Bill Savings and Energy Efficiency Job Growth from NRDC Carbon Standard: Methodology Description*, Natural Resources Defense Council, May 2014.
- 7 Op cit note 1.
- 8 "How Clean Energy Works for Nevada," Environmental Entrepreneurs: <http://cleanenergyworksforus.org/states/nevada/>.
- 9 "Nevada near top of 'clean' jobs report," Reno Rebirth: <http://blogs.rgj.com/renorebirth/2014/03/12/nevada-near-top-of-clean-jobs-report/>.
- 10 "Nevada Solar," Solar Energy Industries Association, <http://www.seia.org/state-solar-policy/nevada>.
- 11 American Wind Association: <http://www.awea.org/Resources/state.aspx?ItemNumber=5204>.
- 12 "Nevada Solar," Solar Energy Industries Association, <http://www.seia.org/state-solar-policy/nevada>.
- 13 "Solar in Operation," Sempra U.S. Gas and Power: <http://www.semprausgp.com/energy-solutions/solar-cms2.html>
- 14 "Nevada Solar," Solar Energy Industries Association: <http://www.seia.org/state-solar-policy/nevada>.
- 15 "Estimated Prevalence and Incidence of Lung Disease," *American Lung Association*, April 2013, <http://www.lung.org/finding-cures/our-research/trendreports/estimated-prevalence.pdf>.
- 16 "Extreme Weather Map Shows 3,527 Monthly Weather Records Shattered in 2012," *NRDC*, January 2013, <http://www.nrdc.org/media/2013/130115.asp> and <http://www.nrdc.org/health/extremeweather/>.
- 17 "Who Pays for Climate Change," *NRDC*, May 2013, <http://www.nrdc.org/globalwarming/taxpayer-climate-costs.asp>.
- 18 "Climate Change Health Threats Nevada," NRDC: <http://www.nrdc.org/health/climate/nv.asp>.
- 19 "Extreme Weather Map 2012," Nevada, NRDC: <http://www.nrdc.org/health/extremeweather/>.
- 20 "Climate Change Health Threats Nevada," NRDC: <http://www.nrdc.org/health/climate/nv.asp>.
- 21 "Disaster Declarations for Nevada," *Federal Emergency Management Agency*, http://www.fema.gov/disasters/grid/state-tribal-government/26?field_disaster_type_term_tid_1=All.
- 22 "Climate Change Health Threats Nevada," NRDC: <http://www.nrdc.org/health/climate/nv.asp>.
- 23 "Climate Change Health Threats Nevada," NRDC: <http://www.nrdc.org/health/climate/nv.asp>.