ILLINOIS CAN CREATE 7,200 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 **Illinoisans 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.

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

33.2
MILLION TONS LESS POLLUTION

7,200
JOBS

$803
MILLION IN SAVINGS FOR HOUSEHOLD AND BUSINESS CUSTOMERS

SETTING THE FIRST-EVER NATIONAL CARBON LIMITS…will cut Illinois's dangerous carbon pollution by 33.2 million tons.[1]

USING SMART STRATEGIES… can put more than 7,200 people to work in efficiency-related jobs in Illinois.

AND THAT WILL SAVE ILLINOIS CONSUMERS…a total of $355 million on their electricity bills, or $70 per average household.

All figures for 2020

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

NRDC

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

- Electric power plants are the largest source of the 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 Illinois, power plants released 105 million tons of carbon pollution in 2011, equal to the annual emissions of 22.1 million cars. That ranks 6th-highest 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 the 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 2012, the Natural Resources Defense Council unveiled a proposal showing one way for the EPA to significantly cut carbon pollution from the nation's power plants—at low cost and with big benefits.[4] This approach:

- **Allows states to tailor policies** to meet the standards, choosing among such actions as 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 would have a higher carbon target than those depending 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 under the Clean Air Act.

BENEFITS FOR ILLINOIS AND THE UNITED STATES 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 Illinois, the impacts would be substantial. Using the Clean Air Act in this way to reduce carbon pollution, the state could in 2020:

- **Create 7,200 new jobs**—largely through investments in energy efficiency.
- **Save the average customer $6.80 per month** on his or her electricity bill.
- **Cut 33 million tons of carbon pollution,** equal to the annual emissions of 6.9 million cars.
- **Save Illinois household customers $30 million a month, or $355 million a year**, on their electricity bills.
- **Save Illinois business customers $448 million annually.**
- **Stimulate significant growth** in the state's energy efficiency industry.

Because the bulk of investments in energy efficiency focus on making our buildings and homes more efficient, such investments create thousands 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.

ILLINOISALREADY LEADS ON CLEAN ENERGY

Already, Illinois's clean energy policies and growing energy efficiency and renewable energy industries have provided big benefits to the state:

- According to 2011 figures, the state's clean energy industry employs more than 56,000 workers in research and development, manufacturing, construction, engineering, administration, and other fields.[7]
- The state's energy efficiency sector alone boasts nearly 40,000 workers in every region of the state.[8]
- Illinois has seen nearly $7.5 billion in investments in wind and solar energy development.[9]
- The state ranks fourth in the nation in installed wind capacity, with 46 wind projects now online.[10]
- Nearly 7,000 workers support the wind sector, including employees at approximately 36 manufacturing facilities in Illinois that produce products and components for wind energy projects.[11]
- More jobs are being announced every day. In fact, more than 8,300 clean energy jobs have been announced in Illinois since October 2011, according to Environmental Entrepreneurs, a national community of business leaders who promote sound environmental policy that builds economic prosperity.[12]

Environmental Entrepreneurs shows Illinois's profile on clean energy jobs in comparison with the other states; visit www.cleanenergyworksforus.org.

THE IMPACT OF POLLUTION AND CLIMATE CHANGE IN ILLINOIS AND THE UNITED STATES SHOWS WHY WE NEED TO ACT NOW

Rising temperatures are a health concern

Asthma sickened about 223,549 children and 796,337 adults in Illinois in 2013.[13] Climate change, driven by rising carbon pollution, leads to higher concentrations of ground-level ozone, or the pollutant smog, which aggravates asthma.

Extreme weather is becoming more common

In 2012, there were 3,527 monthly weather records broken for heat, rain, and snow in the United States, according to information from the National Climatic Data Center. 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.[14]

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 each.[15]

Illinois's share is significant

In 2012 an estimated $4.5 billion in federal taxes paid by Illinois residents went to clean up after extreme weather, according to Natural Resources Defense Council calculations.

Case Study: The Hill Group

Illinois's Energy Efficiency Portfolio Standard, enacted in 2007, has motivated businesses to seek rational energy solutions. One of them is the Hill Group. Founded as a refrigeration maintenance company in 1936, the powerhouse Chicago-based consulting and engineering firm offers an array of services to help contractors and commercial building owners implement cost-saving efficiency measures. Employing a rigorous, comprehensive energy solutions process, the company's engineers use state-of-the-art benchmarking analysis, thermal imaging, and other modeling techniques to evaluate energy performance for existing buildings. Hill engineers then consult with their clients to determine and carry out efficiency retrofits. For new structures, the Hill Group collaborates with architects and contractors to help them make cost-effective choices in design and construction.

Hill employs more than 1,000 engineers, project managers, tradespeople, and administrators, making it the largest trade contractor in Illinois. The staff, which includes 17 LEED-accredited professionals, works on energy efficiency project design, analysis, fabrication, installation, and even operations.

"There are very few projects, if any, that don't have a consideration of energy efficiency," says Teri Lewand, energy solutions business development manager for the Hill Group.

Specialists from diverse fields collaborate on a single job—pipefitters putting together a high-efficiency chilled water system, technicians collecting data for energy use analysis, engineers performing LEED assessments, and managers overseeing the operations. This all-of-the-above approach has produced impressive results.

Over the past decade, the Hill Group's efficiency projects have offset more than $5 million in capital costs with utility rebates. The Hill Group is helping Illinois building owners save more than $4 million per year on their energy bills and creates approximately 15 permanent jobs annually.

Today, the firm performs efficiency projects in both retrofits and new construction valued in excess of $230 million a year. Besides conserving energy and saving money for businesses of all kinds, Hill's brand of performance contracting mitigates pollution, boosts employment, and produces a windfall for every resident in the Land of Lincoln.

Extreme Weather and Pollution Are Affecting Illinois Residents Now

Although we cannot say climate change is responsible for any individual event, climate change is already making itself felt:

- In 2012, Illinoisans endured intense high temperatures that broke 113 heat records, drenching rainstorms that broke 36 precipitation records, and 1 large wildfire.[16]
- Climate change worsens smog and causes plants to produce more pollen pollution, increasing respiratory health threats, particularly for people with allergies and asthma. Residents in all counties in Illinois endure ragweed pollution, and 12 counties have unhealthy smog levels.[17]
- Soot threatens public health, and Chicago is ranked among the 10 most soot-polluted cities in the country.[18]
- Combined sewer overflows due to heavy rains threaten nearly 110 Illinois communities, including Chicago.[19]
- Illinois has been declared a disaster area 17 times since 2000 due to severe storms and flooding.[20]

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.

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