Clean Energy Brings Savings and Jobs to Rural, Low-Income America

On June 2, 2014, the U.S. Environmental Protection Agency (EPA) proposed the Clean Power Plan, first-ever limits on carbon pollution from existing power plants. Entrenched coal interests immediate seized on the proposal as one that would dramatically cut coal use, force the implementation of new and expensive technologies, and harm those with low incomes. These claims are disingenuous. In fact, the standards will gradually transform our electric system over the next 15 years. Each state will have a tailored carbon pollution reduction target and can decide how to best reach this goal through upgrades to power plants, renewable energy, and energy efficiency. This will save consumers money while providing reliable and cleaner electricity to meet our nation's needs.

It is critical that low-income, rural households share in these benefits. According to the U.S. Department of Agriculture (USDA), 17.7 percent of rural families fall below the federal poverty guidelines, compared with 14.5 percent in the rest of the country.[1] Low-income households spend more of their income on energy costs than their higher-income peers.[2] Energy efficiency and renewable energy have the potential to help address these challenges.

THE REAL REASONS WHY COAL IS SHRINKING

Coal plants are being retired as cheaper power becomes available from natural gas, wind, and solar, and as households and businesses increasingly save energy and money through investments in efficiency.

Since the mid-2000s, plans for 183 coal-fired power plants have been cancelled and dozens of coal-fired power plants have been retired.[3] Coal is becoming more expensive to produce in part because it is harder to get at the remaining coal in many parts of the country, which makes the process more expensive. Moreover, because it is costly, dirty, and inconvenient, there is lower-than-historic demand in the United States and in Europe, and an uptick in coal exports from other countries is crowding out U.S. coal.[4]

HEALTH IMPACTS

Because the power plants that produce carbon pollution also produce the particles and pollutants that directly contribute to health problems like heart attacks and cancer, the Clean Power Plan directly benefits human health by cleaning up our power supply. Health care costs, exacerbated by pollution in the environment, can account for a large amount of the budgets for low-income households. For instance, heart attacks are more likely and cancer is more common, leading to extended hospital stays, surgery, and expensive treatment.[5] If we are truly committed to easing financial hardship for low-income households, we should protect them from the costs of pollutants from dirty electricity.

BENEFITS OF ENERGY EFFICIENCY

The Clean Power Plan will promote more investment in energy efficiency through improvements like better insulation, lighting, and appliances. This will allow low-income, rural households to lower their energy costs without sacrificing service. It makes buildings healthier and safer by eliminating drafts and improving indoor air quality. And it lowers the system costs of the electricity grid, reducing bills for all. Efficiency investments cost less than half as much as building new power plants. If states take advantage of energy efficiency in meeting the new standards, the EPA expects electricity bills to drop by about 8 percent.[6] *For the average customer, that represents an annual savings of about $100.*

Energy efficiency in rural America

Rural communities are often served by electric cooperatives. These cooperatives provide electricity to 327 out of the nation's 353 "persistent poverty counties" where the poverty rate has remained above 20 percent for decades.[7] Rural electric cooperatives face unique challenges, such as the need to spread the costs of maintaining transmission lines among fewer customers. As a result, their electricity rates are, on average, higher than those of other utilities. Figures 1 and

NRDC

For more information, please contact:

Katharine McCormick
kmccormick@nrdc.org
switchboard.nrdc.org/blogs/kmccormick

2 below suggest that the high percentage of income devoted to energy bills in some regions may be inversely related to the level of investment in energy efficiency.

The USDA's Rural Utilities Service (RUS) program recently launched an Energy Efficiency and Conservation Loan Program (EECLP), which gives rural electric cooperatives loans to fund various efficiency projects, including loans to their customers to finance efficiency improvements in their homes and businesses. One recipient, Roanoke Electric Membership Cooperative (EMC) in Ahoskie, North Carolina, plans to use its $6 million loan to finance a program called Upgrade to Save, which will improve energy efficiency in customers' houses; customers will repay the utility some or all of the cost through their utility bills.[8] People who may face barriers to consumer loans because of income, credit score, or lack of homeowner status will thus have access to improved efficiency through their utility. According to Roanoke EMC, similar energy efficiency financing programs have historically resulted in an average investment of $7,000 per home and annual energy savings of 25 percent.[9]

BENEFITS OF RENEWABLE ENERGY

Renewable technology can be sited on urban rooftops or in fields of corn. It uses no water and has little to no environmental side effects. For coal- and gas-burning plants, fuel may account for up to 90 percent of the wholesale price of electricity, but wind and solar have no fuel costs. However, equal access and benefits will not be automatic as costs decline; states and utilities must push to proactively address this issue so that as renewable energy comes online, low-income, rural households accrue their share of the environmental, health, and economic benefits.

Community solar

The need for costly up-front investments has blocked the deployment of solar energy in low-income rural communities in the past. One remedy is the development of community solar, which pools the resources of multiple community members and allows people to purchase as little or as much renewable energy as they wish, and can be sited on abandoned landfills or alongside highways.

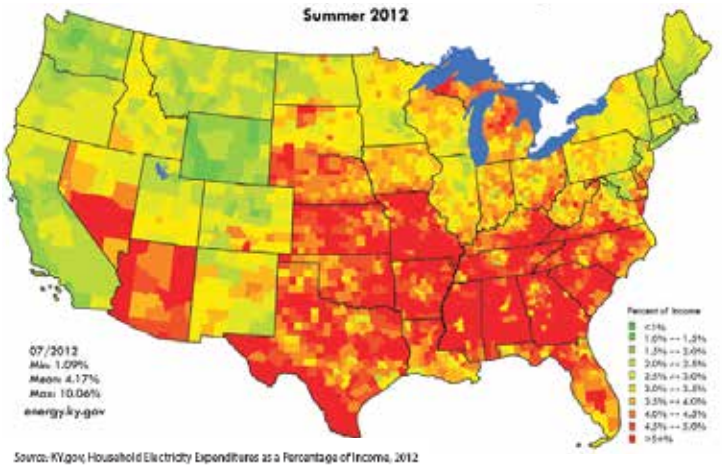
Wind revenues: benefits to rural areas

Wind farms throughout the country have revitalized rural areas that have seen stagnant or declining populations and income since 1970. For instance, MidAmerican Energy, a large subsidiary of Berkshire Hathaway Energy that serves more than 739,000 people in Iowa, has invested billions of dollars in wind energy in the state. This has meant lease payments for farmers, which are more than competitive with revenues from alternate uses like hog confinement lots and golf courses. A wind project in Wellsburg, Iowa, has brought the area about 200 construction workers who will fill local hotels, eat in local restaurants, and rent houses until the project's completion. Eight to 10 permanent jobs will be created, attracting new, full-time residents and their families.[10]

RELIABILITY

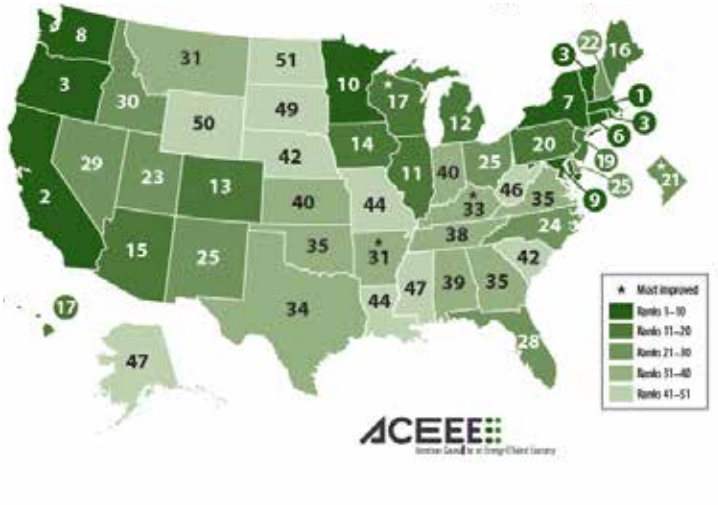
The coal industry often voices concern for the reliability of our electric grid, but these concerns are overstated. The Clean Power Plan would require only a modest shift in resources. Many plants currently slated to close ran only 38 percent of the time last year.[11] U.S. electric grid operators have confirmed that nearly all currently planned closures —not insignificant—can occur without affecting electricity service reliability.

Figure 1: United States Household Electricity Expenditures as a Percentage of Income, Summer 2012



Source: KY.gov, Household Electricity Expenditures as a Percentage of Income, 2012

Figure 2: 2014 State Energy Efficiency Scorecard



The reliability of fossil fuels has been exaggerated. In reality, the highly volatile nature of natural gas prices has contributed to volatile electricity rates—a major risk for low-income rural households. Figure 3 shows just how directly our electricity prices depend on the price of natural gas.[12] By diversifying our energy sources, we can reduce much of this risk. In addition, renewable energy's intermittency has been overstated. Grid operators have already integrated more than 75,000 MW of wind and solar power into the grid and approved the retirement of tens of thousands of megawatts of old, expensive coal plants, all while preserving grid reliability.[13] The output from renewables is increasingly predictable. And, through regional interconnections, wind from Arkansas can help power homes on a still night in Michigan.

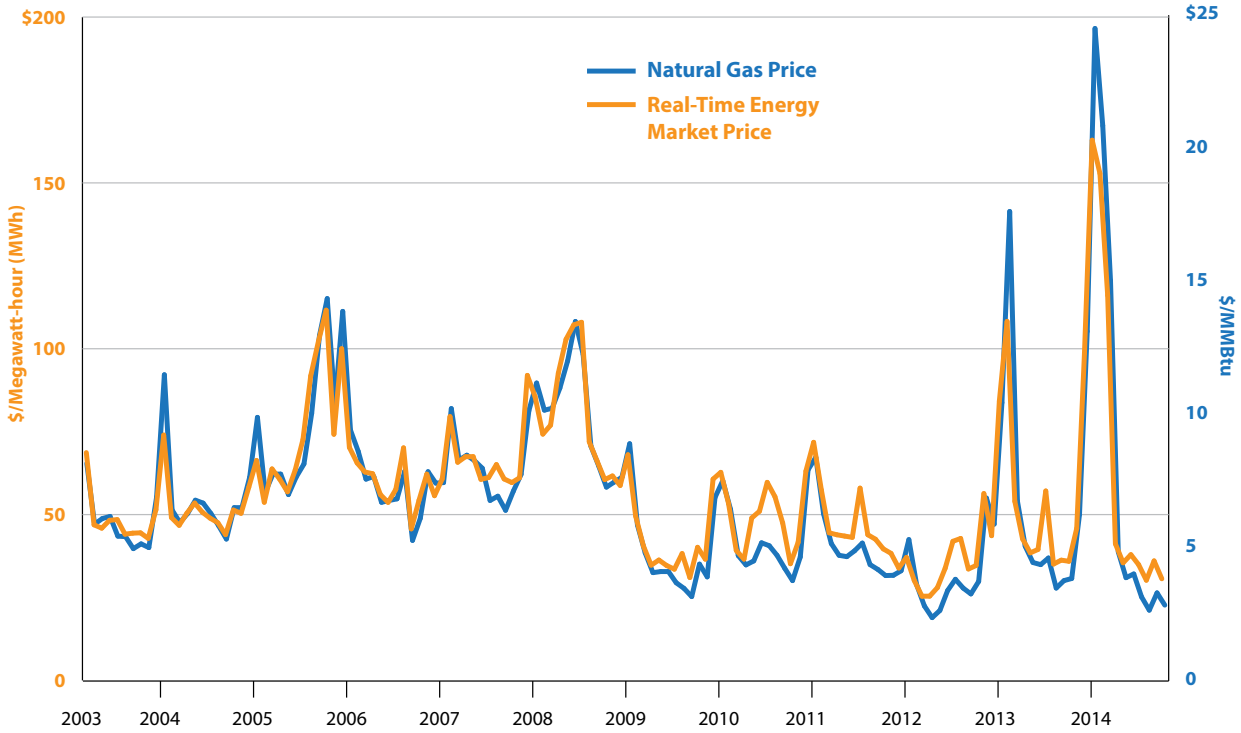
JOBS

Hundreds of thousands of Americans are employed in clean energy industries, directly and indirectly. According to Environmental Entrepreneurs, more than 18,000 jobs were announced in clean energy in the third quarter of 2014 alone.[14] Under a scenario similar to the Clean Power Plan, NRDC found that in 2020, more than 274,000 efficiency-related jobs would be created across the country.[15] Clean energy jobs not only tend to pay more but are accessible to those without advanced degrees. The typical wage for someone employed in a clean energy industry—about $44,000—is 13 percent higher than the national typical wage.[16] These jobs are also local and cannot be exported.[17]

CONCLUSION

Clean energy should be made more accessible and affordable. In a bid to lift coal prices, coal interests are pushing for an increase in demand and accusing the EPA of waging a "war on coal." In reality, the Clean Power Plan makes room for efficiency and clean energy to play a bigger role in the U.S. energy supply; this will help to lower costs and reduce dependence on fossil fuels, to the benefit of all customers.

Figure 3: New England electricity and natural gas prices, 2003–2012



Source: ISO-NE Market Analysis and Settlement Department

FACT VERSUS MYTH

The coal industry says the power plan limits will cause energy prices to skyrocket.
In fact, customers pay electricity bills instead of prices, which fluctuate regularly. Smart planning and investment will bring electricity bills **down by $100 a year per household**.

The coal industry says the power plan limits will devastate our economy.
In fact, they'll **drive investment** in clean energy—saving money, improving health, and creating jobs.

The coal industry says the power plan limits will cost 400,000 jobs.
In fact, generating electricity from clean energy **creates more homegrown jobs per unit of energy delivered** than fossil fuels, and investments in energy efficiency alone could add 274,000 jobs in 2020.

The coal industry says the power plan limits strip power from states and regions.
In fact, the Clean Power Plan relies on cooperative federalism, with each state developing a plan to comply with the standard **based on its own particular resources and economies**.

The coal industry says coal is good for fixed- and low-income people.
In fact, these individuals are **precisely the ones who are most harmed** by pollution from coal-fired power plants and who will be least able to afford or adapt to the impacts of climate change.

The coal industry says that clean energy is too expensive for fixed- and low-income people.
In fact, properly designed and implemented clean energy programs can offer **greater benefits** to this sector by lowering bills, improving comfort, and providing more control over electricity use.

The coal industry says the EPA is forcing coal plant retirements.
In fact, coal plants are retiring because they are older and **no longer economical** as plentiful, cheaper, and cleaner energy supply options become available.

The coal industry says the power plan limits will put electric reliability at risk.
In fact, renewable energy and efficiency have made **our grid more resilient, more responsive, and less wasteful**.

The coal industry says clean energy technologies are too expensive.
In fact, energy efficiency is **by far the cheapest option**, and wind and solar are quickly becoming competitive with coal and natural gas.

ENDNOTES

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