Clean Energy Brings Jobs and Savings to Low-Income, Urban Communities

On June 2, 2014, the U.S. Environmental Protection Agency (EPA) proposed the Clean Power Plan, the first-ever limits on carbon pollution from existing power plants. Entrenched coal interests immediately 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, urban households share in these benefits. These households spend a higher percentage of their income on energy costs, which becomes more challenging when energy bills rise.[1] Also, low-income communities are more likely to be near power generation, dramatically increasing the risk of more direct health impacts from the resulting pollution. Energy efficiency and renewable energy have the potential to help address these challenges.

THE REAL REASONS 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.[2] 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.[3]

HEALTH IMPACTS

Because the power plants that produce carbon pollution also produce the particles and pollutants that directly contribute to health problems (e.g., asthma, heart attacks, cancer), the Clean Power Plan directly benefits human health by cleaning up our power supply. According to the NAACP, people of color and low-income households are more likely to live near the coal plants that generate most of our electricity, and plants located in urban areas are overwhelmingly sited in communities of color.[4] Health care costs, exacerbated by pollution in the environment, can account for a large amount of the budgets for low-income households. 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 investment in energy efficiency through measures like improved insulation, lighting, and appliances. This will allow low-income households to lower their energy costs without sacrificing service. Energy efficiency 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.[5] Since customers pay electricity bills instead of prices, which fluctuate regularly, smart planning and investment *will save the average household's $100 on their electricity bills.*

CALIFORNIA: 35+ YEARS OF COMMITMENT TO ENERGY EFFICIENCY

California, with a 95 percent urban population as of the 2010 U.S. Census, has been leading the way on energy efficiency since the 1970s, saving Californians at least $75 billion to date.[6] Electricity consumption per person in the state is now lower than it was in 1973.[7] And Californians' average monthly electric bill is $20 lower than the national average.[8]

Between 2002 and 2012, the state's regulated utilities sponsored programs providing energy efficiency services to nearly 2.5 million low-income households.[9] The largest of these is the Energy Savings Assistance Program (ESA), through which the state's four large utilities provide attic insulation, efficient refrigerators and air conditioners, caulking, low-flow showerheads, and more—at no cost to low-income households. Participants save nearly $400, on average, for as long as those upgrades last.[10]

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Energy Efficiency in Multifamily Housing

Nearly half of very low-income renters in the country live in multifamily housing, which has remained largely untouched by energy efficiency improvements.[11] Existing initiatives, like Elevate Energy's Energy Savers program, have driven cost-effective upgrades in multifamily buildings and reduced household energy use by 15 to 30 percent.[12] If fully deployed, such improvements could save building owners and residents up to $3.4 billion every year, according to Elevate Energy.

BENEFITS OF RENEWABLE ENERGY

Renewable technology can be sited on 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 households accrue their share of the environmental, health, and economic benefits.

Community solar

The need for up-front investment has hindered the deployment of solar power in the past. One remedy is community solar power, which pools the resources of multiple community members and allows people to purchase as little or as much renewable energy as they wish. The projects are especially beneficial for crowded urban areas like the New York City area, where the electric grid is already overextended. And, community solar power can be placed in repurposed toxic, abandoned, or unsightly spaces or on large, well-situated rooftops, which may aid the rehabilitation of existing buildings.

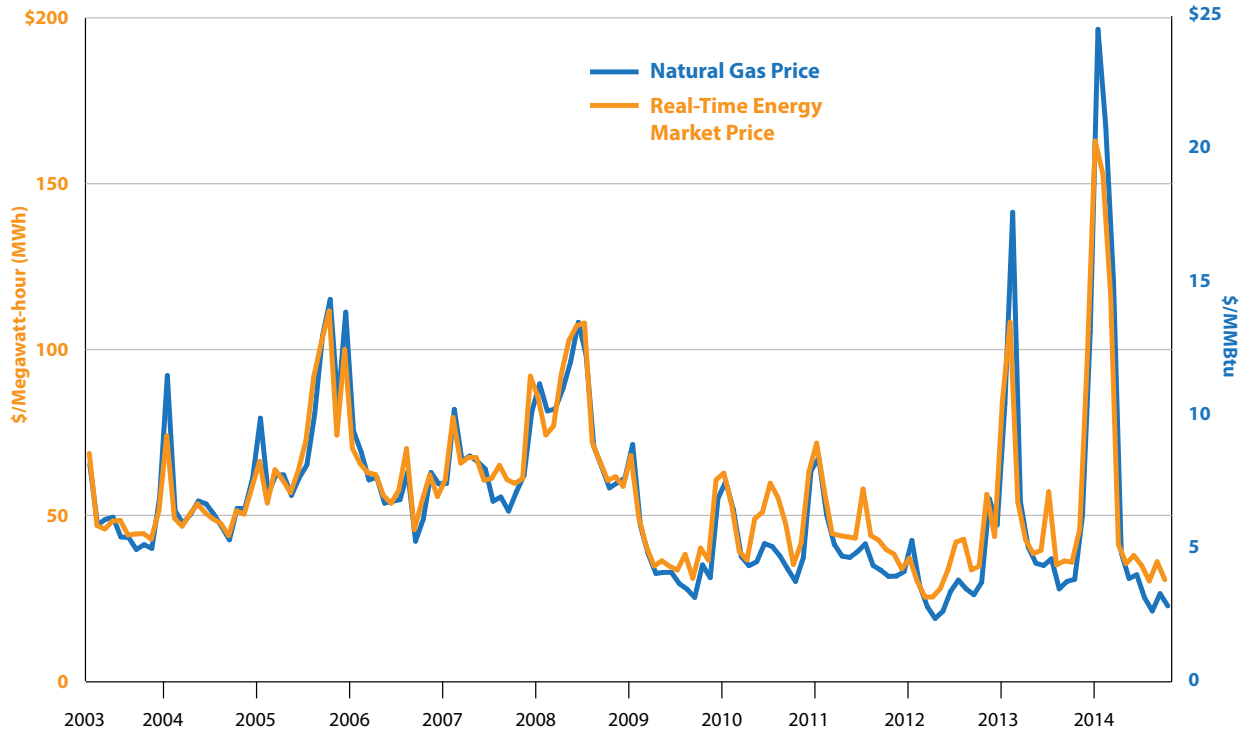
Grid Alternatives

California's Single Family Affordable Housing Program (SASH), managed by Grid Alternatives, successfully encourages the aggressive deployment of solar power among low-income families.[13] Grid Alternatives has installed more than 4,400 kW photovoltaic systems for low-income households across California, using volunteers to reduce installation costs.[14] Navigant Consulting analyzed SASH's impacts in its first few years of operation and estimated a peak demand reduction of about 26 kW in 2009 and 208 kW in 2010. Though small, this decrease is significant because reducing demand during the hours of highest demand allows utilities to avoid running older, dirtier, and more expensive peak-generation facilities. And households see direct benefits: In 2010, the average SASH participant saw electric bills go down by $336 per year.[15]

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.[16] U.S. electric grid operators have confirmed that nearly all currently planned closures —not insignificant —can occur without affecting electricity service reliability.

Figure 1: New England electricity and natural gas prices, 2003–2012



Source: ISO-NE Market Analysis and Settlement Department

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 households. Figure 1 shows just how directly our electricity prices depend on the price of natural gas.[17] By diversifying our energy sources, we can reduce much of this risk. Renewable energy's intermittency has been exaggerated, too. 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.[18] The output from renewable energy sources 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.[19] 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.[20] 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.[21] These jobs are also local and cannot be exported.[22]

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.

ENDNOTES

1 For the purposes of this report, "low income" refers generally to households that fall at or below about 200 percent of federal poverty guidelines. According to the U.S. Department of Health and Human Services, in 2014 a family of four living on $23,850 was considered poor, so a family of four living on $47,700 would be considered low-income. U.S. Department of Health and Human Services, "2014 Poverty Guidelines," January 24, 2013, aspe.hhs.gov/poverty/14poverty.cfm.

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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.