

Clean Energy Packs Savings for Seniors

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 seniors share in these benefits. Fixed-income households, commonly headed by retirees, spend a higher percentage of their budgets on energy costs than their peers. Energy efficiency and renewable energy have the potential to help address this challenge.

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.¹ 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.²

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 fixed-income households. For instance, heart

attacks are more likely and cancer is more common, leading to extended hospital stays, surgery, and expensive treatment.³ If we are truly committed to easing financial hardship for fixed-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 seniors 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.⁴ *For the average customer, that represents an annual savings of about \$100.*

Energy efficiency for fixed-income households

Retirees face budgetary constraints that can affect their ability to pay their utility bills. The federal government, most states, and some counties offer weatherization programs for seniors—adding insulation, caulking windowpanes, replacing siding, and more. Various other programs offer energy efficiency assistance to fixed-income households and communities, adding to the quality of life for seniors and allowing them to stay healthy, remain active, and keep warm year-round. For example, the U.S. Department of



For more information, please contact:

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

www.nrdc.org/policy
www.facebook.com/nrdc.org
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Energy's (DOE) Energy Efficiency and Conservation Block Grant (EECBG) program awarded funds to the Greater Randolph Senior Center in Converse, Texas. The center had already made efficiency upgrades with funding from the U.S. Department of Housing and Urban Development. With EECBG grant money, it installed more efficient lighting, heating, air-conditioning, and water-heating systems and a 7-kilowatt solar photovoltaic system. The senior center is now saving more than 45 percent on its energy bills.⁵

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, fixed-income senior citizens accrue their share of the environmental, health, and economic benefits.

Community solar

The need for costly up-front investments has hindered the deployment of solar 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. Green Mountain Power is one pioneering utility working to expand solar in Rutland, Vermont. In addition to installations on churches, television stations, and food centers, the utility installed a 2.3 MW solar array on an abandoned landfill and a 150 kW solar array at Rutland Regional Medical Center.⁶ In December 2014, Xcel Energy in Minnesota began accepting applications for community solar and already plans to install solar on a local church and a small business in Minneapolis.⁷

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.⁸ U.S. electric grid operators have confirmed that nearly all currently planned closures—not insignificant—can occur without affecting electricity service reliability.

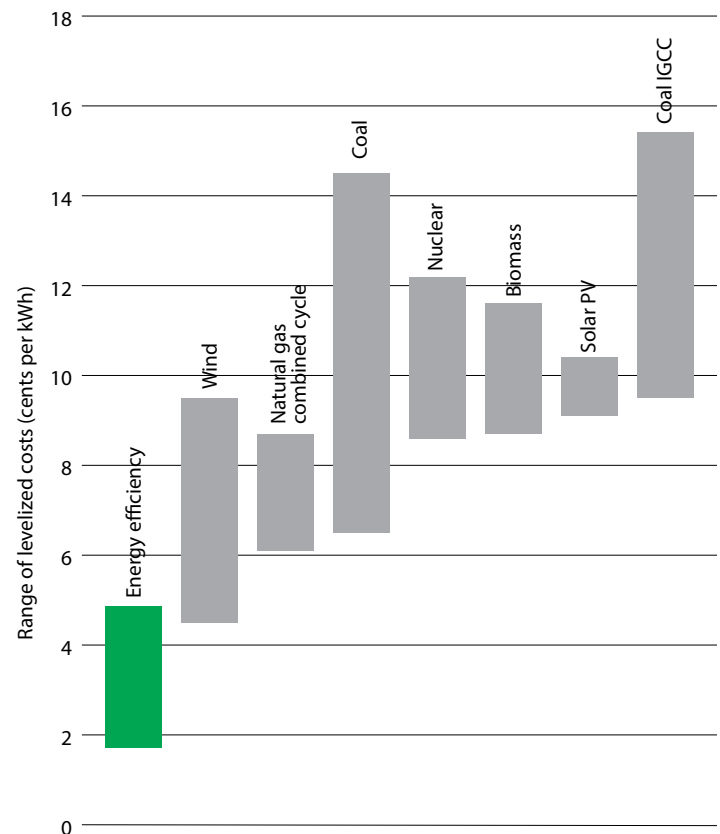
The reliability of fossil fuels has been exaggerated. In reality, the highly volatile nature of natural gas prices has contributed to volatile electricity rates—a major risk for households with fixed-income individuals. Figure 3 shows

just how directly our electricity prices depend on the price of natural gas.⁹ 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.¹⁰ The output from renewables is increasingly predictable. And, through regional interconnections, wind from Arkansas can help power homes on a still night in Michigan.

CONCLUSION

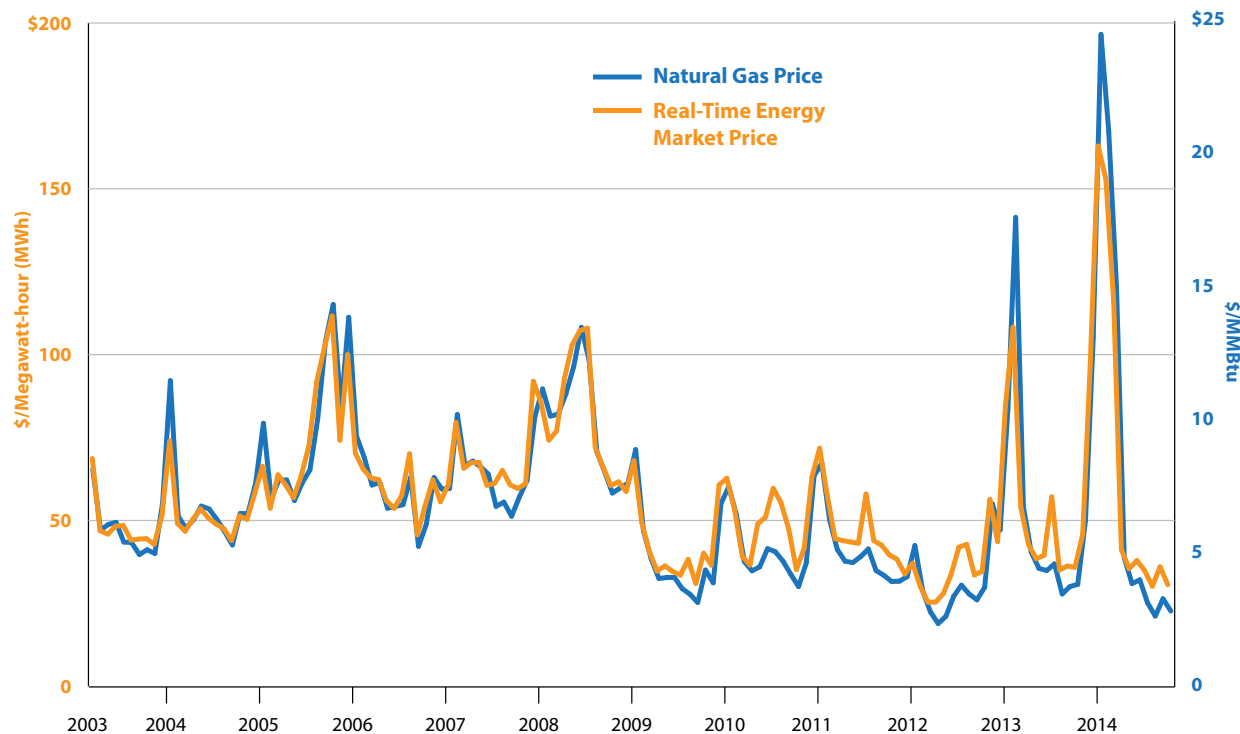
Clean energy should be made more accessible and affordable. In a bid to lift coal prices, coal interests are pushing for an increase in demand and accusing the EPA of waging a “war on coal.” In reality, the Clean Power Plan makes room for efficiency and clean energy to play a bigger role in the U.S.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

Figure 1: The levelized cost of electricity in the United States, 2009-2012



Source: ACEEE, used with permission

Figure 2: New England electricity and natural gas prices, 2003–2012



Source: ISO-NE Market Analysis and Settlement Department

ENDNOTES

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- 7 Frank Jossi, "Minnesota Will 'Get the Ball Rolling' on Community Solar Today," *Midwest Energy News*, December 12, 2014, www.midwestenergynews.com/2014/12/12/minnesota-will-get-the-ball-rolling-on-community-solar-today/ (accessed December 12, 2014).
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- 9 Synapse Energy Economics, Inc., *Costs and Benefits of Electric Utility Energy Efficiency in Massachusetts*, prepared for Northeast Energy Efficiency Council, August 2008, www.synapse-energy.com/sites/default/files/SynapseReport.2008-08.0.MA-Electric-Utility-Energy-Efficiency.08-075.pdf.
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- 11 NRDC, "America Can Create 274,000 Efficiency-Related Jobs."

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.