



## Carbon Regulation

# NSBE EXPERTS SUPPORT THE CLEAN POWER PLAN

BY THERESA SULLIVAN BARGER

**T**he U.S. Environmental Protection Agency's proposal to cut carbon pollution from power plants will address the problem of climate change that affects the entire world but places a disproportionate burden on lower-income people; and while coal-industry jobs will be lost, the proposed rules will create job opportunities for engineers who stay abreast of energy industry advances.

That's the consensus of NSBE's Energy, Public Policy and Environmental Special Interest Group (SIG) leaders, who agree that the regulations, authorized by Section 111 of the Clean Air Act, would be good for the U.S. economy, the environment and people of color, who are more likely to live near coal-fired plants and in flood-prone, low-lying areas more vulnerable because of sea level rise caused by climate change.

In June, EPA Administrator Gina McCarthy presented a proposal, dubbed the Clean Power Plan, that cuts carbon pollution from power plants by 30 percent from 2005 levels, by the year 2030 (<http://www2.epa.gov/carbon-pollution-standards>). The nation's more than 600 coal-fired power plants are the single largest source of carbon pollution, which drives climate change, and states where coal-mining jobs are king pushed back immediately. Even as their health and environmental departments worked toward complying with the rules, a dozen coal-dependent states sued the EPA in August seeking to derail the proposed guidelines, alleging that the EPA lacked the authority to make the changes.

After a yearlong public comment period during which each

state will determine how it will comply with the carbon goals, the rules are scheduled to be finalized in 2015 and implemented in 2016.

Climate change is already causing more extreme weather that's costing lives, property and productivity, says Arielle Drummond, Ph.D., a biomedical engineer and lecturer at The Johns Hopkins University, and director of NSBE's Public Policy SIG. "What we're doing to our environment has an impact on the temperature, how bad our winter storms are and the prevalence of... tornadoes."

Ninety-seven percent of climate scientists agree that "climate-warming trends over the past century are very likely due to human activities, and most of the leading scientific organizations worldwide have issued public statements endorsing this position," says NASA. The public isn't far behind. In a recent *Washington Post-ABC News* poll released on June 2, 70 percent of respondents said the federal government should limit power plants' greenhouse gas emissions and work with states to reduce global warming.

The Clean Power Plan — part of President Obama's Climate



*Climate change is already causing more extreme weather that's costing lives, property and productivity, says Arielle Drummond, Ph.D., director of NSBE's Public Policy SIG.*

Action Plan — is especially important to low-income people, says Thzaira Charles, P.E., director of NSBE's Environmental SIG.

"I think those impacted by carbon emissions are the poorer communities, which are still overwhelmingly black and brown people," says Charles, who works as an environmental engineer for the Port Authority of New York and New Jersey. "If you have the money to live somewhere nice, you're going to do it."

#### POTENTIAL IMPACTS

Coal-mining industry jobs will likely decrease as the U.S. pursues a more "all of the above" approach to energy production and looks to lower its carbon emissions. But the EPA, and NSBE leaders, expect the loss to be more than offset by an increase in jobs linked to energy conservation, energy efficiency and renewable energy over the long term.

Although some energy companies may resist change initially, as costs for renewables become more competitive and technical solutions resolve grid integration challenges, a greater number is likely to embrace solar, biomass, hydroelectric and landfill gas generation, says Clarence Lyons, director of NSBE's Energy SIG.

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innovators, Lyons says, and adds that young scientists and engineers are investigating ways to reduce emissions from use of fossil fuels, make renewable energy generation less expensive, improve energy storage capabilities and integrate



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intermittent resources such as solar and wind into an overall energy plan.

"For the professional, read the tea leaves," he advises. "Now is the time to pick up those skills that are (needed) in the marketplace."



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Lyons, a chemical engineer who works in renewable energy. "Companies are examining their long-term strategies to ensure that they have a stake in the evolving energy sector. A key part of their strategy is renewable generation."

Companies such as Intel Corporation, Kohl's, Whole Foods and Staples top the EPA's "100% Green Power Users" list, a collection of dozens of businesses, municipalities and institutions of higher education that get 100 percent of their power from renewable sources. Lyons is now working with a potential client for his employer: a mining firm interested in defraying some of its diesel costs by using solar and wind energy.

The proposed EPA regulations offer opportunities for

#### CALL TO ACTION

NSBE members should share their expertise and provide feedback to the EPA during the public-comment period, Dr. Drummond says.

Looking further down the road, Charles urges NSBE to push for regional environmental regulations to mitigate climate change, to transcend what she sees as the limitations of the state-by-state approach. ■

*Theresa Sullivan Barger is a freelance business writer and a former editor and business writer at The Hartford Courant.*