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June 25, 2012

**VIA E-DOCKET**

U.S. Environmental Protection Agency  
Air & Radiation Docket  
1200 Pennsylvania Ave. NW, Mail Code 6102T  
Washington, DC 20460

**Re: EPA-HQ-OAR-2011-0660**

**Standards of Performance for Greenhouse Gas Emissions for New Stationary  
Sources: Electric Utility Generating Units  
77 Fed. Reg. 22392 (April 13, 2012)**

**Dear Sir or Madam:**

The Electric Reliability Coordinating Council (ERCC) is a group of power-generating companies that provide reliable and affordable power to millions of consumers in geographically diverse regions of the United States. ERCC members have long supported commonsense interpretation of the Clean Air Act (the Act or CAA) in order to ensure electric reliability, consistency, affordability, safety and environmental protection. In furtherance of these goals, ERCC is pleased to submit the following comments on the U.S. Environmental Protection Agency's (EPA or the Agency) proposed Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units (the proposed rule).

## **INTRODUCTION**

We applaud President Obama's recent commitment to an "all-of-the-above" energy strategy and acknowledge his support for using a variety of energy sources to meet the nation's energy challenges. We are concerned, however, that EPA is seeking to use the new source performance standards (NSPS) program to impose an effective ban on new coal-fired power plants in the US in contravention of the President's position. We are also concerned that, absent sufficient clarity, the proposed rule could even discourage energy-efficiency projects at existing facilities. For this reason, we urge EPA to consider the comments below, along with those submitted by some other members of the utility industry, and take appropriate actions to ensure that this rulemaking complies with the imperative laid out by President Obama in Executive Order 13563 requiring agency regulations to "protect public health, welfare, safety, and our environment while promoting economic growth, innovation, competitiveness, and job creation."<sup>1</sup>

## **GENERAL COMMENTS**

### **I. THE REGULATORY CONTEXT OF THE PROPOSED RULE**

As a threshold issue, it is important to consider the proposed rule in the context of other regulations impacting electricity generation. The power sector is under severe pressure already from the myriad of rules and regulations coming from the EPA. In addition to the proposed rule, EPA has or will promulgate numerous new rules in 2010-2012. These other rules include regulations for:

- Mercury and other emissions through the National Emission Standards for Hazardous Air Pollutants (HAP) from Coal- and Oil-Fired Electric Utility Steam Generating Units (the so-called "Mercury and Air Toxics Standards" or MATS);

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<sup>1</sup> E.O. 13653, 76 Fed. Reg. 3821, published Jan. 21, 2011.

- Emissions of sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) from fossil-fueled power plants in the eastern U.S. (the “Cross-State Air Pollution Rule” or CSAPR);
- Ash and other residuals from the combustion of coal either under Subtitle C as a hazardous waste or Subtitle D as a solid waste of Resource Conservation and Recovery Act (RCRA);
- National Ambient Air Quality Standards (NAAQS) for SO<sub>2</sub>, NO<sub>2</sub>, Ozone, and PM; and
- Cooling water intake structure requirements under section 316(b) and new discharge limiting effluent standards under the Clean Water Act.

Taken together, these regulations will impact roughly 780,000 megawatts (MW) of gas, oil, and coal-fired generation, which is about 75 percent of the current available capacity in the U.S., and makes up nearly 70 percent of the U.S. total electricity generation. Without further deadline extensions, compliance with several of EPA's new rules would all be required within the same compliance period or shortly thereafter. These retrofits are so substantial that, in many cases, adding them will cost more than building the original generating unit. This means that the generating units subject to these rules would either have to undertake the installation of extensive retrofits on an unrealistic timeframe or else shutdown entirely.

## **II. THE PROPOSED RULE FORECLOSES COAL-FIRED ELECTRICITY GENERATION AND THREATENS THE RELIABLE SUPPLY OF ELECTRICITY**

The proposed rule has substantial legal shortcomings, and ERCC shares the opinion of other commenters that have raised concerns about the proposed rules legal deficiencies.

Examples of these legal flaws include both the treatment of gas-fired power as a “standard of

performance” for other fossil-fired facilities – instead of a completely distinct unit<sup>2</sup>, and the creation of a new industrial source category that combines gas, coal and other fossil fuel inputs for the purpose of addressing climate change.<sup>3</sup> However, using natural gas to set standards for coal is a process that EPA has repeatedly rejected until the proposed rule. In fact, in the context of NSPS for electric utility steam generating units (EGUs), EPA stated as recently as 2011 that, “Basing the amended standards on the use of natural gas would preclude the development of new coal-fired EGUs since the standards would not be technically achievable.”<sup>4</sup>

With those legal deficiencies noted, however, the focus of ERCC comments is on the feasibility and associated risks of the proposed rule. EPA has proposed standards that would require new coal-fired and certain other fossil power plants to use carbon capture and sequestration (CCS) technology, and the proposed rule makes it explicit that while the proposed rule “will not have a direct impact on U.S. emissions of” of greenhouse gases (GHG) it will “send a strong signal” and “further stimulate investment in CCS and other clean coal technologies.”<sup>5</sup> These aspirations, while seemingly noble, disguise a stark and undeniable truth—CCS technology is not currently available to satisfy the proposed rule’s requirements, and therefore the proposed rule is a de facto prohibition on the construction of new power plants. There are no coal-fired or other fossil power plants in the world that have been able, even with substantial government subsidies, to use CCS technology on a commercial scale, and at this time, CCS is neither economically viable nor commercially available. Moreover, because of the

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<sup>2</sup> 77 Fed. Reg. at 22399.

<sup>3</sup> 77 Fed. Reg. at 22410-11.

<sup>4</sup> U.S. EPA, EPA-HQ-OAR-2011-044, Response to Public Comments on Rule Amendments Proposed May 3, 2011, (Dec. 2011) (posted Feb. 16, 2012) at 2.

<sup>5</sup> 77 Fed. Reg. at 22401.

unusual structure of the NSPS program, even a proposed rule to require CCS would effectively ban the construction of new coal-fired power plants in the US.

#### **A. CCS Technology is Decades Away from Commercial Availability**

The proposed rule is premised on the argument that a regulatory signal will be enough to induce the creation of commercially practical CCS. However, there is no substance behind the EPA's faith in the ability for their regulations to spark substantial technological change. The Department of Energy (DOE) emphasized in a report on the status of CCS that the technology is over twenty years away from being commercially available.<sup>6</sup> The Interagency Task Force on Carbon Capture and Storage concluded that there are multiple barriers to commercial development, including the absence of a legal and regulatory framework, the lack of clarity on potential long-term liabilities, and market failures due to knowledge spillover.<sup>7</sup> Additionally, recent testimony before the House Energy and Commerce Committee has explained that a variety of factors make the EPA's assumptions about the availability of CCS unrealistic, noting:

The CCS technology that EPA claims can be applied at coal-fired power plants is not technically feasible, has not been demonstrated, is not commercially available, and, even when it becomes available, it will not likely be affordable. The U.S. Department of Energy fossil energy budget for clean coal was reduced from \$680 million in 2009 to \$400 million in 2011 – a 41% decrease in funding. The U.S. Department of Energy budget for carbon capture and storage and power systems is proposed to decrease an additional 25% in 2013. If those problems aren't enough, CCS also imposes a “parasitic load” on a coal-fired power station, meaning that CCS consumes power equal to or greater than approximately 30 percent of the power plant's generation capacity.<sup>8</sup>

Furthermore, this proposal will actually slow the development of CCS, not stimulate development. By having unachievable emissions limits that prematurely require CCS, which is

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<sup>6</sup> U.S. Department of Energy, *Report of the Interagency Task Force on Carbon Capture and Storage*, August 2010.

<sup>7</sup> *Id.* at 7-8.

<sup>8</sup> *The American Energy Initiative: A Focus on EPA's Greenhouse Gas Regulations*, 112<sup>th</sup> Cong. (June 19, 2012) (hereinafter *Hearings*) (testimony of Barbara Walz at 6).

not commercially available, no new coal generation or CCS demonstrations will be developed because of the technology risk. Thus the cost of CCS will not come down and the technology will not advance.

**B. Unavailability of CCS Technology Makes the Proposed Rule a De Facto Prohibition on New Coal-fired Electricity Generation**

The current status of CCS technology is of particular concern to ERCC due to the nature of the NSPS program and the immediate and binding effects of the proposed rule. NSPS become effective on the date they are proposed, regardless of when the underlying rule is actually finalized. As such, any power plant construction that begins after the date of proposal would be bound by these standards. Therefore, because CCS technology is not commercially available at this time, requiring the use of this technology would function as a complete ban on the development of new coal-fired generation.

Furthermore, claims that new coal plants are not precluded by the proposed rule are not consistent with the design or operation of the rule. As David Wright, President of the National Association of Regulatory Utility Commissioners, has explained:

Even the best performing coal units cannot meet the NSPS without CCS. The Proposed NSPS for GHG goes on to state that, “we are not proposing that CCS, including the 30-year averaging compliance option, does or does not qualify as the [best system of emission reduction] adequately demonstrated” but solicits comments on that decision. A commitment to resource diversity would encourage a separate NSPS [best system of emission reduction] for coal-fired plants and natural gas combined cycle units, keeping the categories separate as they have been historically.<sup>9</sup>

Although the pending regulation, according to EPA, is only meant to apply to new and reconstructed coal-fired power plants, the effect that this regulation would have on current fleet owners cannot be ignored. Without the prospect of expanding and building new facilities, fleet

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<sup>9</sup> *Hearings* (testimony of David A. Wright at 6-7).

owners may face disincentives to invest in innovation and will thereby reduce research and development efforts. The desire to innovate is fueled by the potential to capitalize on and profit from technology investments. As one generation and transmission cooperative recently explained to the House Committee on Science, Space and Technology, “No company will take the risk to invest billions of dollars into a power plant in the hopes that CCS technology will be developed. Additionally, financial lending institutions will not lend money to construct a plant without a viable technology to demonstrate compliance.”<sup>10</sup>

There are real risks associated with using the proposed rule to send a “strong signal” that new coal plants cannot be built. If, through EPA rules, the Administration announces that there is no future for coal-fired generation, it is much less likely that companies will sustain their investments and that current coal-fired plants will be upgraded with new, environmentally beneficial technology. Therefore the proposed rule could have the unintended consequence of reducing improvements in the existing fleet of coal-fired power plants while simultaneously making it infeasible to replace existing coal-fired plants with newer plants because of new NSPS standards.

It is also important to note that despite claims regarding the limited nature of the proposed rule, EPA has made clear that a second tranche is coming for existing coal-fired facilities. The regulatory preamble states: “Although modified sources would not be subject to the 1,000 lb CO<sub>2</sub>/MWh standard for new sources, the EPA anticipates that modified sources would become subject to the requirements the EPA would promulgate at the appropriate time, for existing sources under 111(d),” “The proposed rule will also serve as a necessary predicate

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<sup>10</sup> *EPA’s Impact on Jobs and Energy Affordability: Understanding the Real Costs and Benefits of Environmental Regulations*, 112<sup>th</sup> Cong. (June 6, 2012) (testimony of David Hudgins at 5).

for the regulation of existing sources within this source category under CAA Section 111(d),” and “the pollutants covered by proposed new source standard give rise to an obligation to develop section 111(d) guidelines for existing sources with the source category, ultimate coverage of the sources in question is inevitable, eliminating any prospect of a regulatory gap of any material concern.”<sup>11</sup>

Some contend that the proposed NSPS allows a path forward for a transitional group of power plants already substantially underway in their development. This may be disingenuous, however. Also pending for the power sector, and further discussed above, is the MATS rule which applies to new and existing plants alike. Even the manufacturers of air pollution control devices concede that the MATS new source provisions are not achievable and are likely illegal.<sup>12</sup> However, by the time the legal status of these MATS new source provisions may be sorted out, the transitional window for NSPS will likely have closed, meaning that plants underway in their development will have to meet the standards set by the proposed rule. The ability to sustain financial viability of such projects in the interim is clearly uncertain, as are the jobs and other benefits associated with these projects.

### **C. Foreclosing the Use of Coal-Fired Generation Threatens Electric Reliability**

Given the regulatory uncertainty related to future EPA regulations on a wide variety of energy sources—and not just coal—keeping all options on the table for energy generation, as the President has suggested multiple times, is essential to maintaining America’s energy supply.

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<sup>11</sup> 77 Fed. Reg. at 22421, 22430, and 22427.

<sup>12</sup> Institute of Clean Air Companies, Request for Partial Reconsideration of EPA’s National Emission Standards for Hazardous Air Pollutants from Coal- and Oil-Fired Electric Utility Steam Generating Units, 77 Fed. Reg. 9,304 (February 16, 2012) (Docket No. EPA-HQ-OAR-2009-0234).

In recent years, coal-fired power plants have provided 40 to 50 percent of the electricity used by US consumers and businesses each year. The number is lower now due to pending EPA regulations and market conditions associated with the price of natural gas, but even today, notwithstanding the historically low cost of natural gas and newly adopted regulatory obstacles for coal, several power producers in the U.S. are seeking to develop new state-of-the-art coal-fired power plants for a variety of reasons. Some of them are concerned about the historic volatility in natural gas prices and their inability to obtain long-term contracts with stable pricing for natural gas, preferring the long-term price stability that comes with coal. Some of them are developing new plants in areas that have localized, economical supplies of coal or other solid fuel. Others simply do not want to put all their eggs in one basket and want to maintain fuel diversity in their generation mix. Despite EPA's recognition that the CAA requires the agency to consider "energy requirements" in connection with proposed standards of performance, the proposed rule does not even consider these important energy policy issues.<sup>13</sup> As aging coal-fired power plants are forced to shut down due to other EPA air pollution regulations and additional plants are temporarily idled to install mandated pollution controls, we need to ensure a reliable stream of electrical power is available to meet the nation's energy needs.

As a result of the combination of EPA's regulations, including the proposed rule and the inevitable 111(d) rule for existing coal-fired units, the country may experience a shortage of electricity, and the reliability of our electricity grid will face substantial risks. The loss of future coal-fired generation, investment in current coal-fired generation, and closures of existing coal-fired generation capacity that may result from the combination of the proposed rule and other EPA regulatory actions risks a variety of reliability problems. In most cases, coal-fired plants

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<sup>13</sup> 77 Fed. Reg. at 22402.

cannot be replaced overnight by natural gas plants, as the time it takes to install pipeline and other infrastructure necessary even to begin conversion of an old plant or construction of a new one is considerable. Additionally, as NARUC Chair David Wright testified recently, coal-fired generation is an important aspect of “resource diversity,” and EPA needs to “recognize the needs of States and regions to deploy a diverse portfolio of cost-effective supply-side and demand-side resources based on their own unique circumstances and characteristics.”<sup>14</sup> ERCC is concerned that the proposed rule establishes a future for electricity generation that is narrowly prescribed to a small group of technologies, some of which do not even exist commercially at this time, and that EPA’s plan for the future risks disruption in the reliable supply of electricity.

EPA needs to carefully consider the consequences of policies that may not allow for a flexible and reliable supply of electricity, because the impacts of reliability problems can be devastating. The downside impacts of reduced electric reliability are substantial and must be taken into account in any responsible analysis of the proposed rule. As ISO New England has stated:

A reliable supply of electricity is a foundation of our prosperity and quality of life. Without it, our world literally grinds to a halt—businesses cannot plan and operate productively, hospitals and schools cannot provide their essential services, and residents cannot depend on the electricity they need simply to live their daily lives. Without reliable electricity, the financial and societal costs would be enormous.<sup>15</sup>

The Institute of Electrical and Electronics Engineers of the U.S. (IEEE-USA) has further observed that even minor occurrences in the electric power grid can sometimes lead to catastrophic ‘cascading’ blackouts, and that the loss of a single generator can result in an imbalance between load and generation. The resulting blackouts cause incalculable economic damage. For example,

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<sup>14</sup> *Hearings* (testimony of David A. Wright at 5).

<sup>15</sup> [http://www.iso-ne.com/nwsiss/grid\\_mkts/elec\\_works/oview\\_brochure.pdf](http://www.iso-ne.com/nwsiss/grid_mkts/elec_works/oview_brochure.pdf) (Accessed June 20, 2012)

the direct costs to high-technology manufacturing in the San Francisco Bay Area alone during the California blackouts alone ran as high as one million dollars a minute due to lost production, and the relatively brief Northeast blackout of 2003 cost business about \$13 billion in lost productivity.<sup>16</sup> These are costs that the our economy and communities cannot afford to bear, and EPA needs to carefully consider reliability concerns before moving forward with the proposed rule.

### **III. THE PROPOSED RULE WILL CAUSE HARMFUL INCREASES IN ELECTRICITY COSTS**

#### **A. The Proposed Rule Will Limit Fuel Options and Cause Increases in Electricity Costs**

Removing coal from our country's energy mix raises additional concerns due to the volatility that exists in the other energy markets. Losing the option to generate power from coal, which has historically stable costs compared to oil and gas, is a risk we should not be willing to take. As David Wright, who as a regulator is charged with matters related to electricity costs, testified:

[T]he policies being pursued today actually make it harder for our States and regions to develop diverse resource portfolios by eliminating the use of coal, which will force us to overly rely on natural gas...but resource diversity is critically important in the electric sector...Yet no one can predict the future, especially when that future is reliant on a historically volatile commodity like natural gas. It is therefore important that we as a country maintain the ability to invest in a diverse portfolio of resources so that our ratepayers are protected against price increases that one particular fuel may experience.<sup>17</sup>

The fact that the proposed rule will increase electricity costs for residential consumers and businesses in the U.S. is beyond dispute. According to a 2011 report commissioned by the Global CCS Institute, even if the barriers to CCS are overcome and it becomes commercially

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<sup>16</sup> G.F. McClure, *Electric Power Transmission Reliability Not Keeping Pace with Conservation Efforts*, *Today's Engineer* (Feb. 2005) available at: <http://www.todaysengineer.org/2005/Feb/reliability.asp> (accessed June 20, 2012).

<sup>17</sup> *Hearings* (testimony of David A. Wright at 11).

available, the cost of production for a coal-fired power plant is expected to increase by 61 to 76 percent after implementation of CCS technologies.<sup>18</sup> A 2010 DOE study estimates adding CCS technology would increase the cost of electricity from 59.2 tenths of a cent (mills)/kWh to 108.2 mills/kWh.<sup>19</sup> These costs will be passed onto consumers in the form of higher prices. As Tom Wolf from the Illinois Chamber of Commerce has testified, “Relying on fewer instead of more options puts us in danger of paying more for electricity, which affects the economy as a whole.”<sup>20</sup>

## **B. Increases in Electricity Costs Harm the Economy, Public Health, and the Environment**

It should come as no surprise that higher electricity prices are destructive to our economy. Affordable, reliable energy is one of the main drivers of economic growth, and increasing the cost of energy and thereby forcing U.S. industries overseas is something we cannot risk as our country continues down the path of economic recovery.

Higher prices will disproportionately impact vulnerable individuals. In a recent study on Public Opinion on Poverty, it was reported that one-quarter of Americans report having problems paying for several basic necessities. In this study, currently 23% have difficulty in paying their utilities—that is, one out of four Americans.<sup>21</sup> Further, African-American and Hispanic families

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<sup>18</sup> *Economic Assessment of Carbon Capture and Storage Technologies: 2011 Update*, (2011) at 49 (available at: <http://cdn.globalccsinstitute.com/sites/default/files/publications/12786/economic-assessment-carbon-capture-and-storage-technologies-2011-update.pdf>) (Accessed June 20, 2012).

<sup>19</sup> U.S. Department of Energy, *Cost and Performance Baseline for Fossil Energy Plants Volume 1: Bituminous Coal and Natural Gas for Electricity*, (November 2010) at 12.

<sup>20</sup> *EPA's Impact on Jobs and Energy Affordability: Understanding the Real Costs and Benefits of Environmental Regulations*, 112<sup>th</sup> Cong. (June 6, 2012) (testimony of Tom Wolf at 3).

<sup>21</sup> *The American Clean Energy and Security Act of 2009*, 111<sup>th</sup> Cong. (April 23, 2009) (testimony of Darryl Bassett at 5).

will spend almost twice the amount of after-tax income on energy compared to the average and when viewed as a percentage of total household income.<sup>22</sup> Likewise, elderly households use less per capita on energy but still "spend a higher share of their income on energy-related expenditures."<sup>23</sup>

Additionally, it is tempting to look at electricity costs as solely affecting large power companies and ignore the potential impact on public health. However, the proposed rule is likely to adversely affect public health in three ways: by increasing the cost of medical care and treatment; by imposing real threats on human health by suppressing economic growth and the improved health it brings; and by focusing on expensive rulemakings with little incremental benefits when those resources, if more sensibly deployed, could save many times more lives.

With respect to treatment costs, it is important to note that U.S. hospitals spend \$8.5 billion annually on energy, often equaling between one and three percent of a hospital's operating budget.<sup>24</sup> Furthermore, EPA estimates, in the U.S., the health sector is the second most energy-intensive commercial sector resulting in more than \$600 million per year in direct health costs and over \$5 billion in indirect costs.<sup>25</sup> The average cost of power per square foot for hospitals is approximately \$2.84.<sup>26</sup> Hospital administrators will have no choice but to pay attention to the

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<sup>22</sup> *New Study Confirms Rising Energy Costs Disproportionately Impacting Minority Households*, Reuters, Jul. 25, 2008, available at <http://www.reuters.com/article/2008/07/25/idUS178012+25-Jul-2008+PRN20080725> (accessed June 22, 2012).

<sup>23</sup> Janemarie Mulvey, *Impact of rising energy costs on older Americans*, CRS Report for Congress No. RS22826 (Mar. 4, 2008), at 3.

<sup>24</sup> United States Department of Energy, (2006) Energy Information Administration (EIA), *Commercial Buildings Energy Consumption Survey (CBECS): Consumption and Expenditures Tables*. "Table C3A". US Department of Energy.

<sup>25</sup> The World Health Organization. *Healthy Hospitals, Healthy Planet, Healthy People: Addressing Climate Change in Healthcare Settings*. Washington, DC, 29.

<sup>26</sup> Northwest Energy Efficiency Alliance, (2010), *Energy in Healthcare* [Fact Sheet].

cost of energy as surging energy costs will squeeze hospital budgets like never before. Without adequate power supply, built upon a foundation of stable and cost-effective coal-fired generation, the healthcare sector and the American public can expect rapidly increasing costs that consumers can ill-afford.

The economic impacts cited earlier will also directly impact public health. From a commercial perspective, higher electricity prices will be largely borne by companies in energy-intensive manufacturing, where higher prices will make it more difficult to expand operations and increase employment. These productive industries result in millions of direct and indirect jobs. Placing unnecessary economic constraints on the U.S. economy, in a time of recession, is unwise and detrimental to sound public health policy as, based on decades of research, continuously-employed individuals experienced, on average, an additional life expectancy of four to five years.<sup>27</sup> Comparably, the direct effect of reducing unemployment has been estimated to prevent up to 2,500 premature deaths a year.<sup>28</sup> In contrast, additional unemployment may significantly harm public health. A report to Congress' Joint Economic Committee by Dr. Harvey Brenner showed the impacts of unemployment on public health. Brenner found that a one percent increase in the unemployment rate was associated with a two percent increase in premature deaths.<sup>29</sup> In 2004, Brenner used his econometric models to estimate the public health results from reducing coal-generated electricity. For example, with a substantial reduction in

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<sup>27</sup> Morris JK, Cook DG, Shaper AG. (1994), Loss of employment and mortality. *BMJ*;308:1135-9.

<sup>28</sup> Dorling, D. (2009). Unemployment and health: Health benefits vary according to the method of reducing unemployment. *BMJ*, 338, b829.

<sup>29</sup> United States. Cong. House. Joint Economic Committee, (1976), *Estimating the Social Costs of National Economic Policy: Implications for Mental and Physical Health, and Criminal Aggression*, By Harvey Brenner, 94th Cong., 2nd sess. H. Rept. 5th ed. Vol. 1., Washington, D.C.

coal-fired power, Brenner found the result would be between 170,000 and 300,000 premature deaths.<sup>30</sup>

Placing EPA regulations in a broader public health perspective, it is clear that the proposed rule is not among the wisest of societal investments in addressing premature mortality. President Obama himself has recognized the need to keep cost-effectiveness in mind when he ordered EPA to protect public health and the environment "while promoting economic growth, innovation, competitiveness, and job creation."<sup>31</sup> Failure to allocate resources based on cost-effectiveness quite literally costs lives. Experts at the Harvard School for Public Health have estimated that expensive environmental rules save 100 times fewer lives than when the federal government redeployed those assets to address higher risks.<sup>32</sup> This tremendous differential in health impacts explains why EPA should not be so cavalier in its benefits analysis.

Finally, the healthy economy that reliable and affordable power makes possible is necessary to create the financial basis for future generations of clean technology. In this sense, the healthier societies are also those that sustain wealth. As one widely-read, recent report pointed out, "recessions serving as a rough time for green energy shouldn't surprise us: a poor economy is not a time during which technological advance tends to flourish. Firms are cutting costs, investors are pulling back, and consumers aren't spending. The money just isn't available for an expensive product to succeed."<sup>33</sup> If cutting GHG emissions is truly a priority, the first step

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<sup>30</sup> *Id.*

<sup>31</sup> E.O. 13653, 76 Fed. Reg. 3821, published Jan. 21, 2011.

<sup>32</sup> Tengs, T.O., et al, (1995) *Five Hundred Life-Saving Interventions and Their Cost Effectiveness*, Risk Analysis 15, 3, 369-90.

<sup>33</sup> Daniel Indiviglio, *It's Even Harder Being Green During a Recession*, The Atlantic, Sept. 23, 2011.

needs to be focusing on economic recovery now to allow for investment in and development of new energy technologies in the future.

Taken together, the consequences of electricity price increases should lead EPA to reconsider the proposed rule before cementing an energy policy that will be very costly in terms of both dollars and health.

#### **IV. THE PROPOSED RULE DELIVERS ALL COSTS AND NO BENEFITS**

Outside of a stated desire to direct the development of future technologies and send other ‘signals’ to constituencies in the U.S. and abroad, the proposed rule does not even promise that it will deliver any real benefits. The proposed rule argues that “few, if any” coal-fired power plants will be built in the foreseeable future, and as a result the proposed rule “will not have a direct impact on U.S. emissions of greenhouse gases under expected conditions.”<sup>34</sup>

However, while it is correct that the proposed rule does nothing to address climate change and delivers no measurable public health benefits, those facts do not change the costs of the rule. The signals that the proposed rule send will set back the development of new power projects and could lead to a greater amount of GHG emissions overseas, and risk much in terms of energy reliability and affordability. For example, in one case – the Las Brisas project in Texas – the rule arguably endangers a state-of-the-art electricity generation facility proposed to recycle petroleum coke from neighboring refineries into a relatively clean source of energy. If the EPA rule and the Agency’s general intransigence on permitting continue, it is likely that this petroleum coke will be used in facilities overseas, resulting in even greater carbon emissions due to its transport and less efficient end-users. So, in cases like Las Brisas, the rule is likely to increase what the Agency now calls carbon pollution.

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<sup>34</sup> 77 Fed. Reg. at 22399, 22401.

Further, by failing to hold the line on the price of electricity, the rule creates an incentive for energy-intensive manufacturing industries to seek locations overseas. At the very time the U.S. appears bent on a coordinated regulatory strategy to marginalize coal and other fossil fuels, our strongest trading partners in both Asia and Europe intend to continue to pursue coal-fired capacity as an important element of their energy strategies. Coal is responsible for over 60 percent of electricity generation worldwide.<sup>35</sup> Notwithstanding the focus on renewable energy in certain parts of the world, coal is also the fastest-growing global energy source in absolute terms, and is responsible for meeting nearly half of new electricity demand.<sup>36</sup> A recent survey shows coal-fired power plants capacity will grow by 35 per cent in next 10 years overseas.<sup>37</sup> World coal-fired power plant capacity will grow from 1,759,000 MW in 2010 to 2,384,000 MW in 2020, some 80,000 MW will be replaced, and there will be 705,000 MW of new coal-fired boilers built.<sup>38</sup>

By contrast, increasing energy costs in the United States motivates closure of manufacturing assets and their transfer overseas. As a recent report from the Maguire Energy Institute at the Southern Methodist University put it, “Numerous studies find that regulatory burdens of this sort imposed on energy prices and energy supply cause plant closures and maximize the potential that manufacturing jobs will move overseas. For each manufacturing job lost, many other dependent jobs will also exit the economy. One in eight private sector jobs rely

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<sup>35</sup> Int’l Energy Agency, *Key World Energy Statistics*, 2011, at 25.

<sup>36</sup> *Key World Energy Statistics* at 15.

<sup>37</sup> *Coal-fired power plants capacity to grow by 35 per cent in next 10 year*, Power Engineer (online), available at: [http://www.engineerlive.com/Power-Engineer/Focus\\_on\\_Coal/Coal-fired\\_power\\_plants\\_capacity\\_to\\_grow\\_by\\_35\\_per\\_cent\\_in\\_next\\_10\\_years/21600/](http://www.engineerlive.com/Power-Engineer/Focus_on_Coal/Coal-fired_power_plants_capacity_to_grow_by_35_per_cent_in_next_10_years/21600/) (accessed June 20, 2012).

<sup>38</sup> *Id.*

upon our manufacturing base.”<sup>39</sup> Beyond economic impact, such “leakage” has a direct effect on whether climate policy actually produces benefits. The International Energy Agency has observed that such leakage can result in “the increase in emissions outside a region as a direct result of the policy to cap emission in this region. Carbon leakage means that the domestic climate mitigation policy is less effective and more costly in containing emission levels, a legitimate concern for policy-makers.”<sup>40</sup>

Much is at risk. It is beyond dispute that climate change is a global issue and cannot be solved without the combined and coordinated efforts of all major economies. It simply makes no sense for the U.S. to act unilaterally by banning new coal-fired plants when our major international competitors, including China and India, are building new coal-fired plants to fuel their industrial growth. Many U.S. industrial and manufacturing plants compete in a global market and are highly sensitive to the cost of power. Many of these plants are located in areas that rely on coal to provide reliable and affordable electricity. Although the proposed rule only regulates new plants, the cost of operating new plants will often set the clearing price for electricity, especially once the U.S. economy begins to strengthen and demand increases. It will also become more difficult to raise the capital necessary to fund continuing research and development related to coal-fired plants. Therefore, even though the EPA is correct that the rule delivers no real GHG benefits, it does impose significant costs.

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<sup>39</sup> Bernard L. Weinstein, *Proposed EPA Power-Sector Air Rules: Weakening Economic Recovery and Putting America’s Most Competitive Manufacturing Industries at Risk* (September 2011) (available at: [http://pressdocs.cox.smu.edu/maguire/SMU\\_UTILITY\\_MACT\\_Report.pdf](http://pressdocs.cox.smu.edu/maguire/SMU_UTILITY_MACT_Report.pdf)) at 2.

<sup>40</sup> J. Reinaud, *IEA: Climate Policy and Carbon Leakage*, Oct. 2008 (available at: [www.iea.org/papers/2008/Aluminium\\_EU\\_ETS.pdf](http://www.iea.org/papers/2008/Aluminium_EU_ETS.pdf)) (accessed June 20, 2012).

## CONCLUSION

The ERCC is pleased to offer these comments. We do not dispute the obligation of EPA to develop and implement sensible, effective regulations. Indeed, we have many times offered to work closely with the Agency on effectively discharging that obligation. However, the proposed rule is an example of regulation at its worst in that it attempts to direct market forces with only the vague hope of being able to deliver real benefits. Unfortunately, the costs of the proposed rule are very real in terms of limited electricity generation options, threats to electric reliability, higher electricity prices, and all of the economic and health harms that are associated with those results.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Segal". The signature is written in a cursive, flowing style with a large loop at the end.

Scott H. Segal, Director

Electric Reliability Coordinating Council