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EPA Docket Center  
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1200 Pennsylvania Ave., NW  
Washington, DC 20460

**Attn: Docket ID No. EPA-HQ-OAR-2013-0602**

**Re: Carbon Pollution Emissions Guidelines for Existing Stationary Sources: Electric Utility Generating Units**

The American Coal Council (ACC) submits these comments in response to the Environmental Protection Agency's (EPA) Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Generating Units. The ACC has been in existence for 32 years and represents the collective business interests of the American coal industry. Our members include mining companies and suppliers, transportation companies and terminals, electric utilities and industrial coal consumers, and many industry support services providers. Since our member companies touch every aspect of turning one of America's most abundant resources into reliable and affordable electricity for the United States economy, our Association has first-hand knowledge of the direct and indirect impacts of new coal-related regulations and a unique, "boots on the ground" perspective.

ACC is gravely concerned about the detrimental impacts and lack of benefits of this proposed regulation issued by EPA in June, 2014 under Clean Air Act §111(d). It is unworkable – lengthy, complex, ambiguous, and over-reaching. It would predispose generation portfolios and fuel choices for electricity providers and dramatically transform how electricity is produced, distributed, transmitted, and used. It would undermine the U.S. free market system. The economy-wide repercussions of such an arbitrary energy and electricity policy change are disastrous. The threats to American families and businesses are intolerable. EPA's proposed regulation will have the following consequences:

- Cause severe harm to the U.S. economy and consumers
- Increase electricity prices and price volatility
- Jeopardize electric grid reliability
- Result in high job losses
- Reduce energy diversity and security for America
- Hinder coal plant efficiency improvements, and coal technology use and advancements
- Fail to achieve air quality improvements and health benefits
- Fail to fulfill the Administration/EPA's goal of global climate leadership
- Fail to elevate resolutions to the alleviation of energy poverty

In the sections below, the implications of each of these issues are described.

## **CAUSE SEVERE HARM TO THE U.S. ECONOMY AND CONSUMERS**

An October 2014 NERA Economic Consulting study of the projected impacts of EPA's proposed carbon regulation for existing sources was commissioned by five organizations representing a cross-section of energy-related stakeholders: the American Coalition for Clean Coal Electricity (ACCCE), the American Farm Bureau Federation, the American Fuel & Petrochemicals Manufacturers, the Association of American Railroads, the Consumer Energy Alliance, the Electric Reliability Coordinating Council, and the National Mining Association.<sup>1</sup> The results are deeply concerning:

- Total compliance costs of 366-\$479 billion over a 15 year period<sup>2</sup>
- Average annual compliance costs of \$41 billion to \$73 billion, dramatically higher than EPA's highest-year estimate of \$8.8 billion<sup>3</sup>
- Double-digit electricity rate increases in up to 43 states, with peak year increases in 14 of those states that may exceed 20%<sup>4</sup>

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<sup>1</sup>ACCCE at [http://www.americaspower.org/sites/default/files/NERA\\_CPP%20Report\\_Final\\_Oct%202014.pdf](http://www.americaspower.org/sites/default/files/NERA_CPP%20Report_Final_Oct%202014.pdf)

<sup>2</sup>ACCCE at

[http://www.americaspower.org/sites/default/files/EPA%20Proposed%20Carbon%20Rule\\_Key%20Takeways\\_Oct%202014.pdf](http://www.americaspower.org/sites/default/files/EPA%20Proposed%20Carbon%20Rule_Key%20Takeways_Oct%202014.pdf)

<sup>3</sup> *Ibid.*

<sup>4</sup> *Ibid.*

- Increases in natural gas prices of up to 29%<sup>5</sup>
- 45,000 - 169,000 MW more in coal plant shutdowns. This is in addition to planned shutdowns of 70,000 MW due to prior EPA regulations including the Mercury and Air Toxics Rule (MATS).<sup>6</sup> This is one-third to three-fourths of the existing U.S. coal fleet.

The range in the cost impacts and projected coal plant shutdowns occurs due to the two cases NERA ran: the first case was an unconstrained scenario in which all four of EPA's proposed "Building Blocks" were available as compliance options, and the second scenario used only Building Blocks 1 (coal plant efficiency gains) and 2 (increased natural gas usage) in order to address the situation where Building Blocks 3 (renewables and additional nuclear energy) and 4 (end-use energy efficiency) would not be available for compliance (recognizing, for example, a need for some states to pass legislation to implement renewable and energy efficiency standards).<sup>7</sup>

The unconstrained scenario results in \$366 billion of compliance costs and 45,000 more MW of coal shutdowns.<sup>8</sup> Moreover, this scenario relies heavily on reductions in electricity use via energy efficiency which come at an enormous cost of \$560 billion to consumers that is only partially offset with electricity savings.<sup>9</sup>

The constrained scenario results in \$479 billion in compliance costs and 169,000 more MW of coal plant shutdowns. With this scenario, non-electricity natural gas costs increase dramatically to \$144 billion.<sup>10</sup> Regardless of the scenario, these NERA projections may be understated, since they do not take into account the costs of upgrading the electric transmission grid to accommodate this dramatic shift in producing and delivering electricity nor do they include costs to add new natural gas infrastructure.<sup>11</sup>

The negative affect on American businesses and families will be pronounced, and especially so for the 60 million low and middle-income households across the nation,<sup>12</sup> and

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<sup>5</sup> ACCCE at [http://www.americaspower.org/sites/default/files/Summary%20of%20NERA%20Analysis%20of%20the%20Clean%20Power%20Plan\\_Oct%202014.pdf](http://www.americaspower.org/sites/default/files/Summary%20of%20NERA%20Analysis%20of%20the%20Clean%20Power%20Plan_Oct%202014.pdf)

<sup>6</sup> ACCCE at [http://www.americaspower.org/sites/default/files/EPA%20Proposed%20Carbon%20Rule\\_Key%20Takeways\\_Oct%202014.pdf](http://www.americaspower.org/sites/default/files/EPA%20Proposed%20Carbon%20Rule_Key%20Takeways_Oct%202014.pdf)

<sup>7</sup> ACCCE at [http://www.americaspower.org/sites/default/files/NERA\\_CPP%20Report\\_Final\\_Oct%202014.pdf](http://www.americaspower.org/sites/default/files/NERA_CPP%20Report_Final_Oct%202014.pdf)

<sup>8</sup> *Id* at S-6.

<sup>9</sup> ACCCE [http://www.americaspower.org/sites/default/files/NERA\\_CPP%20Report\\_Final\\_Oct%202014.pdf](http://www.americaspower.org/sites/default/files/NERA_CPP%20Report_Final_Oct%202014.pdf)

<sup>10</sup> *Ibid*.

<sup>11</sup> ACCCE at [http://www.americaspower.org/sites/default/files/EPA%20Proposed%20Carbon%20Rule\\_Key%20Takeways\\_Oct%202014.pdf](http://www.americaspower.org/sites/default/files/EPA%20Proposed%20Carbon%20Rule_Key%20Takeways_Oct%202014.pdf)

<sup>12</sup> *Id* at 2.

for those on fixed incomes. ACCCE has noted that over the past decade, real incomes for these low and middle income households have declined by 22% while real energy prices have increased by 27%.<sup>13</sup> With the number of Americans living in poverty rising 20% since 2008 to 48 million people,<sup>14</sup> the alarm bells are sounding.

The 60 Plus Association recently released a report entitled “Energy Bills Challenge America’s Fixed-Income Seniors”.<sup>15</sup> It discussed the disproportionate impact of energy price increases on low and fixed income households, and noted that the U.S. has 27 million households aged 65 or older, which is almost one-fourth of the total of 116 million households in the nation.<sup>16</sup> A 2010 survey by the Applied Public Policy Research Institute for Study and Evaluation (APPRISE) cited in the 60 Plus report found that, because of high energy prices, 41% of low-income seniors had already gone without medical or dental care, 30% of seniors went without food for at least a day, 22% were unable to pay their energy bill because of medical expenses, and 25% became sick because their house was too cold.<sup>17</sup> The 60 Plus report found that current and pending EPA regulations could increase electricity rates above the general inflation rate by as much as 20%.<sup>18</sup> Additionally, future energy prices, due to market trends and current and pending EPA regulations, will likely outpace household income among the 63% of America’s 65+ households with gross annual incomes under \$50,000.<sup>19</sup>

Dan Weber, the founder and president of the Association of Mature American Citizens, authored an opinion piece in October expressing concerns about these regulations causing “unconscionably higher costs for heat and electricity”.<sup>20</sup> He went further, stating “Let’s rethink all this.....Let’s reward those who make good industry decisions by modernizing their plants rather than penalize them. Let’s encourage the world to come to the current U.S. standard before we emasculate another important U.S. industry. Let’s use common sense and protect the scarce, fixed and hard-earned resources of older Americans, not compel them to pay higher prices for no logical reason.”<sup>21</sup>

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<sup>13</sup> ACCCE at [http://www.americaspower.org/sites/default/files/EPA%20Proposed%20Carbon%20Rule\\_Key%20Takeways\\_Oct%202014.pdf](http://www.americaspower.org/sites/default/files/EPA%20Proposed%20Carbon%20Rule_Key%20Takeways_Oct%202014.pdf)

<sup>14</sup> Peabody Energy June 2, 2014 and the U.S Department of Commerce, U.S. Census Bureau, 2014.

<sup>15</sup> [http://morgangriffith.house.gov/uploadedfiles/60\\_plus\\_natl\\_full\\_09-26-14.pdf](http://morgangriffith.house.gov/uploadedfiles/60_plus_natl_full_09-26-14.pdf)

<sup>16</sup> *Ibid.*

<sup>17</sup> <http://www.cnsnews.com/news/article/ali-meyer/survey-1-3-seniors-went-without-medical-care-due-high-energy-prices>

<sup>18</sup> <http://60plus.org/60-plus-rep-griffith-discuss-negative-impact-of-epa-regulations-on-seniors/>

<sup>19</sup> *Ibid.*

<sup>20</sup> <http://www.washingtontimes.com/news/2014/oct/9/weber-making-energy-less-affordable-for-seniors/>

<sup>21</sup> *Ibid.*

Businesses and manufacturers continue to express opposition to EPA's regulatory path on GHG/carbon. ACC previously commented on their concerns in its filing for EPA's proposed carbon rule for new sources issued in January, 2014 under Clean Air Act §111(b). Many state and local chambers of commerce and state manufacturing associations are members of the Partnership for a Better Energy Future (PBEF), a large coalition of energy stakeholders advocating for reasonable GHG regulations. PBEF represents businesses and consumers from a broad cross-section of the economy – from mining and agriculture to manufacturing and refining and more.<sup>22</sup>

Affordable electricity is vital to the success of U.S. businesses and manufacturers, and a diverse energy mix underpins that. Coal is the critical component of that diverse mix and facilitates our manufacturers' competitive advantage in the global marketplace. Unnecessarily distorting the energy markets away from coal does not bode well for competitive, stable electricity prices. Lacking competitive, stable electricity prices, manufacturers and businesses will be driven offshore at best and out of business at worst. If industry is driven away from the U.S. due to EPA regulations, it will likely be to countries with cheaper energy, lower labor costs, and less stringent environmental requirements. This "carbon leakage" will thus have the unintended and ironic consequence of raising global carbon emissions and overall emissions.

The prospect of suppressing economic growth opportunity was addressed by Federal Energy Regulatory Commission's (FERC) Commissioner Philip Moeller in written testimony for the House Energy and Commerce Hearing on July 29, 2014. He wrote, "I find another aspect of the proposal troubling. Based on the timelines involved, EPA is essentially capping the amount of national electricity consumption in 2030 ... (this) may have unintended consequences, limiting economic opportunity for many Americans."<sup>23</sup> EPA places far too much reliance on aggressive energy efficiency assumptions, and apparently presumes that both economic growth and population growth can occur without electricity growth. This is unrealistic.

The impacts of carbon reduction policies in other advanced economies around the world offer ample evidence of the severe negative consequences of such policies in the United States. We have only to look to Australia and Europe to see the economic harm and job loss that results from excessive regulations.

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<sup>22</sup> <http://www.betterenergyfuture.org/>

<sup>23</sup> Written Testimony of FERC Commissioner Philip D. Moeller, House Committee on Energy and Commerce Hearing "FERC Perspective: Questions Concerning EPA's Proposed Clean Power Plan and Other Grid Reliability Challenges", July 29, 2014 at <http://www.ferc.gov/CalendarFiles/20140729091755-Moeller-07-29-2014.pdf>

In Australia, the recently-repealed carbon tax of \$24 (U.S.) per ton of CO<sub>2</sub> emitted was repealed by the Australian Senate just two years after it was instituted.<sup>24</sup> The toll was simply too great - it cost the economy \$8.5 billion annually and increased electricity costs to families by over \$500 per year.<sup>25</sup> As Australian Environment Minister Greg Hunt said, "The tax was always intended to drive up the cost of living. That was its sole purpose, to drive up the cost of living so as to then, in theory, produce a result. The problem is it was a tax that didn't do the job. It hurt families, but it has singularly failed to have any significant result on reducing our emissions.... So it is pain without gain. And that's why we took to the Australian people a pledge to not just remove the tax but to therefore reduce the pressure on their cost of living. At the end of the day, this is about the small business, the manufacturing business, the families and the pensioners of Australia."<sup>26</sup> The economic impact in Australia of \$8.5 billion/year from a carbon tax implies an annual economic impact of over \$90 billion in the U.S. when differences in annual GDP are considered.

In Europe, carbon reduction policies and a strong focus on increasing renewable energy have had severe repercussions as well. Spain instituted a poorly constructed regulatory framework that artificially forced the development of renewable energy without the mechanisms for cost recovery. That system will likely either force massive bankruptcies or place the burden of excessive costs on the Spanish taxpayers. Either way, it will cause massive destruction of asset value. Spain has been burdened with an unemployment rate of over 20%, as for every 1 green job created in Spain 2.2 non-green jobs have been lost.<sup>27</sup> Note that residential customers in Spain paid 31¢/kWh in 2013 compared with U.S. residential customers at 12¢/kWh.<sup>28</sup> In Germany, electricity costs have risen 60% over the past 5 years due primarily to subsidies for renewables.<sup>29</sup> German companies are indicating that rising overall costs in Germany are motivating them to invest abroad.<sup>30</sup> BASF, with more than 50,000 employees in Germany, announced in May 2014 that due to Germany's energy policy, it would reduce investments in that country over the next five years and make them elsewhere including Asia and the U.S.<sup>31</sup> Note that German industrial customers paid 20¢/kWh in 2013 compared with U.S. industrial customers at 7¢/kWh.<sup>32</sup>

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<sup>24</sup> Vanessa Mock, Selina Williams and Amy Harder, "Australian Repeal Deals Blow to Global Carbon Emissions Plans", Wall Street Journal, July 27, 2014. <http://online.wsj.com/articles/australia-repeals-carbon-tax-1405560964>

<sup>25</sup> Michael Bastach, "Aussie Lawmakers Vote to Repeal Carbon Tax", The Daily Caller, July 17, 2014. <http://dailycaller.com/2014/07/17/aussie-lawmakers-vote-to-repeal-carbon-tax/>

<sup>26</sup> *Ibid.*

<sup>27</sup> Andrew Powaleny, "Few Other Countries are Following the Obama Administration's Lead on Climate", The Daily Caller, August 11, 2014. <http://dailycaller.com/2014/08/11/few-other-countries-are-following-the-obama-administrations-lead-on-climate/>

<sup>28</sup> National Coal Council Advisory, August, 2014.

<sup>29</sup> Matthew Karnitschnig, "Germany's Expensive Gamble on Renewable Energy", Wall Street Journal, August 26, 2014. <http://online.wsj.com/articles/germanys-expensive-gamble-on-renewable-energy-1409106602>

<sup>30</sup> *Ibid.*

<sup>31</sup> *Ibid.*

<sup>32</sup> National Coal Council Advisory, August 2014.

According to Daniel Yergin, Vice Chairman of IHS, “Germany’s current path of increasingly high-cost energy will make the country less competitive in the world economy, penalize Germany in terms of jobs and industrial investment, and impose a significant cost on the overall economy and household income”.<sup>33</sup> Electricity reliability in Germany is another worry. With increasing amounts of renewables and their locations far from actual consumption areas, new transmission lines are needed. Those projects are not always well received (i.e., due to not-in-my-backyard or NIMBY anti-development pressures), and they have an impact on the environment as well. Delays in the build out of this transmission capacity, along with the unpredictability of wind power and the sheer scope of this energy market transformation, have increased concerns about reliability.<sup>34</sup>

As Aditya Mittal, CEO of ArcelorMittal, the largest steelmaker in the world, recently opined in the Wall Street Journal, “Decarbonization does not have to mean deindustrialization. But, sadly, this is exactly what the proposed policy risks doing.”<sup>35</sup>

The punishing experiences of these other countries are a huge red flag for America. Our regulators and policymakers must not ignore the very real consequences of failed policy elsewhere.

## **INCREASE ELECTRICITY PRICES AND PRICE VOLATILITY, AND JEOPARDIZE ELECTRIC GRID RELIABILITY**

In ACC’s comments to EPA on its §111(b) carbon rule for new sources, we discussed the spikes in natural gas prices and corresponding increased electricity costs during the harsh winter of 2014. The winter was a stark reminder of how quickly and dramatically energy and electricity markets can change. Many of the same coal plants which were essential in meeting electricity needs and avoiding brownouts or blackouts during the winter are planned for shutdown beginning in 2015 due to EPA’s MATS rule.<sup>36</sup>

The chart below from the National Coal Council, a federal advisory committee to the U.S. Secretary of Energy, shows electric utility fuel costs for the period 1997-2014.<sup>37</sup> It demonstrates the importance of coal in terms of both its low price and price stability over time in comparison to natural gas.

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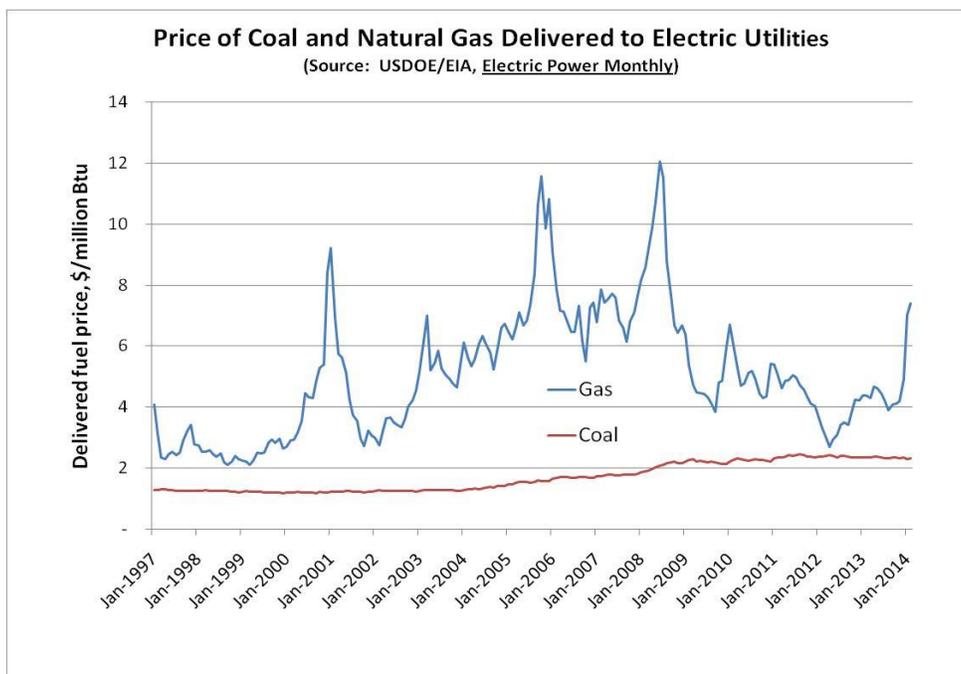
<sup>33</sup> Matthew Karnitschnig, “Germany’s Expensive Gamble on Renewable Energy”, Wall Street Journal, August 26, 2014. <http://online.wsj.com/articles/germanys-expensive-gamble-on-renewable-energy-1409106602>

<sup>34</sup> *Ibid.*

<sup>35</sup> Aditya Mittal, “Saving European Steel, and the Environment Too”, Wall Street Journal, October 22, 2014.

<sup>36</sup> Energy Information Administration at <http://www.eia.gov/todayinenergy/detail.cfm?id=15031>

<sup>37</sup> National Coal Council “Reliable and Resilient: The Value of Our Existing Coal Fleet”, May 2014. <http://www.nationalcoalcoalcouncil.org/NEWS/NCCValueExistingCoalFleet.pdf>



During the cold winter of 2014, electricity generation from coal-fueled plants was key to insulating many customers from even higher electric bills. Southern Company set an all-time winter peak of 39,130 MW of electricity generation in Q1 2014 and reported \$100 million in fuel cost savings for its customers during the quarter, relying heavily on increased coal generation and reduced natural gas generation versus Q1 2013.<sup>38</sup>

Still, the effects of winter on electric bills spilled over into summer in some regions of the country. In upstate New York, power was shut off to 24,000 customers in June and July because they could not pay their bills.<sup>39</sup> National Grid customers paid \$203 million for electricity in March 2013 and \$316 million in March 2014.<sup>40</sup> As New England has shifted away from coal to natural gas for electricity generation, its exposure to natural gas price volatility has increased. The Energy Information Administration reported in September that U.S. residential retail electricity prices increased 3.2% for the first half of 2014 versus the same period in 2013, the highest year over year growth for the first half of the year since 2009.<sup>41</sup> New England customers, with less coal generating their electricity than for

<sup>38</sup> Southern Company at

[http://investor.southerncompany.com/files/doc\\_financials/q1%202014/SoCo\\_1Q14\\_Earnings\\_Call\\_Slides\\_v1\\_2\\_-\\_916AM.pdf](http://investor.southerncompany.com/files/doc_financials/q1%202014/SoCo_1Q14_Earnings_Call_Slides_v1_2_-_916AM.pdf)

<sup>39</sup> <http://dailycaller.com/2014/09/08/24000-ny-households-had-power-shut-off-due-to-unpaid-bills/>

<sup>40</sup> *Ibid.*

<sup>41</sup> Energy Information Administration <http://www.eia.gov/todayinenergy/detail.cfm?id=17791>

customers in many other parts of the country, incurred the greatest price increases at 11.8%.<sup>42</sup>

Coal plants throughout much of the country were essential in enabling electric generators to meet electricity demand and avoid brownouts or blackouts during the winter of 2014. It was reported that about 75% of Southern Company's coal plants scheduled to retire due to EPA regulations were called upon for electric generation in January.<sup>43</sup> The Tennessee Valley Authority set new records for electricity demand, at a time when nearly 20 of its coal plants are scheduled for retirement.<sup>44</sup> American Electric Power's (AEP) Chairman, President, and CEO Nick Akins has stated that 89% of AEP's generation planned for retirement in 2015 was running in January to meet demand in the PJM electricity region. In his April 10, 2014 testimony before the Senate Energy and Natural Resources Committee at its hearing on grid reliability and security, Mr. Akins also said "The weather events experienced this winter provided an early warning about serious issues with electric supply and reliability..... This country did not just dodge a bullet – we dodged a cannon ball."<sup>45</sup>

As a result of 2014's extreme winter weather, a growing number of elected officials, policymakers, regulators, industry, and consumers has expressed concerns over resource adequacy, grid reliability, and electricity pricing. This began even before EPA released its carbon rule for existing sources in June. EPA's proposal of this unreasonable, unworkable and overreaching carbon rule has greatly expanded and intensified these concerns. This agenda to diminish coal, force an increase in natural gas, and create a contrived approach on renewables and energy efficiency is at odds with robust, competitive energy markets and affordable, reliable electricity in America. With this new rule, enormous costs and reliability risks would be thrust upon consumers with virtually nothing in return.

The significant resource adequacy and reliability risks arising from such a wholesale change in dispatching of the generation fleet under the proposed rule are unacceptably accounted for by EPA in a number of ways.

EPA oversimplifies the ability of generation resources to substitute for one another. Ramping up natural gas units and operating them in baseload fashion, ramping down coal units, and increasing generation from renewables did not receive sufficient analysis by EPA. An example is the impact of changing the operation of "load following" natural gas

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<sup>42</sup> *Ibid.*

<sup>43</sup> Chris Prandoni, "Harsh Winter Reveals Necessity of Coal", *Forbes*, March 16, 2014.

<http://www.forbes.com/sites/chrisprandoni/2014/03/06/harsh-winter-reveals-necessity-of-coal/>

<sup>44</sup> *Ibid.*

<sup>45</sup> Testimony of Nick Akins, Chairman, President, and Chief Executive Officer, American Electric Power, before the Senate Energy and Natural Resources Committee, April 10, 2014.

units to running them in baseload operation, which would make such units unavailable for managing generation from renewable resources (particularly wind) as they are often utilized today.

In the Electric Power Research Institute's (EPRI) comments on the rule, EPRI cautions about increasing natural gas plants to a 70% capacity factor - not from a technical standpoint of individual units operating at 70%, but because there is little long term experience with operating at that level.<sup>46</sup> EPA assumes that natural gas production could expediently ramp up to unprecedented levels to meet the large increase in supplies needed to operate in this fashion; a questionable assumption. Regardless, EPRI noted critical risks and impediments (i.e., achieving a "technically feasible" capacity factor of 70%) does not include other significant daily operating impacts on capacity factors, such as the market price of natural gas, availability of pipeline infrastructure, and firm pipeline capacity."<sup>47</sup> The relationship of gas capacity factors to gas prices is another important consideration which EPRI addressed in its comments: "Reinforcing the dependency of gas price to capacity factor; natural gas prices are currently forecasted to be relatively low, history has demonstrated the price of natural gas to be highly volatile, and multi-year forecasts have consistently been inaccurate. Establishing a mitigation goal based on an assumption of persistent low natural gas prices is not a reliable or dependable approach to estimating capacity factors for NGCC (natural gas combined cycle) plants over a long period."<sup>48</sup>

In relating the re-dispatch issue to the real-world winter weather of 2014, EPRI's comments to EPA stated, "Establishing a dispatch-based mitigation goal that impacts other existing generation types without thorough consideration of the impacts to resource adequacy may significantly degrade reliability. For example, during the extreme cold temperatures across most of the Southern and Eastern United States from January 6 to 8, 2014, natural gas fired generating plants did not perform as expected due to both plant outages and natural gas delivery system outages."<sup>49</sup>

As ACC noted in its comments to EPA on its proposed §111(b) carbon rule for new sources, an important distinction between the use of coal and natural gas is the ability of coal to be stored in inventory at power plants, which allows for quick response to changes in generation demand. There is no such buffer for natural gas plants so the effects of a supply disruption to plant operations, and thus dispatch availability, are immediate.

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<sup>46</sup> Comments of the Electric Power Research Institute submitted by Anda Ray, Vice President, Environment, and Chief Sustainability Officer, Electric Power Research Institute, dated October 20, 2014 and posted to regulations.gov on November 4, 2014, p.4.

<sup>47</sup> *Ibid.*

<sup>48</sup> *Ibid.*

<sup>49</sup> *Ibid.*

The ability to transport much larger volumes of natural gas will be a significant challenge, especially so with the age of existing natural gas infrastructure and the large amounts of new natural gas pipeline needed to support growing gas volumes. ScottMadden Management Consultants reported that much existing U.S. pipeline transmission capacity is 40 years or older and will require replacement at the same time large amounts of new midstream infrastructure are needed.<sup>50</sup> ScottMadden refers to a March 2014 study by the Interstate Natural Gas Association of America (INGAA) that reported an average of about 1,650 miles of new gas transmission line is added per year (mainline miles and lateral connections).<sup>51</sup> About 15,500 miles of new pipe per year will be needed in the future, with most of this being gathering line. New pipeline is estimated to cost \$3.7 million dollars per mile.<sup>52</sup>

In the North American Electric Reliability Corporation's (NERC)'s November 2014 "Potential Reliability Impacts of EPA's Clean Power Plan" report, issues with regard to EPA's assumptions on renewables, energy efficiency, and electricity growth rates are identified and the potential reliability impacts discussed. NERC details a discrepancy between EPA and others, as EPA assumes energy efficiency will grow faster than electricity demand, with total electricity demand shrinking after 2020. Thus, EPA overestimates energy efficiency's impact on reducing demand for electricity. NERC refers to the discrepancy as follows, "Substantial increases in energy efficiency programs exceed recent trends and projections. Several sources, including but not limited to NERC, EIA, EPRI, and various utilities, have published reports, analysis, and forecasts for energy efficiency that do not align with the CPP's assumed demand trend. The CPP assumption appears to underestimate costs and may underestimate the capital investments that would be required by utilities to sustain energy efficiency performance through 2030. The offsetting requirements in more coal retirements, along with expansions in natural gas and VERs (variable energy resources), in a constrained time period could potentially result in reliability or ERS (Essential Reliability Services) constraints."<sup>53</sup>

Electricity transmission reliability is another important consideration not accounted for adequately by EPA in its proposed rule. EPRI addressed this in its comments to EPA stating "...this proposal could have a significant impact on transmission reliability due to potential large changes in power flows across the system..." The change in generation will almost certainly require development of new transmission to ensure operational reliability, but scheduling outages of existing facilities will be difficult if simultaneous upgrades across

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<sup>50</sup> ScottMadden Management Consultants, "The ScottMadden Energy Industry Update", Summer 2014, p.16.

<sup>51</sup> *Id* at p.15.

<sup>52</sup> ScottMadden Management Consultants, "The ScottMadden Energy Industry Update", Summer 2014, p.16.

<sup>53</sup> NERC "Potential Reliability Impacts of EPA's Proposed Clean Power Plan, Initial Reliability Review," November 2014, p. 16.

many systems are needed such that the time lines for commissioning of new transmission facilities may be delayed.<sup>54</sup>

The critical issue of additional infrastructure needed to support a re-engineered electric grid was addressed by Eric Bott, the environmental policy director for Wisconsin Manufacturers & Commerce, who referred to both cost concerns and the potential for resistance to infrastructure investment in a recent opinion piece: “The state Public Service Commission has indicated that compliance costs in Wisconsin could be in the tens of billions of dollars. Our regional electricity grid operator, MISO (Midcontinent Independent System Operator), estimates compliance costs in their territory could reach \$90 billion. That’s before taking into consideration the new transmission infrastructure necessary to implement the EPA’s plan. Transmission is one factor that supporters of the EPA don’t like to mention. By necessity, compliance with the proposal will mean significant new power line projects to connect Wisconsin’s population centers with the wind resources in the west as well as new natural gas pipelines. The groups cheerleading for the EPA today are often the loudest opponents of infrastructure investment. Will they change their tune to allow Wisconsin to comply with the EPA’s mandates?”<sup>55</sup>

The Southwest Power Pool (SPP), has indicated concerns about the rule’s design and implications for reliability. In an August 2014 meeting at the Oklahoma Corporation Commission, Lanny Nickell, vice president of engineering for the SPP, remarked that when engineers and analysts plugged EPA’s assumptions into the SPP model, the software would not work. Mr. Nickell indicated that generally means that conditions are so bad the algorithm cannot produce an answer.<sup>56</sup> In discussing potential mitigation strategies to address reliability concerns, SPP noted in a September 2014 filing with the Missouri Public Service Commission that the planning and construction of transmission upgrades can take up to 8.5 years and cost up to approximately \$2.3 million per mile for new 345KV transmission lines.<sup>57</sup>

The Electric Reliability Council of Texas (ERCOT) released its analysis of the impacts of proposed Clean Power Plan (CPP) on November 17, 2014. ERCOT expressed concerns about “the timing and scale” of the changes needed for compliance.<sup>58</sup> ERCOT

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<sup>54</sup> Comments of the Electric Power Research Institute submitted by Anda Ray, Vice President, Environment, and Chief Sustainability Officer, Electric Power Research Institute, dated October 20, 2014 and posted to regulations.gov on November 4, 2014, p.4-5.

<sup>55</sup> <http://www.jsonline.com/news/opinion/epa-rule-will-hurt-businesses-consumers-b99367773z1-278732611.html>

<sup>56</sup> <http://www.oklahoman.com/article/5334499?access=b1a804fb979e7be9601eeaabf9cb126a>

<sup>57</sup> [http://www.eenews.net/assets/2014/09/22/document\\_ew\\_02.pdf](http://www.eenews.net/assets/2014/09/22/document_ew_02.pdf)

<sup>58</sup> ERCOT “ERCOT Analysis of the Impacts of the Clean Power Plan”, p.1.

<http://www.ercot.com/content/news/presentations/2014/ERCOTAnalysis-ImpactsCleanPowerPlan.pdf>

characterizes coal generation resources as providing “essential reliability services”,<sup>59</sup> and foresees challenges in grid management and reliability with the projected retirement of up to half of the existing coal generating capacity (3,300 to 8,700 MW) in the ERCOT region.<sup>60</sup> ERCOT anticipates challenges to reliably operating all resources due to the integration of new wind and solar resources that would be required.<sup>61</sup> ERCOT foresees the need for major transmission system improvements, which poses costs not considered in EPA’s analysis.<sup>62</sup> This also has timing implications, and the ERCOT analysis states that a new major transmission project takes at least five years to complete in its region.<sup>63</sup> As far as energy cost impacts to consumers, ERCOT estimated the CPP will result in increases of up to 20% in 2020.<sup>64</sup> This does not account for other costs which would raise energy prices even more – the costs of transmission upgrades, natural gas supply infrastructure upgrades, energy efficiency improvements, capital costs of new capacity, and other costs associated with the retirement or decreased operation of coal generation capacity in ERCOT.<sup>65</sup>

Another very important point made by ERCOT is that as electricity generation owners consider potential CPP compliance together with other pending environmental regulations such as MATS, regional haze, and the 316(b) Cooling Water Intake Structures rule, they may decide to retire units early rather than make investments to retrofit them to meet the requirements of these other rules. ERCOT indicates that if such earlier coal retirements occur, grid reliability challenges could be experienced even sooner.<sup>66</sup>

In comments made at a September 10, 2014 meeting at the North Dakota Public Service Commission, Gerry Cauley, President and Chief Executive Officer of NERC, said “This is the most challenging time I can think of for our industry.” He went on to say that since utilities and regulators can’t predict the reliability impacts of carbon regulations, it would be irresponsible to implement the EPA’s rules.<sup>67</sup>

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<sup>59</sup> *Id* at p.10.

<sup>60</sup> ERCOT “ERCOT Analysis of the Impacts of the Clean Power Plan”, p.1.

<http://www.ercot.com/content/news/presentations/2014/ERCOTAnalysis-ImpactsCleanPowerPlan.pdf>

<sup>61</sup> *Id* at p. 2.

<sup>62</sup> ERCOT “ERCOT Analysis of the Impacts of the Clean Power Plan”, p.16.

<http://www.ercot.com/content/news/presentations/2014/ERCOTAnalysis-ImpactsCleanPowerPlan.pdf>

<sup>63</sup> *Id* at p.14.

<sup>64</sup> ERCOT “ERCOT Analysis of the Impacts of the Clean Power Plan”, p.1.

<http://www.ercot.com/content/news/presentations/2014/ERCOTAnalysis-ImpactsCleanPowerPlan.pdf>

<sup>65</sup> *Ibid*.

<sup>66</sup> ERCOT “ERCOT Analysis of the Impacts of the Clean Power Plan”, p.10

<http://www.ercot.com/content/news/presentations/2014/ERCOTAnalysis-ImpactsCleanPowerPlan.pdf>

<sup>67</sup> <http://www.thedickinsonpress.com/content/coal-plants-face-challenges-adapting-epa-rules-30-percent-reduction-carbon-emissions>

There is simply no economic, reliable, scalable, and timely way to replace the one-third to three-fourths of the coal plant shutdowns anticipated due to this proposed rule and other previous EPA environmental regulations while also continuing to have electricity supplied at the flip-of-a-switch. This is especially apparent and especially critical given EPA's timeline for the existing source rule as proposed, with interim goals from 2020-2029. In practical application, those interim goals would require carbon reductions before 2020.

Neither the Congress nor the states support the EPA's irresponsible agenda. A group of forty-one senators sent a letter to President Obama in June after EPA's announcement of the rule, requesting its withdrawal due to concerns about the "outside the fence" approach, electricity price increases, threats to manufacturers' competitiveness, climate benefits of "essentially zero", and costs likely to "far exceed EPA's own estimate ... if history is any guide."<sup>68</sup> State elected officials are weighing in as well. Thirteen State Attorneys General requested withdrawal of the rule in an August letter to EPA Administrator Gina McCarthy.<sup>69</sup> A September letter to President Obama from fifteen Governors requested additional plans and information in time for states to incorporate into their comments, and to withdraw the rule if unable to fulfill that request.<sup>70</sup> Also in September, seventeen former and current public utility commissioners from eleven states sent a letter to energy regulators and the EPA expressing serious concerns about the proposed rule's threats to the diversity and stability of America's electricity supply.<sup>71</sup> According to ACCCE's count in August of 2014, legislative bodies and Attorneys General in 25 states have expressed opposition to EPA's approach for existing coal plants.<sup>72</sup>

## RESULT IN HIGH JOB LOSSES

Business and industry, as well as federal, state, and local elected officials, are also concerned about the loss of jobs that would result from EPA's carbon rules as these rules put the more than 800,000 direct and indirect good jobs associated with coal in our nation at risk.<sup>73</sup> Moreover, the U.S. Chamber of Commerce's May 2014 study by IHS, "Assessing

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<sup>68</sup>[http://www.epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore\\_id=ba5b2aa8-f287-4eb7-a460-d7a1aef542af](http://www.epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=ba5b2aa8-f287-4eb7-a460-d7a1aef542af)

<sup>69</sup>[http://www.ago.wv.gov/pressroom/Documents/Section%20307%20Letter%20\(August%2025,%202014\).pdf](http://www.ago.wv.gov/pressroom/Documents/Section%20307%20Letter%20(August%2025,%202014).pdf)

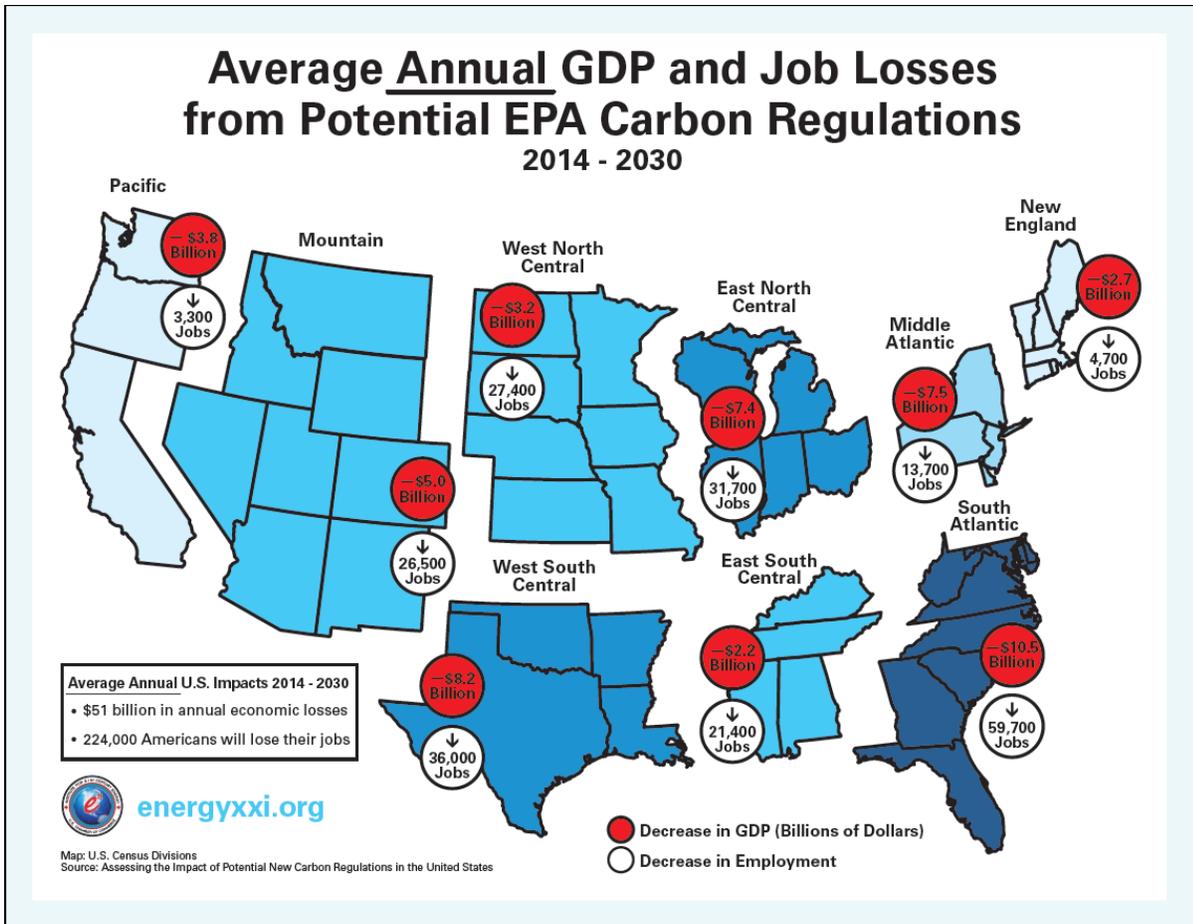
<sup>70</sup> <https://www.scribd.com/doc/239195664/Republican-Governors-Urge-President-Obama-to-Promote-Reliable-Affordable-Energy-Policy>

<sup>71</sup> <http://energyfairness.org/wp-content/uploads/2014/09/2014-09-17-State-Regulator-Statement-Compiled.pdf>

<sup>72</sup> ACCCE "State Opposition to EPA's Proposed CO<sub>2</sub> Standards", August 15, 2014.

<sup>73</sup> National Mining Association [http://www.nma.org/pdf/fact\\_sheets/cap.pdf](http://www.nma.org/pdf/fact_sheets/cap.pdf)

the Impact of Potential New Carbon Regulations in the United States” calculated economy-wide job losses at 224,000 per year through 2030 as illustrated below.<sup>74</sup>



## REDUCE ENERGY DIVERSITY AND SECURITY FOR AMERICA

Protecting fuel choice and diversity for power sector generators is the key factor in maintaining a robust, competitive fuels marketplace that keeps electricity prices affordable for consumers, supports grid reliability, and provides energy security.

NERC weighed in on the consequences of reducing fuel diversity in its “Potential Reliability Impacts of EPA’s Proposed Clean Power Plan” November 2014 report. Recognizing that the power industry relies on fuel diversification to mitigate unanticipated events such as weather, strikes, outages, etc. and also to minimize cost impacts, NERC said: “With

<sup>74</sup> U.S. Chamber of Commerce, “Assessing the Impact of Potential New Carbon Regulations in the United States” May, 2014 <http://www.energyxxi.org/epa-regs#>

greater reliance on natural-gas fired generation, the resiliency and fuel diversification that is currently built into the system may be degraded, which NERC has highlighted in recent gas-electric interdependency assessments.”<sup>75</sup>

With 28% of the world’s coal reserves<sup>76</sup> and increasingly available oil and gas reserves, the U.S. has an unparalleled opportunity for energy independence and security compared to other nations. With EPA’s proposed rules to reduce the use of coal and other anticipated rules likely to diminish the use of all fossil fuels, the U.S would chart an equally unparalleled course of diminishing its enviable energy position. It is imperative that we recognize the critical importance of energy and security, and extend that recognition beyond our borders. As Tom Donilon, National Security Advisor to the President, observed in April 2013:

“ ... [E]nergy matters profoundly to US national security and foreign policy. It matters because the availability of reliable, affordable energy is essential to our economic strength at home, which is the foundation for our leadership in the world.... Energy shapes national interests and relations between nations. It shapes politics, development, and governance within nations. And it shapes the security of the climate and the environment. For all these reasons and many others, increasing global access to secure, affordable, and ever cleaner supplies of energy is a global public good and a national interest of the United States.”<sup>77</sup>

Purposefully moving away from energy diversity in the United States is a short-sighted, irresponsible policy choice that benefits neither our nation nor the rest of the world.

## **HINDER COAL PLANT EFFICIENCY IMPROVEMENTS, AND COAL TECHNOLOGY USE AND ADVANCEMENTS**

The EPA’s Building Block 1 assumption of a 6% heat rate improvement across the existing coal generation fleet, to be achieved through 4% improvement via best practices in operations and 2% via capital investments in upgrades, is unrealistic and widely considered to be unachievable. That has major reliability and efficiency implications, as it affects EPA’s other three Building Blocks.

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<sup>75</sup> NERC “Potential Reliability Impacts of EPA’s Proposed Clean Power Plan, Initial Reliability Review,” November 2014.

[http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/Potential\\_Reliability\\_Impacts\\_of\\_EPA\\_Proposed\\_CPP\\_Final.pdf](http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/Potential_Reliability_Impacts_of_EPA_Proposed_CPP_Final.pdf)

<sup>76</sup> BP Statistical Review of World Energy, June 2013 – <http://www.bp.com/content/dam/bp/pdf/statistical->

<sup>77</sup> F. William Brownell, Joseph O. Stanko, Jr. and Scott J. Stone, Hunton & Williams, “International Climate Agreements and Advanced Coal Technologies” presentation to American Coal Council’s September 10, 2014 Coal Q&A Webcast

In the November 2014 “Potential Reliability Impacts of EPA’s Clean Power Plan” report, NERC stated: “NERC is concerned that the assumed improvements may not be realized across the entire generation fleet since many plant efficiencies have already been realized and economic heat rates have been achieved. Multiple incentives are in place to operate units at peak efficiency, and periodic turbine overhauls are already a best practice”.<sup>78</sup> NERC pointed out a number of areas which EPA’s analysis fails to account for that impact coal unit efficiency and ultimately have reliability implications: 1) factors including subcritical versus supercritical boiler designs, 2) fluidized bed combustion, integrated gasification combined cycle (IGCC), and pulverized coal, 3) unit size and age, and 4) coal quality variations in moisture and ash.<sup>79</sup> Additionally, NERC referred to the impact of retrofits for the addition of environmental controls for MATS and Clean Water Act § 316(b), which reduce net output rates and net heat rate efficiency; and the negative effect on efficiency of coal units operating at lower capacity factors associated with cycling mode as natural gas generation is dispatched ahead of coal to meet carbon targets.<sup>80</sup>

From a unit-specific perspective, there may be opportunities for improvement, but these would need to be analyzed on a site-specific basis. However, it must be noted that capital improvement projects are unlikely to be undertaken by utilities, due to the cost and risk associated with New Source Review (NSR). EPA unfortunately has not provided for any NSR exemptions in its proposed rule. Just as unfortunately, this inhibits coal sector job creation and sustainability.

Treating coal to improve performance and emissions, via prior-to-combustion technologies such as wet coal cleaning to reduce ash; dry coal upgrading to increase BTU content; and the use of microbial agents as additives, is a focus of ACC’s Coal 2.0 Alliance Committee. Efficiency gains from cleaning and drying, especially lower rank coals, have been documented in EPRI reports and in operation. Cleaning also reduces the amount of impurities such as sulfur and mercury that enter the combustion chamber. This results in overall fewer emissions to deal with downstream. The propensity to use such coal technologies and treatments is highly dependent on the associated costs as well as the operating characteristics and location of the individual power generation unit, among other factors.

Even with the most optimistic outlook for tweaking existing coal plant efficiencies, an overall 6% efficiency gain is highly unlikely to be achieved for the fleet, so additional coal

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<sup>78</sup> NERC “Potential Reliability Impacts of EPA’s Proposed Clean Power Plan, Initial Reliability Review,” November 2014, p.2.

[http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/Potential\\_Reliability\\_Impacts\\_of\\_EPA\\_Proposed\\_CPP\\_Final.pdf](http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/Potential_Reliability_Impacts_of_EPA_Proposed_CPP_Final.pdf)

<sup>79</sup> *Id.* at p.8.

<sup>80</sup> *Ibid.*

retirements could occur and/or the other EPA building blocks would need to compensate for that in order for states to comply. The aggressive EPA assumptions for those three building blocks only serve to increase reliability and sustainability concerns.

As ACC discussed in its comments to EPA on its proposed new source carbon rule, ACC is concerned that the standards set for coal and the requirement for carbon capture and utilization and storage (CCUS) will stop the development of cleaner coal technologies. The proposed rule for existing sources offers so little potential for real coal efficiency improvements that it doubles down on EPA's misguided carbon path. If the United States fails to develop incentives and opportunities to invest and deploy advanced supercritical and ultra-super critical plants, and continue research into next-generation coal technologies including CCUS, it will cede technology leadership to others and forego valuable innovation and job opportunities.

## **FAILURE TO ACHIEVE AIR QUALITY IMPROVEMENTS AND HEALTH BENEFITS**

ACC is concerned that EPA is trying to conflate addressing CO<sub>2</sub> emissions with addressing air pollution in its proposed rule. Public comments from EPA and the President began months ago, with the President claiming in his May 31, 2014 weekly radio address<sup>81</sup> that by addressing "dangerous carbon pollution," this rule will also "cut down on ... smog, and soot that threaten the health of the most vulnerable Americans." He continued by claiming, "In just the first year that these standards go into effect, up to 100,000 asthma attacks and 2,100 heart attacks will be avoided." This is a transparent attempt to confuse the public into believing that CO<sub>2</sub> emissions are somehow linked with asthma and heart disease. They are not.

Many Americans are unaware that investments well in excess of \$100 billion dollars have already been made to comply with previous requirements to reduce sulfur dioxide, nitrogen oxides, and particulate matter, and that these primary emissions have been reduced by approximately 90% since 1970.<sup>82</sup> Furthermore, tens of billions of dollars of additional investments are being made to comply with EPA's MATS and other regulations. These new air quality investments may, in fact, become stranded investments if EPA's proposed new rule is implemented and coal units are shut down prematurely.

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<sup>81</sup> <http://www.whitehouse.gov/the-press-office/2014/05/31/weekly-address-reducing-carbon-pollution-our-power-plants>

<sup>82</sup> ACCCE *Coal Facts*, March 2014 at <http://www.americaspower.org/sites/default/files/Coal%20Facts%20March%202014.pdf>

It has been recognized that EPA has and continues to double-count the alleged benefits of previous regulations<sup>83</sup>, from the MATS rule to regional haze to ambient air quality standards. This attempt to again tie reductions in sulfur dioxide, nitrogen oxides, and particulate matter to the proposed carbon regulation is clearly another example of double counting. EPA's estimate of as much as \$62 billion in 2030<sup>84</sup> in "air pollution" co-benefits is irrelevant, inappropriate, and should not be included.

Furthermore, EPA fails to include important effects of other human health aspects of its rules. A group of health care professionals (who also serve in the U.S. Congress) wrote a letter to EPA Administrator Gina McCarthy on March 11, 2014<sup>85</sup> shortly after EPA issued its proposed rule for carbon from new generating sources. In that letter, they referenced a report published by Senator John Barrasso that demonstrated that high costs due to EPA regulations have profound negative impacts on public health. The report found the following impacts from unemployment due to EPA regulation:

- 1) Increases the likelihood of hospital visits, illnesses, and premature deaths in communities due to joblessness
- 2) Raises healthcare costs, raising questions about the claimed health savings of EPA's regulations
- 3) Hurts children's health and family well-being

In the letter the health professionals emphasized the public health consequences of access to reliable electricity, and noted that the U.S. Centers for Disease Control and Prevention recognizes that reliable electric power is essential for food safety, safe drinking water, and protection against the health consequences of extreme cold and heat. They stated that EPA must take into account the net impact of their rules on health benefits, including those adverse effects plausibly associated with unemployment and the increased cost of energy. ACC agrees.

In calculating benefits, EPA's Social Cost of Carbon (SCC) calculation should not be included. Its assumptions have been called into question and in fact countered by studies of carbon's benefits. Also, EPA applies SCC to calculate *global* benefits, which is inappropriate for a proposed *domestic* U.S. regulation.

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<sup>83</sup> [reason.org/news/pr/the-facts-behind-the-epas-latest-pr](http://reason.org/news/pr/the-facts-behind-the-epas-latest-pr)

<sup>84</sup> EPA Regulatory Impact Analysis, Table 4.15, p. 4-33

<sup>85</sup> Partnership for Affordable Clean Energy <http://energyfairness.org/wp-content/uploads/2014/08/Doctors-Caucus-Letter.pdf>

ACC is also concerned that EPA fails to quantify the huge environmental impacts of the addition of new (non-coal) generation and transmission facilities needed to replace closing coal plants being closed to meet the requirements of its proposed carbon rule.

## **FAILURE TO FULFILL THE ADMINISTRATION/EPA GOAL OF GLOBAL CLIMATE LEADERSHIP, AND FAILURE TO ELEVATE RESOLUTIONS TO THE ALLEVIATION OF ENERGY POVERTY**

EPA's proposed §111(d) rule would impose tremendous pain with no gain. It will not meaningfully impact either U.S. or global CO<sub>2</sub> levels. The U.S. demand for coal in 2012 was about 12% of total global coal consumption,<sup>86</sup> and the U.S. coal generation fleet currently accounts for only about 4% of global greenhouse gas emissions.<sup>87</sup>

Asia consumes more than six times as much coal as the U.S. and represents 70% of global coal consumption.<sup>88</sup> By 2035, global coal consumption is projected to grow by about 40%, with non-OECD Asia's demand increasing by 58%.<sup>89</sup> Non-OECD emissions of CO<sub>2</sub> will rise by 70% and account for 70% of global CO<sub>2</sub> emissions by 2040.<sup>90</sup>

The climate effect of EPA's proposed carbon rule would reduce sea level rise by 1/100<sup>th</sup> of an inch (the thickness of three sheets of paper) and reduce the average global temperature increase by less than 2/100<sup>th</sup> of a degree.<sup>91</sup>

Contrived U.S. regulatory mandates to decrease CO<sub>2</sub> will not spur other countries to take action, especially developing economies. They will not risk increasing basic energy costs, suppressing economic growth, and limiting the ability to improve the standard of living for their citizens. Recent positions from India and China corroborate this.

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<sup>86</sup> ACCCE – *Coal Facts*, March, 2014 at <http://www.americaspower.org/sites/default/files/Coal%20Facts%20March%202014.pdf>

<sup>87</sup> Testimony of Anthony S. Campbell, President & CEO, East Kentucky Power Cooperative, before the House Committee on Energy and Commerce, Subcommittee on Energy and Power, November 14, 2013

<sup>88</sup> ACCCE – *Coal Facts*, March, 2014 at <http://www.americaspower.org/sites/default/files/Coal%20Facts%20March%202014.pdf>

<sup>89</sup> *Ibid.*

<sup>90</sup> American Electric Power – “Concerns About a Diverse Energy Mix For the Future”, Southeast Powering our Future Forum, September 25, 2013.

<sup>91</sup> ACCCE at <http://www.americaspower.org/sites/default/files/Climate%20Effects%20Issue%20Paper%20June%202014.pdf>

India's new environment minister Prakash Javadekar recently stated that India's first priority is to alleviate poverty and improve its economy, and extend electricity to the 20% of the population without access to it.<sup>92</sup> He expects India's carbon emissions to rise for at least 30 years.<sup>93</sup>

Chinese President Xi Jinping recently announced the intent to cap China's CO<sub>2</sub> emissions, but not until around 2030.<sup>94</sup> China's CO<sub>2</sub> emissions have grown by 64% since 2005<sup>95</sup> and apparently will continue to escalate unchecked until 2030, while U.S. CO<sub>2</sub> emissions have declined and will continue to decrease with more planned coal retirements due to earlier EPA regulations including MATS. In addition to drastic impacts of EPA's proposed 111(d) rule, China's announced intent means a further tilting of global competition away from U.S. businesses.

U.S. policy makers must first support and prioritize global electrification. About 1.3 billion people in the world have no access to electricity, and about double that have very limited access to it.<sup>96</sup> A far greater global contribution to human health will be achieved through electrification using low cost, abundant coal than by expensive regulations to limit carbon and stifle economies and development.

Coal's future role globally is clear. Global coal reserves are larger than oil and gas combined.<sup>97</sup> Coal was the world's fastest growing fuel over the past decade and is projected to surpass oil as the largest energy source in the future.<sup>98</sup> Coal is affordable, abundant, accessible, scalable, and reliable. World energy leaders recognize that advancing the development of cost-effective coal technology is the critical path to its global adoption and meeting environmental and energy goals.

As Maria van der Hoeven, Executive Director of the International Energy Agency stated in July 2014 in addressing the Energy Information Administration's annual energy conference, "Real action is required on CCS and other low-carbon technologies to pave

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<sup>92</sup> Coral Davenport, "Emissions from India Will Increase, Official Says, New York Times, September 24, 2014 [http://www.nytimes.com/2014/09/25/world/asia/25climate.html?\\_r=0](http://www.nytimes.com/2014/09/25/world/asia/25climate.html?_r=0)

<sup>93</sup> *Ibid.*

<sup>94</sup> <http://www.whitehouse.gov/the-press-office/2014/11/11/fact-sheet-us-china-joint-announcement-climate-change-and-clean-energy-c>

<sup>95</sup> American Electric Power – "Concerns About a Diverse Energy Mix For the Future", Southeast Powering our Future Forum, September 25, 2013.

<sup>96</sup>International Energy Agency

[http://www.worldenergyoutlook.org/media/weowebiste/energydevelopment/WEO2013\\_EnergyForAll.pdf](http://www.worldenergyoutlook.org/media/weowebiste/energydevelopment/WEO2013_EnergyForAll.pdf)

<sup>97</sup> World Coal Association and International Energy Agency World Energy Outlook 2013

<sup>98</sup> BP Statistical Review of World Energy, June 2013; International Energy Agency, World Energy Outlook 2013

the way for oil, gas and coal to play a full role in a secure global energy system for decades to come.”<sup>99</sup>

## **CONCLUSION**

EPA’s carbon rules pursue a misguided path on energy policy. This proposed Clean Air Act §111(d) rule for existing electric generation sources is unrealistic and unworkable. It would unnecessarily impose far too many risks and extract far too great a toll on the United States, and result in meaningless impacts to CO<sub>2</sub> emissions. The American Coal Council urgently requests EPA to withdraw its proposed rule in order to protect and preserve America’s economy, competitive energy marketplace, and world class electricity system – thereby protecting all American consumers.

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<sup>99</sup> Michael W. Kahn, IEA Chief: “Coal Needed to ‘Keep Lights On’”, ECT.coop, July 15, 2014  
<http://www.ect.coop/power-supply/power-plants/2014-eia-energy-conference-importance-of-coal/71950>