

## The Effect of the Utility MACT on the Duke and Progress Energy Merger

Matthew Pierce

### *Introduction*

On January 10, 2011, utility giant, Duke Energy (Duke), decided to acquire an equally formidable energy conglomerate, Progress Energy (Progress).<sup>1</sup> Duke will pay 26 billion dollars for Progress, creating the largest utility in the United States with over 7 Million customers spanning across 6 states.<sup>2</sup> Duke Energy, the larger of the two companies, is based in Charlotte, North Carolina, and provides for more than 4 million of the 7 million customers involved in the merger.<sup>3</sup> The company supplies energy across North Carolina, South Carolina, Kentucky, Ohio, and Indiana, and owns power-generating facilities of many types all over the United States and Latin America.<sup>4</sup> Progress Energy, the smaller of the two energy titans, will be adding a significant number of customers and a large area of coverage in Florida.<sup>5</sup>

The successful looking stature of these two companies leads to the question of why the two utility conglomerates would decide to merge in the first place. Many investment analysts believe this merger is driven by the need to increase synergies<sup>6</sup>; to maintain access to large amounts of capital at the lowest available costs<sup>7</sup>; and to better adapt to the threat of increasingly heavy regulations on utilities by the Environmental Protection Agency (EPA).<sup>8</sup> First, the ability

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<sup>1</sup> Jim Fink, *Duke Energy-Progress Energy Merger Creates Largest Electric Utility*, INVESTING DAILY, (Jan. 12, 2011), <http://www.investingdaily.com/id/18192/duke-energy-progress-energy-merger-creates-largest-electric-utility.html>.

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

<sup>3</sup> *About Us*, DUKE ENERGY, <http://www.duke-energy.com/about-us/default.asp> (last visited Oct. 8, 2011).

<sup>4</sup> *Id.*

<sup>5</sup> *Coverage Areas*, PROGRESS ENERGY, <https://www.progress-energy.com/company/electricity-system/coverage-areas/index.page> (last visited Oct. 8, 2011).

<sup>6</sup> Kevin C. Fitzgerald and Christopher R. Jones, *Reconsidering Synergies*, PUBLIC UTILITIES FORTNIGHTLY, July, 2011, at 14.

<sup>7</sup> Dennis J. Wamsted, *More and More Mergers*, ELECTRIC PERSPECTIVES, Jul./Aug. 2011, at 24, 34, available at <http://www.eei.org/magazine/EEI%20Electric%20Perspectives%20Article%20Listing/2011-07-01-MERGERS.pdf>.

<sup>8</sup> Fitzgerald, *supra* note 6 at 17.

to realize synergies between the two companies will increase cost efficiency by reducing duplicate operational procedures, which in turn leads to lower costs being transferred to the consumers.<sup>9</sup> Second, the merger will enable the utility to maintain access to large amounts of capital at the lowest available costs and pursue numerous new facilities without “betting the company” on a single outcome.<sup>10</sup> Lastly, the threat of increased regulation by the EPA is a major force driving the merger and has become the most controversial issue for environmentalist and energy communities alike. Utility companies are looking at pending regulation and deciding that one way to deal with regulatory compliance costs is to merge and dilute their impact.<sup>11</sup> These costs will be especially heavy for companies who specialize in coal-fired boilers with the proposal of the Utility MACT; and with Duke producing over 90% of its energy from coal and nuclear power, the merger with Progress becomes much more important to help to spread the risk of these coming costs.<sup>12</sup>

### *What is the Utility MACT?*

The Utility MACT is a rule derived from a twenty plus year journey to reduce mercury emissions from coal-fired power plants. The construction of this rule began on November 15, 1990, when former President George H.W. Bush signed amendments to the Clean Air Act. The Amendments gave the EPA the authority to initiate new programs to address ozone layer depletion, acid rain, chronically unhealthy air quality, and hazardous air pollutants (HAPs), such as mercury.<sup>13</sup> The Amendments defined 188 HAPs that created a threat of adverse effects on human health or the environment, and gave the EPA Administrator the authority to establish

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<sup>9</sup> *Id.*

<sup>10</sup> See Wamsted, *supra* note 7, at 24, 34.

<sup>11</sup> *Id.*

<sup>12</sup> Martin LaMonica, *Duke Energy CEO: Coal not Going Away*, CNET NEWS (Apr. 13, 2008, 8:25 AM), [http://news.cnet.com/8301-11128\\_3-9917630-54.html](http://news.cnet.com/8301-11128_3-9917630-54.html).

<sup>13</sup> Keith Harley, Article, *Mercurial But Not Swift – U.S. EPA’s Initiative to Regulate Coal Plant Mercury Emissions Changes Course Again as it Enters a Third Decade*, 86 CHI. KENT L. REV. 277, 279 (2011).

regulatory standards to control HAP emission.<sup>14</sup> Also the EPA identified the best-controlled twelve percent among similar facilities as a standard which industrial and commercial producers of HAP emissions would be held to: the Maximum Achievable Control Technology (MACT) standard.<sup>15</sup>

Along with this standard, Congress mandated that the EPA and other federal agencies find conclusively whether or not it is “appropriate and necessary” to regulate HAP emissions.<sup>16</sup> After ten years of studies following the original Amendments, the EPA finally answered affirmatively, and concluded that coal-fired power plants are the largest contributor of mercury air emissions.<sup>17</sup> Thus, in 2000, during the Clinton administration, the EPA added coal-fired power plants to the list of significant HAP sources subject to regulation.<sup>18</sup> However, in 2005, under the Bush administration, the EPA reviewed the “appropriate and necessary” findings, and determined that coal-fired power plants could be taken off the list, rendering MACT standards irrelevant.<sup>19</sup>

In 2008, the D.C. Circuit Court of Appeals found the conclusion to de-list coal-fired power plants to be invalid.<sup>20</sup> In *New Jersey v. EPA* the Court held that the plants could not be removed from the listing of HAP sources because of the explicit language stating that “any source” was to be listed in the rules pursuant to the act; not only the sources that were “appropriate and necessary.”<sup>21</sup> The EPA then filed a petition for review of this action, but in 2009, under the Obama administration, the Department of Justice on behalf of the EPA asked the

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<sup>14</sup> *Id.* at 280.

<sup>15</sup> *Id.* at 281.

<sup>16</sup> *Id.* at 282.

<sup>17</sup> *Id.* at 282, 283.

<sup>18</sup> *Id.* at 283.

<sup>19</sup> *Id.* at 284.

<sup>20</sup> *Id.* at 286.

<sup>21</sup> *Id.* at 286.

Supreme Court to dismiss the petition.<sup>22</sup> Leading us now to the present resurgence of EPA HAP regulation under the Clean Air Act.<sup>23</sup>

Specifically, the proposed Utility MACT would require coal and oil-fired power plants to reduce emissions of mercury, other metallic toxics, acid gases, and organic air toxics.<sup>24</sup> The rule would set the MACT standard as the top 12% performance of existing units, based on EPA studies of the industry.<sup>25</sup> If accepted, it will require “command and control” over the emission rates of the plants and set “work practice standards” to reduce air toxins; and with the proposed finalization set for November 16, 2011, power plants will be expected to comply by 2015, with the ability to apply for a waiver for a one-year extension.<sup>26</sup>

A number of power plants already have in-state regulations that meet this Utility MACT standard; however, others will be forced to install pollution controls such as activated carbon injection<sup>27</sup>, scrubbers<sup>28</sup>, or dry sorbent injection<sup>29</sup> and upgrade particulate controls<sup>30</sup>. In addition, up to 1% of national coal and oil-fired power plants will be retired because of the economic infeasibility of retrofitting them with these new technologies.<sup>31</sup> The EPA estimates the cost of this rule at a staggering \$10.9 billion a year, making it the most expensive per ton reduction rule to date.<sup>32</sup>

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<sup>22</sup> *Id.* at 288.

<sup>23</sup> *Assessment of EPA’s Utility MACT Proposal*, BIPARTISAN POL’Y CENTER (Mar. 24, 2011), <http://bipartisanpolicy.org/sites/default/files/Q&A%20Assessment%20of%20MACT%20Rule.pdf>.

<sup>24</sup> *Id.*

<sup>25</sup> *Id.*

<sup>26</sup> *Id.*

<sup>27</sup> *Id.* (a commercially available technology that, in combination with particulate controls removes mercury from the exhaust stack of a power plant).

<sup>28</sup> *Id.* (a commercially available technology that removes sulfur dioxide as well acid gases from power plant exhaust).

<sup>29</sup> *Id.* (a commercially available technology that, in combination with particulate controls, has been shown to significantly reduce acid gases, as well as sulfur dioxide).

<sup>30</sup> *Id.* (filters that are installed on the exhaust stack of a power plant to capture particulate pollution).

<sup>31</sup> *Id.*

<sup>32</sup> *Id.*

As a result of the rule, the EPA predicts there will be a 78% reduction in mercury emissions.<sup>33</sup> This reduction will lead to an annual avoidance of up to 4,800 premature deaths, 1,300 cases of chronic bronchitis, 250,000 days of days of missed work, and 1,500,000 acute respiratory symptoms.<sup>34</sup> All compiled, these avoidance costs will amount to 59 to 160 billion dollars saved annually in health benefits.<sup>35</sup>

As a consequence of the high regulation cost and the potential environmental implications, there are both zealous opponents and advocates for finalizing the Utility MACT. The first issue arises in the high cost of equipping existing coal and oil-fired power plants with the new technology. One representative from Southern Company, an energy utility based in Atlanta, Georgia, said, “40% of [the company’s] coal fleet will be either retired or switched to natural gas as a result of the Utility MACT and other EPA air quality rules.”<sup>36</sup> A representative from American Electric Power Co., another energy conglomerate, said, “[American Electric] would comply . . . by shutting down about 25% of its coal generation and making retrofits to many plants that are not closed.”<sup>37</sup> The companies with portfolios concentrating in coal-fired power plants will be hit the hardest and are arguing that the indirect cost of these regulations is higher than what the EPA predicts. Not only will the proposed rulemaking force the retirement of older facilities, but the amount of jobs that will be lost has been estimated as up to 6.8

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<sup>33</sup> Jennifer Macedonia, Bipartisan Pol’y Center, Presentation: EPA Regulation Utility MACT Proposal, (Mar. 24, 2011), *available at* [http://www.bipartisanpolicy.org/sites/default/files/Presentation%20slides\\_0.pdf](http://www.bipartisanpolicy.org/sites/default/files/Presentation%20slides_0.pdf).

<sup>34</sup> Laurie Johnson, *Congressional Research Service: CIBO Used Flawed Economics*, SWITCHBOARD: NAT. RESOURCES DEF. COUNCIL STAFF BLOG, (Feb. 16, 2011), <http://switchboard.nrdc.org/>.

<sup>35</sup> Macedonia, *supra* note 33.

<sup>36</sup> Matthew Bandyk & Wayne Barber, *Large Generators offer Mixed Reactions to EPA’s Utility MACT Rule*, SNL COAL REPORT (August 2011).

<sup>37</sup> *Id.*

million.<sup>38</sup> House republicans even targeted the proposal as one of the top 10 “job destroying regulation[s]”.<sup>39</sup>

Additionally, critics in the industry have questioned whether these regulations would be feasible in a time of economic recession. In a national public opinion poll on poverty, MasterResource found that 23% of impoverished homes in America already have trouble paying their electric bill, and with the rise in the cost of regulations, this bill will soon become over-burdensome to those families.<sup>40</sup> In response to the increasing costs and customers’ inability to pay, Progress has even started a charity called the Energy Neighbor Fund to help supplement the bills of low-income families.<sup>41</sup>

In contrast, the EPA, many environmental groups, and even some power companies argue that this concern over Utility MACT implementation costs is unfounded. The Clean Energy Group has argued that “the rule provides ‘the business certainty the electric sector needs to move forward with capital investment and decisions.’”<sup>42</sup> Others point to the fact that the EPA has promulgated rules that will make the Utility MACT more flexible for the coal industry. For example, the proposed rules permit facility-wide averaging, allowing some units in a facility to be below the MACT standard; there are also subcategories that have been established to distinguish between boiler-type and fuel-type<sup>43</sup> and there are exemptions and alternative

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<sup>38</sup> Scott Segal, *EPA’s Utility MACT Proposal: Negative Economics for What?*, MASTERRESOURCE: A FREE-MARKET ENERGY BLOG, (Mar. 17, 2011) <http://www.masterresource.org/>.

<sup>39</sup> John Cooney, *Regulatory: The President Blinks*, INSIDE COUNSEL (FORMERLY CORPORATE L. TIMES), Sept. 2011.

<sup>40</sup> Segal, *supra* note 38.

<sup>41</sup> Press Release, Progress Energy, Energy Neighbor Fund Helps Families in Crisis Stay Warm this Winter (Nov. 17, 2010), available at <https://www.progress-energy.com/company/media-room/news-archive/press-release.page?title=Energy+Neighbor+Fund+helps+families+in+crisis+stay+warm+this+winter+&pubdate=11-17-2010>.

<sup>42</sup> Bandyk & Barber, *supra* note 36.

<sup>43</sup> *Background Paper on Significant EPA Regulations Pending or Proposed: NESHAPS for Utility Boilers*, BUSINESS ROUNDTABLE (Apr. 7, 2011), [http://businessroundtable.org/uploads/studies-reports/downloads/20110407\\_Background\\_Paper\\_on\\_Utility\\_Boiler\\_MACT.pdf](http://businessroundtable.org/uploads/studies-reports/downloads/20110407_Background_Paper_on_Utility_Boiler_MACT.pdf) (they established two different categories for coal, oil, and a subcategory for power plants that burn gasified coal or solid oil. This allows for

standards that will cut down on monitoring and allow leeway for facilities that only occasionally burn oil.<sup>44</sup>

There have also been economic studies showing that absent the regulation, the short-term benefits from deregulating these industries will be rendered useless in the long run due to the implications on public health and the environment.<sup>45</sup> These studies point to the addition of jobs into the economy from the employees hired to monitor the regulation, and manufacture and install the clean technologies.<sup>46</sup>

Utility sponsored studies infer that every unit will install the most expensive technologies, when in fact, the EPA allows lower cost alternatives to comply.<sup>47</sup> These studies also forecast worst-case estimates of rules that have not been finalized; making it hard to project an accurate number of plant closings.<sup>48</sup> Lastly, some utility sponsored studies include baseline retirements that will occur with or without the regulations.<sup>49</sup>

*How does the Utility MACT affect Duke and Progress and their merger?*

In light of the Utility MACT and the requirements it imposes on coal and oil-fired power plants, the merger between Duke and Progress has far greater implications than could originally be seen. First, because of Duke's heavy reliance on coal-fired power plants, Duke would be hit much harder than Progress would if this rule comes into effect.<sup>50</sup> Duke expressed this concern in its comments to the EPA, stating, "There will be time and physical constraints that will make it

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alternative standards for the amount of sulfur dioxide and individual toxic non-mercury that can be produced based on their category).

<sup>44</sup> BIPARTISAN POL'Y CENTER, *supra* note 23.

<sup>45</sup> Stephen M. Meyer, *The Economic Impact of Environmental Regulation*, Project on Environmental Politics & Policy, MIT PRESS, <http://web.mit.edu/polisci/mpepp/Reports/Econ%20Impact%20Enviro%20Reg.pdf> (last visited Dec. 22, 2011)

<sup>46</sup> *Id.*

<sup>47</sup> BIPARTISAN POL'Y CENTER, *supra* note 23.

<sup>48</sup> *Id.*

<sup>49</sup> *Id.*

<sup>50</sup> Fink, *supra* note 1.

extremely difficult if not impossible for many facilities to meet a three year retrofit deadline,’ . . . the level of capital investment to comply is ‘unprecedented’ and must be installed in ‘an incredibly brief amount of time.’”<sup>51</sup> The company has already decided to retire all six of its Ohio based coal-fired generation units by January 1, 2015, which will lead to a loss of 120 employees.<sup>52</sup>

Progress, on the other hand, can accommodate the Utility MACT proposal with greater ease because of North Carolina’s Clean Smokestacks Act.<sup>53</sup> Passed by the General Assembly in 2002, the Clean Smokestacks Act, required the 14 coal-fired power plants in the state to reduce 77% of their Nitric Oxide output by 2009, and 73% of their sulfur trioxide output by 2013.<sup>54</sup> The Smokestacks Act further required plants to reduce the pollutants coming from their smokestacks; they could not solely buy emissions credits from other companies, as federal law would permit.<sup>55</sup> However, Bill Johnson, the Chairman, President, and CEO of Progress has stated that while the company has “already invested more than 2 billion dollars in environmental retrofits” and “achieved significant reductions in emissions . . . this rule will still have a significant impact on [Progress] customers.”<sup>56</sup>

Nonetheless the Utility MACT will not be an issue that delays the Duke and Progress merger. According to Duke CEO Jim Rogers, “In a sense, we have a head start on the regulations.”<sup>57</sup> Rogers believes because of their preexisting plans to shut down up to 1,600 megawatts of older coal generation by 2012, they will not be scrambling to install new

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<sup>51</sup> Bandyk & Barber *supra* note 36.

<sup>52</sup> *Duke Plans to Retire Coal Units – Analyst Blog*, ZACKS INVESTMENT RESEARCH BLOG DELIVERED BY NEWSTEX, (Jul. 18, 2011, 4:00 PM).

<sup>53</sup> Bandyk & Barber *supra* note 36.

<sup>54</sup> William G. Ross Jr., *The North Carolina Clean Smokestacks Act*, 72.2 NCMJ 128, 129 (2011), available at <http://www.ncmedicaljournal.com/wp-content/uploads/2011/03/72208-web.pdf>.

<sup>55</sup> *Id.*

<sup>56</sup> Conference Call, Progress Energy Inc. Earnings Conference Call, FAIR DISCLOSURE WIRE, (May 5, 2011)

<sup>57</sup> Matthew Bandyk, *Duke CEO: EPA should give longer timeline for upcoming regs.*, SNL GENERATION MARKETS WEEK, May 2011.

technology.<sup>58</sup> Also, because of the merger Duke will have a reduced reliance on coal, in turn leading to an expedited retirement process of older coal plants, and less pressure under the rule.<sup>59</sup>

In conclusion the Utility MACT does not pose a significant threat to large energy companies, like Duke and Progress, and while it may be pushing them to merge, these mergers could be to the benefit of investors and customers alike. The Duke-Progress merger will lead to larger economies of scale, reducing the cost of energy for the consumer; to an alignment of interests, opening up synergies that give way to a reduction of costs in business processes; and to greater investment in alternative energy sources. We will not know for sure how this will play out until both the merger and the rule are finalized. But considering both together, there is an opportunity for cleaner and more efficient energy to come.

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<sup>58</sup> *Id.*

<sup>59</sup> *Id.*