

IN THE ENVIRONMENTAL APPEALS BOARD  
IN AND FOR THE STATE OF DELAWARE

Appeal of Secretary's Order	)	
No. 2006-A-0056, Promulgating	)	Appeal Nos. 2006-05 and 2006-08
Regulation No. 1146 of the Delaware	)	(Consolidated)
Regulations Governing the Control	)	
of Air Pollution	)	
	)	
Conectiv Delmarva Generation,	)	
and NRG Energy	)	
Petitioners for Review	)	

**PRE-HEARING MEMORANDUM OF PETITIONER CONECTIV DELMARVA  
GENERATION, INC.**

Petitioner Conectiv Delmarva Generation, Inc. respectfully submits this Pre-hearing Memorandum in connection with its appeal of Order No. 2006-A-0056 of the Secretary of the Delaware Department of Natural Resources and Environmental Control, presently set for hearing before the Environmental Appeals Board on August 27 and 28, 2007.

**I. INTRODUCTION**

**A. Conectiv Delmarva Generation**

Conectiv Delmarva Generation, Inc. ("CDG"), a wholly owned subsidiary of Pepco Holdings, Inc., is a Delaware corporation that owns and operates electric generation assets in the states of Delaware, Maryland, and Virginia. It is a competitive wholesale energy supplier focusing primarily on the Mid-Atlantic region.<sup>1</sup>

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<sup>1</sup> CDG Comments on Delaware's Proposed Multi-Pollutant Rulemaking New Regulation No. 1146 ("CDG Comments") at 1.

CDG owns and operates the Edge Moor Generating Station (“Edge Moor” or the “Station”), located in Wilmington, Delaware, which includes both coal-fired boilers and residual-oil fired boilers. Edge Moor is an important part of CDG’s overall generating facilities. The Station employs more than 108 people and provides work for numerous contractors. In total, the Station accounts for over \$4.5 million dollars per year in Delaware state tax revenue and \$1.2 million in city, county, and school district tax revenue.<sup>2</sup>

Through its operation of Edge Moor, CDG has demonstrated its commitments to environmental stewardship and to the welfare of the people of Delaware. Over the last decade, Edge Moor has voluntarily used lower sulfur coal and oil than required by law. CDG also has lowered emissions of nitrogen oxides (“NO<sub>x</sub>”) at Edge Moor by instituting various Reasonably Available Control Technology NO<sub>x</sub> based control systems, as well as by voluntarily installing selective non-catalytic reduction technology on one of its generating units. Furthermore, CDG has equipped Edge Moor with systems that allow it to use waste landfill gas produced from the nearby Delaware Solid Waste Authority’s Cherry Island Landfill as a supplemental fuel for use in its boilers equipped with pollution control devices. This negates the need for the Delaware Solid Waste Authority to flare and/or release such gases to the atmosphere.<sup>3</sup>

**B. Regulation No. 1146**

On September 1, 2006, the Delaware Department of Natural Resources and Environmental Control (“DNREC”) proposed Regulation No. 1146 (the “Rule”), a multi-pollutant rule for existing sources that directly and negatively impacts Edge Moor. The Rule

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

<sup>3</sup> *Id.* at 2-3.

imposes extremely rigorous standards that exceed both federal requirements and the standards of neighboring states by establishing rigid annual caps and stringent short-term limits on emissions of NO<sub>x</sub> and SO<sub>2</sub> and quarterly and annual limits on mercury emissions in the State. Starting on January 1, 2009, annual emissions of the targeted substances at Edge Moor will be subject to firm caps. A few months later, the short-term limits, which are to be implemented in phases, will come into effect. During Phase I, which runs from May 1, 2009 to December 31, 2011 for NO<sub>x</sub> and SO<sub>2</sub>, the NO<sub>x</sub> emissions limit is 0.15lb/MMBTU of heat input, measured on a rolling 24-hour average basis. The SO<sub>2</sub> emissions limit is 0.37lb/MMBTU of heat input, also measured on a rolling 24-hour average basis. In Phase II, which runs from January 1, 2012 and thereafter, the limits will be lowered to the final levels of 0.125lb/MMBTU for NO<sub>x</sub> and 0.26lb/MMBTU for SO<sub>2</sub>, to be measured using the same rolling 24-hour average basis.

Although the Rule sets rigid limits on emissions, it provides very little time, technical guidance, or compliance flexibility for generating companies attempting to come into compliance. The Rule only allows limited facility-wide averaging (or “bubbling”) during its first phase. Furthermore, it only allows for one extension of up to one year per unit for compliance with sulfur dioxide emissions and no similar extension for compliance with NO<sub>x</sub> requirements.

### **C. The Impact of Regulation No. 1146 on Edge Moor Generating Station**

During the development of the Rule, CDG retained an independent third party to evaluate the impact of the proposed Rule on Edge Moor operations. This independent analysis determined that compliance with the Rule’s short-term emissions limits would require the construction, installation, and operation of pollution control technology for Units 3, 4, and 5 of

Edge Moor and restrictions on production to comply with the Rule's annual caps.<sup>4</sup> CDG would be required to install flue gas desulfurization units ("FGD") and selective catalytic reduction technology ("SCR") on coal-fired Units 3 and 4, and SCR technology on Unit 5 to ensure that emissions limitations in the Rule are met on a consistent and reliable basis with an adequate compliance margin. Installation of SCR and FGD technologies comprise the majority of the estimated total capital investment for compliance of approximately \$243.3 million.<sup>5</sup> Regardless of the cost of these technologies, they cannot be installed quickly enough to meet the compliance deadlines in the Rule.<sup>6</sup> Since the Rule's comment period, CDG has explored other feasible technologies to meet the Rule's emissions limitations by the regulatory deadlines. It has proposed an alternative option in its Compliance Plan, which utilizes innovative technology.<sup>7</sup> The Rule will potentially increase the cost of operating by \$31 million per year on average from 2009-2020.<sup>8</sup> Finally, the Rule will subject CDG to significant penalties if it fails to comply with the short-term and annual limits or misses the compliance deadline.

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<sup>4</sup> See James Marchetti, J. Edward Cichanowicz and Michael Hein, Evaluation of the Compliance Implications to Conectiv's Edge Moor Plant of Delaware's Electric Generating Unit Multi-Pollutant Regulations at 4-7 (September 2006) ("Compliance Implication Study").

<sup>5</sup> *Id.*

<sup>6</sup> CDG Comments at 8.

<sup>7</sup> On June 27, 2007, CDG submitted a compliance plan to DNREC, as required by the Rule. That compliance plan indicates CDG's expectation, based on preliminary test results, that Edge Moor may be able to comply with the Rule's SO<sub>2</sub> limits through the use of a sodium-based dry sorbent injection system on Edge Moor Units 3 and 4 and use of lower sulfur residual fuel at Edge Moor Unit 5 and comply with the Rule's NO<sub>x</sub> limits through the use of various layered NO<sub>x</sub> control technologies on Edge Moor Units 3, 4, and 5. See Conectiv Delmarva Generation DNREC Multi-Pollutant Regulation Environmental Compliance Plan, June 27, 2007.

<sup>8</sup> *Id.*

As previously mentioned, CDG has made repeated commitments to improving the environment by voluntarily taking measures to reduce emissions of air pollutants by using lower sulfur fuel, renewable energy, and instituting non-mandated NOx control measures. CDG also would be in favor of making a significant commitment of resources toward further demonstrable environmental benefits; however, DNREC has not shown any substantiated or significant environmental benefits flowing from the Rule. Rather, DNREC has put CDG and other companies in the position of undertaking a massive capital project, requiring the expenditure of corporate, economic, and human resources, when there is no reasonable basis for the Rule. DNREC has failed to commit the resources necessary to perform a study to carefully examine this Rule, its aggressive emissions limits, and its actual impact on the industry and on the environment. Without further analysis, the dramatic impacts of the Rule on CDG are clearly not justified, not cost effective, and should not be required.

## II. PETITIONER'S CLAIMS

The Environmental Appeals Board (“EAB”) should reject the Rule because DNREC acted arbitrarily and capriciously in designing the Rule, adopted it without a reasonable basis in the record, and failed to comply with proper rulemaking procedures.<sup>9</sup> The standard of review for the appeal of the Rule is whether it is “arbitrary and capricious, or adopted without a reasonable basis in the record.” 7 Del. C. § 6008(c). An agency air regulation must be supported by a reasonable basis, rather than speculative information. *See Bernie’s Conchs, LLC v. DNREC*, 2007 WL 1732833, \*5 (Del. Super. June 8, 2007); *see also Delmarva Power & Light Co. v.*

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<sup>9</sup> 7 Del. C. § 6008; 29 Del. C. §§ 10101-119 & 10161.

*Tulou*, 729 A.2d 868, 873-74 (Del. Super. 1998) (overturning agency air quality rule because the agency did not explain why it rejected the industry’s counterarguments).

CDG has submitted comments with evidence showing that in drafting the Rule, DNREC acted arbitrarily and capriciously, when it:

- A. created a compliance schedule that does not provide sufficient time for affected units to fulfill its terms,
- B. used a 24-hour averaging measurement for short-term emissions that does not allow compliance,
- C. imposed annual caps that will unnecessarily restrict unit operations,
- D. did not show that the rule is necessary to reach NAAQS attainment, and
- E. failed to take into account the full economic impact of the Rule, including its potential impact on fuel diversity and electric reliability.

Furthermore, DNREC:

- F. did not establish on the record that the Rule will effectuate the policy and purposes of 7 Del. C. Chapter 60, which requires “reasonable and beneficial use” of state resources,
- G. violated the state regulation-making requirements of 29 Del. C. Chapter 101 by failing to meaningfully consider comments submitted during public review, and
- H. violated the state regulation-making requirements of 29 Del. C. Chapter 101 by failing to include the necessary information until late in the comment period.

Overall, DNREC has never pointed to evidence in the record that creates a reasonable basis for its positions; rather, it has engaged in a pattern of making broad assertions unsupported by substantial evidence, while disregarding the specific evidence submitted by CDG, in contravention of state rulemaking requirements.

**A. DNREC Acted Arbitrarily and Capriciously in Designing the Rule Because the Compliance Schedule Does Not Provide Sufficient Time to Fulfill its Terms.**

DNREC acted arbitrarily and capriciously and without a reasonable basis in the record by failing to reasonably explain the structure of the Rule’s compliance schedule and failing to demonstrate that there is sufficient time for affected units to comply. DNREC has not provided a

reasonable explanation for the Rule’s arbitrary and illogical phasing structure. The Rule ostensibly eases the burden on industry by instituting the emissions limits in phases, but in reality, CDG will be forced to install the Phase II levels of controls immediately. The equipment necessary to meet Phase II emissions levels does not build on the equipment necessary to meet Phase I levels.<sup>10</sup> Despite issuing a rule that forces CDG to immediately begin construction on Phase II compliant technologies in order to avoid wasting significant resources implementing intermediate control technologies that would satisfy Phase I, DNREC has not explained the reasoning underlying this structure. Far from providing an explanation, DNREC justified the Rule by asserting that CDG could complete construction on Phase II level technology in time for the Phase I deadline.<sup>11</sup>

Furthermore, DNREC erred in relying on EPA information in an attempt to show that the Rule allows enough time for CDG to comply. DNREC cites EPA estimations which show that *for a generic facility* on average it takes approximately 21 months “to complete purchasing, construction, and start-up activities” for SCR technology and 27 months to complete those activities for a FGD unit.<sup>12</sup> These schedule estimates do not take into account considerations specific to Edge Moor that would further slow down the process, such as congestion caused by the small size of the facility and its location along the Delaware River, and the degree of difficulty of retrofitting an older plant.<sup>13</sup> Further compounding the situation, Edge Moor must

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<sup>10</sup> CDG Comments at 8.

<sup>11</sup> See DNREC Air Quality Management Section Response Document to Public Comments (“DNREC Response”) at 8-9.

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

<sup>13</sup> CDG Comments at 10; see Compliance Implication Study at 8.

continue to operate during construction so that the facility can meet its reliable and adequate power obligations for the PJM Power Pool.<sup>14</sup> Additionally, DNREC's reliance on EPA's generic installation estimates is undermined by EPA's own acknowledgement that retrofitting smaller units like Edge Moor is likely to be more difficult and take longer.<sup>15</sup> It also is unclear whether these generic figures, which include "purchasing, construction, and start-up" time, account for the numerous essential activities before and after installation, such as planning, designing, and permitting.<sup>16</sup> CDG submitted evidence to DNREC showing that the EPA information is outdated, since lead times for construction in the industry have recently increased significantly, making it more difficult to quickly acquire the new technology.<sup>17</sup>

DNREC's reliance on "generic industry information" also fails to provide a reasonable basis for the Rule. DNREC claims that industry vendors have indicated that "SCR retro-fits have been accomplished in under 24 months, and that FGD have been retro-fit in under 30 months."<sup>18</sup> DNREC has asserted this information without citing to any specific sources, without stating whether these figures included front and back end activities, and without explaining how this uncited experience relates to the specific situation at Edge Moor.

In contrast, CDG had Bechtel Corporation (Bechtel) conduct a site-specific construction study at the Edge Moor Station. The study evaluated the timing for retrofit of SCR and FGD.

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<sup>14</sup> See Letter to Ali Mirzakhali from Stuart Widom dated September 8, 2006 at 3 (Mirzakhali Letter).

<sup>15</sup> CAIR, 70 Fed. Reg. 25,162, 25,222 (May 12, 2005) ("Compared to larger units, the retrofits for these smaller units would be more difficult to plan, design, and build.").

<sup>16</sup> See DNREC Response at 8-9; CDG Comments at 10.

<sup>17</sup> Compliance Implication Study at 8.

<sup>18</sup> DNREC Response at 8.

Bechtel optimistically concluded that installation of process equipment might occur by December, 2012, irrespective of environmental permitting, equipment design, and equipment procurement.<sup>19</sup>

DNREC's response to all of the problems raised about scheduling has been inadequate. After the comment period, it extended the short-term emissions levels compliance deadline by four months (to 28 months) and added the opportunity to appeal for an extra year for SO<sub>2</sub> control installation, but only if the source demonstrates that the compliance delay is caused by an act of God or force majeure.<sup>20</sup> This 28-month deadline is facially unreasonable in the face of the evidence submitted by CDG indicating that more than 60 months would be required to install the emissions controls.<sup>21</sup>

**B. DNREC Acted Arbitrarily and Capriciously in Designing the Rule Because the 24-Hour Averaging Standard For Short-Term Emissions Does Not Allow Sustained Compliance.**

DNREC acted arbitrarily and capriciously and without a reasonable basis in the record by imposing a 24-hour averaging standard for short-term emissions without a reasonable basis in the record. To CDG's knowledge, such a short averaging period is unprecedented.<sup>22</sup> The Technical Support Document ("TSD") issued by DNREC stated that it was the "opinion" of the agency that

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<sup>19</sup> Mirzakhali Letter at 2 (citing Bechtel Power Corporation study).

<sup>20</sup> DNREC Response at 9.

<sup>21</sup> Compliance Implication Study at 8.

<sup>22</sup> *Id.* at 9.

a 24-hour average was appropriate, notwithstanding the fact that it provided no analysis of whether compliance with the short-term standard was achievable or sustainable on that basis.<sup>23</sup>

Moreover, DNREC ignored evidence submitted by CDG that establishes that using a 24-hour average basis to demonstrate NO<sub>x</sub> compliance is unprecedented and unachievable at these emissions levels.<sup>24</sup> There is no data, much less substantial evidence, showing that any plant in the U.S. that has been retro-fitted with SCR could meet the Rule's 24-hour average compliance measurement method.<sup>25</sup> In fact, independent analysis of hourly CEMS data from EPA shows that the variances in NO<sub>x</sub> emission rates make 24-hour averaging unachievable due to factors such as day-to-day variability in SCR operation, flue gas flow rate variances, and startup/shutdown periods.<sup>26</sup> On the other hand, using a 12-month rolling average would account for day-to-day fluctuations and be consistent with the most stringent measurements used by other states.<sup>27</sup>

In response, DNREC contends that the independent analysis submitted by CDG does not show that compliance would be impossible, but DNREC does not provide compelling evidence of its own showing that compliance would be possible.<sup>28</sup> DNREC claims that the current data,

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<sup>23</sup> Technical Support Document for Proposed Regulation No. 1146 Electric Generating Unit (EGU) Multi-Pollutant Regulation at 37 (Sept. 2006); *see* Part II.I for a more detailed discussion of the late issuance of the TSD.

<sup>24</sup> *See* Compliance Implication Study at 9.

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

<sup>26</sup> *Id.*; *see also* Part II.E., for a more detailed discussion of the lack of provisions for start-up, shutdown, and malfunction.

<sup>27</sup> Technical Support Document for Proposed Regulation No. 1146 Electric Generating Unit (EGU) Multi-Pollutant Regulation at 37 (Sept. 2006).

<sup>28</sup> *See* DNREC Response at 12.

which is based on a 365 day average, is difficult to extrapolate to a rolling 24-hour average.<sup>29</sup> Furthermore, DNREC contends that the analysis submitted by CDG inaccurately claims to survey the only four “dry-bottomed” units in the United States that operate SCRs on an annual basis with a target NO<sub>x</sub> emission rate of 0.09 lb/MMBTU.<sup>30</sup> DNREC asserts that it is “aware that there are other [such units]” and that “at least one such unit” has attained NO<sub>x</sub> emission compliance for that level using a rolling 24-hour basis.<sup>31</sup> Nonetheless, DNREC does not identify any of these other units and provides no citation or evidence for this claim.<sup>32</sup> To justify that the 24-hour average emission limit is attainable, DNREC must point to actual evidence sustaining its claims instead of making unsupported assertions and denying the validity of CDG’s evidence.

**C. DNREC Acted Arbitrarily and Capriciously in Designing the Rule Because the Unit-Specific Annual Mass Emissions Limits Will Unnecessarily Restrict Unit Operations.**

DNREC acted arbitrarily and capriciously and without a reasonable basis in the record by setting strict annual caps on emissions in the context of the growing demand for electricity. The Rule imposes annual caps so severe that even if a unit complied with the stringent short-term emissions standards, it might have to further restrict emissions to meet the annual cap.<sup>33</sup> Even if

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<sup>29</sup> *Id.*

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

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

<sup>32</sup> *See id.*

<sup>33</sup> CDG Comments at 16. In addition, since the comment period, CDG has explored using No. 4 fuel oil to avoid being deemed an “affected unit” under the Rule because the Regulation is only applicable to facilities that burn coal or residual oil. Rule at 4.0. Although residual oil is plainly defined by the Rule as No. 5 or No. 6 fuel oil (see Rule at 3.0), DNREC issued an after-the-fact guidance memorandum to CDG, determining that No. 4 fuel oil is, in the Department’s opinion, also considered residual oil. DNREC’s actions effectively skirted the proper rule development process. DNREC’s treatment of oil fired sources as being subject to a multi-pollutant control program

Edge Moor Unit 5 uses 0.5% sulfur oil, the maximum sulfur content permitted under the Rule, it would be restricted to producing only 24% of its annual electrical generating capacity.<sup>34</sup> DNREC contends that this limitation was based on “the historic relatively low utilization of Unit 5.”<sup>35</sup> This claim is not reasonable in light of the fact that Unit 5 produced more than 24% of its capacity in 7 of the past 11 years.<sup>36</sup> To require CDG to curtail production is especially unreasonable in light of DNREC’s admission that the demand for electricity is on the rise.<sup>37</sup>

DNREC has suggested alternative methods of complying with the annual cap, but, again, these alternatives fail to reasonably support or explain the structure of the Rule. DNREC points out the use of 0.3% sulfur oil would allow Unit 5 to continue operating at approximately the capacity it has used for the last ten years, but it still does not explain why the Rule facially authorizes the use of 0.5% sulfur oil when it is functionally prohibited.<sup>38</sup> DNREC also theorizes that CDG might be able to increase its capacity factor by using FGD scrubber technology on residual-oil fired units.<sup>39</sup> As a basis for this suggestion, DNREC notes that it is “aware” that the technology has been used in that way “oversees [*sic*] (although none have been applied in the US

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is also inconsistent with other states’ multi-pollutant rules, such as Maryland’s, which only applies to coal-fired units, not oil-burning units. *See Md. Regs. Code tit. 26, § 26.11.27 et seq.*

<sup>34</sup> CDG Comments at 17.

<sup>35</sup> DNREC Response at 13.

<sup>36</sup> CDG Comments at 17.

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

<sup>38</sup> DNREC Response at 13.

<sup>39</sup> *Id.*

that the Department is aware of).”<sup>40</sup> DNREC, however, fails to cite which foreign plants have successfully implemented this technology to reduce SO<sub>2</sub> emissions and fails to explain how it can reasonably require the use of this post-combustion technology in addition to mandating the reduction of sulfur in fuel content.

Furthermore, the Rule does not reasonably explain the failure to allow the affected facilities to demonstrate “facility-wide” compliance under Phase II. If annual caps were designed based on the entire capacity of the facility, CDG would have the flexibility to save one affected unit from installing costly technology by completely shutting down another.<sup>41</sup> Surrounding states allow this type of “facility-wide” compliance for SO<sub>2</sub> emissions caps.<sup>42</sup> DNREC counters this criticism only by pointing to the fact the Rule does allow facility averaging or “bubbling” under Phase I of its implementation to account for the need for flexibility during the “installation/startup/tuning” period.<sup>43</sup> This explanation does not account for the fact that the prohibition on bubbling during Phase II is unreasonable in light of the practice of surrounding states and the growing need for electricity. Facility-wide compliance during Phase I is already a part of DNREC’s State Implementation Plan (“SIP”) Proposal. Bubbling in Phase II would not alter reasonable further progress calculations but would be consistent with the flexibility offered by surrounding states and dictated by the growing need for electricity. In other words, DNREC has already factored bubbling into its calculations provided to EPA to demonstrate the federally-

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<sup>40</sup> *Id.*

<sup>41</sup> *See* CDG Comments at 17.

<sup>42</sup> *Id.*

<sup>43</sup> DNREC Response at 13-14.

required emissions reductions, but for no apparent reason, it has unreasonably and arbitrarily decided not to let industry take advantage of this flexibility in Phase II.

**D. DNREC Has Not Shown that Compliance with the Rule is Necessary to Attain and Maintain Compliance with National Ambient Air Quality Standards.**

DNREC acted arbitrarily and capriciously and without a reasonable basis in the record in designing the Rule to aid in the attainment of NAAQS without sufficiently demonstrating that the Rule is necessary to accomplish that end. Section 1.0 of the Rule states that one of its purposes is “to aid in Delaware’s attainment of the State and National Ambient Air Quality Standard (NAAQS) for ground level ozone and fine particulate matter.” Yet, DNREC failed to conduct an independent, scientific analysis of the impact of this regulation on air quality in light of the expected air quality improvements from existing federal programs. Instead, DNREC infers its conclusions from EPA analysis of other programs and unspecified “computer modeling.”<sup>44</sup> CDG has pointed to other EPA analyses, which DNREC has ignored, which indicate that two federal programs will already have significant impact on air quality in Delaware - the NO<sub>x</sub> SIP Call and the Clean Air Interstate Rule.<sup>45</sup> DNREC’s broad assumptions about the impact of the Rule on NAAQS attainment are not reasonable, given the lack of appropriate air quality modeling and its selective use of existing data.

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<sup>44</sup> See *id.* at 4.

<sup>45</sup> See CDG Comments at 3-6; Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone; Rule, 63 Fed. Reg. 57,356 (Oct. 27, 1998) CAIR, 70 Fed. Reg. 25,262, 25,251-25,254; Ozone and Particle Pollution: CAIR, together with other Clean Air Programs, Will Bring Cleaner Air to Areas in the East *found at* [http://www.epa.gov/air.interstateairquality/charts\\_files/nonattain\\_maps.pdf](http://www.epa.gov/air.interstateairquality/charts_files/nonattain_maps.pdf).

**E. DNREC Failed to Allow for Normal Equipment Variability When It Arbitrarily Placed Short Term 24-Hour Emissions Averages in the Rule.**

DNREC has no reasonable basis for placing short-term 24-hour emissions averages in the Rule to determine compliance without any flexibility for start-ups, shutdowns, or malfunctions.<sup>46</sup> The Rule requires that affected units demonstrate compliance with short-term SO<sub>2</sub> and NO<sub>x</sub> emissions standards on a rolling 24-hour basis, even though day-to-day variability of units retrofitted with SCR technology is normal. DNREC arbitrarily proposed this short averaging period without examining whether it is possible to attain compliance.<sup>47</sup> In response to CDG's criticisms, DNREC states "[i]n the Department's opinion" the emissions limitations and 24-hour averaging period are achievable, yet DNREC fails to point to any evidence to substantiate its opinion.<sup>48</sup> DNREC erred by failing to evaluate whether such a short-term averaging period is even feasible without an exception for start-ups, shutdowns, and malfunctions.

**F. DNREC Acted Arbitrarily and Capriciously in Failing to Consider the Economic Burden of the Rule, Including Impact on Fuel Diversity, and Electric Reliability.**

DNREC acted arbitrarily and capriciously and without a reasonable basis in the record by adopting the Rule without evidence showing that it has considered the economic impact of the Rule. DNREC based the rule on generalizations, such as the statement that "EPA has indicated that the public health and welfare benefits associated with SO<sub>2</sub>, NO<sub>x</sub>, and mercury emissions reductions are many times the costs to make those reductions."<sup>49</sup> Nonetheless, DNREC has not

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<sup>46</sup> CDG Comments at 15.

<sup>47</sup> *Id.* at 16.

<sup>48</sup> DNREC Response at 12.

<sup>49</sup> DNREC Response at 5.

applied these EPA conclusions to support the requirements of the Rule or produced a comprehensive analysis of the costs and benefits of the Rule.

On the other hand, CDG has shown that the Rule will result in minimal, incremental gains in air quality, while incurring high economic costs.<sup>50</sup> The benefits would be slight because any improvements in air quality stemming from the Rule will be (1) slightly more than would result under already mandatory federal programs, (2) insignificant in light of the disproportionate effect on Delaware's air quality from the emissions of surrounding states, (3) likely to be offset by the increases in generation from surrounding states to compensate for CDG's reduced production, and (4) less cost-effective than a cap and trade model.<sup>51</sup> On the cost side of the balance, additional operational expenses would make the Edge Moor Station less economical and put it "at risk" of early retirement which would result in higher prices for the consumer.<sup>52</sup> Furthermore, the potential retirement of Edge Moor would have larger ramifications in Delaware's energy system - by decreasing fuel diversity and electric reliability.<sup>53</sup> In sum, DNREC has totally failed to point to evidence countering CDG's showing of the serious imbalance between the economic costs and benefits of the Rule.

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<sup>50</sup> CDG Comments at 12-15.

<sup>51</sup> *See id.* at 3-5.

<sup>52</sup> Compliance Implication Study at 13.

<sup>53</sup> *See* CDG Comments at 11-12.

**G. The Rule Violates 7 Del. C. Chapter 60 Because DNREC Did Not Establish on the Record that The Rule Will Assure the Reasonable and Beneficial Use of State Resources.**

DNREC failed to establish on the record that the Rule will effectuate the policy and purposes of 7 Del. C. Chapter 60. For example, 7 Del. C. § 6001(b) mandates DNREC to design regulations that assure the “reasonable and beneficial use” of state resources so as to “make the maximum contribution to the public benefit.” DNREC has not produced evidence indicating that the Rule is a reasonable use of the state’s resources that maximizes public benefit.<sup>54</sup> On the other hand, CDG has shown that the Rule does not reasonably use state resources because of its low incremental benefits and high economic costs.<sup>55</sup> Further, the Rule will have a dramatic, detrimental impact on electricity generation in Delaware, leading to uncertain economic viability of existing units, reduction of diversity of fuel sources, and difficulties in new unit construction.<sup>56</sup> Because DNREC has not complied with 7 Del. C. § 6001(b), the Rule is contrary to DNREC’s authority and purpose.

**H. DNREC Violated the State Rulemaking Requirements of 29 Del C. Chapter 101 by Failing to Meaningfully Consider the Comments Submitted During Public Review.**

DNREC violated state law by failing to meaningfully consider the comments submitted during the Rule’s public review process. Under 29 Del. C. Chapter 101, state agencies are required to give meaningful consideration to comments submitted during the public comment period. Despite the fact that CDG submitted extensive written comments with supporting

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<sup>54</sup> See discussion of economic costs and benefits in Part II.E, *supra*.

<sup>55</sup> See *id.*

<sup>56</sup> CDG Comments at 12.

evidence showing that DNREC acted arbitrarily and capriciously in proposing the Rule, DNREC did not meaningfully consider these submissions.<sup>57</sup> Instead, DNREC issued a response document that addressed many of CDG's comments with unsupported conclusions.<sup>58</sup>

**I. DNREC Violated the State Rulemaking Requirements of 29 Del. C. Chapter 101 by Failing to Provide Necessary Information Until Late in the Comment Period.**

DNREC failed to comply with Delaware laws governing the notice and comment process by submitting the TSD late in the comment period - only days prior to a public hearing; affording no reasonable opportunity for review and comment on the TSD DNREC compounded this error by refusing to extend the public comment period - a practice that it nearly always allows. The Delaware Administrative Procedures Act requires agencies to provide a statement of the "subject, substance, issues, possible terms of the agency action, a reference to the legal authority of the agency to act and reference to any other regulations that may be impacted or affected by the proposal" as part of the notice for a Rulemaking.<sup>59</sup> Furthermore, the public hearing on an issue "shall not be scheduled less than 20 days following publication of the notice."<sup>60</sup> DNREC first issued the Rule on September 1, 2006 in a very brief format, which included the text of the rule and two paragraphs stating broad assumptions about the impact of the Rule.<sup>61</sup> It was not until September 22, 2006, three days before the first public hearing on the Rule, that DNREC

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<sup>57</sup> See CDG Comments, DNREC Response.

<sup>58</sup> See, e.g., DNREC Response ("It is the Department's opinion that the averaging provision is appropriate..."). It made only minimal revisions based on CDG's extensive study of the Rule.

<sup>59</sup> 29 Del. C. 10115(a)(1); See 29 Del. C. §§ 10101 - 119 & 10161.

<sup>60</sup> 29 Del. C. 10115(a)(2).

<sup>61</sup> 10 Del. Reg. 508 (Sept. 1, 2006).

issued the 65-page TSD, which finally provided an attempt at stating the purpose, necessity and justification of the Rule. Because this limited time did not allow the public adequate opportunity to review a legally sufficient notice of the Rule, DNREC violated Delaware administrative law.

### III. CONCLUSION

For the foregoing reasons, the EAB should not uphold Order No. 2006-A-0056 of DNREC and should find Regulation No. 1146 invalid, as arbitrary, capricious, and without a reasonable basis.

Dated: July 17, 2007

*Robert W. Whetzel / TAC # 4694*  
Robert W. Whetzel  
Richards, Layton & Finger  
One Rodney Square  
920 North King Street  
Wilmington, Delaware 19801  
(302) 651-7700  
Attorney for Petitioner  
Conectiv Delmarva Generation, Inc.