

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF KENTUCKY UTILITIES	)	
COMPANY FOR A CERTIFICATE OF PUBLIC	)	
CONVENIENCE AND NECESSITY TO	)	CASE NO.
CONSTRUCT A SELECTIVE CATALYTIC	)	2006-00206
REDUCTION SYSTEM AND APPROVAL OF ITS	)	
2006 COMPLIANCE PLAN FOR RECOVERY BY	)	
ENVIRONMENTAL SURCHARGE	)	

O R D E R

On June 23, 2006, Kentucky Utilities Company (“KU”) filed, pursuant to KRS 278.020(1) and 278.183, an application requesting: (1) a Certificate of Public Convenience and Necessity (“CPCN”) for the construction of certain nitrogen oxide (“NOx”) control technologies; (2) approval of an amended compliance plan for purposes of recovering the costs of new and additional pollution control facilities; and (3) approval of an amended its Environmental Cost Recovery Surcharge tariff (“ECR Tariff”). KU maintains that it will need these facilities and will incur the related compliance costs to comply with the requirements of the Clean Air Act Amendments of 1990 (“CAA”),<sup>1</sup> the Clean Air Interstate Rule (“CAIR”), the Clean Air Mercury Rule, the Clean Air Visibility Rule, and other federal, state, or local environmental requirements applicable to combustion waste and by-products from facilities used for the generation of energy from coal. KU proposed that its amended ECR tariff become effective for bills rendered on and after February 1, 2007.

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<sup>1</sup> As amended, 42 U.S.C.A. § 7401 *et seq.*

The following parties requested and were granted full intervention: the Attorney General of the Commonwealth of Kentucky, by and through his Office of Rate Intervention (“AG”), and Kentucky Industrial Utility Customers, Inc. (“KIUC”). A consolidated hearing was held on November 8, 2006 for this case and Case No. 2006-00208,<sup>2</sup> the companion case for Louisville Gas and Electric Company (“LG&E”). All information requested at the public hearing has been filed and KU submitted a brief.<sup>3</sup> Neither the AG nor KIUC filed a brief or expressed any objection to KU’s application for a CPCN and approval of the 2006 Compliance Plan and surcharge.

### BACKGROUND

KU is a privately owned electric utility that generates, transmits, distributes, and sells electricity to approximately 491,000 consumers in all or parts of 77 counties in Kentucky.<sup>4</sup> KU is a wholly owned subsidiary of E.ON U.S. LLC, a non-utility holding company.<sup>5</sup>

KRS 278.183 provides that a utility is entitled to the current recovery of its costs of complying with the CAA as amended and those federal, state, or local environmental requirements that apply to combustion wastes and by-products from facilities utilized for

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<sup>2</sup> Case No. 2006-00208, The Application of Louisville Gas and Electric Company for Approval of Its 2006 Compliance Plan for Recovery by Environmental Surcharge.

<sup>3</sup> KU filed with LG&E a Joint Brief on December 5, 2006.

<sup>4</sup> Operating under the name of Old Dominion Power Company, KU generates, transmits, distributes, and sells electricity to approximately 29,600 consumers in 5 counties in southwestern Virginia. KU also sells wholesale electric energy to 12 municipalities.

<sup>5</sup> E.ON U.S. LLC is a Kentucky limited liability company and is an indirect subsidiary of E.ON AG, a German multi-national energy corporation.

the production of energy from coal. Pursuant to KRS 278.183(2), a utility seeking to recover its environmental compliance costs through an environmental surcharge must first submit to the Commission a plan that addresses compliance with the applicable environmental requirements. The plan must also include the utility's testimony concerning a reasonable return on compliance-related capital expenditures and a tariff addition containing the terms and conditions of the proposed surcharge applied to individual rate classes. Within 6 months of submission, the Commission must conduct a hearing to:

- (a) Consider and approve the compliance plan and rate surcharge if the plan and rate surcharge are found reasonable and cost-effective for compliance with the applicable environmental requirements;
- (b) Establish a reasonable return on compliance-related capital expenditures; and
- (c) Approve the application of the surcharge.

KU's original compliance plan and environmental surcharge were approved by the Commission in 1994 ("1994 Plan") in Case No. 1993-00465.<sup>6</sup> The 1994 Plan was comprised of capital projects including a scrubber at Ghent Unit 1, ash pond enhancements, precipitator enhancements, and other pollution control equipment required by federal, state, or local environmental regulations applicable to coal combustion and by-products. The ECR tariff for the 1994 Plan provided for a formula to calculate the retail monthly environmental surcharge gross revenue requirement ("ES revenue requirement") and applicable monthly surcharge factor. The rate of return

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<sup>6</sup> Case No. 1993-00465, The Application of Kentucky Utilities Company to Assess a Surcharge Under KRS 278.183 to Recover Costs of Compliance with Environmental Requirements for Coal Combustion Wastes and By-Products, final Order dated July 19, 1994.

authorized for the 1994 Plan environmental capital expenditures was based on the actual cost of KU's December 1993 pollution control bond debt.<sup>7</sup>

KU added new pollution control facilities to its compliance plan and environmental surcharge through amendments that were approved by the Commission in 2001 ("2001 Plan") in Case No. 2000-00439.<sup>8</sup> The 2001 Plan contained capital projects involving advanced low NOx burner systems, selective catalytic reduction ("SCR") technology facilities, and other pollution control equipment required by the emission limits mandated by the Environmental Protection Agency ("EPA") and the CAA. The ECR tariff for the 2001 Plan amended the ECR tariff for the 1994 Plan and provided for a formula to calculate the ES revenue requirement and applicable monthly surcharge factor.

In Case No. 2000-00439 the rates of return on the 1994 and 2001 Plan environmental capital expenditures were separated. The rate of return on the 1994 Plan was based on the weighted average cost of KU's pollution control bond debt as of December 31, 2000;<sup>9</sup> but the rate of return on the 2001 Plan environmental capital expenditures was based on KU's overall rate of return on capital, reflecting KU's jurisdictional capital structure and corresponding debt and preferred stock cost rates as

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<sup>7</sup> Id. at 19.

<sup>8</sup> Case No. 2000-00439, The Application of Kentucky Utilities Company for Approval of an Amended Compliance Plan for Purposes of Recovering the Costs of New and Additional Pollution Control Facilities and to Amend Its Environmental Surcharge Tariff, final Order dated April 18, 2001.

<sup>9</sup> Id. at 17.

of December 31, 2000.<sup>10</sup> For both the 1994 and 2001 Plans, the cost of debt and preferred stock were scheduled to be reviewed and re-established during the 6-month surcharge review cases. In addition, at the 6-month surcharge reviews, a “true-up” calculation would reflect changes during the review period in the cost of debt.

KU’s second amendment to its environmental compliance plan and surcharge mechanism was in Case No. 2002-00146.<sup>11</sup> The amendment to the compliance plan, approved by the Commission in 2003 (“2003 Plan”), consisted of a capital project that involved modifications of the ash pond dike at the Ghent generating station. The separation of the 1994 Plan and 2001 Plan ES revenue requirements was maintained, and no changes were made to the surcharge mechanism or calculation of the ES revenue requirements and monthly surcharge factor for the 1994 Plan and the 2001 Plan. For the 2003 Plan, the surcharge mechanism, the calculation of the ES revenue requirement, and the calculation of the monthly surcharge factor were similar to that used for the 1994 and 2001 Plans. In Case No. 2002-00146, the rate of return applied to the 1994 Plan and 2001 Plan environmental capital expenditures remained the same as approved in Case No. 2000-00439. For the 2003 Plan environmental capital expenditures, the overall rate of return on capital was approved, consistent with the approach outlined for the 2001 Plan in Case No. 2000-00439.

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<sup>10</sup> Id. at 23-26. During rehearing the Commission included short-term debt and accounts receivable financing in KU’s jurisdictional capital structure along with the corresponding cost rates as of December 31, 2000. See Orders on Rehearing dated May 14, 2001 and August 30, 2001.

<sup>11</sup> Case No. 2002-00146, The Application of Kentucky Utilities Company for Approval of Its 2002 Compliance Plan for Recovery by Environmental Surcharge, final Order dated February 11, 2003.

As part of Case No. 2003-00068,<sup>12</sup> the Commission modified KU's surcharge mechanism to utilize the base-current methodology. Prior to the modification, KU's surcharge mechanism was based on the incremental approach. Under the base-current methodology, all retirements and replacements recognized as offsets in KU's monthly surcharge filings through May 31, 2002 were incorporated in the base period surcharge factor. Only retirements or replacements of PC plant occurring since May 31, 2002 are reflected in the monthly surcharge filings as part of the current period surcharge factor. The determination of the ES revenue requirements for the 1994, 2001, and 2003 Plans were otherwise not changed by the adoption of the base-current methodology.

In Case No. 2003-00434,<sup>13</sup> the capital expenditures and operating expenses associated with the 1994 Plan were included for recovery through KU's base rates. These costs were removed from KU's environmental surcharge, with the environmental surcharge providing recovery of the costs associated with the 2001 and 2003 Plans.

KU's third amendment to its environmental compliance plan and surcharge mechanism was in Case No. 2004-00426.<sup>14</sup> The amendment to the compliance plan, approved by the Commission in 2005 ("2005 Plan"), consisted of capital projects that

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<sup>12</sup> Case No. 2003-00068, An Examination by the Public Service Commission of the Environmental Surcharge Mechanism of Kentucky Utilities Company for the Six-Month Billing Periods Ending January 31, 2001, July 31, 2001, January 31, 2002, and January 31, 2003 and for the Two-Year Billing Periods Ending July 31, 2000 and July 31, 2002, final Order dated October 17, 2003 and rehearing Order dated May 4, 2004.

<sup>13</sup> Case No. 2003-00434, An Adjustment of the Electric Rates, Terms, and Conditions of Kentucky Utilities Company, final Order dated June 30, 2004.

<sup>14</sup> Case No. 2004-00426, The Application of Kentucky Utilities Company for a Certificate of Public Convenience and Necessity to Construct Flue Gas Desulfurization Systems and Approval of Its 2004 Compliance Plan for Recovery by Environmental Surcharge, final Order dated June 20, 2005.

involved the handling of ash at the Ghent and Brown generating stations, the construction of flue gas desulfurization sulfur dioxide (“SO<sub>2</sub>”) control technologies (“scrubbers”) at the Ghent and Brown generating stations,<sup>15</sup> and the purchase of emission allowances. No changes were made to the surcharge mechanism or calculation of the ES revenue requirements and monthly surcharge factor for the 2001 Plan and the 2003 Plan. For the 2005 Plan, the surcharge mechanism, the calculation of the ES revenue requirement, and the calculation of the monthly surcharge factor were similar to that used for the 2001 and 2003 Plans. The overall rate of return on capital was used as the rate of return, and the same rate of return was applied to the 2001, 2003, and 2005 Plan environmental capital expenditures.

#### REQUEST FOR CPCN

KU and LG&E utilize an on-going, joint planning process to evaluate options and actions the utilities need to undertake in order to comply with federal, state, and local environmental requirements. In May 2006, E.ON U.S. Generation Services completed the “2006 NOx Compliance Strategy” (“2006 NOx Study”) for KU and LG&E.<sup>16</sup> The 2006 NOx Study notes that the CAIR will require KU and LG&E to reduce NOx emissions by approximately 40 percent in 2009 and 50 percent by 2015, compared to 2004 levels. Beginning January 1, 2009, KU and LG&E will have to comply with both annual and ozone season NOx limits. In 2009, NOx tons emitted during the May through September ozone season will require the surrender of one ozone season NOx

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<sup>15</sup> KU also sought and was granted a CPCN to construct the Ghent and Brown scrubbers in Case No. 2004-00426. Three scrubbers would be constructed at Ghent while one scrubber would be constructed at Brown.

<sup>16</sup> Malloy Direct Testimony, Exhibit JPM-2.

allowance and one annual NOx allowance. During the remainder of the year, NOx tons emitted will require the surrender of one annual NOx allowance.<sup>17</sup>

The 2006 NOx Study determined that unless additional NOx control technologies were installed, the combined annual NOx allowance bank for KU and LG&E would be nearly depleted by 2009, while the ozone season NOx allowance bank would be fully depleted by 2013. Depletion of either allowance bank would result in KU and LG&E having to purchase needed NOx allowances from the allowance market.<sup>18</sup> The 2006 NOx Study determined that Ghent Unit 2 and Brown Unit 3 were the largest contributors to KU's and LG&E's total annual NOx emissions.<sup>19</sup> Ghent Unit 2 and Brown Unit 3 are the largest coal-fired generating units in the KU and LG&E generating system operating without an SCR.

The 2006 NOx Study considered numerous compliance technologies including SCRs, selective non-catalytic reduction, combustion modifications, fuel reburning, neural networks, burner modifications, and allowance purchases. Given the magnitude of the NOx reductions KU and LG&E needed to achieve, the 2006 NOx Study determined the only viable alternative was an SCR. The 2006 NOx Study evaluated numerous SCR-installation alternatives and concluded that the least-cost plan would be to install an SCR at Ghent Unit 2 in 2009.<sup>20</sup> The 2006 NOx Study noted that this

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<sup>17</sup> Id. at 5-6 of 74.

<sup>18</sup> Id. at 4 of 74.

<sup>19</sup> Id. at 11 of 74. The 2006 NOx Study projected that Ghent Unit 2 would represent 14 percent and Brown Unit 3 would represent 13 percent of the total annual NOx emissions during the period 2006 through 2015.

<sup>20</sup> Id. at 11-15 of 74.



alternative would reduce the anticipated NOx allowance shortfall from over 260,000 tons to approximately 123,000 tons, delay the depletion of the annual NOx allowance bank to 2015, delay the depletion of the ozone season NOx allowance bank to 2033, provide KU and LG&E with more time to evaluate the next steps in future NOx compliance technologies, and provide time to observe how the NOx allowance market responds to the requirements of CAIR.<sup>21</sup>

KU proposes to construct an SCR at Ghent Unit 2. KU estimates that the timeframe for constructing the SCR is approximately 18 to 24 months, with construction beginning in early 2007 to meet the target in service date of 2009. KU estimates the capital cost for the Ghent Unit 2 SCR to be \$95.0 million.

After consideration of the evidence and being otherwise sufficiently advised, the Commission finds that the proposed construction of the SCR is needed for KU to comply with the NOx emission limits of the CAIR and a CPCN should be granted. The proposed construction is reasonable and cost effective and will not result in the wasteful duplication of facilities.

#### 2006 COMPLIANCE PLAN

KU is adding new pollution control facilities to its previously approved compliance plans to reflect its continuing efforts to reduce SO<sub>2</sub> emissions, reduce NOx emissions, mitigate sulfur trioxide ("SO<sub>3</sub>"), reduce mercury, and control particulate matter. The fourth amendment to the compliance plan ("2006 Plan") proposed by KU calls for five projects that include the following facilities:

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<sup>21</sup> Id. at 4 of 74.

- (1) KU's share of the Air Quality Control System ("AQCS") to be installed at Trimble Unit 2,<sup>22</sup> except for operating expenses, discussed below.
- (2) Installation of sorbent injection equipment to mitigate SO<sub>3</sub> emissions at Ghent Units 1, 3, and 4.
- (3) Installation of mercury monitors at all KU generating plants.
- (4) Installation of an SCR at Ghent Unit 2.
- (5) Installation of components to improve the operation of electrostatic precipitators at the Brown plant.

The 2006 Plan has a total estimated capital expenditure of \$325.08 million, with the AQCS representing \$185.29 million of the investment and the Ghent Unit 2 SCR representing \$95.00 million of the investment.

In support of the 2006 Plan, KU presented testimony, the 2006 SO<sub>3</sub> Mitigation Study performed by Sargent and Lundy dated March 29, 2006, and the E.ON U.S. Generation Services 2006 SO<sub>3</sub> Mitigation Strategy for KU and LG&E dated April 2006 in support of its proposed SO<sub>3</sub> projects. As discussed previously in this Order, KU prepared in 2006 a detailed NO<sub>x</sub> compliance strategy which recommended the installation of the SCR at Ghent Unit 2.

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<sup>22</sup> KU and LG&E are building Trimble Unit 2 in partnership with the Indiana Municipal Power Agency and the Illinois Municipal Electric Agency. KU and LG&E will own 75 percent of the capacity of Trimble Unit 2. KU will own 81 percent and LG&E will own 19 percent of their collective 75 percent share of Trimble Unit 2. The AQCS includes the installation of an SCR, dry and wet electrostatic precipitators, a wet process scrubber, and SO<sub>3</sub> mitigation equipment. A CPCN for these facilities was granted in Case No. 2004-00507, Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for a Certificate of Public Convenience and Necessity, and a Site Compatibility Certificate, for the Expansion of the Trimble County Generating Station, final Order dated November 1, 2005.

The appropriateness of KU's inclusion of projects dealing with the mitigation of SO<sub>3</sub> emissions was raised as an issue. In Case No. 2005-00068,<sup>23</sup> the Commission had rejected the inclusion of SO<sub>3</sub> mitigation projects in Kentucky Power Company's proposed amendment to its environmental compliance plan. In its September 7, 2005 Order in that case, the Commission stated,

The CIs [Capital Improvement Requests] submitted by Kentucky Power clearly state that there are no regulations that limit SO<sub>3</sub> emissions, no regulatory issues associated with SO<sub>3</sub> mitigation, and no regulations specific to SO<sub>3</sub> emission levels. Although Kentucky Power claims that SO<sub>3</sub> must be controlled to avoid violating opacity limits, it has provided no evidence of what those opacity limits are or how SO<sub>3</sub> controls will enable the affected units to be in compliance with opacity limits.<sup>24</sup>

While KU acknowledged that state and federal environmental authorities have not promulgated specific SO<sub>3</sub> and sulfuric acid<sup>25</sup> emission limits, KU argued that these authorities have expressed a clear requirement that these emissions must be controlled. KU noted that the studies it had provided in this proceeding indicated that SO<sub>3</sub> and sulfuric acid formation significantly increases when an SCR is utilized to control NOx emissions. KU quoted a statement from the EPA where it assumed that utilities planning to install an SCR and/or a wet process scrubber would incur increased costs

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<sup>23</sup> Case No. 2005-00068, Application of Kentucky Power Company for Approval of an Amended Compliance Plan for Purposes of Recovering Additional Costs of Pollution Control Facilities and to Amend Its Environmental Cost Recovery Surcharge Tariff.

<sup>24</sup> Case No. 2005-00068, September 7, 2005 Order at 12.

<sup>25</sup> Sulfuric acid forms when SO<sub>3</sub> in the flue gas cools and combines with flue gas moisture.

for SO<sub>3</sub> and sulfuric acid mitigation.<sup>26</sup> KU argued that the existence of SO<sub>3</sub> and sulfuric acid in the plume from the stacks did impact the opacity of the plume, and cited reports for KU and LG&E generating units from the Kentucky Division of Air Quality (“KDAQ”) noting a connection between the concentrations of SO<sub>3</sub> and the opacity of the plume.<sup>27</sup> KU noted that its air permits from KDAQ state specific opacity limits and that KU’s failure to mitigate SO<sub>3</sub> and sulfuric acid could result in violations of those permits.<sup>28</sup>

The Commission has reviewed the studies and information provided by KU concerning the need to mitigate SO<sub>3</sub> and sulfuric acid. The Commission finds that KU has sufficiently established that it needs to mitigate SO<sub>3</sub> and sulfuric acid in response to requirements from federal, state, and local environmental authorities, even though specific emission limits have not been established for those emissions. KU has provided sufficient information to show there is a link between the existence of SO<sub>3</sub> and sulfuric acid in the flue gas and the opacity of the stack plume.

The 2006 NOx Study, the Sargent and Lundy 2006 SO<sub>3</sub> Mitigation Study, the 2006 SO<sub>3</sub> Mitigation Strategy for KU and LG&E, and KU’s testimony shows that the projects in the 2006 Plan are related to compliance with the CAA as amended and other governmental regulations pertaining to combustion wastes and by-products resulting from the production of electricity from coal. This evidence also shows that KU sufficiently analyzed the available options and selected the option that is most cost-

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<sup>26</sup> Response to the Commission Staff’s Second Data Request dated August 21, 2006, Item 2(a).

<sup>27</sup> Joint Response to Post-Hearing Data Request, filed November 21, 2006, Item 3.

<sup>28</sup> Joint Post-Hearing Brief of KU and LG&E at 38.

effective. Based on a review of the record, the Commission finds that KU's 2006 Plan is reasonable, cost-effective, and should be approved.

### SURCHARGE MECHANISM AND CALCULATION

KU proposed no changes in the surcharge mechanism or calculation of the ES revenue requirements and monthly surcharge factor for the 2001, 2003, and 2005 Plans and proposes that for the 2006 Plan the same approaches be used. The ES revenue requirement, determined for the current expense month, is comprised of a return on the 2006 Plan Environmental Compliance Rate Base ("Rate Base") plus specified environmental compliance operating expenses.<sup>29</sup> The addition of the 2006 Plan will require a revision to the monthly surcharge reporting formats. KU provided sample monthly reporting formats that reflected the revisions required by the 2006 Plan.<sup>30</sup>

#### Rate Base

KU's proposed 2006 Plan Rate Base used in the environmental surcharge mechanism includes the following components: eligible pollution control plant in service ("PC plant"); accumulated depreciation associated with the PC plant; eligible pollution control construction work in progress ("PC CWIP"); deferred income taxes; cash working capital allowance; and emission allowance inventories. The Rate Base would be adjusted for eligible PC plant, accumulated depreciation, and deferred taxes relating to replacements and retirements of PC plant that are already included in existing rates.

The Commission finds that KU's proposed 2006 Plan Rate Base is reasonable and should be approved. This approval includes the requirement to properly recognize

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<sup>29</sup> Conroy Direct Testimony, Exhibit RMC-4 at 3 of 13.

<sup>30</sup> Id. at 1-13 of 13.

within 90 days the impact of any retirement or replacement of PC plant that is already included in existing rates resulting from the 2006 Plan.

### Operating Expenses

KU anticipates additional incremental operating and maintenance expenses in conjunction with the 2006 Plan. KU plans to identify and track these incremental expenses associated with the 2006 Plan by utilizing various subaccounts of Account Nos. 506 and 512.<sup>31</sup> In addition to these expenses, KU proposed that the monthly environmental compliance operating expenses for the 2006 Plan should include: depreciation expense, property taxes, and insurance expense. The depreciation expense, property taxes, and insurance expense are functions of the value of the PC plant and the monthly expense amounts would reflect that calculation.

In its application, KU specifically stated that it was not seeking to include operating expenses associated with the Trimble Unit 2 AQCS.<sup>32</sup> KU explained that it had not included the operating expenses associated with the AQCS because operating expenses would not be incurred until Trimble Unit 2 was placed into service in 2010. KU stated it expected the AQCS operating expenses would be considered in a future environmental surcharge or base rate case proceeding.<sup>33</sup> However, in a data response KU changed its position and requested the Commission to now consider including the operating expenses associated with the AQCS with the decision in this case, provided

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<sup>31</sup> Conroy Direct Testimony, Exhibit RMC-4 at 11 of 13.

<sup>32</sup> Charnas Direct Testimony at 4.

<sup>33</sup> Response to the Commission Staff's First Data Request dated July 24, 2006, Item 15.

this did not impact the Commission's ability to issue an Order in this case by December 22, 2006. KU stated that if the Commission did not consider including the AQCS operating expenses in this case, KU reserved the right to seek recovery of these expenses in a subsequent environmental surcharge or base rate case filing.<sup>34</sup>

The Commission finds that KU's proposal in its application to track the additional incremental expenses associated with the 2006 Plan by utilizing subaccounts of Account Nos. 506 and 512 and report those expenses in the same manner as currently used is reasonable and should be approved. The Commission further finds KU's proposal concerning the recovery of depreciation expense, property taxes, and insurance expense associated with the 2006 Plan to be reasonable, and it should be approved.

However, concerning the inclusion of operating expenses associated with the Trimble Unit 2 AQCS, the Commission finds that KU's use of a data response to expand the scope of this proceeding is not reasonable and should be rejected. KU established the range of operating expenses recoverable under its surcharge mechanism when it filed its application on June 23, 2006. Absent an amended application requesting surcharge recovery of the additional operating expenses, the Commission is unable to consider the additional expenses in this case. Furthermore, KU offered no reason why these additional operating expenses need to be included at this time. As KU correctly notes, it will not incur any operating expenses for the Trimble Unit 2 AQCS until that plant is in service, currently expected in 2010. KU will not be financially harmed by

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<sup>34</sup> Id.

today's decision, and it will be able to request the recovery of these operating expenses in a future environmental surcharge or base rate case proceeding.

The Commission anticipates that KU will not incur the approved operating expenses until the 2006 Plan facilities have gone into service. If a monthly surcharge factor includes these expenses prior to the 2006 Plan facilities going into service, KU should submit as part of the monthly surcharge filing a written explanation documenting why the expense has been incurred. The inclusion of that expense would be subject to review during the appropriate 6-month surcharge review.

#### Surcharge Formula

KU proposed no changes to the surcharge formula utilized to calculate the monthly ES revenue requirement. KU does propose a modification to the jurisdictional  $R(m)^{35}$  component used in the determination of the surcharge factor. Currently jurisdictional  $R(m)$  reflects the base rate revenues,<sup>36</sup> the fuel adjustment clause revenues, the demand-side management revenues, the small time-of-day program cost recovery factor, the merger surcredit, and the value delivery ("VDT") surcredit. However, the environmental surcharge factor is not applied to the merger surcredit and the VDT surcredit. KU proposes that the merger surcredit and VDT surcredit be removed from the determination of jurisdictional  $R(m)$ . KU contends this change will

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<sup>35</sup> Jurisdictional  $R(m)$  is the average monthly jurisdictional revenue for the 12 months ending with the current expense month and is the denominator in the calculation of the surcharge factor.

<sup>36</sup> Base rate revenues are customer charges, energy charges, and demand charges.



more closely align the revenues used to determine the environmental surcharge factor and the revenues to which the factor is applied.

The Commission agrees with KU that no changes are needed to the surcharge formula. The Commission has reviewed KU's proposal concerning the revenues reported as jurisdictional R(m) and finds the proposal is reasonable and should be approved.

### Monthly Reporting Formats

The inclusion of the 2006 Plan into the existing surcharge mechanism and the change in jurisdictional R(m) will require modifications to the monthly environmental surcharge reporting formats. KU provided revised formats reflecting these changes, as well as proposing changes to separately report the SO<sub>2</sub> and NO<sub>x</sub> emission allowance inventories.<sup>37</sup> KU submitted a revision to its proposed formats in conjunction with its request that the Commission consider including the operating expenses associated with the Trimble Unit 2 AQCS.<sup>38</sup> In response to a data request, KU agreed that the reporting format for PC Plant, PC CWIP, and depreciation expense could be consolidated into one multi-page format and provided a sample format reflecting that change.<sup>39</sup>

The Commission finds that KU's revised monthly environmental surcharge reporting formats should be approved with the inclusion of the multi-page format for PC Plant, PC CWIP, and depreciation expense. Consistent with the Commission's finding

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<sup>37</sup> Conroy Direct Testimony, Exhibit RMC-4.

<sup>38</sup> Response to the Commission Staff's First Data Request dated July 24, 2006, Item 15, Attachment 2, page 2 of 2.

<sup>39</sup> Id., Item 17.

that the Trimble Unit 2 AQCS operating expenses should not be included in the 2006 Plan, the Commission finds the revision to the proposed reporting formats to reflect this expense should be rejected.

#### RATE OF RETURN

KU proposed that it be allowed to earn the overall rate of return on capital for the 2001, 2003, 2005, and 2006 Plan Rate Bases. KU further proposed that the overall rate of return on capital reflect a rate of return on equity ("ROE") of 10.50 percent, which the Commission approved in Case No. 2004-00426.

The Commission finds that KU's request to continue using an ROE of 10.50 percent is reasonable and should be approved. The Commission further finds that the overall rate of return on capital on the 2001, 2003, 2005, and 2006 Plan Rate Bases, after reflecting the gross up for income taxes, should continue to be 11.00 percent.<sup>40</sup>

#### TARIFF EFFECTIVE DATE

KU proposed that its amended ECR Tariff should become effective for bills rendered on and after February 1, 2007. KU argued that changes to the surcharge billing factor cannot be implemented on a service rendered basis because its billing system applies the billing factors on a billing cycle basis. KU noted that if the Commission approves recovery of the 2006 Plan in December 2006, the impact of that decision will not be reflected on customer bills until February 2007, the second month following the month in which the authorizing Order was issued. KU stated that the

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<sup>40</sup> Case No. 2004-00426, June 20, 2005 Order at 31.

surcharge billing factor will only be assessed on service rendered subsequent to the date of the Commission's Order in this proceeding.<sup>41</sup>

Since KU has acknowledged that its new surcharge billing factor will only be applied to service rendered subsequent to the date of the Commission's Order in this proceeding, the Commission finds that the ECR Tariff should state that its effective date is for service rendered. Making the revised ECR Tariff effective for service rendered on and after the date of this Order will avoid the situation where customers would pay for increases in environmental costs prior to the approval of those increases. Therefore, the Commission finds that the amended ECR Tariff should become effective for service rendered on and after the date of the Commission's Order in this case.

IT IS THEREFORE ORDERED that:

1. KU is granted a CPCN to construct an SCR at Ghent Unit 2 as needed to comply with EPA requirements.
2. KU's 2006 Plan consisting of five additional capital projects to meet federal, state, and local environmental regulations is approved.
3. KU's request to include Trimble Unit 2 AQCS operating expenses is denied without prejudice to seeking recovery of those expenses in a future environmental surcharge or base rate application.
4. KU's proposed ECR tariff is approved and shall be effective for service rendered on or after the date of this Order.

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<sup>41</sup> Response to the Commission Staff's First Data Request dated July 24, 2006, Item 19.

5. KU's rate of return on the 2001, 2003, 2005, and 2006 Plan capital expenditures, reflecting the gross up for income taxes, shall be 11.00 percent.

6. The monthly surcharge reporting formats proposed by KU, as discussed in this Order, are approved. Previous reporting formats shall no longer be submitted.

7. Within 10 days of the date of this Order, KU shall file with the Commission revised tariff sheets setting out the ECR tariff approved in this Order.

Done at Frankfort, Kentucky, this 21<sup>st</sup> day of December, 2006.

By the Commission

ATTEST:

A handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke at the end.

Executive Director