COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY UTILITIES COMPANY FOR AN ADJUSTMENT IN ITS ELECTRIC RATES AND FOR CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY

CASE NO. 2016-00370

TESTIMONY OF RONALD L. WILLHITE
SCHOOL ENERGY MANAGER PROJECT DIRECTOR
KENTUCKY SCHOOL BOARDS ASSOCIATION

FILED: March 3, 2017
Q. Please state your name and business address.

A. My name is Ronald L. Willhite and business address is 260 Democrat Drive, Frankfort, KY 40601.

Q. By who are you employed?

A. I am employed by the Kentucky School Boards Association as Director of the School Energy Managers Project. The Kentucky School Boards Association (KSBA) is a nonprofit corporation of school boards from each public school district in Kentucky. The association, founded in 1936, now has over 75 years of serving school board members and school districts in such areas as governmental relations, board member and team development, risk management, facility planning, energy management, legal services, policy services, publications and community relations. It is governed by a 27-member board of directors made up of representatives elected as regional chairpersons or as directors-at-large. With nearly 900 school board members, KSBA is the largest organization of elected officials in Kentucky.

Q. Please describe your regulatory and public school experience.

A. In December 2001 I retired from LG&E Energy Services. During my tenure at the Companies I testified before this and other commissions on numerous rate and regulatory matters. In March 2010 I was employed by KSBA to develop and direct the School Energy Managers Project (SEMP). From 1989 to 1998 I served on the Scott County Board of Education, the last six years as its chairman, and since 2009 have served on their Energy Committee. I graduated from the University of Kentucky in 1969 earning a B.S. in Electrical Engineering.

Q. Please describe Kentucky’s public schools and the role of boards of education.

A. Kentucky has some 1233 P-12 public schools serving 670,000 students that are overseen per statute by 173 local school boards pursuant to KRS 160.290:

> “Each board of education shall have general control and management of the public schools in its district and may establish schools and provide for courses and other services as it deems necessary for the promotion of education and the general health and welfare of pupils, consistent with the administrative regulations of the Kentucky Board of Education. Each board shall have control and management of all school funds and all public school property of its district and may use its funds and property to promote public education. Each board shall exercise generally all powers prescribed by law in the administration of its public school system, appoint the superintendent of schools, and fix the compensation of employees.”
Q. What specific issues are you addressing?
A. I will address the following; 1) impact of the proposed increase on public schools, 2) how public schools are distinguishable from commercial and industrial customers, 3) propose Rate P – 12 Public Schools, 4) all-electric school service, 5) sports field lighting, 6) school energy management initiatives, and 7) the Company’s proposed AMS program.

Q. How will the requested increase impact schools?
A. Kentucky’s public schools continue to be severely impacted by today’s economic conditions. After personnel, energy is the second highest cost for schools. Unlike businesses that can increase sales or prices to offset cost increases, public schools must either cut programs or attempt to raise taxes. Public schools cannot refuse service to a student or limit their enrollment.

While schools understand the Company is faced with significant challenges the revenue increase as proposed would be extremely unfair to schools and their students. Public school districts continue to be disadvantaged as many of their schools are required to take service under rate schedules along with commercial and industrial customers. I will address options for the Commission to mitigate the impact on public schools.

Q. Why does the purposed increase result in such excessive impacts for public school accounts?
A. The Company has purposed recovering most, if not all, of the increase allocated to Rates PS-Sec and TODS through increased demand charges. This further exacerbates the subsidization by schools for others served on those rates. Such an approach is unreasonable and needs correcting.

PUBLIC SCHOOLS ARE DISTINGUISHABLE

Q. In what ways do public schools differ from other customers?
A. Public schools differ from other customers in three primary ways:

1. Public schools are required to develop energy management plans by KRS160.325 and Board Policy.
2. Public schools operating hours differ significantly from commercial and industrial customers.
3. Public school load and usage characteristics differ significantly from commercial and industrial customers.

Q. Please explain KRS160.325 and how the statute distinguishes public schools from other customers.

A. Local school boards of education are the only entity in Kentucky that are required by statute to develop and implement energy management plans. “In an effort to reduce rising energy costs that are straining school budgets” the General Assembly in 2008 passed House Bill 2, which became law on July 15, 2008 as KRS 160.325. To implement the mandate of the statute boards of education adopted Energy Management Policies as shown below and began mandated reporting annually through the Kentucky Pollution Prevention Center (“KPPC”) to the Department for Energy Development and Independence (“DEDI”) and the Legislative Research Commission (“LRC”) on the status of the development of energy management plans by those boards of education and the anticipated savings to be obtained from those plans. In 2014 Boards began reporting through KSBA to the LRC and DEDI.

05.23 Energy Management

It is the intent of the Board that the District use energy resources in a safe and efficient manner with an on-going focus on identifying and implementing cost saving measures and developing staff and student commitment to identified energy management practices.

To promote this effort, the Superintendent/designee shall direct the development of an energy management plan (EMP) for Board approval and oversee the implementation and maintenance of that plan, which shall address the following components:

1. A District level committee shall be appointed by the Superintendent/designee to develop and implement the energy management plan (EMP).

2. The District level committee shall track and monitor the EMP to determine progress toward managing and reducing energy costs.

3. Effective with the 2011-2012 school year, the Superintendent/designee shall report the EMP results for each fiscal year, including annual District energy usage, costs and anticipated savings to KPPC - the Kentucky Pollution Prevention Center – by October 1st annually through the Kentucky Energy Efficiency Program for Schools (KEEPS).

A status report on implementation of the plan in Board-owned and Board-operated facilities shall be provided to the Board following the end of each fiscal year.

Q. Please explain how public schools operate different than commercial and industrial customers.
A. While schools, commercial and industrial customers operate on a defined schedule, those schedules are drastically different. Many industries operate 2nd, 3rd and weekend shifts while stores operate extended hours into the evening year round seven days per week. Schools typically are fully occupied from 7:30 am until 2:30 pm weekdays only nine to ten months of the year with numerous shut down periods for breaks throughout the year. Schools continue open beyond instructional periods for extra-curricular activities, but by this time automation systems and set back procedures have begun adjusting temperatures for unoccupied space. In a nutshell school load build up typically begins around 7 am, peaks by lunch time in the warmer months and declines at a significant pace until and after the instructional day ends in early-afternoon. In the colder months schools tend to peak across the morning hours and similar to the warm periods usage/peak decline after lunch.

Q. Please explain how public have different load and usage characteristics differ from commercial and industrial customers.

A. The different load and usage characteristics of public schools result in cost causation factors different than commercial and industrial customers as is demonstrated in examination of KU’s LOLP Class Cost of Service Study. KU has offered two studies with differing production cost allocators, Modified BIP and LOLP (Loss of Load Probability). The LOLP Study is a more reasonable assessment of the relative rate of returns (“ROR”) for each rate class “the LOLP methodology more closely reflects how KU and LGE’s generation resources have been planned over the past 30 years….” as stated by Witness Seelye. Additionally, assigning production costs using LOLP appropriately reflects how resources are constructed and used to meet customer needs for reliable least cost service. The LOLP Study clearly shows the ROR for Rates AES, PS-sec and TODS under which public schools receive service are in excess of the overall Company ROR. In fact, as I will demonstrate, schools significantly contribute to the excessive returns. As a result, schools are subsidizing other members of those rate classes.

Q. Please explain how you determined that schools are subsidizing other rate payers?

A. I developed a “School Class” Cost of Service Study using the Company’s Excel spreadsheet provided in response to PSC 1 – 53 as follows:

1. Assembled customer, revenue, energy and billing demand data for public school accounts currently served on rates PS-Secondary and TODS.

2. Identified the School Class Sum of Individual Demands (SIDS) from the assembled School data.

3. Calculated the School Class Non-coincident Class Peak (NCP) using the coincidence (1/1.18758) and loss factors (1.0934) for KU’s Rate AES from the attachment to the KU’s Response to PSC 1-97 (PSC_DR2_KU_Attach_to_Q97) times the School Class SIDS.
4. Calculated the School Class Summer Coincident Peak (CP) using from (PSC_DR2_KU_Attach_to_Q97) the ratio (.59729) of the Summer AES CP to Summer NCP times the School Class NCP as summer period usage by schools is similar.

5. Calculated the School Class LOLP allocator by multiplying the Rate AES LOLP Allocator of 321 by the ratio of the School to summer AES Class CP’s as the LOLP allocation factor is dominated by the summer period.

6. Inserted a “School” line in the “Billing Det”, “Meters” and “Services” tabs of the Cost of Service Study to facilitate input of the school data.

7. Used column “I” in the “Allocation Proforma” tab that was otherwise hidden and unused for a “School Class” column.

8. Inserted the school data in the School column cells and similarly subtracted the data from PS Secondary and TOD Secondary cells in the appropriate tabs.

Q. Please explain the results of your study.

A. As shown in the below table the ROR for the School Class is significantly greater for the PS Secondary and TODS Classes clearly indicating an unreasonable subsidization by schools of other customers on those classes. Benchmarked against the Company overall ROR, the excessive annual revenues approach $3,200,000. Benchmarked against KU’s Rate AES, whose ROR exceeds to Company overall ROR, the excessive annual revenues exceed $2,550,000.

<table>
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<tr>
<th>Rate Class</th>
<th>Rate of Return on Rate Base</th>
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<tr>
<td></td>
<td>As Filed</td>
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<tr>
<td>All Electric Schools</td>
<td>6.77 %</td>
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<tr>
<td>Public School P-12</td>
<td>n/a</td>
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<tr>
<td>Power Service - Secondary</td>
<td>9.26%</td>
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<td>Time-of-Day Secondary Service</td>
<td>5.56%</td>
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<tr>
<td>Total All Classes</td>
<td>5.56%</td>
</tr>
</tbody>
</table>
Q. What is your recommendation for eliminating the intra-class subsidization being currently provided by public schools?

A. In order to eliminate the intra-class subsidization by public schools currently served on Rates PS-secondary and TODS a new Rate P - 12 Public School (RLW Exhibit 2) should be established. I have developed such a rate incorporating time of day principles at the current ROR on KU’s Rate AES. Since time of day metering is not installed on all PS accounts I also developed a Rate P - 12 Public School (Interim) Power Service (RLW Exhibit 3) until the metering is installed and public school accounts can be migrated to the Rate P – 12 Public School. Once there is a final determination in this proceeding that rate can be adjusted using the Company’s proposed class revenue allocation approach described by Mr. Seelye.

Q. What customers would the Rate P – 12 Public School be available to?

A. Similar to Kentucky Power’s Tariff K – 12 School (Public School) the rate would be available to P – 12 schools subject to KRS160.325 with normal maximum demands greater than 50 kW. Schools would migrate to the school rate at their option. RLW Exhibit 4 shows the computation of the proposed rates.

All-Electric School Service - Rate Schedule AES

Q. Please explain KU’s Rate Schedule AES?

A. Service on KU’s Rate AES is to school facilities that use only electric energy for other than incidental instructional and miscellaneous purposes. The opportunity for all-electric schools to be constructed presents a win-win situation for KU, schools, other customers, taxpayers and most importantly K-12 students for a number of reasons. First, Rate AES provides for increased system efficiency. Schools must use electric energy for lighting, cooling, ventilation, refrigeration, computer labs and other uses. However, all electric schools allow LGE/KU to use their same capacity during the winter season to produce more units of output and increase efficiency. This is entirely consistent with Mr. Conroy’s Rebuttal at page 5 in Case No. 2012 – 00221 where he states: “efficiency relates to the extent to which the capacity is fully utilized ….” and “greater utilization of a fixed asset corresponds to greater efficiency” (Conroy Rebuttal page 5), Second, all-electric schools are more likely over time to provide a more consistent use of otherwise under-utilized winter capacity compared to off-system sales. Third, Rate AES does not disadvantage other customers as shown by the Company’s LOLP Class Cost of Service Study. Finally, recognition of the benefits of all-electric schools enhances compliance with the Governor’s Energy Strategy and statutes governing school construction as Kentucky schools are directed by law to construct and operate efficiently. All-electric schools are highly efficient users of energy through by year round use of geothermal and VFR systems to heat and cool buildings, efficient lighting and efficient building envelopes.
Q. What is your recommendation regarding Rate AES?

A. The Commission should approve unfreezing Rate AES and by doing so schools will be afforded an additional option to evaluate when constructing new and remodeling existing schools that capitalize on implementing energy efficiency initiatives which will benefit the public and, most importantly, Kentucky’s K-12 students. In Case No. 2010-00204 KU agreed to maintain Rate AES as long as it is supported by Cost of Service Studies. That justification is certainly provided by KU in this case and gives conclusive support for the Commission to reopen the rate to all total electric school facilities.

Sport Field Lighting

Q. On what Rate Schedule are school sport fields served?

A. Today, new sport fields will typically be served on Rate GS or PS. Some existing sport fields as of February 9, 2009 were grand fathered on Rate GS and later pursuant to PSC Order in Case Nos. 2009-00548 and 2010-00221 were permitted to switch to Rate AES. New sport fields of load greater than 50 kw are served on Rate PS and faced with paying a demand charge and minimum payments based on off-peak night-time load in the months they are not in operation. Sports fields clearly are not similar to other commercial and industrial loads served on Rate Schedule PS.

Q. What is the predominate end use at a sports field?

A. Field lighting is the predominate use with lesser usage in some instances from a concession stand, locker room or ticket office on the same meter.

Q. How can the Company rectify this problem?

A. There are a couple of options. The Company, similar to Kentucky Power, could add a sports field rate rider to Rate Schedule PS or the proposed Rate P – 12 Public School with the charges reflective of the cost to serve such facilities, including an appropriate recognition of any concession stand load, locker room or ticket office that may exist and be contributing to system peak demand. Alternatively, the Company could modify the Availability Clause of Rates AES and GS to permit service to sports fields. One benefit of the latter would be consistency of rate application to all sports fields including those previously grandfathered on Rates GS and AES.
Public School District Energy Management Initiatives

Q. What actions have been taken by boards of education?

A. All 173 public school boards of education have adopted an Energy Management Policy and most now have an energy manager. Districts have established an energy committee and have developed and implemented an energy management plan under the leadership and assistance by their energy manager. Recognizing that students are the future home and community energy managers, school energy managers working in conjunction with the Kentucky National Energy Education Development Project (NEED) and the Kentucky Green and Healthy School Program (KGHS) are actively involved with teachers in curriculum modifications that are being implemented to foster energy awareness as envisioned by the Governor’s comprehensive energy plan for Kentucky, “Intelligent Energy Choices for Kentucky’s Future.” The energy managers work closely with the Company’s demand-side management staff to benefit from energy audits and capture rebates from the Company’s program as they install energy conservation measures such as efficient lighting.

Q. Please describe the School Energy Managers Project (SEMP).

A. In 2010, Kentucky School Boards Association (“KSBA”) created and implemented the School Energy Managers Project (“SEMP”), a state-wide school energy management infrastructure that assists public school districts with compliance with statutory and board policy requirements that direct local boards of education to focus on rising energy costs. SEMP, initially funded by a $5 million dollar federal economic stimulus grant during FY2011 – FY2012, helped place 35 energy managers to serve 130 school districts and support existing energy managers in 14 additional districts. By fostering intelligent energy choices in new and existing buildings through implementation of energy efficiency projects Kentucky school districts since July 1, 2010 have captured more than $123 million in savings/cost avoidance. Kentucky is 3rd in the nation as a percentage of its K-12 schools, with over 30 percent having achieved the ENERGY STAR certification. Eighty-one districts have at least one ENERGY STAR school and sixteen districts have all their schools certified. In 2014 and 2015 KSBA-SEMP was recognized nationally as an ENERGY STAR Partner of the Year for Energy Efficiency Program Delivery for its support and partnering with public school districts. In 2016, the program received further recognition as ENERGY STAR Partner of the Year – Sustained Excellence Award.

Following expiration of the stimulus funding, $2.5 million in funding from Kentucky’s Energy and Environment Cabinet, LGE/ KU and Kentucky Power enabled SEMP to continue assisting Kentucky’s 173 public school districts through FY2016. An additional $1.45 million of funding from LGE and KU approved in Case No. 2015-00398 enabled extending the program through FY2018 to provide support to 84 LGE/KU served districts including matching salary funds for 38 energy managers serving 61 districts to identify for Board approval and implementation best energy management practices. In addition to
energy manager funding, $1 million received from Kentucky Utilities and Louisville Gas and Electric is being used by districts in their service territory to provide matching dollars for energy projects by installing modern highly efficient LED lighting in classrooms, gyms, hallways and parking lots. (Funding from Kentucky’s Energy and Environment Cabinet, Kentucky Power and KSBA has facilitated continued service to remaining districts including matching salary funds for 12 energy managers serving 17 districts in the KPC service territory.)

KSBA-SEMP management staff assists district/partnerships in the employment, coaching, monitoring and evaluation of energy managers; procures supporting funding; provides analytical and engineering support; coordinates and provides professional development opportunities for energy managers; utilizes its outreach capacities to timely communicate success stories to board members, superintendents, governmental officials and the general public; fosters best practice implementation; monitors and coordinates utility activities and relations; and develops and submits annually a Kentucky School Energy Management Report to the Cabinet and General Assembly.

Funding from the utilities is used for energy managers serving only schools receiving service from the particular utility. I will describe latter the results the LGE-KU School Energy Program.

Q. Please explain how Kentucky public school utilization of energy compares to schools across the nation.

A. Kentucky’s public schools had not been ignoring energy efficiency, but SEMP has successfully facilitated an acceleration and more comprehensive focus. A common metric is the energy utilization index or “EUI” (kBtu per square foot). The national average for K-12 schools is 73, while the Kentucky school district average in FY2016 was 52, down from 65 in FY2010, the first year of the program. Kentucky’s ENERGY STAR schools have increased from 12 in 2008 to 375, placing Kentucky third in the nation as a percent of K-12 eligible buildings and trailing only California, Texas, Virginia and Michigan in total ENERGY STAR schools.

Q. What is the status of the LGE/KU School Energy Management Program approved by the Commission in Case No. 2015-00397?

A. The Program is in the second year of the extended two-year period that will otherwise end on June 30, 2018 unless extended. The third Annual Program Report for the initial program presented to LGE/KU on August 15, 2016. Below is the Executive Summary.
The application in Case No. 2013-00067 identified the primary goal of the Energy Management Program for Schools to “support school districts in utilizing energy more “wisely” with the overall objective for each school district to reduce consumption over time by an annual rate or 2.5% and achieve energy utilization indices (“EUI”) of fifty or lower. The participation goal was for all districts served by LG&E or KU to retain or employ an energy manager through at least FY2015 to maximize district response to KRS160.325. The dollars remaining from the original KU/LG&E grant covering FY2014 and FY2015 were approved in Case Nos. 2014-00371 and 2014-00372 to extend the energy manager funding through FY2016.

Fayette County is separately reported as they continue a renovation strategy by which they renovate approximately 10% of their buildings each year using “best practice” energy efficient equipment. A part of this renovation strategy involved making a winter fuel mix change from natural gas to electric (geothermal and VRF). While this lowered the overall EUI and the summer demand of the district, it adds to the winter demand.

From the FY2010 baseline, the KU districts (without FCPS) and FCPS achieved the following:

- August Demand Reduction (17.8%) (FCPS 6.5%)
- January Demand Reduction (13.4%) (FCPS -15.6%)
- Summer Energy Reduction (27.8%) (FCPS 2.2%)
- Winter Energy Reduction (14.4%) (FCPS 2.4%)

The August reduction is particularly significant as LG&E-KU is a summer peaking utility. 54 Districts receiving KU electric service participated in the program and 15 have district-wide EUI’s less than 50.

The partnership established between LG&E-KU and KSBA provides a means for the School Energy Management Project (SEMP) to maintain a major presence within schools in Kentucky. During FY2016 four school districts within the LG&E service territory and 54 within the KU service area have benefitted financially and technically from this work.

The School Energy Managers serving these school districts benefit from continuity of employment, technical training and improved skills due to the funding which was provided. They and their schools benefit from the knowledge that has been gained.
by positioning them on a continuous improvement path. Knowing that an expectation of 2.5% annual reduction provides leverage for energy and demand conservation measures which may not otherwise be undertaken. Future results and further technological upgrades will be impacted.

Q. **What are the plans for extending the LGE/KU Program beyond June 30, 2018?**

A. We are hopeful that the program can be continued and believe it should as long as it can be shown to be viable program beneficial to all stakeholders. If not continued there will be a loss of momentum in capturing demand and energy savings beneficial to the Company and all ratepayers and the loss of energy managers to serve schools in statutory compliance and implementation of the Commonwealth’s energy efficiency initiatives. Many districts may not retain and/or rehire a non-teaching position such as an energy manager without that position being part of its operating budget which must be approved by May.

Q. **What is the status of the Company’s commitment in Case Nos. 2014-00371 and 00372 to provide $1 million for grants to schools to fund school energy - efficiency projects?**

A. In Case No. 2015 – 00398 the Commission approved the SEMP extension and associated changes in the Company’s DM rates and tariff. With regard to the energy-efficiency grants SEMP initiated an energy project funding program to make available the grants to school districts. A three – tier participation option approach was offered to districts: 1) Base – no match, 2) Match – 50/50 match and 3) Residual – 50/50 match for any leftover funds not requested by other districts. Seventy-five percent of eligible districts chose to participate. Eight chose the Base, nineteen the Match and thirty-two the Residual. In total $2,035,000 in energy efficiency measures are being installed that will produce nearly $500,000 annual savings from 5 million kwh and 1.7 megawatt reductions.

AMS Program

Q. **Please comment on the Company’s request for approval for deployment of Advanced Metering Systems (AMS).**

A. AMS is key piece in facilitating efficient management of energy usage. Large users for years have had access to real time usage through purchase of meter pulses to synchronize with building energy automation systems. As a result of compliance with KRS160.325 Kentucky’s public schools are well positioned to now benefit from the AMS meters by being “empowered through more information and control over their energy usage and cost” (Malloy Direct page 6).

Q. **Does this conclude your testimony?**

A. Yes.
Kentucky Utilities Company
Summary of Rates of Return by Class w/Proposed School Rate

<table>
<thead>
<tr>
<th>Class</th>
<th>Revenue</th>
<th>Expenses</th>
<th>Margin</th>
<th>Rate Base</th>
<th>ROR</th>
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<td>Power Service Secondary Rate PS</td>
<td>166,882,434</td>
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<td>Power Service Primary Rate PS</td>
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<td>Time of Day Secondary Rate TODS</td>
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Summary of Rates of Return by Class w/Proposed School Rate @RATE AES ROR

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<tr>
<th>Class</th>
<th>Revenue</th>
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<th>Margin</th>
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<th>ROR</th>
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<td>23,223,049</td>
<td>572,762,734</td>
<td>4.05%</td>
</tr>
<tr>
<td>Retail Transmission Service Rate RTS</td>
<td>86,274,141</td>
<td>78,043,242</td>
<td>8,230,899</td>
<td>182,841,244</td>
<td>4.50%</td>
</tr>
<tr>
<td>Fluctuating Load Service Rate FLS</td>
<td>29,712,411</td>
<td>28,731,221</td>
<td>981,190</td>
<td>79,332,427</td>
<td>1.24%</td>
</tr>
<tr>
<td>Lighting</td>
<td>26,311,151</td>
<td>18,991,654</td>
<td>7,319,497</td>
<td>86,578,183</td>
<td>8.45%</td>
</tr>
<tr>
<td>Lighting Rate ST &amp; POL</td>
<td>26,125,159</td>
<td>18,842,688</td>
<td>7,282,471</td>
<td>86,271,866</td>
<td>8.44%</td>
</tr>
<tr>
<td>Lighting Rate LE</td>
<td>29,630</td>
<td>23,769</td>
<td>5,861</td>
<td>31,537</td>
<td>18.59%</td>
</tr>
<tr>
<td>Lighting Rate TLE</td>
<td>156,362</td>
<td>125,197</td>
<td>31,165</td>
<td>274,779</td>
<td>11.34%</td>
</tr>
<tr>
<td>Total</td>
<td>1,482,777,440</td>
<td>1,281,833,685</td>
<td>200,943,755</td>
<td>3,639,079,759</td>
<td>5.52%</td>
</tr>
</tbody>
</table>
Kentucky Utilities Company

P.S.C. No. xx, Original Sheet No. xx

Standard Rate

RATE P-12 PUBLIC SCHOOL
Time of Day Public School Service

APPLICABLE

In all territory served.

AVAILABILITY OF SERVICE

This schedule is available for secondary and primary service.

Service under this schedule will be limited to customers to P-12 schools subject to KRS 160.325 whose 12-month-average monthly minimum loads exceed 50 kW and whose 12-month-average monthly maximum loads do not exceed 2,000 kW.

RATE

<table>
<thead>
<tr>
<th></th>
<th>Secondary</th>
<th>Primary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Service Charge per month:</td>
<td>$200.00</td>
<td>$300.00</td>
</tr>
<tr>
<td>Plus an Energy Charge per kWh of:</td>
<td>$0.03527</td>
<td>$0.03527</td>
</tr>
<tr>
<td>Plus a Maximum Load Charge per kW of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peak Demand Period ..................................................</td>
<td>$4.90</td>
<td></td>
</tr>
<tr>
<td>Intermediate Demand Period ......................................</td>
<td>$3.30</td>
<td></td>
</tr>
<tr>
<td>Base Demand Period ..................................................</td>
<td>$3.97</td>
<td></td>
</tr>
<tr>
<td>Plus a Maximum Load Charge per kVA of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peak Demand Period ..................................................</td>
<td>$3.96</td>
<td></td>
</tr>
<tr>
<td>Intermediate Demand Period ......................................</td>
<td>$2.52</td>
<td></td>
</tr>
<tr>
<td>Base Demand Period ..................................................</td>
<td>$2.57</td>
<td></td>
</tr>
</tbody>
</table>

Where:
the monthly billing demand for the Peak and Intermediate Demand Periods is the greater of:
  a) the maximum measured load in the current billing period, or
  b) a minimum of 50% of the highest billing demand in the preceding eleven (11) monthly billing periods, and

the monthly billing demand for the Base Demand Period is the greater of:
  a) the maximum measured load in the current billing period but not less than 50 kW secondary or 50 kVA primary, or
  b) a minimum of 75% of the highest billing demand in the preceding eleven (11) monthly billing periods, or
  c) a minimum of 75% of the contract capacity based on the maximum load expected on the system or on facilities specified by Customer.
Standard Rate

RATE P-12 PUBLIC SCHOOL
Time of Day Public School Service

ADJUSTMENT CLAUSES
The bill amount computed at the charges specified above shall be increased or decreased in accordance with the following:

- Fuel Adjustment Clause
- Off-System Sales Adjustment Clause
- Demand-Side Management Cost Recovery Mechanism
- Environmental Cost Recovery Surcharge
- Franchise Fee Rider
- School Tax

Sheet No. 85
Sheet No. 88
Sheet No. 86
Sheet No. 87
Sheet No. 90
Sheet No. 91

DETERMINATION OF MAXIMUM LOAD
The load will be measured and will be the average kW demand delivered to the customer during the 15-minute period of maximum use during the appropriate rating period each month. Company reserves the right to place a kVA meter and base the billing demand on the measured kVA. The charge will be computed based on the measured kVA times 90 percent, at the applicable kW charge.

In lieu of placing a kVA meter, Company may adjust the measured maximum load for billing purposes when the power factor is less than 90 percent in accordance with the following formula:

(BASED ON POWER FACTOR MEASURED AT THE TIME OF MAXIMUM LOAD)

\[
\text{Adjusted Maximum kW Load for Billing Purposes} = \frac{\text{Maximum kW Load Measured} \times 90}{\text{Power Factor (in percent)}}
\]

RATING PERIODS
The rating periods applicable to the Maximum Load charges are established in Eastern Standard Time year round by season for weekdays and weekends, throughout Company’s service area, and shall be as follows:

Summer peak months of May through September

<table>
<thead>
<tr>
<th>Time</th>
<th>Base</th>
<th>Intermediate</th>
<th>Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekdays</td>
<td>All Hours</td>
<td>10 A.M. – 10 P.M.</td>
<td>1 P.M. – 7 P.M.</td>
</tr>
<tr>
<td>Weekends</td>
<td>All Hours</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All other months of October continuously through April

<table>
<thead>
<tr>
<th>Time</th>
<th>Base</th>
<th>Intermediate</th>
<th>Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekdays</td>
<td>All Hours</td>
<td>6 A.M. – 10 P.M.</td>
<td>6 A.M. – 12 Noon</td>
</tr>
<tr>
<td>Weekends</td>
<td>All Hours</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Standard Rate

RATE P-12 PUBLIC SCHOOL
Time of Day Service

DUE DATE OF BILL
Customer's payment will be due within sixteen (16) business days (no less than twenty-two (22) calendar days) from the date of the bill.

LATE PAYMENT CHARGE
If full payment is not received by the due date of the bill, a 1% late payment charge will be assessed on the current month’s charges.

TERM OF CONTRACT
Service will be furnished under this schedule only under contract for a fixed term of not less than one (1) year, and for yearly periods thereafter until terminated by either party giving written notice to the other party 90 days prior to termination. Company, however, may require a longer fixed term of contract and termination notice because of conditions associated with the customer's requirements for service.

TERMS AND CONDITIONS
Service will be furnished under Company's Terms and Conditions applicable hereto.
**Kentucky Utilities Company**

**P.S.C. No. xx, Original Sheet No. xx**

**Standard Rate**

**RATE P-12 PUBLIC SCHOOL (Interim)**

**Power Service**

**APPLICABLE**

In all territory served.

**AVAILABILITY OF SERVICE**

This rate schedule is available for secondary or primary service.

Service under this schedule will be limited to customers to P-12 schools subject to KRS 160.325 whose 12-month-average monthly minimum loads exceed 50 kW and whose 12-month-average monthly maximum loads do not exceed 2000 kW. Secondary or primary customers receiving service under PSC 13, Fourth Revision of Original Sheet No. 20, Large Power Service, or Fourth Revision of Original Sheet No. 30, Mine Power Service, as of February 6, 2009, with loads not meeting these criteria will continue to be served under this rate at their option. If Customer is taking service under this rate schedule and subsequently elects to take service under another rate schedule, Customer may not again take service under this rate schedule unless and until Customer meets the Availability requirements that would apply to a new customer.

**RATE**

<table>
<thead>
<tr>
<th>Description</th>
<th>Secondary</th>
<th>Primary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Service Charge per month:</td>
<td>$90.00</td>
<td>$200.00</td>
</tr>
<tr>
<td>Plus an Energy Charge per kWh of:</td>
<td>$0.03572</td>
<td>$0.03446</td>
</tr>
<tr>
<td>Plus a Demand Charge per kW of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summer Rate:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Five Billing Periods of May through September)</td>
<td>$15.07</td>
<td>$14.47</td>
</tr>
<tr>
<td>Winter Rate:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(All other months)</td>
<td>$12.97</td>
<td>$12.47</td>
</tr>
</tbody>
</table>

Where the monthly billing demand is the greater of:

a) the maximum measured load in the current billing period but not less than 50 kW for secondary service or 25 kW for primary service, or
b) a minimum of 50% of the highest billing demand in the preceding eleven (11) monthly billing periods, or
c) a minimum of 60% of the contract capacity based on the maximum expected load on the system or on facilities specified by Customer.
Kentucky Utilities Company

P.S.C. No. xx, Original Sheet No. xx

Standard Rate

RATE P-12 PUBLIC SCHOOL (Interim)
Power Service

ADJUSTMENT CLAUSES
The bill amount computed at the charges specified above shall be increased or decreased in accordance with the following:

- Fuel Adjustment Clause Sheet No. 85
- Off-System Sales Adjustment Clause Sheet No. 88
- Demand-Side Management Cost Recovery Mechanism Sheet No. 86
- Environmental Cost Recovery Surcharge Sheet No. 87
- Franchise Fee Rider Sheet No. 90
- School Tax Sheet No. 91

DETERMINATION OF MAXIMUM LOAD
The load will be measured and will be the average kW demand delivered to the customer during the 15-minute period of maximum use during the appropriate rating period each month. Company reserves the right to place a kVA meter and base the billing demand on the measured kVA. The charge will be computed based on the measured kVA times 90 percent, at the applicable kW charge. In lieu of placing a kVA meter, Company may adjust the measured maximum load for billing purposes when the power factor is less than 90 percent in accordance with the following formula:

\[
\text{Adjusted Maximum kW Load for Billing Purposes} = \frac{\text{Maximum kW Load Measured} \times 90\%}{\text{Power Factor (in percent)}}
\]

DUE DATE OF BILL
Customer's payment will be due within sixteen (16) business days (no less than twenty-two (22) calendar days) from the date of the bill.

LATE PAYMENT CHARGE
If full payment is not received by the due date of the bill, a 1% late payment charge will be assessed on the current month’s charges.

TERM OF CONTRACT
Service will be furnished under this schedule only under contract for a fixed term of not less than one (1) year, and for yearly periods thereafter until terminated by either party giving written notice to the other party 90 days prior to termination. Company, however, may require a longer fixed term of contract and termination notice because of conditions associated with the customer's requirements for service.

TERMS AND CONDITIONS
Service will be furnished under Company's Terms and Conditions applicable hereto.
## RATE P-12 PUBLIC SCHOOL (INTERIM)
### POWER SERVICE
#### Secondary

<table>
<thead>
<tr>
<th>Bills</th>
<th>Kw</th>
<th>KWh</th>
<th>Present Rates</th>
<th>Proposed Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Service</td>
<td>1,476</td>
<td></td>
<td>$90.00</td>
<td>$90.00</td>
</tr>
<tr>
<td>Energy</td>
<td>71,429,693</td>
<td>$0.03572</td>
<td>$2,551,469</td>
<td>$2,551,469</td>
</tr>
<tr>
<td>Summer kW</td>
<td>106,291</td>
<td>$19.05</td>
<td>$2,024,844</td>
<td>$1,601,319</td>
</tr>
<tr>
<td>Min Incr</td>
<td>2,090</td>
<td>$19.05</td>
<td>$39,823</td>
<td>$31,494</td>
</tr>
<tr>
<td>Winter kW</td>
<td>149,093</td>
<td>$16.95</td>
<td>$2,527,122</td>
<td>$1,933,050</td>
</tr>
<tr>
<td>Min Incr</td>
<td>769</td>
<td>$16.95</td>
<td>$13,030</td>
<td>$9,967</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>$7,289,128</td>
<td>$6,260,138</td>
</tr>
</tbody>
</table>

### RATE P-12 PUBLIC SCHOOL SERVICE
#### TIME of DAY SERVICE
##### Secondary

<table>
<thead>
<tr>
<th>Bills</th>
<th>Kw</th>
<th>KWh</th>
<th>Present Rates</th>
<th>Proposed Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Service</td>
<td>996</td>
<td></td>
<td>$200.00</td>
<td>$199,200</td>
</tr>
<tr>
<td>Energy</td>
<td>120,872,157</td>
<td>$0.03527</td>
<td>$4,263,161</td>
<td>$4,263,161</td>
</tr>
<tr>
<td>Base kW</td>
<td>382,412</td>
<td>$5.20</td>
<td>$1,988,545</td>
<td>$1,518,308</td>
</tr>
<tr>
<td>Min Incr Old</td>
<td>15,918</td>
<td>$5.20</td>
<td>$82,772</td>
<td>$63,198</td>
</tr>
<tr>
<td>Min Incr New</td>
<td>96,949</td>
<td>$5.20</td>
<td>$3.97</td>
<td>$3.97</td>
</tr>
<tr>
<td>Inter kW</td>
<td>381,585</td>
<td>$4.53</td>
<td>$1,728,582</td>
<td>$1,259,362</td>
</tr>
<tr>
<td>Min Incr</td>
<td>2,174</td>
<td>$4.53</td>
<td>$9,848</td>
<td>$7,175</td>
</tr>
<tr>
<td>Peak kW</td>
<td>379,561</td>
<td>$6.13</td>
<td>$2,326,709</td>
<td>$1,859,979</td>
</tr>
<tr>
<td>Min Incr</td>
<td>2,163</td>
<td>$6.13</td>
<td>$13,256</td>
<td>$10,597</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>$10,612,074</td>
<td>$9,180,981</td>
</tr>
</tbody>
</table>
Respectfully submitted,

/s/Matt Malone
Matthew R. Malone
William H. May, III.
Hurt, Deckard & May PLLC
127 West Main Street
Lexington, Kentucky 40507
(859) 254-0000 (office)
(859) 254-4763 (facsimile)
mmalone@hdmfirm.com
bmay@hdmfirm.com

Counsel for the Petitioner,
KENTUCKY SCHOOL BOARDS ASSOCIATION

CERTIFICATE OF SERVICE

It is hereby certified, this the 3rd day of March, 2017, that the attached Testimony of KSBA is a true and correct copy of the document being filed in paper medium; that the electronic filing has been transmitted to the Commission on March 3, 2017; that there are currently no parties that have been excused from participation by electronic service; that an original and six copies of this document are being hand-delivered to the Commission for filing on March 3, 2017; and that an electronic notification of the electronic filing will be provided to all counsel listed on the Commission’s service list in this proceeding.

/s/Matt Malone
ATTORNEY FOR KSBA