COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In The Matter Of:		
Joint Application Of Louisville Gas & Electric Company And Kentucky Utilities Company For Review, Modification, and Continuation of Existing, and Addition of New, Demand-Side Management and Energy Efficiency Programs.	: : : : : :	**Case No. 2014-00003**

POST-HEARING BRIEF OF KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.

Kentucky Industrial Utility Customers, Inc. ("KIUC") submits this Brief in support of its recommendations to the Kentucky Public Service Commission ("Commission"). The members of KIUC who are participating in this proceeding are: AAK, USA K2, LLC, Carbide Industries LLC, Clopay Plastic Products Company, Dow Corning Corporation, E.I. duPont de Nemours and Company, Lexmark International, Inc., MeadWestvaco, North American Stainless and Toyota Motor Manufacturing Kentucky, Inc. These companies purchase electricity from Kentucky Utilities Company and Louisville Gas & Electric Company (collectively, "the Companies"). KIUC's recommendations are set forth below.

I. The Commission Should Not Require the Companies to Provide Demand-Side Management Programs for Industrial Customers.

Wallace McMullen and Sierra Club ("Sierra Club") recommend that the Commission conditionally approve the Companies' proposed demand-side management ("DSM") plan in this case, subject to a number of suggested conditions.[1] One of those suggested conditions is that the Companies begin offering DSM programs to industrial customers as soon as practical during the 2015-18 plan period.[2] The Commission should not impose such a condition.

[1] Direct Testimony of Tim Woolf (April 14, 2014) ("Woolf Testimony") at 4:15-5:9.
[2] Woolf Testimony at 4:28-5:1.

There are good reasons to preserve the status quo and allow industrial customers to manage their own energy efficiency efforts without establishing utility-sponsored DSM programs. For one, Kentucky manufacturers already have a strong incentive to engage in energy efficiency efforts on their own. Effective management of electric costs is vital to the success of Kentucky's manufacturers, who compete both nationally and internationally.[3] Indeed, up to one-quarter of the total revenues of energy-intensive Kentucky manufacturers go toward electric costs.[4] And the success of Kentucky manufacturers has a significant impact on the economy of the Commonwealth. As Sierra Club witness Tim Woolf acknowledged, *"the industrial sector is critical to Kentucky's economy."*[5] Companies' witness David E. Huff added that *"[m]anufacturing is the single largest contributor to Kentucky's gross domestic product, and provides over 200,000 jobs in the Commonwealth."*[6] Changes in electric pricing can have a significant impact on manufacturers and consequently, on Kentucky's economy. A recent study by the Kentucky Energy and Environment Cabinet found that an increase of 10% in electricity prices was associated with a reduction of approximately 3% in absolute manufacturing employment.[7] Conversely, reductions in electricity costs can render manufacturers more competitive, both nationally and internationally. Hence, Kentucky manufacturers are highly incentivized to achieve energy efficiencies.

At the hearing, Mr. Huff cited many of these factors when explaining the Companies' decision not to offer industrial DSM programs:

> *Sierra Club: In your Rebuttal Testimony, you responded to Mr. Woolf's suggestion that the Companies offer energy efficiency programs to industrial customers?*
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> *Mr. Huff: I did respond to that. I said ...that we know that they are very sensitive to energy prices. There's a Department of Energy study that actually says that a 10% increase in prices affects employment in the manufacturing sector by over 3%. That...is approximately double the price sensitivity of the next class of customer, the commercial customer. That they have choices in the state...both in location of their manufacturing facility and also in just determining...production levels of those facilities. And that...according to that report, approximately 25%, or up to 25%...of each dollar of revenue from the manufacturing sector is utilized in energy production. Thus, they are highly incentivized to achieve energy efficiency.*

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[3] Rebuttal Testimony of David E. Huff (June 16, 2014) ("Huff Rebuttal Testimony") at 2:1-3.
[4] Huff Rebuttal Testimony at 2:1-6 (citing *"The Vulnerability of Kentucky's Manufacturing Economy to Increasing Electricity Prices,"* Kentucky Energy and Environment Cabinet (October 2012), *available at* http://energy.ky.gov/Programs/Documents/Vulnerability%20of%20Kentucky's%20Manufacturing%20Economy.pdf ("Kentucky Energy Cabinet Study") at 2).
[5] Woolf Testimony at 35:21.
[6] Huff Rebuttal Testimony at 1:18-19.
[7] Huff Rebuttal Testimony at 2:8-11 (citing Kentucky Energy Cabinet Study at 9).

They have repeatedly told us that are achieving those energy efficiencies and the savings for themselves and for their clients.[8]

Additionally, energy-intensive industrial customers already expend significant financial resources on energy efficiency in order to protect their bottom line. Some even have teams of employee who assist in finding ways to achieve energy efficiencies.[9] A number of industrial customers therefore may not receive sufficient benefits from utility-sponsored DSM programs to outweigh the additional costs of establishing those programs. This distinguishes the industrial class from many of the customers in the residential and commercial classes who do not have access to the same resources as industrial customers. Mr. Huff explained the unique position of the industrial class with respect to DSM at the hearing:

Our industrial customers are very sophisticated customers. They understand, they have large operations...many of them are national players, they're familiar with programs in other states, they watch their expenses very very closely, and they understand how this works...[10]

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...The industrial customer class is a much different customer class. It's much smaller, it's very sophisticated. Many times, has engineers, have energy specialists that...specifically analyze and look at those energy efficiencies and the revenues and the costs associated with it, which is generally, not universally, but generally not the same across the residential and commercial class.[11]

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KIUC: ... [Industrial customers] do have staffs that look at energy savings and energy efficiency and they monitor that very closely, is that your experience?

Mr. Huff: That is my experience and understanding.[12]

There is no reason to believe that industrial customers are currently operating inefficiently.[13] Nor is there reason to believe that they would not have the financial resources to continue to invest in additional energy

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[8] Tr. at 10:19:44.
[9] Tr. at 10:56:12.
[10] Tr. at 10:44:14.
[11] Tr. at 10:56:12.
[12] Tr. at 11:13:50.
[13] Tr. at 11:12:20:22 (*KIUC: "Is there any reason for you to believe that the industrial customers of KU and LG&E are wasting electricity or using it inefficiently?" Mr. Huff: "Again, our customers, many I believe [KIUC members] have told us that they are making investments in energy efficiency. Through [Kentucky Pollution Prevention Center], they have case studies that show where they've helped other industrial customers achieve energy efficiency, water savings, and others, and I know that they're very focused on that aspect of their business."*).

efficiency measures on their own.[14] Hence, there is no demonstrated need to justify implementing utility-sponsored DSM programs for industrial customers.

Requiring the Companies to establish such programs would also be problematic. While the Companies currently have the internal expertise necessary to advise residential and commercial customers on how to conserve their electricity usage,[15] they do not have the internal expertise necessary to advise sophisticated industrial customers on how to run their processes more efficiently:

> *KIUC: Who from KU could go out to the Toyota Georgetown facility and explain to them how they could make cars more efficiently? Who is qualified to do that?*
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> *Mr. Huff: We do not have internal expertise that goes behind-the-meter to advise the industrial customers.*[16]

Moreover, establishing utility-sponsored DSM programs for industrial customers may force industrial customers who are already expending financial resources on their own energy efficiency to use additional (and possibly significant) financial resources to fund the energy efficiency efforts of potential competitors.[17] And participation in utility-sponsored DSM measures may not be a viable option for certain industrial customers in light of their business models, some of which require sufficient payback of energy efficiency measures over a very short period of time.[18] As Mr. Huff noted, industrial customers "*have no interest in paying for measures that sometimes, or many times, might be [for] their competitors to implement energy efficiency. And they find more value in maintaining that discretion and the analysis...of where they want to deploy their monies and their capital on their own.*"[19]

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[14] Tr. at 11:15:07 (*KIUC: "Is there any reason for you to believe that your national accounts, the Duponts, the Fords, the GEs, if they see a project that makes sense for them, is there any reason to think that they cannot afford to fund that project on their own?" Mr. Huff: "...I have every reason to believe that if they see a project that's valuable to them, they have the means to finance it."*).
[15] Tr. at 11:14:05 (*KIUC: "There are people at KU that can come out to my house or your house and tell you about... insulation or how to change up your air conditioning and use electricity more efficiently, isn't that your experience?" Mr. Huff: "It is...I have staff that understand that. I have staff that have HVAC certification. I have partners that work very directly with those common kinds of construction that is found in residential and in commercial establishments."*).
[16] Tr. at 11:13:02.
[17] Tr. at 10:50:52.
[18] Tr. at 10:44:33 (*Mr. Huff: "...We also understand that from those discussions, the "might or might not participates" is directly related to an association of value on an annual basis, and on a very short-term payback basis, because of the very competitive industry that they're in."*).
[19] Tr. at 10:50:51.

Kentucky law recognizes the unique position of industrial customers with respect to energy efficiency, and allows them to opt out of utility-sponsored DSM programs. Specifically, KRS §278.285(3) provides:

> *...The commission shall allow individual industrial customers with energy intensive processes to implement cost-effective energy efficiency measures in lieu of measures approved as part of the utility's demand-side management programs if the alternative measures by these customers are not subsidized by other customer classes. Such individual industrial customers shall not be assigned the cost of demand-side management programs.*

An increasing number of states are choosing to take an approach similar to Kentucky's.[20] In light of the statutory right of industrial customers to opt out of utility-sponsored DSM programs, it is reasonable for Kentucky utilities to choose not to offer those programs. The energy-intensive customers in their service territories who already undertake their own energy efficiency efforts would likely opt out of such programs in order to avoid increasing their own costs to fund DSM measures that will not provide sufficient benefits to them. Consequently, participation rates in such programs would dwindle and the same pool of DSM funds would be recovered from an ever smaller pool of industrial customers, increasing the costs on those remaining customers. By choosing not to offer DSM programs for industrial customers, Kentucky utilities can avoid such an adverse result.

Sierra Club holds out the possibility that some industrial customers may wish to participate in utility-sponsored DSM programs, pointing to the results of an industrial customer survey conducted by the Companies in which few customers indicated that they would *"definitely"* opt out of such programs.[21] But the Commission should not rely too heavily on those survey results, for several reasons. As an initial matter, the 335 survey responses received were not weighted by energy usage among the industrial customers.[22] Hence, the response of a very energy-intensive customer such as North American Stainless received the same weight as the response of a much less energy-intensive industrial customer, even though North American Stainless' choice to opt out of

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[20] Tr. at 15:10:26 *(KIUC: "But [Indiana] did pass the industrial opt-out because there was so much opposition from the manufacturing sector, are you aware of that?" Mr. Woolf: "Yes, I'm aware. That's one of the primary reasons for the opt-"out programs." Q: "And Ohio has an opt-out that was recently enacted as well, a more limited one. Are you aware of that?" Mr. Woolf: "I'm aware of that." Q: "So people are trying...to emulate what Kentucky has, not do away with it, at least in high manufacturing, industrial-intensive states. Would you agree with that?" Mr. Woolf: "Yes....").*

[21] Woolf Testimony at 34:14-18.

[22] Tr. at 11:02:41 (KIUC: *"Does [the survey] weight the survey results by energy usage or is it just a per capita survey?"* Mr. Huff: *"To my knowledge, it does not weight it by revenue or size of the company. It's simply...every answer is equally weighted to another."*).

utility-sponsored DSM programs would have a larger impact on the DSM costs consequently charged to other customers.[23]

This leads to the larger problem with the industrial customer survey – its failure to account for how customers would react if their DSM costs increased as a result of other customers opting out of the Companies' DSM programs pursuant to KRS §278.285(3). Although only around 20% of customers indicated that they would *"definitely"* or *"probably"* opt out of a utility-sponsored DSM program, the choice of those customers to opt out would increase the DSM costs collected from the remaining industrial customers. In response, those remaining industrial customers may then also decide to opt out of the programs pursuant to KRS §278.285(3), increasing DSM costs further on any industrial customers who did not yet opt out. This potential *"death spiral"* was discussed at the hearing:

> *Mr. Huff: If you take 20% that would opt out, that increases the cost of the programs because...we're required to make sure that the cost of each program is directly associated to the class of customer. So 20% opting out of the industrial class would mean that there is increased cost for anybody that may remain. There's a 40% that said "we'll take a wait and see approach." Based upon that 20% opt out, the increase in costs that then would be spread over a smaller number, it's highly likely that those 40% would opt out, leaving approximately...60% that are opting out of a program or specifically saying there would be no value to it, leaving a minority of customers who may find value to it. It's unclear that with the costs spread over that minority, whether they would actually participate or not. Beyond the survey, you know that the 40% that said they'd take a wait and see look, from conversations with our industrial clients and customers, they routinely and consistently tell us that they do not find value in a utility-sponsored program.*[24]
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> *KIUC: And if you had 28...survey participants say they would definitely opt out, if those happened to be your largest industrial customers, that would have a disproportionate effect on the volume or the load that would be opting out, correct?*
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> *Mr. Huff: It would have a dramatic effect on the amount of monies that would be available or collected in order for programs.*
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> *Q: And when you say you've spoken to a lot of industrial customers, national accounts, that are familiar with how these programs have worked elsewhere, those would tend to be your biggest customers, correct?*
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> *Mr. Huff: That's correct. We have major account representatives that talk to them on a routine basis.*

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[23] Tr. at 11:03:06 *(KIUC: "So under this methodology...the weighting for North American Stainless would be the same as a small industrial customer, Joe's Machine Tool?" Mr. Huff: "Yes, sir").*
[24] Tr. at 10:29:56.

Q: So as your biggest customers opt out, it leaves a smaller pool of kilowatt hours or load to fund whatever programs that there might be, correct?

Mr. Huff: That's correct.

Q: That would then increase the charge on everybody else, right?

Mr. Huff: That's correct.

Q: Is this…could have the potential to death spiral effect, where the last guy standing is paying a pretty significant…?

A: That's our opinion. And to my earlier testimony, why when you start looking at the percentages that would opt out of the programs, you start getting diminishing monies that are available, less likelihood of being able to provide sufficient program that's valuable, and then you just have more and more companies that are not willing to participate because the dollars aren't there for participation.[25]

The survey results when viewed in isolation therefore may not provide an accurate reflection of what would actually happen if the Companies began offering DSM programs for industrial customers. Accordingly, rather than relying solely on the industrial customer survey results, the Companies also factored in direct conversations with their industrial customers in determining not to establish utility-sponsored DSM programs for those customers:

[The industrial customer survey] is supplemental data to discussions that we have with our customers on an ongoing basis and it is an additional piece of information that we take into account. It's used to validate or to give us additional information to make an overall decision, but it is not an instrument…on which to make a very important decision on proposing programs by itself and in isolation from other conversations that we have with our customers.[26]

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Sierra Club: So how did you determine at what point you would offer programs to industrial customers?

Mr. Huff: There's no hard line in the sand, so to say….It is a very dynamic approach. As I explained previously, we looked at 20% that said they had no value. We looked at another 40% that said…basically had told us, as long as there's more value in the…utility program than what were paying on an annual basis, then we'll participate. Well, in general, how the DSM function works, year-over-year-over-year value is not there. And so it is appropriate to believe that those 40% would be additive to the 20% and 60% would then not participate in a program. When we looked at that, we analyzed it, it was very consistent with the information and the direct contract

[25] Tr. at 11:03:36.
[26] Tr. at 10:45:05.

we had with our industrial customers and the ongoing communications we had with them. And no need then to offer or to propose a utility-based program for industrials.[27]

Thus, the Companies ultimate decision not to include industrial customers programs in its 2015-18 DSM plan was reasonable.

For industrial customers interested in implementing additional energy efficiency measures, there are already other resources available. For example, the Companies work with the Kentucky Pollution Prevention Center at the University of Louisville as part of its E3 initiative. One focus of the E3 initiative is to help small and medium manufacturers advance efforts to conserve energy through energy-efficient practices.[28] Mr. Huff explained that the Companies are *"active in an E3 initiative over there and working with our industrial customers and looking at how they might improve their own processes. We see that that is advantageous to our customers and it's something that we do...for our customers to help them understand ways that they can implement on their own."*[29] Hence, interested industrial customers already have options for exploring energy efficiency measures outside of utility-sponsored DSM programs.

Given the strong incentives for Kentucky industrial customers to engage in energy efficiency efforts on their own, the evidence that those customers have undertaken and can continue to undertake such efforts, the unique position of industrial customers compared to residential and commercial customer classes, the potentially adverse consequences of utility-sponsored DSM programs on the competitiveness of industrial customers, as well as their legal right to opt out of any utility-sponsored DSM programs, it is reasonable that the Companies decided not propose to establish DSM programs for industrial customers in this case. The Commission should uphold the Companies' decision.

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[27] Tr. at 10:34:30.

[28] Huff Rebuttal Testimony at 3:17-19 (citing Kentucky E3 initiative website, *available at* http://kppc.org/customized-technical-services/kentucky-e3-initiative-2/).

[29] Tr. at 10:57:14.

WHEREFORE, KIUC requests that the Commission approve the Companies' DSM plan without requiring that the Companies begin offering DSM programs to industrial customers during the plan period.

Respectfully submitted,

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