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January 6, 2009		
Commonwealth of Kentucky Public Service Commission Attn: Jeff Derouen Executive Director P.O. Box 615 Frankfort, KY 40602-0615	RECEIVED JAN 6 2009 PUBLIC SERVICE COMMISSION	
In the Matter of:		
FLEMING-MASON ENERGY COOPERATIVE CORPORATION	CASE NO. 2008-00	9408
Dear Mr. Derouen:		

Attached hereto is the Testimony of Christopher S. Perry, President and Chief Executive Officer of Fleming-Mason Energy for consideration in the above-numbered case. Ten copies are attached.

Sincerely,

Marini W. S. it

Marvin W. Suit Attorney for Fleming-Mason Energy

MWS:jtr

Enclosures

<JTR\Letters\mws\Derouen. Jeff re fivd Testimony of Christopher Perry (01-05-09)>

### **COMMONWEALTH OF KENTUCKY**

### **BEFORE THE PUBLIC SERVICE COMMISSION**

In re the Matter of:

CONSIDERATION OF THE NEW FEDERAL)STANDARDS OF THE ENERGY)INDEPENDENCE AND SECURITY ACT OF2007)

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### TESTIMONY OF CHRISTOPHER S. PERRY PRESIDENT AND CHIEF EXECUTIVE OFFICER FLEMING-MASON ENERGY

Filed: January 6, 2009

#### I. INTRODUCTION

- 1 Q. Please state your name, business address and occupation.
- A. My name is Chris Perry. I am the President and Chief Executive Officer of FlemingMason Energy located at 1449 Elizaville Rd., Flemingsburg, Kentucky 41041.

4 Q. Please state your education and professional experience.

- 5 A. My education consists of a Bachelor of Science in Electrical Engineering degree from the University of Kentucky and graduate coursework toward a Master's in Business 6 Administration degree from Embry-Riddle Aeronautical University. I have worked 7 in the cooperative program for over 15 years for three cooperatives including Nolin 8 9 RECC in Elizabethtown, Kentucky and for one of the larges cooperatives in the country, Sumter Electric, in Sumterville, Florida. I have worked for Fleming-Mason 10 Energy since 2003. Before becoming the President and CEO in April of 2007, I was 11 the Manager of Engineering. 12
- 13 Q. Please provide a brief description of your duties at Fleming-Mason.
- A. As President and CEO, I am responsible for the electric operation and financial
  control of the organization. I am also responsible to the Fleming-Mason Energy
  Board of Directors and assure them that Fleming-Mason Energy is complying with all
  rules and regulations set forth by the Rural Utilities Service, Kentucky Public Service
  Commission, and all other regulatory bodies.
- 19

### Q. What is the purpose of your testimony?

A. The purpose of my testimony is to provide comments regarding the retail rate design
modifications that are necessary to promote energy efficiency investments. As a

22 distribution cooperative, Fleming-Mason is both concerned about and well positioned

to address this issue. With regard to the other three issues on which the Commission
 seeks comments, Fleming-Mason adopts and supports the comments filed by East
 Kentucky Power Cooperative in this proceeding.

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#### Q. Please summarize your testimony.

A. To create the right retail rate environment for promoting energy efficiency
investments, the Commission needs to adhere to the rate making principle that fixed
costs should be recovered through fixed charges and variable costs should be
recovered through variable charges. For most distribution cooperatives, following this
principle would result in higher customer charges, higher demand charges, and lower
energy charges.

### 11 Q. Please describe Fleming-Mason Energy.

Fleming-Mason Energy is an electric distribution cooperative, owned by its members, 12 A. 13 and operated for them on a not-for-profit basis. Fleming-Mason serves more than 23,000 members in our eight county service area. Fleming-Mason maintains over 14 3,400 miles of line in the counties of Bath, Bracken, Fleming, Lewis, Mason, 15 Nicholas, Robertson and Rowan. With the financial pressures that our members are 16 17 facing today as a result of escalating energy and commodity prices, Fleming-Mason wants to help our customers conserve energy and manage their energy bills while 18 providing reliable service at the lowest possible price. 19

# Q. Do current retail rate designs provide any disincentives for Fleming-Mason to aggressively pursue energy conservation and energy efficiency efforts with its customers?

23 A. Yes. Fleming-Mason's current retail rate design does not align the interests of the

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1		cooperative and its customers with respect to energy conservation and energy
2		efficiency. Fleming-Mason's current residential customer charge is \$9.75 per
3		customer per month which is well below the \$XX.XX indicated by its most recent
4		cost of service. This \$9.75 monthly charge does not even cover Fleming-Mason's
5		customer related costs let alone any margins. Under its current rate design, Fleming-
6		Mason collects all of its margins and a significant portion of its customer related fixed
7		costs through an energy charge assessed on a kWh basis. Thus, any reduction in sales
8		due to energy conservation or energy efficiency results in the cooperative not
9		recovering fixed cost and margin, which financially harms the cooperative. It is not
10		reasonable to expect Fleming-Mason to aggressively pursue energy conservation and
11		energy efficiency when every reduction in sales has a negative financial impact on
12		Fleming-Mason. This link between sales and fixed cost and margin recovery is
13		referred to in the electric utility industry as the "throughput incentive".
14	Q.	Please explain the "throughput incentive".
15	A.	Between rate cases, utilities have a financial incentive to increase retail sales of
16		electricity relative to historic levels that were used for calculating their base rates.
17		This incentive exists because there is usually significant incremental fixed cost and
18		margin recovery on incremental sales. For sales above the historic levels that were
19		used for calculating its base rates, all revenue above the variable cost of producing the
20		incremental kWh would be incremental revenue for the utility. This incentive for
_		
21		utilities to maximize the "throughput" of electricity across their wires in an attempt to
21 22		utilities to maximize the "throughput" of electricity across their wires in an attempt to increase fixed cost and margin recovery is referred to as the "throughput incentive".

23 Similarly, utility profits decline when sales are below the historic levels that were

- 3 -

1		used for calculating their base rates, which could result from energy conservation and
2		energy efficiency. Every kWh lost as a result of demand side management programs
3		reduces margins, regardless how cheap the demand side management. The effect of
4		this throughput disincentive is greater for distribution-only utilities, such as rural
5		electric cooperatives, because the revenue impact of electricity sales reduction is
6		disproportionately larger for utilities without generation resources. It is critical to
7		address this throughput incentive if regulators and customers want utilities to become
8		actively involved in energy conservation and energy efficiency programs.
9	Q.	How can this "throughput incentive" be mitigated for rural electric
10		cooperatives?
11	A.	Probably the easiest way for a rural electric cooperative to mitigate the throughput
12		incentive is to allow it to increase its customer charge to a level that is justified based
13		on cost of service. This would assure a revenue stream that flows into the cooperative
14		regularly and that is not linked to the level of sales. One result of such a change is that
15		the energy charge would be reduced as fixed cost and margin recovery was removed
16		from the customer charge. The straight fixed variable rate design that is common in
17		the natural gas industry takes this to the extreme with all of a utility's fixed cost
18		recovered through a monthly customer charge. This completely breaks the link
19		between the recovery of fixed cost and margins and the level of kWh sales, as there
20		are no fixed cost or margin recovery in the energy charge assessed on a kWh basis.
21	Q.	What costs are typically classified as customer-related in a cost of service study
22		and should be recovered through the customer charge?
23	A.	The customer charge recovers the cost of the minimum amount of equipment that the

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1		cooperative must install to provide a customer with access to the electric grid.
2		Without this minimum amount of equipment, customers would not be able to receive
3		electric service. Unfortunately, the cost of the poles, wire, transformers, service
4		drops, meters and substations necessary to provide a customer with access to the
5		electric grid are not cheap. For example, the 15 kVa transformer that is used for most
6		residential customers costs about \$xxx. A mile of single phase distribution line costs
7		about \$30,000 per mile, which includes both the poles and the wire. On average, the
8		Fleming-Mason has about \$X,XXX per customer invested in the distribution facilities
9		necessary to provide a customer with electric service. These represent fixed costs to
10		the cooperative; that is costs that do not change regardless of the amount of electric
11		energy purchased by customers. So if customers use less electricity, either because
12		they have taken steps to conserve energy or because they went to Florida on vacation,
13		these costs to the cooperative do not change and must be recovered for the
14		cooperative to remain financially sound.
15	Q.	In a cost of service study, why are the fixed costs of a cooperative's distribution
16		system allocated between demand-related and customer related components?
17	А.	In order to be as fair as possible to all customers, the fixed cost of a cooperative's
18		distribution system is divided into two components: 1) customer-related costs and 2)
19		demand-related costs. The portion classified as customer-related cost is the portion of the
20		fixed costs of the distribution system that is size invariant. This size invariant portion of
21		the costs is usually determined using the zero intercept approach or an engineering
22		estimate. Costs that vary with the load carrying capability of the distribution facilities
23		should be allocated on the basis of demand.

1	Costs that do not vary with the load carrying capability of the distribution facilities
2	are fixed costs that exist irrespective of what size of facility is installed. These costs
3	are present due to the fact that a customer is being served and will not increase or
4	decrease with the load requirements of that customer. Using conductor as an example,
5	there is a level of fixed production cost associated with every conductor size. That
6	fixed cost is best allocated on the basis of customer months because it is caused by
7	the existence of a customer, not by the existence of demand. These costs that do not
8	vary with the size of the equipment are properly classified as customer costs and
9	allocated based on the number of customers in a class.
10	The amount of the cooperative's distribution system costs that are collected through
11	the customer charge is based on the minimum amount of equipment that each
12	customer must have in place to provide access to the electric grid. However, not all
13	customers can get by with a minimum system, and the distribution costs in excess of
14	the minimum system are collected from customers using a charge per kWh. This split
15	of distribution system costs is done to be as fair as possible to customers who use
16	very little electric energy as well as those who use a lot. Since all customers need at
17	least the minimum amount of equipment necessary to provide a customer with access
18	to the electric grid, all customers are assessed the cost of installing and maintaining
19	this minimum system through the monthly customer charge. Customers that need
20	more than a minimum system pay for their heavier usage through a kWh charge. By
21	dividing the distribution system costs in this way, all customers are paying their fair
22	share for the facilities that they need.

23 Q. How much of a typical customer's bill is for the cooperative's distribution

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### facilities?

2 Based on the last cost of service study that the cooperative did, about 20% of a typical A. 3 customer's bill is for the cooperative's distribution facilities and about 80% is for the 4 energy that the cooperative purchases from its supplier. Thus, reducing customer 5 usage through energy conservation and energy efficiency programs has the potential 6 to generate significant energy bill reductions for customers. Furthermore, with 7 increases in the cost of copper, steel, cement, coal and natural gas, both the cost of the 8 generating plants and transmission lines and the cost of the fuel for producing electric 9 energy are likely to increase in the future. With these expected increases in the cost of 10 purchased power, energy conservation and energy efficiency would benefit both the 11 cooperative and its customers, and Fleming-Mason would be willing to aggressively pursue energy conservation and energy efficiency if it were not harmed financially by 12 doing so. 13

# Q. Why would reducing the customer charge and recovering these costs through a kWh charge cause financial problems for the cooperative and result in more variable energy bills for customers?

A. If some of the costs of the minimum system necessary to provide a customer with access to the electric grid are recovered through a kWh charge rather than through the customer charge, customers who use a small amount of electric energy would not pay the costs that they impose on the system and would receive a subsidy from customers who use a lot of electric energy. With these fixed costs recovered through the kWh charge, the cooperative would recover more fixed cost than it actually needed when weather was extremely hot or cold and kWh sales were high. The cooperative would

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1		recover less fixed cost than it needed when weather was mild and kWh sales were
2		low. This would result in customer energy bills being higher than necessary when
3		weather was extreme and lower than necessary when weather was mild. With a low
4		customer charge, the cooperative is betting on extreme weather, and the cooperative
5		wins and the customer loses when extreme weather actually occurs. Rather than
6		making bets on weather, a better outcome for both the cooperative and for customers
7		is for the cooperative to recover these fixed costs through a fixed monthly charge that
8		does not vary with kWh sales and with weather.
9	Q.	Would recovering the cost of the minimum system necessary to provide a
10		customer with access to the electric grid through a monthly customer charge
11		provide the right environment for energy conservation?
12	А.	Yes. If a cooperative recovers a significant amount of its fixed costs through an
13		energy charge on each kWh sold rather than through a monthly customer charge,
14		energy conservation would result in reduced energy sales and in some of these fixed
15		costs not being recovered by the cooperative. Thus, reduced sales resulting from
16		energy conservation would harm the cooperative financially and reduce the
17		cooperative's enthusiasm for assisting customers with energy conservation efforts.
18		However, if these fixed costs are recovered through a monthly customer charge, the
19		cooperative would continue to recover these fixed costs regardless of the level of
20		kWh sales, and the cooperative could get much more aggressive in assisting
21		customers with energy conservation efforts without harming itself financially.
22		A rate where the fixed costs and margin of the distribution cooperative are recovered

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goal of energy efficiency and load reduction as a priority. This rate design would
 align the goals of all of the parties and would result in the Commission, Attorney
 General, Sierra Club, the Governor's Energy plan, the members, and the distribution
 cooperative working toward the same goal. That goal is to reduce energy usage,
 carbon emissions, and ultimately the energy bill of the member.

6 Q. Shouldn't the customer charges for all utilities in Kentucky be about the same?

7 No. Rural electric cooperatives have much fewer customers per mile of line and Α. 8 cannot spread fixed distribution costs over as many customers as an investor-owned 9 cooperative. For example, Fleming-Mason currently has about 6.7 customers per 10 mile of line while Kentucky Utilities has about 35.4 customers per mile of line. If a mile of single phase distribution line costs about \$30,000 to install, this mile of line 11 would represent a cost of \$4,477 per customer for Fleming-Mason and only \$847 for 12 Kentucky Utilities. Similarly, in a rural area, it is difficult for a transformer to serve 13 more than a single customer, while in an urban area a transformer could serve from 4 14 15 or more customers. These differences in ability to spread fixed costs result in much 16 higher customer related costs for distribution cooperatives compared to investor-17 owned utilities and the resulting customer charges could be very different.

18 Q. Would a lower customer charge benefit fixed and low income customers?

A. Based on our experience, a lower customer charge would not benefit most fixed and low
income customers. For fixed and low income customers to benefit from a lower customer
charge and higher energy charge, these customers would need to have an energy usage
that is significantly lower than the class average. Generally, this is not the case for low
income customers. The housing stock in which many low income customers are living is

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relatively inefficient from an energy usage standpoint, so their energy usage is frequently
above the class average. The inefficient energy usage of the dwelling in which they live
has typically resulted in the price of the dwelling being discounted to a level that low
income customers can afford. For fixed income customers, it is our experience that,
because they have a stock of appliances similar to other customers and are frequently
home all day, they generally have usage levels in the neighborhood of the class average
and would not significantly benefit from such a change.

In the Fleming-Mason Energy service territory, twenty percent of our members are 8 9 below the poverty level and they struggle to make ends meet monthly. When you examine the usage of our low-income members, you see that these members have 10 11 bills that are higher than the average customer. There are a couple of reasons for this. First, these members live in homes or manufactured homes that are typically older 12 than the average. Approximately 75% of our members live in homes that are older 13 14 than 10 years. These homes are poorly insulated and have appliances that do not meet Energy Star standards. 15

## Q. Who are the low usage customers who would benefit from a lower customer charge and a higher energy charge?

A. For most rural electric cooperatives, their low-usage customers are loads like boat docks,
 garages, electric fences, stock tanks, vacation homes, hunting camps, fishing camps and
 services run to barns in case they might be needed. All of these loads typically consume
 very few kilowatt hours during the course of a year and the usage is sporadic. However,
 even though kWh sales may be low to these customers, the cooperative still incurs
 significant fixed costs in installing the minimum system requirements necessary to serve

these loads. Furthermore, these loads usually are not located near roads and existing distribution lines and may cost more than the average minimum system. A lower customer charge and a higher energy charge would result in these low-usage customers being subsidized by other cooperative customers who have above-average usage. Such a rate structure would send a signal that it is relatively inexpensive to provide the physical equipment necessary to provide service to these low-usage customers, and this is definitely not the case in rural areas.

### Q.

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## in this proceeding?

Do you believe that the Commission should also explore the use of time of use rates

Yes. About XX% of the cost of purchased power is for recovering the cost of our 10 Α. 11 supplier's electric generating plants and transmission lines and about XX% of the cost of purchased power is for the fuel used to produce the electric energy that customers 12 consume. By loading the purchased power demand costs into an adder that is applied to 13 14 on-peak energy sales, the cooperative could provide a strong incentive for customers to shift usage to time periods where it is less costly to serve them. This would provide 15 customers with control over their energy bills and incent them to pursue changes in usage 16 patterns that would drive costs out of the business. 17

## 18 Q. Please describe Fleming-Mason's efforts in the energy conservation and energy 19 efficiency areas.

20 A. Fleming-Mason Energy works hard to help our members become more energy

- 21 efficient. We have given out thousands of compact fluorescent light bulbs (CFLs),
- 22 performed energy audits over the entire system, and offered rebates on insulation and
- 23 geothermal units. Recently, we have started a partnership with one of the industrial

customers in Mason County to educate and provide energy efficient equipment to
 their employees. We are committed to helping our members meet the energy
 challenges of the future.

4 The problem with many of the programs and incentives that we offer is that many 5 customers cannot fully take advantage of them. The problem is that many members do not have the disposable cash to fully implement them in their homes. For these 6 7 programs to be fully utilized, the Commission needs to consider creating rate designs 8 that allow cooperatives to have a mechanism to fund these programs. There are a couple of possible solutions. One, the Commission could allow a charge to be placed 9 on the bill similar to the DSM surcharge. This charge of \$2.00 per meter would allow 10 11 the cooperative to have funds available to make investments. For accountability, the Commission should review the investments and the use of the money each year. 12 13 A second method that may be used would be for the Commission to allow a higher TIER to be recovered by the cooperative. In our recent rate case, we agreed to a 14 TIER of approximately 2.0. If a TIER of 2.5 were recovered, then the additional 15 16 funds could be used for the efficiency investments. In either instance, the cooperative 17 will make the additional investments with the members to reduce usage. All parties benefit from this scenario. Members' bills will be reduced, emissions are reduced, 18 and the cooperative does not start a cycle of decreased sales leading to increased rates 19 20 because rates are recovered through fixed charges.

# Q. What are your conclusions regarding the Commission's investigation in this proceeding?

23 A. Fleming-Mason Energy is very supportive of the Commission in this investigation. I

1	believe that the cooperatives have a great deal to bring to the table. We want to help our
2	members use energy efficiently while at the same time reducing their costs. We look
3	forward to working with the Commission in implementing rate designs that make energy
4	conservation and energy efficiency a win-win proposition for our customers and for the
5	cooperative.

- 6 Q. Does this conclude your testimony?
- 7 A. Yes.