

Exhibit No.:	
Issue:	Cost Recovery
Witness:	Maurice Brubaker
Type of Exhibit:	Rebuttal Testimony
Sponsoring Party:	Missouri Industrial Energy Consumers
Case No.:	EO-2012-0009
Date Testimony Prepared:	March 20, 2012

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

**In the Matter of KCP&L Greater Missouri
Operations Company's Application for
Approval of Demand-Side Programs and
for Authority to Establish a Demand-Side
Programs Investment Mechanism**

File No. EO-2012-0009

Rebuttal Testimony and Schedules of

Maurice Brubaker

On behalf of

Missouri Industrial Energy Consumers

REDACTED VERSION

March 20, 2012



BRUBAKER & ASSOCIATES, INC.
CHESTERFIELD, MO 63017

Project 9562

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STATE OF MISSOURI)
)
COUNTY OF ST. LOUIS) SS

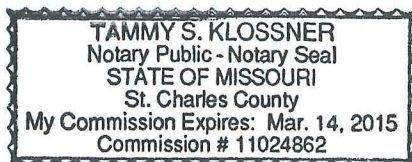
Affidavit of Maurice Brubaker

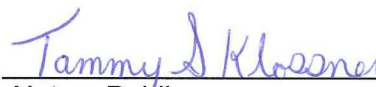
Maurice Brubaker, being first duly sworn, on his oath states:

1. My name is Maurice Brubaker. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 16690 Swingley Ridge Road, Suite 140, Chesterfield, Missouri 63017. We have been retained by the Missouri Industrial Energy Consumers in this proceeding on their behalf.
2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony and schedules which were prepared in written form for introduction into evidence in Missouri Public Service Commission File No. EO-2012-0009.
3. I hereby swear and affirm that the testimony and schedules are true and correct and that they show the matters and things that they purport to show.


Maurice Brubaker

Subscribed and sworn to before me this 19th day of March, 2012.




Notary Public

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Rebuttal Testimony of Maurice Brubaker

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A Maurice Brubaker. My business address is 16690 Swingley Ridge Road, Suite 140,
3 Chesterfield, MO 63017.

4 **Q WHAT IS YOUR OCCUPATION?**

5 A I am a consultant in the field of public utility regulation and President of Brubaker &
6 Associates, Inc., energy, economic and regulatory consultants.

7 **Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

8 A This information is included in Appendix A to my testimony.

9 **Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

10 A I am appearing on behalf of the Missouri Industrial Energy Consumers ("MIEC").

11 **Q WHAT SUBJECTS ARE ADDRESSED IN YOUR TESTIMONY?**

12 A In my testimony, I will address the manner in which Demand-Side Investment
13 Mechanism ("DSIM") charges should be assessed to and collected from customers.

**Maurice Brubaker
Page 1**

1 The fact that I do not address other aspects of KCP&L Greater Missouri
2 Operations Company's ("GMO") DSIM proposal should not be interpreted as an
3 endorsement of them.

4 **Q PLEASE SUMMARIZE YOUR FINDINGS AND RECOMMENDATIONS.**

5 A They may be summarized as follows:

- 6 1. GMO's proposal to indiscriminately spread the costs of its demand-side
7 management ("DSM") programs across all customers without regard to the costs
8 incurred for different classes is inappropriate.
- 9 2. Costs associated with residential programs should be charged to residential
10 customers and costs associated with commercial and industrial programs should
11 be charged to commercial and industrial customers.
- 12 3. GMO should begin to maintain records of DSM costs by rate schedule, rather
13 than by the broad commercial and industrial category, and as that information
14 becomes available should transition its cost recovery mechanism so that there is
15 a separate charge for each rate schedule.
- 16 4. Over the next several years, the only customers that can possibly benefit from
17 GMO's programs are those that actually are able to and do take advantage of the
18 programs. Customers who do not participate will see higher rates.
- 19 5. Over the long run, the standard cost-effectiveness tests indicate that customers'
20 rates will be about the same as without the programs, or higher.

21 **Collection of Costs and "Shared Benefits" From Customers**

22 **Q HOW HAS GMO PROPOSED TO COLLECT ITS DSM CHARGES FROM**
23 **CUSTOMERS?**

24 A GMO proposes to add together the total of its DSM program costs and its claimed
25 share of net benefits and divide the total dollar amount by the kilowatthours sold to all
26 customers, excluding classes not participating (such as street lighting) and customers
27 who have exercised the opt-out provision under the Commission's rules.

Q IS THIS APPROPRIATE?

A No, it is not. One of the most fundamental tenets of ratemaking is to charge costs to those customers or groups of customers who are responsible for their incurrence. This is why in a cost of service study some customers are charged with costs of secondary voltage facilities and others are not; why costs such as meter reading, billing and customer accounting are analyzed and assigned to customer classes based on their causation of costs; why differences in losses as a function of the voltage level of service are recognized in cost of service studies; and similarly throughout the entire cost assignment/allocation and ratemaking process. It is no different with respect to these specific services that are performed on the premises of individual customers.

There simply is no justification for spreading the costs of residential and commercial/industrial customer programs across all customer classes. Costs associated with residential customers should be assigned to and collected from only residential customers and costs associated with commercial and industrial customers should be assigned to and collected only from them.

Furthermore, the primary beneficiary of any energy efficiency service is the customer who receives it directly, and as a result experiences a reduction in the quantity of electricity through the meter. This, of course, directly reduces the amount of the electric bill and 100% of this benefit accrues to the customer receiving the energy efficiency service.

1 **Q HOW DO THE INDIVIDUAL CUSTOMER REDUCTIONS AFFECT THE CUSTOMER**
2 **CLASS?**

3 A The reduced consumption by a customer reduces the amount of revenue collected
4 from the class of which that customer is a member, reduces the number of
5 kilowatthours consumed by that class and reduces kilowatt demands placed on the
6 system by that class. These class-level benefits will translate into a reduced
7 allocation of both demand-related costs and energy-related costs to the class of
8 which these participating customers are a member.

9 **Q CAN YOU ELABORATE?**

10 A Yes. For example, if the residential class demand is reduced by, say, 3%, then the
11 demand-related costs allocated to the residential class in a future class cost of
12 service study will be proportionately reduced. Non-residential customers receive no
13 part of this benefit. The same is true for reduced energy usage in terms of a lower
14 allocation of variable costs such as fuel.

15 **Q WHAT IF THE INCREASE IN A RATE CASE IS SPREAD AS A FUNCTION OF**
16 **CLASS REVENUES?**

17 A If the revenue increase in a rate case is allocated in some proportion to existing class
18 revenues, the class of which the participant is a member will have a lower proportion
19 of total system revenues and therefore would receive a lower proportion of any
20 revenue increase that is spread as a function of class revenues.

21 **Q DOES GMO TRACK DSM PROGRAM COSTS BY RATE SCHEDULE?**

22 A No. As revealed in response to MIEC Data Request No. 1-6, it does not.

1 **Q SHOULD GMO DO SO?**

2 A Yes. In order to provide a more cost-based collection of DSM charges, GMO should
3 track and record these costs by rate schedule. By doing so, a more precise and
4 cost-based collection mechanism can be implemented in the future.

5 **Q WHAT INFORMATION IS CURRENTLY AVAILABLE WITH RESPECT TO**
6 **PROGRAM EXPENSES BY CUSTOMER CLASS?**

7 A GMO can tell which expenditures are for residential customers and which
8 expenditures are for commercial and industrial customers as a group.

9 **Q HAVE YOU COMPILED THIS INFORMATION AND DEVELOPED A MORE**
10 **COST-BASED COLLECTION MECHANISM?**

11 A Yes. Please refer to Schedule 1 attached to this testimony.

12 **Q PLEASE EXPLAIN SCHEDULE 1.**

13 A The information on Schedule 1 is taken from Schedule TMR-5 and the workpapers
14 supporting that exhibit. Schedule TMR-5 is where GMO summarizes the program
15 costs and the claimed "benefits," and develops its proposed DSM cost recovery
16 factor.

17 **Q PLEASE CONTINUE WITH THE EXPLANATION OF YOUR SCHEDULE 1.**

18 A Program costs are shown at the top of the schedule. Approximately 64% of such
19 program costs are associated with residential class programs. Similar to GMO's
20 calculations, these costs are added together for the years 2012 through 2014 and
21 divided by 3 to develop the DSM program cost recovery component. Different from

1 GMO's approach, however, I have maintained the identity of residential program
2 costs and costs associated with programs for commercial and industrial customers for
3 purposes of developing separate DSIM cost recovery factors.

4 **Q PLEASE EXPLAIN THE "BENEFITS" CALCULATIONS.**

5 A The benefit calculation also is summarized on Schedule 1. The benefits shown there
6 are a portion of the estimated lifetime benefits from the program installations in 2012,
7 2013 and 2014. In particular, GMO estimates the expected benefits over the period
8 2012 through 2026 relating to these installations, discounts these amounts to present
9 value, and claims 12% of such benefits for stockholders.

10 Page 2 of Schedule 1 shows the detail of these calculations and is taken from
11 GMO-supplied workpapers supporting Schedule TMR-5. I have maintained the
12 separation between the residential class and commercial and industrial customers in
13 tracking these benefits. GMO's estimate is that residential programs would produce
14 48% of the benefits and commercial and industrial programs would produce 52% of
15 the benefits.

16 **Q PLEASE EXPLAIN HOW YOU HAVE DEVELOPED THE DSIM FACTORS SHOWN**
17 **AT THE BOTTOM OF PAGE 1 OF SCHEDULE 1.**

18 A The DSIM factors are developed by adding together the program costs and the
19 associated benefits by customer class, and dividing those dollars by the
20 megawatthour sales that GMO has identified for those customer groups. It should be
21 noted that GMO does not appear to have recognized that at least one customer has
22 exercised an opt-out from these programs. That customer's usage, along with the

usage of customers who in the future opt-out, should be subtracted from the megawatthours used to develop the factor.

The result is that instead of a uniform \$2.20 per MWh, when costs and associated benefits are properly tracked by customer class, the applicable factor for residential class customers is \$2.905 per MWh and for commercial and industrial customers is \$1.617 per MWh.

Q OVER THE THREE YEARS OF THE INITIAL CYCLE, WHAT ARE THE IMPACTS ON CUSTOMERS OF GMO'S PROPOSED DSIM COST RECOVERY MECHANISM?

A Under GMO's uniform charge per kWh proposal, the impact averages 2.17% for residential customers, 2.19% for small general service ("SGS") customers, 2.93% for large general service ("LGS") customers and 3.66% for large power ("LP") customers.

Q WHAT ARE THE IMPACTS UNDER YOUR DSM COST RECOVERY PROPOSAL?

A Under the more appropriate approach that I have recommended, the impacts average 2.87% for residential customers, 1.61% for SGS customers, 2.15% for LGS customers and 2.69% for LP customers.

Q IN THE SHORT-RUN, WHO BENEFITS?

A In the short-run, only those customers who participate in the programs have the possibility of being better-off. They would be better-off only if the savings that they experience in the electric bill is more than the DSM charges that they would pay. Customers who do not participate clearly would be worse off because they are being charged for DSIM costs, yet receiving no direct benefit.

1 **Q WHAT ARE THE EXPECTATIONS IN THE LONG-RUN?**

2 A Please see Schedule 2 attached to my testimony. This is GMO's response to MIEC
3 Data Request No. 2-1 which summarizes the standard cost-effectiveness measures
4 for DSM programs. The impact on rates is determined by the ratepayer impact
5 measure ("RIM").

6 **Q WHAT IS THE BASIS OF THE RIM TEST?**

7 A Under the RIM test, the benefits are the avoided costs that result from implementation
8 of the DSM programs. The costs consist of incentives paid to participants, other
9 costs incurred by the utility, and the loss in revenues as a result of diminished
10 consumption. Costs also include the cost to administer, deliver and evaluate the
11 DSM program.

12 **Q HOW SHOULD THE RESULTS OF THE RIM TEST BE INTERPRETED?**

13 A Under the RIM test, a ratio of less than 1.0 means that implementation of the program
14 will cause rates to be higher than they would have been had the program not been
15 implemented and instead the utility had pursued supply-side resources. Note that
16 nearly all the programs have the effect of increasing rates.

17 In particular, the residential programs have a total RIM of 0.95, commercial
18 and industrial programs 1.09, and overall the composite portfolio has a RIM of 1.00.

19 **Q DO YOU HAVE ANY OTHER COMMENTS ABOUT THE RIM TEST RESULTS?**

20 A Yes. The test results shown on Schedule 2 (for all of the tests) are characterized by
21 GMO as "market-based" tests. This approach is based on forecasted market energy
22 prices and a combustion turbine capacity value.

1 The more conventionally performed “cost-based” tests show much lower
2 values. For example, the cost-based RIM test result for the Residential Lighting and
3 Appliance Program is 0.70 rather than 1.05; the Multi-Family Rebate Program has a
4 RIM value of 0.59 rather than 0.97 under the “market-based” test and the Commercial
5 & Industrial Prescriptive Rebate Program has a RIM value of 0.71 under the
6 cost-based test as contrasted to 1.07 under the market-based test. Similar
7 differences exist with respect to the other cost-effectiveness test results.

8 **Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

9 **A Yes, it does.**

Appendix A

Qualifications of Maurice Brubaker

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A Maurice Brubaker. My business address is 16690 Swingley Ridge Road, Suite 140,
3 Chesterfield, MO 63017.

4 **Q PLEASE STATE YOUR OCCUPATION.**

5 A I am a consultant in the field of public utility regulation and President of the firm of
6 Brubaker & Associates, Inc. (BAI), energy, economic and regulatory consultants.

7 **Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND**
8 **EXPERIENCE.**

9 A I was graduated from the University of Missouri in 1965, with a Bachelor's Degree in
10 Electrical Engineering. Subsequent to graduation I was employed by the Utilities
11 Section of the Engineering and Technology Division of Esso Research and
12 Engineering Corporation of Morristown, New Jersey, a subsidiary of Standard Oil of
13 New Jersey.

14 In the Fall of 1965, I enrolled in the Graduate School of Business at
15 Washington University in St. Louis, Missouri. I was graduated in June of 1967 with
16 the Degree of Master of Business Administration. My major field was finance.

17 From March of 1966 until March of 1970, I was employed by Emerson Electric
18 Company in St. Louis. During this time I pursued the Degree of Master of Science in
19 Engineering at Washington University, which I received in June, 1970.

1 In March of 1970, I joined the firm of Drazen Associates, Inc., of St. Louis,
2 Missouri. Since that time I have been engaged in the preparation of numerous
3 studies relating to electric, gas, and water utilities. These studies have included
4 analyses of the cost to serve various types of customers, the design of rates for utility
5 services, cost forecasts, cogeneration rates and determinations of rate base and
6 operating income. I have also addressed utility resource planning principles and
7 plans, reviewed capacity additions to determine whether or not they were used and
8 useful, addressed demand-side management issues independently and as part of
9 least cost planning, and have reviewed utility determinations of the need for capacity
10 additions and/or purchased power to determine the consistency of such plans with
11 least cost planning principles. I have also testified about the prudence of the actions
12 undertaken by utilities to meet the needs of their customers in the wholesale power
13 markets and have recommended disallowances of costs where such actions were
14 deemed imprudent.

15 I have testified before the Federal Energy Regulatory Commission (FERC),
16 various courts and legislatures, and the state regulatory commissions of Alabama,
17 Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia,
18 Guam, Hawaii, Illinois, Indiana, Iowa, Kentucky, Louisiana, Michigan, Missouri,
19 Nevada, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania,
20 Rhode Island, South Carolina, South Dakota, Texas, Utah, Virginia, West Virginia,
21 Wisconsin and Wyoming.

22 The firm of Drazen-Brubaker & Associates, Inc. was incorporated in 1972 and
23 assumed the utility rate and economic consulting activities of Drazen Associates, Inc.,
24 founded in 1937. In April, 1995 the firm of Brubaker & Associates, Inc. was formed. It
25 includes most of the former DBA principals and staff. Our staff includes consultants

Maurice Brubaker
Appendix A
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1 with backgrounds in accounting, engineering, economics, mathematics, computer
2 science and business.

3 Brubaker & Associates, Inc. and its predecessor firm has participated in over
4 700 major utility rate and other cases and statewide generic investigations before
5 utility regulatory commissions in 40 states, involving electric, gas, water, and steam
6 rates and other issues. Cases in which the firm has been involved have included
7 more than 80 of the 100 largest electric utilities and over 30 gas distribution
8 companies and pipelines.

9 An increasing portion of the firm's activities is concentrated in the areas of
10 competitive procurement. While the firm has always assisted its clients in negotiating
11 contracts for utility services in the regulated environment, increasingly there are
12 opportunities for certain customers to acquire power on a competitive basis from a
13 supplier other than its traditional electric utility. The firm assists clients in identifying
14 and evaluating purchased power options, conducts RFPs and negotiates with
15 suppliers for the acquisition and delivery of supplies. We have prepared option
16 studies and/or conducted RFPs for competitive acquisition of power supply for
17 industrial and other end-use customers throughout the United States and in Canada,
18 involving total needs in excess of 3,000 megawatts. The firm is also an associate
19 member of the Electric Reliability Council of Texas and a licensed electricity
20 aggregator in the State of Texas.

21 In addition to our main office in St. Louis, the firm has branch offices in
22 Phoenix, Arizona and Corpus Christi, Texas.

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SCHEDULE 1

**THIS SCHEDULE CONTAINS
HIGHLY CONFIDENTIAL INFORMATION**

KCP&L-Greater Missouri Operations (GMO) - Cost Effectiveness Test Summary
MEEIA Implementation Plan

Residential Programs	TRC	UCT	PCT	RIM
1 Appliance Turn-In Program	2.66	2.66	N/A	0.71
2 Residential Lighting and Appliance Program	2.30	3.65	1.70	1.05
3 Multi-Family Rebate Program	3.24	5.72	2.55	0.97
4 Residential Energy Report Program - PILOT	1.10	1.10	N/A	0.56
5 Energy Optimizer Program	3.16	3.16	N/A	3.16
6 Energy Star® New Homes	1.32	1.52	2.43	0.70
7 Cool Homes Program	1.76	2.91	1.60	1.19
8 Home Performance with Energy Star®	0.58	1.48	0.62	0.72
9 Low-Income Weatherization	0.29	0.29	N/A	0.21
Residential - Total	2.33	3.22	3.41	0.95
Commercial & Industrial Programs				
10 Commercial & Industrial Prescriptive Rebate Program	3.56	4.00	2.86	1.07
11 MPower Rider	1.92	1.92	N/A	1.42
12 Commercial and Industrial Rebate Program	1.29	5.54	1.00	1.13
C&I - Total	2.89	3.99	2.41	1.09
Educational Programs				
13 C&I-Building Operator Certification Program	N/A	N/A	N/A	N/A
14 Res-Home Energy Analyzer	N/A	N/A	N/A	N/A
15 C&I-Business Energy Analyzer	N/A	N/A	N/A	N/A
Portfolio Total	2.51	3.46	2.96	1.00

Note: No direct participant expense for programs 1, 4, 5, 9, and 11

Drafter: Joe O'Donnell

Source: GMO Response to MIEC Data Request 2-1.