

Exhibit No.: _____

Issue(s): Residential Low-Income Rate
Witness // Type of Exhibit: Colton/Direct
Sponsoring Party: Public Counsel
Case Nos.: GR-2001-292

DIRECT TESTIMONY

OF

ROGER D. COLTON

Submitted on Behalf of the Office of the Public Counsel

MISSOURI GAS ENERGY

Case No. GR-2001-292

April 26, 2001

FILED²
APR 26 2001

Missouri Public
Service Commission

In the matter of Missouri Gas Energy's tariff filing) Case No. GR-2001-292
for general rate increase.)

COMMONWEALTH OF MASSACHUSETTS)
) SS
COUNTY OF MIDDLESEX)

1. My name is Roger D. Colton. I am a consultant retained by the Missouri Office of the Public Counsel.

2. Attached hereto and made a part hereof for all purposes is my direct testimony consisting of pages 1 through 60 and Schedules RDC-1 through RDC-21.

3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.


Roger D. Colton

Subscribed and sworn to me this 19th day of April, 2001.

Anne L. Long
Notary Public

My commission expires 09/17/04.

**Before the
Missouri Public Service Commission**

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

2 A. My name is Roger Colton. My address is 34 Warwick Road, Belmont, MA 02478.

3

4 **Q. FOR WHOM DO YOU WORK AND IN WHAT CAPACITY?**

5 A. I am a principal in the firm of Fisher, Sheehan & Colton, Public Finance and General
6 Economics (FSC). I provide technical assistance to a variety of public utilities, state
7 agencies and consumer organizations on rate and customer service issues involving
8 telephone, water/sewer, natural gas and electric utilities.

9

10 **Q. FOR WHOM ARE YOU TESTIFYING IN THIS PROCEEDING?**

11 A. I am testifying on behalf of the Missouri Office of Public Counsel.

12

13 **Q. PLEASE DESCRIBE YOUR EDUCATION BACKGROUND.**

14 A. I received my B.A. degree from Iowa State University (1975); my J.D. from the University
15 of Florida (1981); and my M.A. (economics) from Antioch University (1993).

16

17 **Q. PLEASE DESCRIBE YOUR EXPERIENCE WITH LOW-INCOME ENERGY**
18 **ISSUES.**

19 A. I have been working on low-income energy issues nationwide for roughly 20 years. My
20 work has included utility rate issues, energy assistance, weatherization and energy
21 efficiency, credit and collections, and customer service. To give a notion of the work that I
22 engage in, let me briefly list the initiatives that I am currently working on. I'm currently

1 under contract with the New Hampshire governor's office to help design that state's Electric
2 Assistance Program funded through the state electric wire charge. I'm working for the New
3 Jersey Division of Ratepayer Advocate and the Pennsylvania Office of Consumer Advocate
4 on the design of the natural gas universal service programs in those respective states. I am
5 working for the U.S. Department of Health and Human Services to help LIHEAP offices
6 nationwide integrate new energy affordability programs created through electric and natural
7 gas retail choice legislation with existing LIHEAP programs. I am working for Oak Ridge
8 National Laboratory to provide technical assistance on low-income electric and natural gas
9 restructuring issues on an as-needed basis to public officials nationwide. I am under contract
10 with the Iowa Department of Human Resources to design outreach for that state's fuel
11 assistance program. Finally, I am working with the New York State Community Action
12 Association (NYSCAA) to design a fuel oil group buying program for a five county region
13 in up-state New York.

14
15 **Q. DO YOU WORK ONLY FOR STATE AGENCIES AND COMMUNITY BASED**
16 **ORGANIZATIONS?**

17 **A.** No. I am currently under contract to Duquesne Light Company (Pittsburgh, PA) to help it
18 redesign its range of universal service programs as well as to Entergy Services Corporation
19 (Little Rock, AR) to help it design universal service programs in the states served by its
20 various operating companies.

21
22 **Q. HAVE YOU TESTIFIED BEFORE THIS COMMISSION BEFORE?**

1 A. I have previously testified before the Missouri Commission on merger related issues
2 regarding low-income customers. A summary of my experience as an expert witness is
3 included in Attachment A.

4
5 **Q. HAVE YOU EVER PUBLISHED WITH RESPECT TO LOW-INCOME ENERGY**
6 **ISSUES?**

7 A. A list of my publications is also included in Attachment A.

8
9 **Q. PLEASE DESCRIBE THE PURPOSE OF YOUR TESTIMONY TODAY.**

10 A. The purpose of my testimony is to consider cost-effective ways for Missouri Gas Energy to
11 generate desired payment outcomes from its low-income customer base. More specifically,
12 my testimony will:

- 13 ☐ Describe the Missouri Gas low-income population;
- 14 ☐ Review how Missouri Gas responds to nonpayment, particularly as those processes
15 relate to low-income customers;
- 16 ☐ Propose a low-income fixed credit rate that will address the problems identified
17 elsewhere in my testimony;
- 18 ☐ Review the justifications for adopting such a fixed credit rate; and
- 19 ☐ Propose an alternative to reallocating costs from the fixed credit rate to the standard
20 residential rate.

21 In general, I conclude that: (1) the Company's existing collection activities are inherently
22 ineffective when they are applied to low-income customers; (2) the Company's failure to

1 develop effective responses to nonpayment redounds to the detriment of the Company, the
2 Company's total ratepayer population, and the Company's low-income customers; (3) the
3 Company can address its nonpayment problems through a fixed credit rate; and (4) this
4 mechanism can be predicated on a traditional regulatory foundation.

5
6 **Q. PLEASE SUMMARIZE THE RECOMMENDATIONS YOU MAKE.**

7 A. I recommend that Missouri Gas Energy implement a low-income fixed credit rate as a
8 separate and independently tariffed residential rate. I describe the specifics of my
9 recommendations, as well as the specific bases for these recommendations, in detail in the
10 text of my testimony below.

11
12 **PART 1: LOW-INCOME CUSTOMERS AND THEIR ABILITY TO PAY**

13 **Q. IS THERE A STANDARD MEASURE OF BEING "LOW-INCOME" IN THE**
14 **UNITED STATES?**

15 A. The most commonly used measure of low-income status is the federal Poverty Level. The
16 Poverty Level provides a calculation of the minimum income needed to support a
17 household, adjusted by household size. A three-person household, for example, living with
18 an annual income of \$5,000 is considered to be "poorer" than a two-person household with
19 an annual income of \$5,000. Poverty Level figures are adjusted annually and are published
20 by the U.S. Department of Health and Human Services. Year 2001 Poverty Levels are
21 presented as Schedule RDC-1.

1
2 **Q. WHAT IS MEANT BY "RANGES" OF POVERTY LEVEL?**

3 A. The Poverty Level, itself, is no longer generally considered to be an accurate representation
4 of the income needed to support a minimally adequate lifestyle. As a result, people speak in
5 terms of "percentage of poverty level." Many public assistance programs set their income
6 eligibility equal to 150% or 200% of Poverty Level. 100% of Poverty for a one-person
7 household is \$8,590, while 150% of Poverty is \$12,885 (\$8,590 x 1.5). In addition, when
8 one speaks of the population of persons who live at or below 150% of Poverty, it is clear
9 that far more people are "below" than are "at" that specific level. Because of this, analysts
10 also consider the lower ranges of Poverty Level (e.g., 25%, 50%, 75% of Poverty Level) in
11 order to get an accurate picture of the depth of poverty in an area.

12
13 **Q. PLEASE DESCRIBE THE LOW-INCOME POPULATION SERVED BY**
14 **MISSOURI GAS ENERGY.**

15 A. Nearly 95,000 Missouri Gas Energy (MGE) customers live with incomes at or below 150
16 percent of the federal Poverty Level. Of these low-income customers, more than 25,000 live
17 below 50% of the federal Poverty Level, while another 30,000 live between 50% and 100%
18 of the federal Poverty Level. The distribution of MGE customers by Poverty Level is set
19 out in Schedule RDC-2.

20
21 **Q. WHAT DOLLAR INCOMES ARE ASSOCIATED WITH THESE LOW-INCOME**
22 **HOUSEHOLDS?**

1 A. While I do not have dollar incomes specific to the MGE service territory, Schedule RDC-3
2 presents the most recent compilation of dollar incomes for Missouri households receiving
3 benefits through the federal Low-Income Home Energy Assistance Program (LIHEAP).
4 LIHEAP is the federally-funded fuel assistance program. Of the roughly 105,000 Missouri
5 LIHEAP recipients, roughly 14,000 are MGE customers (DR-OPC-5154). As can be seen,
6 in Missouri, more than 20% of all LIHEAP recipients have gross annual incomes of less
7 than \$4,000. More than 50% of all LIHEAP recipients have gross annual incomes of less
8 than \$6,000; nearly 70% have gross annual incomes of less than \$8,000.

9
10 **Q. IS THERE A GENERALLY ACCEPTED MECHANISM TO USE IN MEASURING**
11 **THE DIFFICULTY THAT LOW-INCOME CUSTOMERS HAVE IN PAYING**
12 **THEIR HOME ENERGY BILLS?**

13 A. The generally accepted measure of inability-to-pay involves energy burden. A household's
14 energy burden is the household energy bill divided by the household income. Energy
15 burden is used as the measure of inability-to-pay at both the state and federal levels.
16 LIHEAP, for example, is statutorily directed to target the highest level of benefits to
17 households with the lowest incomes and the highest energy burdens. In addition, states
18 such as Maine, New Hampshire, Maryland, Ohio, Colorado, and Pennsylvania all use
19 energy burdens as the mechanism to target their rate affordability initiatives.

20
21 **Q. PLEASE CHARACTERIZE THE OVERALL ENERGY BURDEN THAT LOW-**
22 **INCOME CUSTOMERS FACE IN THE MGE SERVICE TERRITORY.**

1 A. The Company's low-income customers currently bear non-sustainable energy burdens.
2 Because of these burdens, low-income customers can be expected to experience arrears, be
3 subject to credit and collection efforts, have their service disconnected, be forced to make
4 unreasonable budget decisions between competing household necessities (e.g., heat or eat),
5 and be forced to engage in a wide variety of dangerous and/or unhealthy activities in an
6 effort to keep paying their utility bills. In addition, these energy burdens have been found to
7 represent an impediment to low-income customers taking constructive actions to address
8 their inability-to-pay.
9

10 **Q. HAVE YOU QUANTIFIED THE ENERGY BURDEN FACING THE COMPANY'S**
11 **LOW-INCOME CUSTOMERS?**

12 A. Schedule RDC-4 shows natural gas burdens for MGE's low-income customers. This
13 Schedule shows that natural gas bills for households living below 50% of Poverty are
14 unaffordable. In addition, natural gas for most low-income customers are unaffordable up to
15 125% of Poverty Level. Only when incomes reach the 125% to 150% level of Poverty do
16 average bills become more affordable to MGE low-income customers.
17

18 **Q. ARE THERE LIMITATIONS THAT YOU WOULD PLACE ON THIS ANALYSIS?**

19 A. Yes. First, the natural gas bill underlying these burdens are based on historical gas levels.
20 Natural gas prices in recent months, however, have seen dramatic increases. The Energy
21 Information Administration of the U.S. Department of Energy reported in January 2001 that
22 "assuming normal weather, residential customers will pay about 70 percent more for their

1 natural gas bills this winter than last winter." "The rise in wellhead prices since last winter,"
2 EIA said, "is expected to increase the average gas prices to residential consumers by about
3 45 percent."¹¹ According to EIA's most recent analysis: "The length of time that gas prices
4 have remained so high is unprecedented."¹² Low-income natural gas burdens given bill
5 increases of 46% are shown in Schedule RDC-5.

6
7 **Q. IS THERE ANY OTHER LIMITATION THAT YOU WOULD PLACE ON YOUR**
8 **ANALYSIS?**

9 A. The burdens that are presented in Schedules RDC-4 and RDC-5 are only natural gas
10 burdens. Natural gas bills, however, are not the largest part of total home energy bills for
11 low-income households. Home heating bills tend to represent only 35% to 40% of total
12 home energy bills. Electric bills represent the other 60% to 65%. A low-income household
13 with a natural gas burden of 5%, therefore, will have a *total* home energy burden of
14 approaching 15%. These home energy burdens cannot be sustained by a low-income
15 household.

16
17 **Q. PLEASE EXPLAIN WHY YOU CONCLUDE THAT THESE ENERGY BURDENS**
18 **ARE NON-SUSTAINABLE.**

19 A. According to the U.S. Department of Housing and Urban Development (HUD), a

¹¹ Energy Information Administration, U.S. Department of Energy (January 2001). *Residential Natural Gas Prices: What Consumers Should Know*.

¹² Energy Information Administration (February 25, 2001). *Short Term Energy Outlook, March 2001*, at 4,

1 household experiencing total shelter costs in excess of 30 percent of income is likely to be
2 over-extended. HUD defines total shelter costs to include housing (rent or mortgage) plus
3 the cost of all utilities except telephones. As a practical matter, a consumer who pays 10
4 percent or more of his or her income for home energy costs is not going to experience *total*
5 shelter costs of 30 percent or less. In addition, the Federal National Mortgage Association
6 (FNMA or Fannie Mae) has indicated that utility bills should not generally exceed 20% of
7 total shelter costs. If total shelter costs are in the range of 30% (or even 40%) of income,
8 this would yield sustainable utility burdens of from 6% (30% x 20%) to 8% (40% x 20%) of
9 income. The energy burdens alone of MGE's low-income customers, even setting aside
10 other utility costs such as water/sewer costs, exceed these figures.

11
12 **Q. WHAT IS THE IMPACT OF BEARING A NON-SUSTAINABLE ENERGY**
13 **BURDEN?**

14 **A.** One of the primary impacts of non-sustainable energy burdens is the nonpayment of home
15 energy bills. While MGE has never examined the extent of accounts receivable associated
16 with LIHEAP recipients who are Company customers, or of low-income customers
17 generally, (OPC-DR-5149; OPC-DR-5150), experience with other states and other utilities
18 demonstrates quite clearly that a relationship exists between low-income status and
19 payment troubles. In addition, one 1995 census data report found that while 9.8% of non-
20 poor families could not pay their utility bills in full, 32.4% of poor families could not do so.

(..continued)

U.S. Department of Energy: Washington D.C.

1 According to the Census Bureau, while 1.8% of non-poor families had their electric and/or
2 natural gas service disconnected for nonpayment, 8.5% of poor families suffered this same
3 deprivation. This disconnection ratio increased even further for welfare recipients, to
4 10.5%.¹³¹

5
6 These payment problems, however, tell not even half of the story of unaffordable home
7 energy bills. The Iowa State Department of Human Rights further documented the impacts
8 of these excess home energy burdens. According to a study performed by that agency,
9 recipients of federal fuel assistance -- called the Low-Income Home Energy Assistance
10 Program (LIHEAP) -- exhibited the following characteristics in the 1999/2000 winter
11 heating season as a result of unaffordable home energy bills:

12 ☞ Over 12 percent went without food to pay their home heating bill. Projected to the
13 total participating LIHEAP population, that meant that about 7,600 low-income
14 households (representing 20,000 Iowa citizens) went without food at times as a
15 result of unaffordable home heating bills.

16 ☞ More than one-in-five went without medical care to pay for heating bills. This may
17 mean not seeking medical assistance when it was needed, not filling prescriptions
18 for medicine that a doctor has prescribed, and/or not taking prescription medicines
19 in the dosage ordered by the doctor;

¹³¹ U.S. Census Bureau, *Extended Measures of Well-Being: 1992*, P70-50RV (November 1995). At the time this Census report was prepared, welfare was commonly known as Aid to Families with Dependent Children (AFDC). Pursuant to federal welfare reform legislation, the program was subsequently changed to Temporary Aid to Needy Families (TANF).

1 ¢ Almost 30 percent reported that they did not pay other bills, but did not elaborate as
2 to which bills were not paid. In addition to not paying other bills, many low-income
3 households incurred debt in order to pay both their home heating bills and other
4 basic necessities: borrowed from friends and/or neighbors; used credit cards to pay
5 for food and other necessities, or did not pay the heating bill.⁴¹

6 Iowa served 62,000 households with winter heating assistance. Each one percentage point,
7 therefore, represents more than 600 households (nearly 2,000 persons). The study did not
8 consider low-income households who did not receive federal fuel assistance.

9
10 **Q. WHAT DO YOU CONCLUDE?**

11 A. The needs of low-income customers are great in the MGE service territory, both in terms of
12 dollars and in terms of the number of households in need. These needs, however, represent
13 more than just a social problem. They represent a business problem to MGE as well. I will
14 address that business problem next.

15

⁴¹ Joyce Mercier, Cletus Mercier and Susan Collins (June 2000). *Iowa's Cold Winters: LIHEAP Recipient Perspective*, Iowa Department of Human Rights: Des Moines (IA).

1 **PART 2. THE COLLECTION ACTIVITIES OF MGE.**

2 **Q. HOW DOES MGE RESPOND TO NONPAYMENT OF BILLS?**

3 A. MGE engages in a full range of traditional credit and collection activities. The Company
4 disconnects service, negotiates deferred payment arrangements, issues disconnection
5 notices, relies on field collection visits, and makes nonpayment telephone reminder phone
6 calls, as part of its collection activities. (OPC-DR-5146).

7
8 **Q. DOES THE COMPANY TAILOR ITS RESPONSE TO NONPAYMENT BASED**
9 **ON INCOME?**

10 A. No. The Company states that it is unaware of any study that it might have that distinguishes
11 between residential customers generally and low-income residential customers in particular
12 on factors including, but not limited to: (a) usage levels and patterns, (b) history of payment
13 troubles, (c) credit and collection history, or (d) consumption of Company resources such as
14 staff time. (OPC-DR-5158). The Company is unaware of any study that considers the load
15 profile of a typical low-income customer. (OPC-DR-5159). The Company is unaware of
16 any study that "considers, evaluates or discusses" the relationship between residential
17 payment troubles and low-income status. (OPC-DR-5161). The Company does not track
18 bad debt by socio-economic status or by receipt of low-income fuel assistance (OPC-DR-
19 5149). Nor does the Company track arrears by socio-economic status or by receipt of low-
20 income fuel assistance (OPC-DR-5150).

1 Q. WHAT IS THE IMPACT OF THE COMPANY FAILING TO TAILOR ITS
2 NONPAYMENT RESPONSES TO THE INCOME OF ITS CUSTOMERS?

3 A. The impact of failing to tailor responses to nonpayment to the income of customers is that
4 the Company's collection activities will have a degree of ineffectiveness and inefficiency to
5 them. In some instances, the Company is devoting resources (dollars, stafftime) to
6 collection activities that have no hope of succeeding in the collection of money. In other
7 instances, the Company is devoting resources beyond that necessary to collect money. To
8 this extent, the Company is not only imposing hardship on its low-income customers, but is
9 wasting money and increasing costs to its remaining ratepayers as well.

10
11 Q. CAN YOU ILLUSTRATE THE HARMS TO THE COMPANY FROM AN
12 INAPPROPRIATE USE OF COLLECTION DEVICES TO RESPOND TO
13 NONPAYMENT BY LOW-INCOME CUSTOMERS?

14 A. Yes. Service disconnections for nonpayment cannot be assumed to result in reduced costs to
15 all other ratepayers. In fact, the disconnection of service has been found by the New York
16 Public Service Commission (New York PSC) Staff to result in an *increase* in uncollectibles
17 to that state's energy utilities. A study by the New York PSC staff found that there was
18 "some correlation between companies with low uncollectible rates and a low percent of
19 residential service terminations."¹⁵¹ The New York study reported that: "surprisingly, we
20 found that companies with good [final termination notice] credibility, showing a high level

¹⁵¹ David Sawyer and Phillip Teumim (undated). *Gas and Power Utility Uncollectibles and Collection Activity*, Consumer Services Division, New York State Public Service Commission: Albany (NY).

1 of service termination levels where customers do not respond to their final notice, also
2 tended to have the higher uncollectible rates." The New York study does not stand alone.
3 Referring to the "limited usefulness of service terminations as a collection tool," one
4 Wisconsin utility found service termination to be a useful collection tool for only 12% of its
5 payment-troubled customers.¹⁶¹

6
7 **Q. DOES THE COMPANY TRACK EITHER THE EFFECTIVENESS OR THE**
8 **COST-EFFECTIVENESS OF ITS EXISTING CREDIT AND COLLECTION**
9 **ACTIVITIES?**

10 A. No. While the Company tracks its collection activities through regular reports (OPC-DR-
11 5139), it has developed no criteria by which to judge either the effectiveness or the cost-
12 effectiveness of those credit and collection activities.

13
14 **Q. DOES THE COMPANY KNOW TO WHAT EXTENT ITS EXISTING CREDIT**
15 **AND COLLECTION ACTIVITIES REDUCE EITHER ARREARS OR BAD**
16 **DEBT?**

17 A. No. While the Company conclusorily states that activities such as deferred payment
18 arrangements, disconnections for nonpayment, and late payment charges "affect customer
19 payment practices (whether residential or not)," it could provide no information, data or
20 analysis supporting its conclusion. (OPC-DR-5166).

¹⁶¹ Ron Grosse (June 1995). *Win-Win Alternatives for Credit and Collection*, Wisconsin Public Service Corporation: Milwaukee (WI).

1
2 **Q. HOW EFFECTIVE ARE THE COMPANY'S COLLECTION ACTIVITIES?**

3 A. The Company's collection efforts are not historically very effective. MGE provided data for
4 two periods: March-May 2000 and calendar year 1999. (OPC-DR-5140). During the three-
5 month 2000 period, the Company worked 8,213 accounts. It collected money from 1,428
6 of those accounts and disconnected 2,880. No reporting exists for the remaining 3,905
7 accounts. Similarly, in 1999, MGE worked 63,750 accounts. Of those, the Company
8 collected money from 9,365 accounts and disconnected 19,359. No reporting exists for the
9 remaining 35,026 accounts.

10
11 Overall, the Company spent \$22,126 per month on its three-month 2000 field collection
12 contractor (annualized to \$265,512). It spent \$307,028 on its 1999 field collection
13 contractor. (OPC-DR-5140). The "productivity" from those expenditures is set forth in
14 Schedule RDC-6. While one contractor collected money from 9.9% of the accounts sent to
15 the field, the other collected from 15.9%. The productivity report, however, does not
16 indicate the proportion of money collected of the total outstanding. In addition, in
17 calculating the percentage of customers from whom a payment was collected, it would
18 appear that no distinction is made between a customer making a partial payment and a
19 customer making a complete payment.

20
21 The Company's in-house collections do not generate considerable success either. Schedule
22 RDC-7 shows the Company's calling statistics for customers at least 60-days in arrears.

1 The Company's collection calling, as of this February 5, 2001 analysis, gained a payment, a
2 promise to pay, or a payment arrangements for 50% of the total accounts attempted. The
3 analysis does not consider those customers who would have paid without the call. Nor does
4 it indicate the dollars actually collected from those making a "promise to pay" or a payment
5 arrangement. (OPC-DR-5140).

6
7 **Q. HOW COST-EFFECTIVE IS THE COMPANY'S FIELD COLLECTIONS**
8 **EFFORT?**

9 A. In 1999, the Company spent \$1,764,347.44 on field collection calls; in 2000, the Company
10 spent \$1,965,270.09 on field collection calls. (OPC-DR-5143(E)). Schedule RDC-8 shows
11 how much money was actually collected (residential and commercial) in the field by
12 collectors: (\$2,043,624 in 1999 and \$2,060,390 in 2000).

13
14 One sub-part of field collection is the use of outside collectors. (OPC-DR-5143(E)). In
15 2000, MGE spent \$1,398,183.59 on collection agency fees (OPC-DR-5143(E)) and
16 collected \$868,294. (Schedule RDC-9).

17
18 **Q. HOW COST-EFFECTIVE IS THE USE OF THE DISCONNECTION AND**
19 **RECONNECTION OF SERVICE AS A COLLECTION DEVICE?**

20 A. In 1999, the Company spent \$853,853.38 on the disconnection and reconnection of

1 service.¹⁷⁾ In 2000, the Company spent \$1,255,197.89. (OPC-DR-5143(A)). The Company,
2 however, does not know how much money it collected as a result of that disconnect and
3 reconnect process. (OPC-DR-5143(B)).
4

5 **Q. HOW EFFECTIVE IS THE USE OF DEFERRED PAYMENT PLANS AS A**
6 **COLLECTION TOOL?**

7 A. Deferred payment plans have an inherent limitation as a collection device. Only a fraction
8 of the number of customers in arrears enter into deferred payment arrangements. Schedule
9 RDC-10 presents the total number of residential customers in arrears by month for 1999
10 (page 1 of 2) and 2000 (page 2 of 2), compared to the number of deferred payment
11 arrangements for those same months. Not even a large proportion of customers who are
12 multiple months in arrears enter into deferred payment arrangements. Schedule RDC-11
13 presents the number of accounts in arrears by age of arrears by month, compared to the
14 number of deferred payment plans by month.

15
16 Unfortunately, regardless of the number of deferred payment arrangements negotiated by
17 MGE with its customers, the Company does not know how effective those arrangements are
18 in reducing arrears. The Company does not track the number of customers who default on
19 their deferred payment arrangements. (OPC-DR-5146(C)).

¹⁷⁾ In providing this data, the Company notes this caveat: "We do not have the amount spent for disconnection of service. The attached spreadsheet provides the total spent per FERC account number on field collection which will include disconnections, collections and collection attempts. It is unclear whether this reflects the expenditure for "disconnection of services" (sic) as used by OPC in this DR." (OPC-DR-5143(A)). The FERC

1
2 Moreover, the Company does not know how cost-effective the negotiation of deferred
3 payment arrangements is as a collection device. The Company does not know the total
4 amount of money it spends on negotiating deferred payment arrangements. (OPC-DR-
5 5143(C)). Nor does it know how much money it collects as a result of negotiating deferred
6 payment arrangements. (OPC-DR-5143(D)).
7

8 **Q. HOW DOES THE COMPANY COMPARE TO OTHER NATURAL GAS UTILITY**
9 **COMPANIES?**

10 A. MGE provided information about how its collection statistics compares to those of other
11 companies. (OPC-DR-5169). The Company's data shows that MGE has 17% of its
12 residential receivables (active) over 60-days old, compared to an industry average of 15.4%.
13 MGE has 59% of its residential receivables (final billed) over 60-days old, compared to an
14 industry average of 43.2%. The proportion of MGE residential customers delinquent on an
15 average monthly bill is 26.1%, compared to an industry standard of 11.9%. Net MGE
16 write-offs reached 1.46%, compared to an industry standard of 1.07%.
17

18 **Q. WHAT DO YOU CONCLUDE FROM YOUR DISCUSSION ABOVE?**

19 A. First, I wish to note that my conclusion is *not* that the Company should abandon its use of
20 service terminations as a collection device, nor that the Company should abandon its use of

(...continued)

accounts provided in the spreadsheet refer to "non-pay shut offs."

1 deferred payment arrangements. Instead, what I conclude is that, despite the substantial
2 sums of dollars the Company routinely spends on traditional credit and collection activities,
3 the Company has never considered the effectiveness or efficiency, let alone the cost-
4 effectiveness, of those collection activities. The Company doesn't even track how much
5 money it spends on credit and collection, let alone consider whether it is spending that
6 money prudently. This is particularly true from the perspective of low-income customers.
7 The Company has never considered whether its existing collection mechanisms "work" for
8 low-income customers, even in the face of information and experience indicating that such
9 mechanisms do *not* work for such customers. I offer an alternative to this lack of
10 consideration, planning and oversight below.

12 **PART 3.**

13 **A TARIFFED RATE FOR LOW-INCOME PAYMENT-TROUBLED CUSTOMERS.**

15 **A. A "Fixed Credit" Tariffed Rate.**

16 **Q. PLEASE DESCRIBE THE NEW TARIFFED RATE WHICH YOU PROPOSE FOR**
17 **LOW-INCOME PAYMENT-TROUBLED CUSTOMERS.**

18 **A.** I recommend the implementation of a fixed credit tariff for low-income payment-troubled
19 customers. The fixed credit rate would be made available to all payment-troubled
20 customers whose gross household income is equal to or less than 150 percent of the federal
21 Poverty Level. For purposes of this tariff, "payment troubled" is defined to mean being in
22 arrears no less than \$200. It can be expected, however, that only customers whose energy
23 bill characteristics are such that they would receive a fixed credit of more than \$0 would

1 choose to take service under this new tariffed rate.¹⁸¹ Other customers would choose to
2 continue to take service under the standard residential rate. I have appended a proposed
3 fixed rate tariff as Attachment B.

4
5 **Q. PLEASE DESCRIBE HOW THE FIXED CREDIT RATE STRUCTURE WOULD**
6 **OPERATE.**

7 A. Each step in the rate calculation is explained below.

- 8 1. The first step in the fixed credit rate is to calculate an affordable customer payment.
9 Let me illustrate using two assumptions: (1) assume the customer has an annual
10 income of \$6,000; and (2) assume further that the affordable energy burden has been
11 determined to be six percent (6%). The required customer payment is thus \$360.
12 This is simply $\$6,000 \times 6\% = \360 .
13
14 2. The second step is to estimate the annual household energy bill. This calculation is
15 to be made using whatever method MGE *currently* uses to estimate annual bills for
16 other purposes. I will assume for purposes of illustration that this process results in
17 an estimated annual bill of \$600.
18
19 3. The final step is to calculate the necessary fixed credit to reduce the estimated
20 annual bill to the affordable payment. Given an estimated annual bill of \$600 and
21 an affordable payment of \$360, the annual fixed credit would need to be \$240 ($\600
22 $- \$360 = \240). The customer's *monthly* fixed credit would be \$20 ($\$240 / 12 =$
23 $\$20$).
24

25 Under the fixed credit rate, the utility provides a bill equal to the standard residential rate
26 net of the fixed credit. Monthly bills are provided through the Company's levelized budget
27 billing plan. In the illustration above, the customer would receive a levelized monthly

¹⁸¹ Some customers will have energy bills that are sufficiently low that they would not receive fixed credits on their bills. Assume, for example, that a customer with an annual income of \$9,000 has an annual natural gas bill of \$300. Under the proposed fixed credit rate, the affordable customer payment would be \$360 ($\$9,000 \times 4\% = \360). Since the affordable payment (\$360) exceeds the actual bill (\$300), no fixed credit would be provided (or, more accurately, a fixed credit of \$0 would be provided).

1 budget bill of \$30. The calculation is set forth in Schedule RDC-12.

2
3 **Q. HOW DOES THE COMPANY DETERMINE THE ACTUAL INCOME OF THE**
4 **CUSTOMER FOR PURPOSES OF ESTABLISHING THE FIXED CREDIT?**

5 A. I have found in other states, such as New Hampshire and Pennsylvania, that the most
6 effective and cost-effective way for a utility to make this determination is to contract the
7 process out to a third party. In Pennsylvania, the recent round of rate cases involving
8 adoption of "universal service programs" has used a cost of \$42 per person as a reasonable
9 compensation for this process. The \$42 figure represents a cost of \$35 per applicant,
10 adjusted by 20% to account for those persons who do not complete the application process
11 (\$35 x 1.2 = \$42).

12
13 **Q. HOW DO FEDERAL FUEL ASSISTANCE BENEFITS AFFECT THE**
14 **CALCULATION OF THE FIXED CREDIT?**

15 A. Fuel assistance benefits provided through the federal LIHEAP program are not used to
16 calculate the fixed credit provided to the customer. This occurs for several reasons.

17 *œ* First, a customer may decide to take service under the fixed credit rate at a time
18 when the federal fuel assistance program is not "open" for enrollment. Historically,
19 due to limited funding, the LIHEAP program's enrollment period has been very
20 limited. If a customer decides to take service under the fixed credit rate in May or
21 July or October, no LIHEAP benefit exists to apply against the estimated annual bill
22 in calculating the fixed credit.

1 ϕ Second, given the uncertainties of the federal budget process, the state LIHEAP
2 offices do not know how much money they will have to distribute in any given year.
3 Accordingly, state program administrators cannot announce the level of LIHEAP
4 benefits in advance. If a customer decides to take fixed credit service in July, there is
5 no way to know what the next year's LIHEAP benefit will be.
6 ϕ Third, there is no way to retroactively apply LIHEAP benefits against an estimate
7 annual bill in establishing a fixed credit. If a customer begins taking fixed credit
8 service in June 2001, and applies for LIHEAP in January 2002, no mechanism
9 exists to retroactively apply that LIHEAP payment against the first eight months
10 (June - January) of fixed credit bills.
11 ϕ Finally, due to federal funding uncertainties, state LIHEAP administrators cannot
12 even decide in advance where to set their income eligibility limits. Under federal
13 law, states have flexibility in deciding where to set the maximum income a
14 household may receive and still remain eligible for LIHEAP. States may set their
15 maximum eligibility as low as 110% of the federal Poverty Level and as high as
16 60% of state median income. Depending upon the amount of money available from
17 the federal government, states may change their eligibility guidelines from year to
18 year.

19
20 **Q. HOW ARE LIHEAP BENEFITS TREATED UNDER A FIXED CREDIT RATE?**

21 A. In agreeing to take fixed credit service, the low-income customer will assign their basic
22 LIHEAP benefit to MGE to offset the costs that would otherwise be reallocated to

1 customers taking service under standard residential rates.¹⁹¹ In this way, the customer is able
2 to access the more affordable utility rate and the LIHEAP benefit is used to pay the bills
3 without the operational problems associated with trying to credit the LIHEAP payment
4 against an estimated annual bill. Only if the LIHEAP benefit exceeds the fixed credit is the
5 balance credited to the customer.

6
7 **Q. WHAT ARE THE ADVANTAGES TO A FIXED CREDIT RATE?**

8 A. First, the fixed credit tariffed rate provides a more affordable service to customers taking
9 service under that rate. This benefits both the customer and the Company. An affordable
10 bill removes the pressures from a customer to either not pay the bill or to engage in the
11 problematic choices I have earlier described. From the Company's perspective, rather than
12 providing natural gas service combined with the subsequent collection services that have
13 historically been provided, the Company can provide natural gas service without the routine
14 further need for collection services. Moreover, as I describe below, the Company will
15 improve upon the business outcomes (complete, prompt, regular, automatic and continuing
16 payment) it seeks from its customers.

17
18 Second, a fixed credit provides a strong incentive to the low-income customer not to
19 increase his or her consumption in response to reduced prices. Because the amount of the
20 annual credit is fixed, if the customer increases his or her consumption, and thus has a

¹⁹¹ In contrast, customers would apply emergency/supplemental grants to their payments. Crisis grants would still apply to arrears.

1 higher bill, the household pays the increased bill out of his or her own pocket.

2
3 Third, a fixed credit rate allows MGE to determine with certainty the maximum amount of
4 costs that would need to be reallocated to customers on standard residential rates. At the
5 time a customer begins to take service under the fixed credit rate, the Company can
6 determine with precision the maximum amount of reallocated costs that will result from
7 switching that customer to the new tariff. If the monthly fixed credit is \$20, the maximum
8 annual amount of reallocated costs is \$240 ($\$20/\text{month} \times 12 \text{ months}$). Since the amount of
9 credit is what is fixed, changes in bills due to increased consumption or increased prices
10 will not increase the amount of costs subject to reallocation. The only thing that can happen
11 is that the reallocated costs might go down if, for whatever reason, the customer leaves the
12 system.

13
14 Finally, the fixed credit approach allows for an ease in billing. Using the same process that
15 currently exists to establish a levelized budget billing plan, fixed credits can be subtracted
16 from a customer's levelized annual bill. The monthly bill is then rendered based upon this
17 one-time annual adjustment. MGE does not need to make monthly billing adjustments.

18
19 **Q. WHAT NATURAL GAS BURDEN SHOULD BE USED TO CALCULATE A**
20 **FIXED CREDIT FOR MGE?**

21 A. Ideally, as discussed above, the *total* home energy burden represented by a combined
22 natural gas and electric bill should not exceed from six percent (6%) to eight percent (8%)

1 of income. However, I recommend a natural gas burden of four percent (4%) for MGE.

2
3 **Q. WHY DO YOU RECOMMEND A 4% NATURAL GAS BURDEN?**

4 A. A 4% natural gas burden pushes the limits of affordability. This implies a total home energy
5 burden of 12% (natural gas being one-third of the total home energy burden). I recommend
6 a 4% burden as a mechanism to limit the costs that will need to be reallocated from
7 residential customers taking service under the fixed credit rate to customers taking service
8 under the standard tariff.

9
10 **Q. IN ESTIMATING THE NUMBER OF CUSTOMERS TAKING SERVICE UNDER**
11 **THE FIXED CREDIT TARIFF, WHAT TAKE RATE DO YOU USE?**

12 A. The fixed credit tariff is designed as a separately tariffed alternative service to the delivery
13 of natural gas followed-up by the need to engage in collection efforts which, due to the
14 inability-to-pay of the customer, are likely to be ineffective or inefficient. The tariff is
15 available, therefore, to payment-troubled low-income customers. According to the
16 information I discuss above, roughly 30 to 35% of low-income customers will fall into the
17 payment-troubled category. Moreover, experience counsels that the take rate within that
18 group of customers to whom the fixed credit service would be available will be no more
19 than 50%.

20
21 **Q. GIVEN THESE PARAMETERS, WHAT TOTAL COSTS WOULD BE**
22 **REALLOCATED TO CUSTOMERS ON THE STANDARD RESIDENTIAL**

1 **RATE?**

2 A. Schedule RDC-13 sets forth a calculation of the costs that would be reallocated to the
3 customers remaining on the standard residential rate. In calculating these costs, I assume a
4 46% increase in gas costs over Year 2000 gas costs. The total gross costs subject to
5 reallocation to customers taking service under the standard residential rate would be \$4.410
6 million. As I will discuss, however, this does not represent the final calculation of
7 reallocated costs.

8
9 **Q. WHAT IS THE FIRST NEEDED ADJUSTMENT TO THE COSTS TO BE**
10 **REALLOCATED TO THE STANDARD RESIDENTIAL CUSTOMER CLASS?**

11 A. The first adjustment to be made to the gross reallocated costs is to credit the federal fuel
12 assistance payments expected to be received by the customers taking service under the fixed
13 credit rate. As the Pennsylvania Public Utility Commission (PUC) has done with that
14 state's low-income rate, and as I have recommended above, as well, these fuel assistance
15 benefits should be credited against the costs to be reallocated. The average LIHEAP benefit
16 received by MGE customers was \$255. (OPC-DR-5154 and OPC-DR-5155). The weighted
17 benefit to be credited against reallocated costs is \$138.¹⁰ The total LIHEAP revenue to be
18 credited against the reallocation is \$2.3 million. For the reasons discussed above, these
19 revenues are credited to the Company rather than to the customer.

¹⁰ The weighted benefit assumes that 90% of all eligible households will apply for LIHEAP given the procedure I recommend. It recognizes, further, that only 60% of all LIHEAP recipients will receive a fixed credit of greater than \$0. The weighted benefit is thus $\$255 \times 0.9 \times 0.6 = \138 .

1
2 **Q. SHOULD APPLICATION FOR LIHEAP BE MADE A PREREQUISITE TO**
3 **TAKING SERVICE UNDER THE FIXED CREDIT TARIFF?**

4 A. No. My experience and research in the field of designing and delivering public assistance
5 programs counsels that a variety of personal and institutional barriers prevent enrollment in
6 programs such as LIHEAP.

7 **Lack of effective knowledge:** The lack of "effective knowledge" is the primary
8 barrier to participation in Pennsylvania's Low-Income Home Energy Assistance
9 Program (LIHEAP).¹¹¹ In a study of LIHEAP participation in Pennsylvania, Penn
10 State University's Drew Hyman found that the lack of information substantially
11 impeded participation. The Penn State study found that "while most consumers
12 indicate awareness of energy assistance, in general, their knowledge is not sufficient
13 to allow them to act. Almost half of those who say they 'know about' energy
14 assistance cannot name a single program."

15
16 **Lack of program awareness:** Similarly, most *elderly* poor in New York did not
17 know of, and did not use, the existing energy "intervention programs" designed for
18 their benefit. Noting that "no intervention program can be effective unless it is
19 known and used," the New York study sought to determine "the degree to which
20 (the sample of elders studied) was aware of and utilized these programs."¹¹²

21
22 **Access to program offices:** A national study by the Center on Budget and Policy
23 Priorities examined specifically why elderly households did not participate in the
24 LIHEAP program.¹¹³ This report noted that "in some areas, transportation to offices
25 that accept applications may be a problem, especially for the elderly. For those who
26 are homebound or socially isolated, getting to an office may be nearly impossible."

¹¹¹ Drew Hyman, *Consumer Budget Priorities and Utility Payment Problems in Pennsylvania*, prepared by Consumer Services Information System Project (Penn State University) for the Pennsylvania Public Utility Commission (1988).

¹¹² Charles Unseld, *The Impact of Rising Energy Costs on the Elderly Poor in New York State*, at 61, prepared by Welfare Research, Inc. for the New York State Energy Office (January 1978).

¹¹³ Kathryn Porter, *Participation by the Elderly in the Low Income Home Energy Assistance Program*, prepared by Center on Budget and Policy Priorities for the American Association of Retired Persons (AARP) (December 1989).

1
2 \varnothing **Confusing application forms:** The application forms for the Food Stamp program
3 in Vermont were a major barrier to participation.¹⁴ The participants, according to
4 Vermont researchers, "viewed the 12-page application form as complex and
5 overwhelming." In particular, the report found that "there were several participants
6 who mentioned that *the first time* the monthly reporting form arrived in the mail,
7 they had been confused about what was expected." (emphasis in original)
8

9 \varnothing **Misperceptions as to eligibility:** A 1988 study of why low-income households do
10 not participate in the Food Stamp program nationwide found that about half of the
11 eligible nonparticipants had misperceptions regarding their eligibility for the
12 program.¹⁵ Of those households who thought they were ineligible, more than half
13 mistakenly believed that their income or assets were too high to entitle them to
14 receive Food Stamps or that some other program requirement precluded their
15 participation.
16

17 \varnothing **Burdensome and complex processes:** So, too, did GAO find in an April 1999
18 study of low enrollment in state Medicare programs¹⁶ that many potential recipients
19 do not enroll because, amongst other things, the application process is burdensome
20 and complex.

21 Subsequent research from Colorado¹⁷ and Iowa¹⁸ further confirm these barriers. As can be
22 seen, there is an abundance of information about how nonparticipation in LIHEAP can
23 result from barriers to participation rather than from a lack of need, or a lack of desire to

¹⁴ Sandage Advertising & Marketing, *Food Stamp Program: Focus Group Research Report*, at 6, prepared for Vermont Department of Social Welfare (1989).

¹⁵ General Accounting Office, *Food Stamps: Reasons for Nonparticipation* (December 1988).

¹⁶ General Accounting Office, *Low-Income Medicare Beneficiaries: Further Outreach and Administrative Simplification Could Increase Enrollment* (April 1999).

¹⁷ Roger Colton (1995). *Home Energy Assistance Review and Reform in Colorado*, at Chapter 10, Fisher, Sheehan and Colton, Public Finance and General Economics: Belmont (MA).

¹⁸ Roger Colton (September 2000). *Outreach Strategies for Iowa's LIHEAP Program Innovation in Improved Targeting*, Fisher, Sheehan and Colton, Public Finance and General Economics: Belmont (MA); Joyce Mercier, Cletus Mercier and Susan Collins (June 2000). *Iowa's Cold Winters: LIHEAP Recipient Perspective*, Iowa Department of Human Rights: Des Moines (IA).

1 participate.

2
3 **Q. GIVEN THIS, HOW CAN THE COMPANY PROVIDE AN INCENTIVE FOR**
4 **CUSTOMERS TAKING SERVICE UNDER THE FIXED CREDIT RATE TO**
5 **APPLY FOR LIHEAP?**

6 A. Rather than trying to impose and enforce mandatory LIHEAP participation on customers,
7 the Company has a much simpler way to ensure that LIHEAP revenue is generated to offset
8 the costs that otherwise would be reallocated to customers taking service under the standard
9 residential rate. In deciding to take service under the fixed credit rate, the Company could
10 require a customer to designate the Company as his or her agent for purposes of applying
11 for LIHEAP. At the time LIHEAP begins to take applications, therefore, using the
12 information obtained in establishing the fixed credit, the Company would submit LIHEAP
13 applications on behalf of its fixed credit rate customers.¹⁹⁾ In that fashion, the Company
14 knows that each fixed credit rate customer will file a complete and timely application for
15 LIHEAP benefits.

16
17 **Q. WHY IS LIHEAP REVENUE CREDITED AGAINST THE REALLOCATION OF**
18 **COSTS?**

19 A. The only costs to be reallocated to ratepayers taking service at the standard residential tariff
20 are those costs not covered by revenues generated from the fixed credit rate customers. The

¹⁹⁾ The Company should be restricted to using the personal information obtained through this process *only* for purposes of submitting the LIHEAP applications.

1 Company receives two sources of revenues from fixed credit rate customers. The first
2 comes from customer payments. The second comes from LIHEAP. Once costs not covered
3 by payments from fixed credit customers are paid by LIHEAP, there is no need to reallocate
4 those costs to ratepayers taking service at the standard residential tariff.

5
6 **Q. WHAT IS THE SECOND NEEDED ADJUSTMENT TO THE COSTS TO BE**
7 **REALLOCATED TO CUSTOMERS TAKING SERVICE UNDER THE**
8 **STANDARD RESIDENTIAL TARIFF?**

9 A. The second adjustment that needs to be made to the costs to be reallocated to customers
10 taking service under the standard residential tariff involves a bad debt offset. This bad debt
11 offset is appropriate because some portion of the *ongoing* bills for *current* consumption
12 would, in the absence of the new rate tariff, already be included in current rates as bad debt
13 in any event. To allow the Company to collect the entire cost reallocation on a going
14 forward basis, and in addition to collect all of the bad debt that would have been associated
15 with bills for current usage on a going forward basis, would be to allow the Company to
16 collect the same dollars twice. Stated another way, some portion of the fixed credits is
17 already in rates. To ensure that those costs are not double recovered, an adjustment needs to
18 be made to credit against the reallocation of costs those costs that are already in rates as bad
19 debt associated with ongoing billed revenue.

20
21 **Q. HAVE YOU CALCULATED THAT ADJUSTMENT?**

22 A. Yes. The calculation of that adjustment is included in Schedule RDC-14. The Company

1 reports that its total residential bad debt expense in 2000 was \$5,885,524 (OPC-DR-1056a).

2 The Company's total revenues are reported to be \$272.633 million (\$153,014,525 in gas
3 costs; \$119,618,628 in commodity costs/customer charge). Combined with the level of bad
4 debt yields a residential bad debt ratio of 2.16%.

5
6 The Company does not track bad debt by socio-economic status or by LIHEAP recipient
7 status. (OPC-DR-5149). Assuming, however, that bad debt is incurred in the same relative
8 proportion as the termination of service for nonpayment occurs, the low-income bad debt
9 rate would be 5.64%. The amount of the revenue reallocation that would already be
10 included in rates, therefore, is set forth in Schedule RDC-15. The total going forward bad
11 debt offset is \$545,721.

12
13 **Q. TO SUMMARIZE, PLEASE AGAIN EXPLAIN THE NATURE OF THE BAD**
14 **DEBT OFFSET.**

15 A. This offset is necessary to prevent the Company from double-collecting the same costs.
16 When the Company collects its fixed rate revenue reallocation along with the customer
17 payments obtained from bill payments from customers taking service from the fixed rate
18 tariff, it collects 100% of the revenue it would have received if all fixed rate customers had
19 been on the standard residential tariff. However, already included in rates are cost elements
20 that assume that it will *not* collect 100% of its billed revenues. The Company already has,
21 as part of its revenue requirement, a certain level of uncollectibles. A failure to calculate an
22 offset for this cost component would allow the Company to collect those costs twice.

1
2 **Q. WHAT IS THE THIRD ADJUSTMENT THAT NEEDS TO BE MADE TO THE**
3 **COSTS TO BE REALLOCATED TO CUSTOMERS TAKING SERVICE UNDER**
4 **THE STANDARD RESIDENTIAL TARIFF?**

5 A. To the extent that the very existence of the fixed credit rate eliminates costs to the
6 Company, those costs do not need to be reallocated to customers taking service under the
7 standard residential tariff. One primary set of offsetting savings involves credit and
8 collection costs that are saved by addressing payment troubles through the fixed credit rate
9 rather than through traditional credit and collection mechanisms. For this calculation, I turn
10 to the estimates of administrative cost savings that have been generated by Pennsylvania
11 utilities. Consider that on a per participant basis, Columbia Gas found that the credit and
12 collection savings arising from its low-income rate would reach \$23 per year. In addition,
13 Philadelphia Gas Works estimated that the credit and collections savings arising from its
14 Energy Assurance Program (EAP) would be in the range of \$21 to \$30. PECO Energy
15 found that the credit and collection savings arising from its low-income rate would "not
16 exceed \$30." Given the general consistency of these cost savings estimates, made more
17 robust by the fact that each estimate of savings was made for a different company by a
18 different consultant, I have included a low-range credit and collection cost savings estimate
19 of \$20 per customer taking service under the new fixed credit tariff.

20
21 This per customer savings is applied only to the customers taking service under the fixed
22 credit tariff. The per customer savings is not applied to all low-income customers. Only a

1 portion of all low-income customers will meet the availability criteria for the fixed credit
2 rate. In turn, only a portion of those meeting the availability criteria will choose to take
3 service under the new tariff. The total credit and collection savings would thus be \$330,740
4 (16,537 x \$20).

5
6 **Q. PLEASE SUMMARIZE THE TOTAL ADJUSTMENTS TO THE COST TO BE**
7 **REALLOCATED TO CUSTOMERS TAKING SERVICE UNDER THE**
8 **STANDARD RESIDENTIAL RATE?**

9 A. The total costs to be reallocated are set forth in Schedule RDC-16. Those costs reach
10 \$1,851,769.

11
12 **Q. WHAT IS THE ANNUAL REALLOCATED COST PER CUSTOMER TAKING**
13 **SERVICE UNDER THE STANDARD RESIDENTIAL RATE TARIFF?**

14 a. The Company reports that it has 435,477 residential customers. Given the total amount of
15 reallocated costs (\$1,851,769), the amount of reallocated costs per customer will thus equal
16 \$4.25 per year ($\$1,851,769 / 435,477 = \4.25). Divided into 12 equal monthly increments,
17 the total amount of reallocated costs will reach \$0.35 per month. This reallocation of
18 revenue represents seven tenths of one percent on an average bill without the recent
19 increases in gas costs ($\$4.25 / \$626 = 0.006789$).

20
21 **Q. HOW DOES THIS COMPARE TO THE COMPANY'S EXPENDITURES ON**
22 **COLLECTION ACTIVITIES?**

1 A. According to the Company, MGE spends 2.10% of its revenue on collection activities
2 (OPC-DR-5169), despite the lack of documentation of either the effectiveness or the cost-
3 effectiveness of those actions.
4

5 **Q. HOW DOES THE NEW TARIFFED FIXED CREDIT RATE COMPORT WITH**
6 **SECTION 393.140(11) OF MISSOURI STATUTES?**

7 A. Section 393.140(11) provides that a utility may not charge or collect "a greater or less or
8 different compensation for any service rendered or to be rendered than the rates and charges
9 applicable to such services as specified in its schedule filed and in effect at the time." The
10 rate which I propose below does not transgress this section. As with the Pennsylvania
11 utilities, who operate under a similar statutory framework, the rate is made a part of the
12 tariffed rate schedule and is charged to customers meeting the availability criteria specified
13 in the tariff. The rate charged and collected is precisely that which is specified in the tariff.
14

15 **Q. HOW DOES THE TARIFFED RATE YOU PROPOSE COMPORT WITH**
16 **SECTION 393.130.2 OF MISSOURI STATUTES?**

17 A. Section 393.130.2 provides that no gas corporation may charge or collect "a greater or less
18 compensation for gas, or for any service rendered or to be rendered or in connection
19 therewith, except as authorized in this chapter, than it charges, demands, collects or receives
20 from any other person or corporation for doing a like and contemporaneous service with
21 respect thereto under the same or substantially similar circumstances or conditions." As is
22 evident from the discussion above, the fixed credit rate which I propose is based on

1 differences in the "circumstances or conditions" of the customers taking a service under the
2 rate. The rate is offered as an alternative to the combination of natural gas and collection
3 services that is currently delivered to low-income customers by MGE. Instead of delivering
4 natural gas to low-income customers, followed up by a series of collection activities
5 directed toward unpaid (and unaffordable) bills, the Company is providing a tariffed rate
6 that does not require the subsequent disproportionate delivery of collection services.
7

8 **Q. IS THERE ANY OTHER STATE THAT MIGHT PROVIDE GUIDANCE ABOUT**
9 **THE APPROPRIATENESS OF A TARIFFED RATE DESIGNED AROUND**
10 **AFFORDABILITY FACTORS?**

11 A. I have been informed by counsel that Missouri's public utility statute is modelled on the
12 New York statute and is often construed using New York precedent. Pursuant to its general
13 ratemaking authority, the New York PSC approved a low-income rate for Niagara Mohawk
14 Power Corporation (NIMO). Like the tariffed rate I propose for Missouri, the NIMO rate
15 generated offsets that substantially, but did not completely, offset the need to reallocate
16 costs. According to the PSC:

17 For the first three years, program costs are estimated at \$14.4 million, while the
18 benefits over the same period, derived from cost savings due to reduced collection
19 costs and lowered uncollectibles, as well as from increased customer payments and
20 energy assistance, are estimated at \$11.0 million. In 1995, as costs diminish and
21 savings continue to accrue, the program is expected to be self-supporting and,
22 subsequently, benefits could outweigh costs.^{120\}

^{120\} Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation for Electric Service, Case No. 92-E-0108, Order Approving Low Income Customer Assistance Plan (November 10, 1993).

1 In response to "concerns regarding the Commission's authority" expressed by some
2 intervenors, the New York PSC held:

3 This program is aimed primarily at customers who have a demonstrated inability to
4 pay their bills and who, because of increased collection activities, cause additional
5 collection expenses to be borne, in various proportions, by Niagara Mohawk's entire
6 body of ratepayers. It is thus reasonable to consider these circumstances in
7 designing a program with the potential for increased bill payments and for easing
8 the company's uncollectible expense increases.

9 In response to an argument that the rate was discriminatory ratemaking, the New York PSC
10 held that the state's statute:

11 precludes gas and electric corporations from charging or receiving "from any person
12 or corporation a greater or less compensation for gas or electricity. . .than it charges.
13 . .or receives from any other person or corporation for doing a like and
14 contemporaneous service with respect thereto under the same or substantially
15 similar circumstances or conditions." However, as shown above, the low income
16 customers to whom LICAP would apply are legitimately distinguishable from the
17 Niagara Mohawk's other customers.

18
19 **Q. SHOULD THE FIXED CREDIT RATE BE COUPLED WITH AN ARREARAGE**
20 **FORGIVENESS PROGRAM?**

21 A. In my opinion, an ideal fixed credit rate would include an arrearage forgiveness component.
22 Requiring payment-troubled low-income customers to repay their entire arrears incurred
23 before switching to the fixed credit rate frustrates the intent behind the fixed credit rate, *i.e.*,
24 to substitute an affordable rate that does not include credit and collection activities for an
25 *unaffordable* rate that depends on credit and collection efforts. I have been informed by
26 counsel, however, that an arrearage forgiveness program may not meet the legal restrictions
27 imposed by Missouri statutes. As a result, I do not recommend an arrearage forgiveness

1 component for the fixed credit rate.

2
3 **Q. IS THERE AN ALTERNATIVE WAY TO ADDRESS THE AFFORDABILITY**
4 **CONCERNS YOU HAVE WITH RESPECT TO ARREARAGES SUCH THAT**
5 **THE PURPOSE OF THE FIXED CREDIT RATE IS PRESERVED?**

6 A. In lieu of an arrearage forgiveness program, I recommend that customers taking service
7 under the fixed credit rate be allowed to enter into an extended deferred payment plan. This
8 extended deferred payment plan would set the customer's payment toward arrears existing
9 as of the date the customer begins taking service under the fixed credit rate equal to one
10 percent of the customer's income. The customer's payment plan would then extend until
11 those arrears have been completely retired.

12
13 **Q. WHAT IS THE ADVANTAGE OF THIS EXTENDED DEFERRED PAYMENT**
14 **PLAN?**

15 A. This extended deferred payment plan ensures that total bills will not be made unaffordable,
16 thus impeding achievement of the underlying objectives of the fixed credit rate. Moreover,
17 the extended deferred payment plan involves no refund or rebate or forgiveness of debt. It
18 is consistent with Missouri statutes.

19
20 **Q. WHAT HAPPENS IF THE CUSTOMER FAILS TO MAKE PAYMENTS UNDER**
21 **THE TARIFFED FIXED CREDIT RATE?**

22 A. A customer failing to make payments under the tariffed fixed credit rate would be subject to

1 the same credit and collection procedures as any other residential customer failing to make
2 payments under a tariffed rate. Moreover, it is important to remember that the extended
3 deferred payment arrangement I recommend applies only to arrears existing as of the date
4 the customer begins taking service under the fixed credit rate.

5
6 **B. Low-Income Rates as a Collection Device.**

7 **Q. PLEASE EXPLAIN WHAT OBJECTIVES YOU ARE SEEKING THROUGH THE**
8 **TARIFFED RATE.**

9 A. The new tariffed fixed credit rate is predicated on achieving the following objectives:

- 10 \varnothing **Complete payment:** If the customer is billed \$100, the Company wants to collect
11 \$100.
12
13 \varnothing **Prompt payment:** If the customer receives a bill that is due on the 20th of the
14 month, the Company wants its payment no later than the 20th of the month.
15
16 \varnothing **Regular payment:** If the customer receives 12 bills in a year, the Company wants
17 12 payments in a year, one in response to each bill.
18
19 \varnothing **Automatic payment:** If the customer makes a \$100 payment, the Company does
20 not want to spend \$45 in generating that payment. The Company wants payment
21 without need of Company intervention.
22
23 \varnothing **Continuing payment:** The Company does not want to occasionally collect revenue
24 from customers. Two customers, both of whom have annual \$500 bills which are
25 paid in a full and timely fashion, are not equal if one customer is "on the system" for
26 a full twelve months and the other customer is not. A customer may be *off* the
27 system due to either voluntary or involuntary disconnects. A customer who moves,
28 thus leaving a housing unit vacant for some period of time (whether days or weeks)
29 represents a lost sale to the Company. Days of lost sales revenue cannot be
30 recouped.

31 Seeking these objectives does not represent an effort to implement social ratemaking.

32 Seeking these objectives is sound business to be pursued by any rational natural gas utility.

1
2 **Q. HOW DOES THE CONCEPT OF "AFFORDABILITY" INTERACT WITH**
3 **THESE UTILITY OBJECTIVES?**

4 A. One basis of the fixed credit rate is that, due to the lack of affordability, the rate can be used
5 as a more effective means to address payment troubles. This conclusion, as described in
6 more detail below, has been documented time and again. A fixed credit rate can be used to
7 achieve the utility objectives of obtaining complete, prompt, regular, automatic and
8 continuing payments of natural gas bills.

9
10 **Q. PLEASE DESCRIBE WHY YOU CONCLUDE THAT A FIXED CREDIT RATE**
11 **CAN BE USED TO IMPROVE THE COLLECTABILITY OF REVENUE FOR**
12 **MGE.**

13 A. The fact that rate schedules, themselves, can improve collections and generate a range of
14 savings to the utility offering the rate has been confirmed by impact evaluations of other
15 rates. For example, the impact evaluation of the Columbia Gas Company (Pennsylvania)
16 Customer Assistance Program (CAP) -- Pennsylvania's low-income rates are generally
17 referred to as CAP -- found that the company's CAP customers had 61% fewer disputes,
18 53% fewer *new* payment agreements, and 67% fewer credit hold requests. In addition, the
19 Columbia Gas impact evaluation found further that, for CAP customers, cancellation of
20 payment plans was reduced by 69%, termination notices declined by 48%, and shutoff
21 orders were printed 74% less often.

1 Equitable Gas (Pennsylvania) found the same thing with respect to its Energy Assistance
2 Program (EAP). The Equitable Gas evaluation found that there is a net administrative *cost*
3 to the low-income rate of \$15.13 after one year of operation. Like many initiatives,
4 however, with higher administrative costs in earlier years, the evaluation found further that
5 the participants who stayed on the rate for a second year (70% of the participants) return a
6 \$12.87 *savings* in Year 2. By the end of Year 3, the total savings had completely paid off
7 the costs from the first year and yielded a total net advantage of \$10.61 per customer. The
8 Equitable Gas evaluation found that, based on these administrative costs alone:

9 . . . for each 100 customers entering EAP, the 65% retained for three years would
10 return \$689.65 in net administrative cost reduction (65 x \$10.61). For those who
11 remain in EAP, these savings would increment over future years.

12 The Equitable Gas evaluation found additional *total* benefits (not just administrative
13 savings) to nonparticipating ratepayers as well through application of a "net back" analysis.
14 Net back recognizes that the revenue gained by a utility through its credit and collection
15 efforts is only the total revenue collected *minus* the costs of collection. Hence, if a utility
16 collects \$100, but spends \$40 in the process of collection, the utility's "net back" is only \$60
17 (for a net back rate of 0.60).

18
19 The Equitable Gas evaluation found that that utility experienced a net back ratio (NBR) of
20 0.91 for low-income customers without the Equitable Gas rate affordability program. The
21 evaluation then found that:

22 those who fully participate in one year of EAP show an NBR of 1.41. Those with
23 two full years of EAP show essentially the same performance, with an NBR of 1.37.
24 Both of these results are quite favorable compared to the 1989 Reference Group

1 with its NBR of 0.91.¹²¹⁾

2 The evaluation then translated these ratios into "dollars returned" (to other ratepayers).

3 Without the program, the evaluation found, "a customer who would have been billed \$1368
4 at the standard residential rate would have created a shortfall of \$684 from the standard
5 residential rate, not including the increased cost of collection." The evaluation then found:

6
7 EAP succeeds in recovering (in the sum of customer payments plus grants) dollars
8 which would otherwise not have been received by the utility. For those in EAP for
9 one full year, this amount is \$262. For those who remain in EAP for a second year
10 there is an additional \$206. These added to a total of \$468 for each customer who is
11 retained in the program for two full years.

12 The evaluation concludes: "This means that EAP is not only revenue neutral, but revenue
13 positive in relation to the comparison situation for which it was designed."
14

15 **Q. IS THERE ANY OTHER COMPANY THAT HAS FOUND THE COST OFFSETS**
16 **THAT YOU DISCUSS?**

17 A. Niagara-Mohawk Power Company (New York) also offers its low-income customers an
18 affordable rate. The Niagara-Mohawk initiative involves energy efficiency services and a
19 negotiated bill payment, which can be below the "cost of energy" (what Equitable Gas
20 referred to as the "standard rate"). Niagara-Mohawk tested four different groups. Group 3
21 and Group 4 had an affordable payment plan as a component of the services delivered.
22

¹²¹⁾

A net back rate of greater than 1.0 means that the company is not only collecting all of its current bill, but is collecting part of the arrears owed by the customer as well. Hence, the company is collecting *more* than its bill for current usage.

1 According to the evaluation of the Niagara-Mohawk initiative: "Group 3 and 4 participants
2 almost doubled the total number of payments to the utility during the post-treatment period
3 compared to the pre-treatment period (from 426 to 849 payments for Group 3; from 368 to
4 792 payments for group 4). In contrast, Group 1 actually decreased the number of
5 payments made and Group 2 increased the total number slightly (from 404 to 446
6 payments)." Neither Group 1 nor Group 2 had an affordable payment plan. The Niagara-
7 Mohawk evaluation found further that the Company benefitted from these increased
8 payments. The evaluation found:

9
10 Corresponding to the average dollars per month, the total customer dollars paid to
11 the utility also increased for the three treatment groups. Again, Group 2 payments
12 increased slightly from \$844 to \$895. Group 3 on the average increased its payment
13 from \$883 to \$1174 and Group 4 increased from \$968 to \$1188.

14 Unfortunately, Niagara-Mohawk undertook its efforts during a time when fuel assistance
15 dollars were being substantially cut back at the federal level and fuel assistance dollars
16 dropped for the program participants. Nonetheless, despite this drop in federal fuel
17 assistance funding, the evaluation found:

18
19 The increase in amount of customer dollars, despite the drop in receipt of assistance
20 dollars, resulted in an increase in total dollars paid to the utility of \$31 for Group 3
21 and \$91 for Group 4, compared with *decreases* in total dollars of \$26 for Group 1
22 and \$102 for Group 2. (emphasis added).

23
24 National Fuel Gas Distribution Company (New York) operates what it calls its Low-Income
25 Rate Assistance (LIRA) program. The impact evaluation of the NFG program developed a
26 mathematical model for calculating whether the program was cost-beneficial to the

1 company (and thus to nonparticipants). The impact evaluation refers to the fact that "the
2 cost effectiveness model measured cash in-flows and out-flows with and without the LIRA
3 program over time." The impact evaluation stated further that: "cash flows were computed
4 using collected revenue, billed revenue, collection expenses, and carrying charges for both
5 the participants and the nonparticipants."

6
7 Part of this model recognized that only \$939 of each \$1,276 bill was paid before LIRA.
8 Under LIRA, however, the impact evaluation found, low-income customers pay \$772 of
9 each \$811 bill. According to the National Fuel Gas evaluation: "Several indices were
10 selected as robust measures of the impact of the program. These included change in the
11 number of payments made, change in the percentage of bill paid, change in the amount
12 paid, change in the number of disconnections, and change in the amount of outside aid
13 received by participants. . .The program has been successful in moving most of the indices
14 in the *right* direction." (emphasis in original). The impact evaluation reported the following
15 "list of changes in the right direction":

- 16 ☞ The number of payments made by the participants increased by 30% (an average of
17 2.2 payments per participant);
- 18 ☞ The percentage of the bill paid per participant increased by 10%;
- 19 ☞ The number of service disconnections decreased by "slightly over 80%."

20
21
22 The National Fuel Gas impact evaluation reported that:

23
24
25 the [net present value] of the participant's pre-program cash flow was computed at
26 (\$3,805,936). This means that, had the program not existed (pre conditions
27 remained the same), NFG would have been expected to under collect over \$3.8
28 million (present valued over the next five years). Based on the post program

1 conditions, NFG is still expected to under collect, but only by approximately \$2.3
2 million. In other words, the program's gross impact is an improvement in
3 collections of \$1.5 million (nearly a 40% improvement over the next five years).

4 The impact evaluation concluded that "this indicates a cost-effective endeavor."
5

6 **Q. WHAT DO YOU CONCLUDE?**

7 A. I agree with the findings of the Pennsylvania Public Utility Commission. After reviewing
8 the experience of utilities in implementing pilot programs, along with the impact
9 evaluations of those pilots, the Pennsylvania PUC found in its March 1999 order directing
10 the adoption of low-income rate affordability programs in that state:

11 The results of CAP impact evaluations show that participants enrolled in a CAP
12 increase the number of payments they make while maintaining the same level of
13 energy usage. . . More importantly, the results of two impact evaluations show that
14 CAPs support the principles found in the CAP Policy Statement, namely that an
15 appropriately designed and well-implemented CAP, as an integrated part of a
16 company's rate structure, is in the public interest. Further, the results show that
17 CAPs can be a more cost effective approach for dealing with issues of customer
18 inability to pay than traditional collection methods.¹²²⁾

19
20 **Q. IS THERE INFORMATION SPECIFIC TO THE MGE SERVICE TERRITORY**
21 **WHICH CORROBORATES THE FINDINGS FROM OTHER UTILITIES AS TO**
22 **THE IMPACT THAT REDUCING ENERGY BURDENS HAS ON BILL**
23 **PAYMENT?**

24 A. Yes. The Process and Impact Evaluation for Missouri Gas Energy's pilot weatherization

¹²²⁾ *Order Re. Revisions to the Customer Assistance Program Policy Statement Made Pursuant to 52 Pa. Code Chapter 69, Docket No. M-00991232 (March 1999).*

1 program (March 1998) considered the impacts of reduced consumption (and thus reduced
2 bills) on average monthly balances. The MGE evaluation found:

3 When we account for the savings, we see that the average change in balance for the
4 two groups with strong savings is positive. Those with the most savings improved
5 their change in balance by an average of about \$13.63 per month and those in the
6 second savings quartile improved their position by about \$20 per month. On
7 average, the high savers reduced their average arrearages from about \$40 to about
8 \$26 per month. Those in the medium savings quartile actually went from a position
9 of a slight arrearage, about \$3.50 to an average credit position of about \$16.50 per
10 month. This means that customers greatly improved their position with respect to
11 owing the utility. Remember these are monthly figures. A \$20 monthly
12 improvement equals a \$240 annual improvement.¹²³¹

13 The fixed credit program operates in the same fashion. By reducing bills to more affordable
14 levels, the Company is better able to provide natural gas service without need for routine
15 additional credit and collection services.

16
17 **Q. PLEASE COMPARE THE FIXED CREDIT RATE SCHEDULE TO EXISTING**
18 **COMPANY COLLECTION ACTIVITIES.**

19 **A.** As can be seen from the discussion above, use of a fixed credit tariffed rate to respond to
20 low-income payment troubles has a documented history of effectiveness and economic
21 rationality, that far surpasses the documentation for existing credit and collection activities.

22
23 **Q. IN SUCH CIRCUMSTANCES, DO THE REDUCTIONS IN COST NEED TO**
24 **COMPLETELY OFFSET THE REDUCTIONS IN REVENUE FOR THE RATE TO**

¹²³¹ TecMRKT Works (March 30, 1998). *Process and Impact Evaluation of Missouri Gas Energy's Pilot Weatherization Program*, at 43, Missouri Gas Energy: Kansas City (MO).

1 **BE JUSTIFIED?**

2 A. No. Pursuant to Section 393.130.2 of Missouri statutes, there needs to be a utility-related
3 difference in the circumstances and conditions of customers taking service under the fixed
4 credit rate. The reduction in costs generated by the fixed credit rate demonstrates that such
5 a difference does, indeed, exist. Customers on the standard residential rate are not similarly
6 situated to the fixed credit rate customers.
7

8 **C. The New Tariffed Rate as a Response to Reverse Contributions.**

9 **Q. IS THERE OTHER JUSTIFICATION FOR THE LOWER TARIFFED RATE TO**
10 **BE MADE AVAILABLE TO QUALIFIED CUSTOMERS?**

11 A. Yes. The lower rate to be offered to low-income payment-troubled customers takes into
12 account the fact that these customers tend to provide a reverse contribution to other
13 remaining customers under existing rates.
14

15 **Q. PLEASE DESCRIBE THE FIRST WAY IN WHICH LOW-INCOME**
16 **CUSTOMERS PROVIDE THESE REVERSE CONTRIBUTIONS.**

17 A. As discussed above, low-income customers represent a disproportionate number of
18 payment-troubled customers on a utility system. Data collected by the Census Bureau
19 documents that while 32.4% of all low-income customers are delinquent on their utility
20 bills, only 9.8% of non-low-income customers are delinquent. The significance of this is
21 that, for a utility such as MGE, which has a non-cost-based late payment charge, low-
22 income payment-troubled customers make a substantial and on-going contribution to the

1 remaining customers.

2
3 **Q. PLEASE EXPLAIN HOW THIS ARISES.**

4 A. MGE imposes a late payment charge of 1.5% per month on unpaid balances (Tariff Sheets
5 R-7 and 25). The level of this late payment charge is set not because it is cost-justified, but
6 rather because it serves as an incentive for customers to pay their bills on time (or,
7 conversely, as a disincentive to pay other bills before the MGE bill is paid). A
8 disproportionate number of low-income customers, however, are delinquent. While low-
9 income customers represent 22% of all customers on the MGE system, low-income
10 customers represent nearly 50% of all delinquent customers on the MGE system (7.1% vs.
11 7.6%).¹²⁴¹ Every dollar of late payment charge paid over the cost of nonpayment, therefore,
12 is a dollar flowing out of the pockets of low-income payment-troubled customers
13 disproportionately into a reduction of rates to remaining customers.

14
15 **Q. WHAT IS THE MAGNITUDE OF THE COMPANY'S LATE PAYMENT CHARGE**
16 **REVENUE?**

17 A. Schedule RDC-17 provides the revenue generated for MGE through its late fees for the
18 most recent 12 month period available. (OPC-DR-5148). These late fees exceed \$1.2
19 million.

¹²⁴¹ As explained earlier in my testimony, 22% of all MGE customers are low-income. The proportion of all customers who are delinquent *and* low-income can thus be calculated: $(22\% \times 32.4\% = 7.1\%)$. The proportion of all customers who are delinquent but *not* low-income can be calculated: $(78\% \times 9.8\% = 7.6\%)$.

1
2 **Q. HOW DO LATE FEES RELATE TO THE NEW TARIFFED FIXED CREDIT**
3 **RATE?**

4 A. There are two aspects to the late fee. First, the late fee represents a disproportionate dollar
5 flow from low-income payment-troubled customers to remaining customers. The new tariff
6 rate, which addresses the inability-to-pay, will serve to reduce or eliminate that reverse
7 contribution. Second, the presence and extent of the reverse contribution flowing through
8 late fees from low-income payment-troubled customers to remaining customers is made
9 more disturbing by the discussion above that documents how the Company engages in
10 ineffective and inefficient collection mechanisms. Not only do low-income payment-
11 troubled customers thus pay a reverse contribution, but the Company engages in ineffective
12 and inefficient mechanisms that might reduce or eliminate that reverse contribution.

13
14 **Q. ARE THERE OTHER REASONS FOR CONCLUDING THAT LOW-INCOME**
15 **CUSTOMERS PROVIDE A REVERSE CONTRIBUTION?**

16 A. Yes. Consider that natural gas rates today are almost universally based upon costs that are
17 averaged over all customers. Averaged costs over-allocate costs to low-income residential
18 customers in at least the following ways. First, the Company's investment in distribution
19 equipment is placed into rates on an average cost basis. Assume, for example, that there are
20 some individual service drops that are 20 years old, on the one hand, and other individual
21 service drops that are 20 months old on the other hand. Despite the difference in age, all
22 service drops are placed into rates at the *average* cost of the two groups. For several

1 reasons, however, the older service drops create a lesser revenue requirement for a utility.
2 First, these service drops were purchased at earlier dates and thus had a lower initial cost.
3 In addition, the older service drops have also been depreciated. Their original cost is,
4 therefore, no longer the expense which is included in rates. As a class, low-income
5 Missouri consumers disproportionately tend to live in older homes. As a result, because
6 service drops are placed into rates on an average cost basis, low-income consumers living in
7 older homes are paying a contribution to higher income consumers who live in newer
8 homes.

9
10 The same rationale applies on a neighborhood basis. Because the distribution network
11 servicing older neighborhoods has a lower original cost, which has been depreciated over
12 the years, the revenue requirement attributable to those older neighborhoods would be lower
13 than the revenue requirement attributable to newer neighborhoods. An examination of the
14 Census demographics of MGE communities, combined with building permits, shows that as
15 a class, low-income Missouri consumers tend to live in older neighborhoods. As a result,
16 because rates are offered on an average cost basis, the residents of older neighborhoods are
17 paying a contribution to the newer housing developments.

18
19 **D. A Supplemental Funding Source.**

20 **Q. IS THERE A SOURCE OF SUPPLEMENTAL FUNDING THAT MIGHT**
21 **FURTHER OFFSET THE NEED TO REALLOCATE COSTS FROM**
22 **CUSTOMERS ON THE FIXED CREDIT RATE TO CUSTOMERS ON THE**

1 **STANDARD RESIDENTIAL RATE?**

2 A. Yes. MGE can and should use some portion of its anticipated refunds from the Kansas *ad*
3 *valorem* tax refund litigation to capitalize a rate affordability fund. A combination of the
4 use of interest generated from the fund, as well as a reasonable extended drawdown of
5 principal, can provide a source of revenue to help offset the need to reallocate costs from the
6 fixed credit rates over an nine year period.

7
8 **Q. PLEASE EXPLAIN HOW YOU WOULD STRUCTURE THIS FUND.**

9 A. Let me assume that MGE receives \$50 million in Kansas *ad valorem* tax refunds either
10 through judicial resolution of the pending cases or through settlement. I propose that MGE
11 use 30% of those funds to capitalize an affordability fund to help offset the costs subject to
12 reallocation from the fixed credit tariffed rate. Capping a drawdown from that fund at \$2.5
13 million annually would allow the fund to operate with a "full" disbursement of \$2.5 million
14 each year for nine years. In the tenth year, a disbursement of \$1.6 million would exhaust
15 the last dollars left in the fund.

16
17 **Q. WHY DO YOU SUGGEST \$2.5 MILLION AS A POTENTIAL CAP ON THE**
18 **ANNUAL DRAWDOWN?**

19 A. A drawdown of \$2.5 million would allow MGE to cover the costs subject to reallocation set
20 forth in Schedule RDC-16 without the need to rely on credit and collection offsets and some
21 portion of LIHEAP revenues. (The bad debt offset is still needed to prevent the double-
22 recovery of costs as described above.) It would allow the Company to implement the fixed

1 credit rate without need to reallocate any costs to customers on the standard residential rate.

2
3
4 **Q. WHAT ASSUMPTIONS UNDERLIE YOUR CONCLUSION THAT A \$15**
5 **MILLION FUND COULD SUPPORT A DRAWDOWN OF \$2.5 MILLION PER**
6 **YEAR FOR NINE FULL YEARS?**

7 A. My calculations are set forth in Schedule RDC-18. I assume that the fund is capitalized at
8 30% of a \$50 million MGE *ad valorem* refund.¹²⁵¹ I assume that the fund *corpus* earns an
9 annual 10% return. To the extent that a higher return is achieved, a longer funding period
10 would result. A lower return would shorten the period in which a distribution of \$2.5
11 million could be made. Similarly, if a lower disbursement is needed per year to offset the
12 costs otherwise subject to reallocation to customers on the standard residential rate, the fund
13 could operate for a greater number of years. I assume that the return is distributed each year
14 (rather than being reinvested).

15
16 **Q. WHY SHOULD THE MISSOURI PSC REQUIRE MGE TO SET ASIDE A**
17 **PORTION OF THE AD VALOREM TAX REFUND AS A LOW-INCOME FUND?**

18 A. Customers who were overcharged in their utility bills at the time the *ad valorem* taxes were
19 inappropriately included in natural gas rates are entitled to receive the amount of their

¹²⁵¹ The testimony of Chairperson Sheila Lumpe (Exhibit G) before the U.S. House Subcommittee on Energy and Power (June 8, 1999) calculated the refunds (including interest) due to Missouri ratepayers at \$61,181,992 as of March 31, 1999.

1 overpayments returned to them. However, customers who are currently on the MGE
2 system but who did *not* make such overpayments are not entitled to those refunds.
3 Providing refunds to customers who did not pay the overcharge in the first instance is
4 simply providing those customers with a windfall. There is certainly no vested entitlement
5 for all current customers to receive a portion of the Kansas *ad valorem* tax refund.

6
7 Because of the confluence of several factors, it will be difficult, if not impossible, to *refund*
8 the overcharges to those customers who originally *paid* the overcharges. First, the time
9 period that has elapsed since the overcharges occurred is so substantial, it would be
10 extraordinary if the Company has retained the customer records from the time of the
11 overcharges. It would, as a result, be impossible to even identify the customers who paid
12 the overcharges. Second, even for those customers who were identified as customers,
13 because of the lack of customer records, it would be impossible to ascertain the amount of
14 the refund which any given customer is entitled to receive. Third, even if the Company
15 could identify each customer, along with the refund to which each customer was entitled,
16 the Company would need to *find* each customer to provide the refund. Due to the frequent
17 turn-over in utility customers, the process of finding those customers would be difficult, if
18 not impossible, to accomplish at all. In any event, it would be very expensive.

19
20 For all of these reasons, the Kansas *ad valorem* tax refunds should be treated as a cy pres
21 award and devoted to a system use that will generate system benefits. I propose that a
22 portion of the Kansas *ad valorem* tax refunds be used to capitalize a low-income

1 affordability fund to help pay for the use of fixed credits as an alternative to traditional
2 credit and collection strategies directed toward low-income payment-troubled customers.
3 This fund would, consistent with the creation of cy pres funds, generate systemwide
4 impacts that would benefit all customers on the MGE system.

5
6 **Q. WOULD OTHER MISSOURI UTILITIES NEED TO SET ASIDE EQUIVALENT**
7 **AMOUNTS OF THEIR KANSAS AD VALOREM TAX REFUNDS?**

8 A. Each Missouri utility receiving Kansas *ad valorem* tax refunds should be treated on an
9 individualized basis. The PSC should make independent decisions for each company, as
10 they present a plan to return the overcharges to their customers.

11
12 **Q. PLEASE EXPLAIN THE FACTUAL BASIS FOR YOUR CONCLUSION THAT A**
13 **CY PRES TREATMENT IS APPROPRIATE.**

14 A. The Kansas *ad valorem* tax refund relates to a period of alleged overcharges beginning in
15 October 1983 and extending through June 1988. Given the lengthy period of time since the
16 point at which the overcharges were made to customers, it would be impossible to refund
17 those overcharges to the customers who paid them in the first instance.

18
19 **Q. HOW DO YOU KNOW THAT THERE IS SUBSTANTIAL CHURN ON THE MGE**
20 **SYSTEM?**

21 A. First, the Company, itself, acknowledges that there is more than a 30% turnover in its
22 customer base each year. (OPC-DR-5169, page 22). In addition, it is possible to gain

1 further insights into the turnover in a particular geographic area through two public
2 information sources. First, one can examine U.S. Census data. Using this data, I have
3 examined the mobility of households from the counties in which Kansas City, Joplin and St.
4 Joseph are located. According to the U.S. Geological Survey, those counties include
5 Andrew, Buchanan, Clay, Jackson, Jasper and Platte. Schedule RDC-19 shows data on the
6 year in which householders moved into their current unit. In these counties, the
7 householder moved into his or her 1990 housing unit after 1985 in from 45% (Andrew
8 County) to 60% (Jasper County) of the time. The percentages would thus be much higher
9 today. (2000 Census data is not yet available.)

10
11 The Census also tracks the location of residences five years before the Census is taken.
12 Schedule RDC-20 presents that data for the study counties. The data show that from six
13 percent (Andrew) to nearly 20% (Jasper) of all persons lived in another state in 1985
14 (relative to the 1990 Census). From 16% (Buchanan) to nearly 40% (Platte) lived in a
15 different county but remained in Missouri.

16
17 **Q. DO YOU HAVE REASON TO BELIEVE THAT THIS CENSUS DATA**
18 **ACCURATELY REPRESENTS CONDITIONS TODAY?**

19 **A.** Yes. The Internal Revenue Service (IRS) maintains annual migration data which relies on
20 the filing address of tax returns each year. I examined the migration data from the 1997 to
21 1998 tax year, the most recent information available. The data is not entirely complete
22 since not all households file tax returns (including the low-income population which earns

1 insufficient income to file a tax return). Nonetheless, the IRS data base presents an
2 authoritative look at migration patterns. Schedule RDC-21 presents a summary of IRS data
3 for the six study counties. Note that the total one-year migration rates range from 6.3%
4 (Buchanan) to 9.2% (Clay).

5
6 **Q. DOES THIS MIGRATION DATA UNDERSTATE THE EXTENT TO WHICH**
7 **CUSTOMERS MAY HAVE MOVED OFF THE MGE SYSTEM?**

8 A. Yes. Two observations need to be made about both the Census and the IRS data. First, a
9 household need not move out of the state to move out of the MGE service territory. MGE
10 serves a relatively small portion of total Missouri natural gas customers. Second, a
11 household need not move out of the MGE service territory to cease being an MGE
12 customer. The household may move to a housing unit with a different fuel or it may move
13 to a unit with utilities included in rent. The data above, therefore, states the minimum churn
14 in MGE customers on an annual basis, as well as over time.

15
16 **Q. WOULD LOW-INCOME CUSTOMERS BE PARTICULARLY ADVERSELY**
17 **AFFECTED BY THESE FACTORS?**

18 A. Yes. Low-income households, overall, have a much higher mobility than do households in
19 general.¹²⁶ We know that the median duration of residence for people overall is 5.2 years.

¹²⁶ The annual Census reports based on the Current Population Survey document this conclusion. See, e.g., Current Population Survey (March 1999), *Geographical Mobility: March 1998 to March 1999, Detailed Tables*, at Tables 11, 12, 17 (detailed tables revised and posted to Internet, November 2, 2000).

1 This means that half of all persons have lived in their current home for a longer period and
2 half have lived there for a shorter period. We know further, however, that there are
3 differences in populations. People who rent their homes tend to live in their residence for a
4 shorter time than homeowners--a median duration in their current residences of 2.1 years,
5 compared with 8.2 years for people living in owner-occupied housing units.¹²⁷ Indeed, we
6 know that one-third of people living in renter-occupied housing units in March 1998 moved
7 in the previous year (33.4%), while in contrast, only 1-in-12 people in owner-occupied
8 housing moved during the same period (8.2%).¹²⁸ We know finally that low-income
9 households are disproportionately renters.

10
11 As can be seen, there is an even smaller likelihood that low-income customers who paid the
12 *ad valorem* tax overcharge can be located and reimbursed for their overpayment. In
13 addition, it would be even more expensive to have any success in locating any of the low-
14 income customers that originally paid the overcharge.

15
16 **Q. HOW DO THESE FACTORS OF IMPOSSIBILITY OF MAKING REFUNDS TO**
17 **APPROPRIATE CUSTOMERS, COMBINED WITH THE EXPENSE OF**
18 **LOCATING THOSE CUSTOMERS WHO WOULD BE OWED REFUNDS,**
19 **RELATE TO THE PROPOSAL TO CREATE A LOW-INCOME**

¹²⁷ Kristen Hansen (October 1998). *Seasonality of Moves and Duration of Residence*, Current Population Report P70-66, U.S. Department of Commerce, Economics and Statistics Administration: Washington D.C.

¹²⁸ Carol Faber (January 2000). *Geographical Mobility: Population Characteristics*, Current Population Report

1 **AFFORDABILITY FUND?**

2 A. A legal doctrine referred to as the *cy pres* doctrine provides Missouri regulators with the
3 legal basis to set aside some portion of the Kansas *ad valorem* tax refund as a low-income
4 affordability fund.¹²⁹⁾ The *cy pres* doctrine is particularly used in those situations where the
5 persons who are entitled to a distribution of damages (in this case rate refunds) change
6 constantly as well as where the persons who are entitled to a distribution of damages are
7 difficult to identify. In a situation where these factors exist, such as in the Kansas *ad*
8 *valorem* tax refund, creation of a *cy pres* fund is appropriate. Utility refunds have been
9 singled out as particularly appropriate for *cy pres* treatment.¹³⁰⁾

10
11 **Q. WHY SHOULD A FUND BENEFITTING ONLY LOW-INCOME CUSTOMERS**
12 **BE CREATED?**

13 A. It is not accurate to say that the *cy pres* fund proposed for the distribution of Kansas *ad*
 (...continued)

 P20-520, U.S. Department of Commerce, Economics and Statistics Administration: Washington D.C.

¹²⁹⁾ The doctrine of *cy pres* originated in the law of charitable trusts. In that context, it provides that when the literal terms of a trust become impossible to follow, the funds should be put to the "next best use" in accord with the purposes of the trust. In litigation, and the award of damages, the use of *cy pres* remedies is often referred to as "fluid recovery." Fluid recovery is used to distribute the residue of a fund created by settlement or judgment when the claims rate is likely to be less than 100 percent. The method of *cy pres* generally adopted is the creation of a separate fund, either through a new project or through an existing organization, consistent with the purposes of the litigation. For a general discussion of *cy pres*, see, James McCall et al., "Greater Representation for California Consumers--Fluid Recovery, Consumer Trusts Funds and Representative Actions," 46 *Hastings L.J.* 797 (1995); Gail Hillebrand and Daniel Torrance, "Claims Procedures in Large Consumer Class Actions and Equitable Distribution of Benefits," 28 *Santa Clara L.Rev.* 747 (1988); Kerry Barnett, "Equitable Trusts: An Effective Remedy in Consumer Class Actions," 96 *Yale L.J.* 1591 (1987); Natalie DeJarlais, "The Consumer Trust Fund: A *Cy Pres* Solution to Undistributed Funds in Consumer Class Actions," 38 *Hastings L.J.* 729 (1987).

¹³⁰⁾ 2 Newberg and Conte, *Newberg on Class Actions*, 10.17 at 10-44, 10-45, and *Market Street Railway v. Railroad Commission*, 171 P.2d 875, 881 (Cal. 1946), *cert. denied*, 329 U.S. 793 (1946).

1 *valorem* tax refunds would go to benefit only low-income customers. Instead, the fund
2 would be used as a supplemental source of revenue that would offset the difference between
3 the bills charged at the standard residential tariffed rate and bills charged at the fixed credit
4 tariffed rate. In the absence of the fund, these costs would be reallocated to the customers
5 taking service under the standard residential rate. In addition, as explained in detail above,
6 the fixed credit rate generates systemwide benefits.

7
8 **Q. HAS ANY OTHER STATE APPROVED THE USE OF SOME PORTION OF THE**
9 **KANSAS AD VALOREM TAX REFUND AS A LOW-INCOME SET-ASIDE?**

10 A. Yes. Each Colorado investor-owned utility is required to set aside 25% of the Kansas *ad*
11 *valorem* tax refund as low-income rate affordability assistance. This set aside is done either
12 pursuant to agreement between the utility and the Colorado Energy Assistance Foundation
13 (a quasi-public fuel assistance entity) or by direct order of the Colorado Public Utility
14 Commission. For Public Service Company of Colorado, this low-income set aside involved
15 \$3,262,368. I have appended three items from Colorado as a combined Attachment C to
16 my testimony. The three items include: (1) the relevant pages from the Colorado PUC order
17 approving Public Service Company of Colorado's (PSCO) proposal to devote 25% of its
18 Kansas *ad valorem* tax refund to CEAF; (2) the verified application of Greeley Gas
19 Company proposing to devote 25% of its refund to CEAF; and (3) a news report outlining
20 the Colorado PUC's approval of the Peoples Natural Gas proposal to devote 25% of its
21 Kansas *ad valorem* tax refund to CEAF.

1 Q. DO YOU HAVE ANY RECOMMENDATIONS FOR THE MONITORING AND
2 EVALUATING THE "FIXED CREDIT" TARIFF RATE THAT PUBLIC
3 COUNSEL IS PROPOSING?

4 A. Yes. It will be important to collect the information necessary to monitor the impacts that
5 this rate proposal has on the customers taking service under this rate, the residential
6 customers that do not take service under this rate, and MGE.

7
8 Q. WHAT INFORMATION WILL BE NEEDED TO MONITOR THE IMPACTS OF
9 THIS PROGRAM?

10 A. For customers taking service under this rate, the following information should be tracked
11 beginning on the date that enrollment begins: monthly usage, monthly bills, monthly credit
12 payments, monthly arrearage levels, LIHEAP payments signed over to MGE, disconnection
13 notices, and disconnections and reconnections. MGE should collect the following
14 information by month on an aggregate basis: enrollment costs and the LIHEAP revenue
15 offset. In addition, MGE should collect the following information by month on an
16 aggregate basis for customers taking service under the "Fixed Credit" tariff rate: number of
17 customers on the tariff, monthly usage, monthly charges, monthly credit payments, monthly
18 arrearage levels, disconnection notices, and disconnections and reconnections. In addition,
19 I recommend that the Company measure and track the five specific objectives I have
20 outlined above (complete payment, prompt payment, regular payment, automatic payment
21 and continuing payment).

1 **Q. ARE YOU PROPOSING THAT A FORMAL EVALUATION OF THIS PROGRAM**
2 **BE PERFORMED BY MGE OR ANY OTHER PARTY AT A PREDETERMINED**
3 **TIME?**

4 A. No. We are only recommending that the above described data that would be necessary to
5 perform an evaluation be retained so an evaluation can be performed in the future if parties
6 wish to raise issues (e.g. effectiveness in achieving affordability goals, impacts on MGE
7 and other customers) related to the "Fixed Credit" tariff rate in future rate cases.

8
9 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

10 A. Yes it does.

Schedule RDC-1

Poverty Level by Household Size (2001)						
Poverty Level Range	Household Size					
	1	2	3	4	5	6
25%	\$2,148	\$2,903	\$3,658	\$4,413	\$5,168	\$5,923
50%	\$4,295	\$5,805	\$7,315	\$8,825	\$10,335	\$11,845
75%	\$6,443	\$8,708	\$10,973	\$13,238	\$15,503	\$17,768
100%	\$8,590	\$11,610	\$14,630	\$17,650	\$20,670	\$23,690
125%	\$10,738	\$14,513	\$18,288	\$22,063	\$25,838	\$29,613
150%	\$12,885	\$17,415	\$21,945	\$26,475	\$31,005	\$35,535
SOURCE:						
100% federal Poverty Level: 66 <i>Federal Register</i> 10695 - 10697 (February 16, 2001).						

Schedule RDC-2

Missouri Gas Energy Low-Income Customers (435,477 residential customer base)			
Poverty Range	Total Residential	Low-Income Percent /a/	Low-Income Customers /b/
Below 50%	435,477	5.8%	25,258
50 - 100%	435,477	6.9%	30,048
101 - 150%	435,477	9.0%	39,193
Total below 150%	435,477	21.7%	94,499
SOURCE:			
/a/ List of communities served: Missouri Gas Energy: 4 CSR 240-10.070(3)(B)2 (minimum filing requirements). U.S. Census Bureau, Summary Tape File 3A (for communities listed by MGE).			
/b/ Total residential customers x low-income percent.			

Schedule RDC-3

Percent of Households Receiving Heating Assistance Classified by Annual Household Income, Fiscal Year 1996 (Missouri)								
All Households Assisted	Under \$2000	\$2,000 to \$3,999	\$4,000 to \$5,999	\$6,000 to \$7,999	\$8,000 to \$9,999	\$10,000 to \$11,999	\$12,000 to \$14,999	\$15,000 and over
105,010	7.4%	13.8%	30.9%	17.2%	14.1%	7.6%	5.8%	3.1%
SOURCE: Office of Community Services, Division of Energy Assistance (September 2000). <i>LIHEAP 1996 Annual Report to Congress</i> , at page 85, U.S. Department of Health and Human Services, Administration for Children and Families: Washington D.C.								

Schedule RDC-4

Low-Income Natural Gas Burdens At Various Poverty Ranges Missouri Gas Energy (\$563 annual bill)			
Poverty Range	Household Size		
	1	2	3
25%	26%	19%	15%
50%	13%	10%	8%
75%	9%	6%	5%
100%	7%	5%	4%
125%	5%	4%	3%
150%	4%	3%	3%
Source: \$563 gas bill calculated by summing gas revenue (\$153,014,525) and commodity/customer charge revenue (\$119,618,743) and dividing by 435,477 residential customers. This result is multiplied by 90% to account for lower consumption of low-income customers.			

Schedule RDC-5

Low-Income Natural Gas Burdens At Various Poverty Ranges Missouri Gas Energy (\$709 annual bill) /a/			
Poverty Range	Household Size		
	1	2	3
25%	33%	24%	19%
50%	17%	12%	10%
75%	11%	8%	6%
100%	8%	6%	5%
125%	7%	5%	4%
150%	6%	4%	3%
NOTES: /a/ \$563 bill x 46% increase in gas costs.			

Schedule RDC-6

Productivity of MGE Field Collection Activities: Residential Arrears												
	Bermex Productivity						GDC Productivity					
Month	# Sent to Field	Total # Worked	% Collected	% Shutoff	\$ Collected	\$ Shutoff	# Sent to Field	Total # Worked	% Collected	% Shutoff	\$ Collected	\$ Shutoff
Jan	5,334	4,462	9%	8%	\$67,770	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Feb	6,150	4,044	11%	18%	\$132,765	\$163,363	1,720	1,368	16%	23%	\$56,980	\$142,518
Mar	11,585	6,905	8%	14%	\$190,433	\$390,829	3,944	3,330	18%	25%	\$120,306	\$323,509
Apr	7,797	4,597	8%	23%	\$146,983	\$631,744	1,488	1,267	16%	36%	\$42,758	\$231,486
May	8,660	5,289	8%	19%	\$125,664	\$805,797	4,337	3,616	18%	44%	\$128,621	\$667,720
June	6,790	4,061	8%	24%	\$98,951	\$607,131	4,403	3,867	18%	42%	\$111,020	\$511,621
July	5,976	4,117	10%	30%	\$104,395	\$651,212	3,603	3,174	18%	39%	\$97,570	\$413,672
Aug	5,556	4,061	13%	30%	\$95,091	\$565,066	3,713	3,400	20%	43%	\$88,872	\$421,634
Sept	4,626	3,407	13%	28%	\$68,458	\$467,599	2,990	2,713	20%	36%	\$69,469	\$327,637
Oct	2,725	2,531	15%	35%	\$50,801	\$304,805	2,366	1,953	20%	37%	\$54,778	\$208,155
Nov	2,578	1,998	14%	26%	\$40,851	\$219,758	2,689	2,281	19%	14%	\$51,064	\$58,336
Dec	2,149	1,748	10%	15%	\$55,349	\$137,807	1,329	1,098	18%	0%	\$46,852	\$0
Totals			9.9%	21.3%	\$1,177,511	\$68,078	32,582	28,067	15.9%	29.4%	\$868,290	\$3,306,266
SOURCE: OPC-DR-5140.												

Schedule RDC-7

MGE Delinquency Recovery Program Analysis as of February 5, 2001	
Calling Statistics for Customers at Least 60 Days in Arrears	
Active customers at least 60 days in arrears	28,328
Total dollars at least 60 days in arrears	\$3,816,167.23
Total accounts attempted (80% of total)	22,662
Total accounts to make arrange, pay, or promise to pay	11,331
Total dollars paid or promised	\$1,526,466.89
Calling Statistics for Customers at Least 30 Days in Arrears	
Active customers at least 30 days in arrears	73,120
Total dollars at least 30 days in arrears	\$11,798,463.23
Total accounts attempted (80% of total)	58,496
Total accounts to make arrange, pay, or promise to pay	29,248
Total dollars paid or promised	\$4,719,385
SOURCE: OPC-DR-5140.	

Schedule RDC-8

Dollars Collected in Field by Collectors		
	1999	2000
Jan	\$113,288	\$139,561
Feb	\$222,836	\$164,013
Mar	\$353,332	\$274,731
Apr	\$276,008	\$234,255
May	\$241,738	\$300,177
June	\$173,673	\$240,133
July	\$167,714	\$179,899
Aug	\$156,582	\$170,365
Sept	\$113,161	\$117,392
Oct	\$79,536	\$107,111
Nov	\$70,582	\$69,934
Dec	\$75,174	\$62,819
Total	\$2,043,624	\$2,060,390
SOURCE:		
OPC-DR-5143(F).		

Schedule RDC-9

Amount of Money MGE Collected Using Outside Collectors	
Jan	---
Feb	\$56,980
Mar	\$120,305
Apr	\$42,759
May	\$128,621
June	\$111,020
July	\$97,570
Aug	\$88,872
Sept	\$69,470
Oct	\$54,779
Nov	\$51,065
Dec	\$46,853
Total	\$868,294
SOURCE:	
OPC-DR-5143(J).	

Schedule RDC-10
(page 1 of 2)

MGE Residential Accounts on Payment Plans Compared to Accounts in Arrears 1999 - 2000		
1999	Residential Customers in Arrears	Residential Deferred Payment Arrangements
Jan	56,797	9,546
Feb	57,654	16,949
Mar	62,836	16,445
Apr	63,693	14,873
May	69,374	12,890
June	66,792	9,867
July	65,791	6,731
Aug	65,058	5,334
Sept	65,330	5,014
Oct	62,110	4,584
Nov	67,959	3,357
Dec	66,373	2,555
SOURCE: OPC-DR-5146(D), (E), (F).		

Schedule RDC-10
(page 2 of 2)

MGE Residential Accounts on Payment Plans Compared to Accounts in Arrears 1999 - 2000		
2000	Residential Customers in Arrears	Residential Deferred Payment Arrangements
Jan	60,334	4,728
Feb	61,970	7,835
Mar	62,135	9,412
Apr	69,389	6,861
May	73,553	6,295
June	71,346	5,222
July	67,175	4,244
Aug	68,511	3,419
Sept	66,569	3,775
Oct	64,312	3,075
Nov	68,325	2,036
Dec	68,329	2,218
SOURCE:		
OPC-DR-5146(D), (E), (F).		

Schedule RDC-11
(page 1 of 2)

MGE Accounts in Arrears (61-90 days/90+ days) vs. Deferred Payment Arrangements			
1999	61-90 /a/	90+ /a/	DPAs /b/
January	28,130	32,142	9,546
February	21,826	26,778	16,949
March	26,078	24,712	16,445
April	31,695	29,469	14,873
May	31,659	38,046	12,890
June	41,200	40,763	9,867
July	41,072	51,773	6,731
August	39,750	54,346	5,334
September	39,9773	53,770	5,014
October	37,617	51,313	4,584
November	35,455	50,714	3,357
December	36,487	45,734	2,555
SOURCE:			
/a/ OPC-DR-5152			
/b/ OPC-DR-5146(D), (E), (F).			

Schedule RDC-11
(page 1 of 2)

MGE Accounts in Arrears (61-90 days/90+ days) vs. Deferred Payment Arrangements			
2000	61-90	90+	DPA's
January	27,337	37,240	4,728
February	20,907	26,341	7,835
March	25,680	25,002	9,412
April	29,705	22,136	6,861
May	36,096	26,596	6,295
June	37,745	32,652	5,222
July	37,184	40,310	4,244
August	38,143	47,437	3,419
September	38,664	47,801	3,775
October	37,152	48,305	3,075
November	35,697	46,899	2,036
December	33,119	43,069	2,218
SOURCE:			
/a/ OPC-DR-5152			
/b/ OPC-DR-5146(D), (E), (F).			

Schedule RDC-12

Illustration of Calculation of Monthly Bill Under Fixed Credit Rate Tariff	
Annual bill	\$600
Months in year	12
Levelized monthly bill without fixed credit	\$50
Fixed credit	\$20
Payment owed by customer	\$30

Schedule RDC-13

Costs Subject to Reallocation before Offsets MGE Fixed Credit Rate Tariff										
Poverty Range	Bill /a/	Income /b/	Low-Income Customers /c/	Payment Troubled Status	Take Rate	Customers Taking Under Rate /d/	% of Income Payment	Customer Payment /e/	Annual Fixed Credit per Customer /f/	Aggregate Reallocated Costs /g/
0-49%	\$709	\$3,356	25,258	35%	50%	4,420	4.0%	\$134	\$575	\$2,540,223
50-100%	\$709	\$10,067	30,048	35%	50%	5,258	4.0%	\$403	\$306	\$1,610,428
101-150%	\$709	\$16,778	39,193	35%	50%	6,859	4.0%	\$671	\$38	\$259,392
Total:			94,499			16,537				\$4,410,043
SOURCES:										
/a/ Calculated.										
/b/ Mid-point of Poverty range for household size of 2.6.										
/c/ Assumes 435,477 total residential customers.										
/d/ Column C x Column D x Column E.										
/e/ Income x percentage of income.										
/f/ Bill - customer payment.										
/g/ Fixed credit per customer x RPs taking under rate										

Schedule RDC-14
(Page 1 of 3)

MGE Residential Bad Debt (2000)	
	Residential Bad Debt
January	\$85,898.50
February	\$2,119.34
March	\$138,571.22
April	\$651,853.08
May	\$1,121,869.51
June	\$885,876.08
July	\$812,514.19
August	\$797,305.03
September	\$205,155.47
October	\$165,080.58
November	\$609,676.15
December	\$409,604.65
Total 2000	\$5,885,523.80
SOURCE:	
OPC-DR-1056a	

Schedule RDC-14
(Page 2 of 3)

Residential Bad Debt Ratio	
Total revenue /a/	\$272,633,628
Bad debt	\$5,885,524
Bad debt ratio /b/	2.16%
SOURCE:	
/a/	Revenue Allocation and Rate Design (Revised). \$153,014,525 (cost of gas) + \$119,618,743 (commodity/customer charge).
/b/	Bad debt / total revenue

Schedule RDC-14
(Page 3 of 3)

Residential vs. Low-income Residential Bad Debt				
1	Proportion of all customers low-income /a/	21.7%		
2	Percent low-income service disconnects /b/	8.5%		
3	Percent of all disconnects low-income /c/	1.84%		
4	Proportion of all customers not low-income /d/	78.3%		
5	Percent non-low-income service disconnects /e/	1.8%		
6	Percent of all disconnects not low-income /f/	1.41%		
7	Low-income proportion of all disconnects /g/	56.7%		
8	Low-income bad debt	5.64%	21.7%	1.22%
9	Non-low-income bad debt	1.19%	78.3%	0.94%
10	Total bad debt			2.16%
SOURCE: /a/ Schedule RDC-2. /b/ U.S. Census Bureau, <i>Extended Measures of Well-Being: 1992</i> , P70-50RV (November 1995). /c/ Line 1 x Line 2. /d/ 1 - Line 1. /e/ U.S. Census Bureau, <i>Extended Measures of Well-Being: 1992</i> , P70-50RV (November 1995). /f/ Line 4 x Line 5. /g/ Line 5 x Line 6.				

Schedule RDC-15

Bad Debt Offset Going Forward	
Average low-income bill	\$709
Average customers on fixed credit rate	16,537
Total revenue from fixed credit customers	\$11,724,733
Uncollectible rate	5.64%
Uncollectible revenue per fixed credit customer	\$40
Percent bill payment ^{a\}	83%
Avoided uncollectibles per fixed credit customer	\$33
Total annual going forward bad debt avoided for fixed credit customers	\$545,721
^{a\} The proportion of Pennsylvania payment troubled customers who made full and timely payments when receiving an affordable rate was 83% statewide.	

Schedule RDC-16

Total Costs to be Reallocated to Residential Customers on Standard Tariff	
Gross fixed credit costs to be reallocated	\$4,410,043
"Enrollment" costs (16,537 customers x \$42/customer)	\$595,332
LIHEAP revenue offset	\$2,277,145
Credit and collection offset	\$330,740
Going forward bad debt offset	\$545,721
Total offsets	\$3,153,606
Total fixed costs to be reallocated	\$1,851,769

Schedule RDC-17

Late Payment Fee Revenue: MGE (March 2000 - February 2001)	
	Late Fee Revenue /a/
March 2000	\$158,414
April 2000	\$100,643
May 2000	\$85,711
June 2000	\$55,113
July 2000	\$33,614
August 2000	\$31,761
September 2000	\$33,417
October 2000	\$36,116
November 2000	\$40,998
December 2000	\$84,002
January 2001	\$248,553
February 2001	\$346,887
12-month total	\$1,255,229
SOURCE:	
/a/ OPC-DR-5148.	

SCHEDULE RDC-18
(page 1 of 2)

Missouri Rate Affordability Fund 30% of \$50 million Kansas <i>ad valorem</i> Tax Refund Set-Aside	
\$50,000,000	Ad valorem refund
30%	Percent set aside for affordability fund
\$15,000,000	Amount set aside

SCHEDULE RDC-18
(page 2 of 2)

Missouri Rate Affordability Fund \$2.5 million annual distribution					
Year	Annual amount	Return (10%)	Drawdown	Distribution	Level Distribution
1	\$15,000,000	\$1,500,000	\$1,000,000	\$2,500,000	\$2,500,000
2	\$14,000,000	\$1,400,000	\$1,100,000	\$2,500,000	
3	\$12,900,000	\$1,290,000	\$1,210,000	\$2,500,000	
4	\$11,690,000	\$1,169,000	\$1,331,000	\$2,500,000	
5	\$10,359,000	\$1,035,000	\$1,464,100	\$2,500,000	
6	\$8,894,900	\$889,490	\$1,610,000	\$2,500,000	
7	\$7,284,390	\$728,439	\$1,771,561	\$2,500,000	
8	\$5,512,829	\$551,283	\$1,948,717	\$2,500,000	
9	\$3,564,112	\$356,411	\$2,143,589	\$2,500,000	
10	\$1,420,523	\$142,052	\$1,420,523	\$1,562,575	

Schedule RDC-19

Residence in 1985							
County	Same House	Missouri: Same County	Missouri: Different County	Out of State	Total	% Out State	% Out Cnty
Andrew County	7,901	2,593	2,302	850	13,646	6.2%	23.1%
Buchanan County	42,722	22,047	6,139	6,226	77,134	8.1%	16.0%
Clay County	70,125	33,878	19,995	17,988	141,986	12.7%	26.8%
Jackson County	306,717	185,481	30,118	62,862	585,178	10.7%	15.9%
Jasper County	44,091	22,888	7,014	10,291	84,284	12.2%	20.5%
Platte County	23,382	9,380	10,886	10,051	53,699	18.7%	39.0%
SOURCE: U.S. Census Bureau, Summary Tape File 3A.							

Schedule RDC-20

Year Householder Moved Into Unit									
County	1989-1990	1985-1988	1980-1984	1970-1979	1960-1969	Before 1960	Total	Pct After 1985	Pct After 1988
Andrew County	859	1,548	894	1,095	496	537	5,429	44.3%	15.8%
Buchanan County	6,517	8,546	4,301	5,838	3,604	3,680	32,486	46.4%	20.1%
Clay County	13,529	18,171	7,046	9,792	5,942	4,435	58,915	53.8%	23.0%
Jackson County	56,020	71,679	32,321	44,611	25,941	22,010	252,582	50.6%	22.2%
Jasper County	7,938	9,284	4,982	6,596	3,473	3,861	36,134	47.7%	22.0%
Platte County	5,887	7,572	2,668	3,496	1,415	1,104	22,142	60.8%	26.6%
SOURCE: U.S. Census Bureau: Summary Tape File 3A.									

Schedule RDC-21

Household Migration: 1997 - 1998 Selected Missouri Counties				
	Non-Migration	Out-of-State	Total Migration	% Total Migration
Andrew	6,692	117	608	8.3%
Buchanan	27,225	753	1,833	6.3%
Clay	64,101	2,637	6,470	9.2%
Jackson	226,864	9,706	15,972	6.6%
Jasper	33,736	1,446	2,636	7.2%
SOURCE:				
Internal Revenue Service: U.S. County Migration Data, 1980 - 1981; 1983 - 1999.				