Exhibit No.:
Witness: Charles D. Laderoute
Type of Exhibit: Surrebuttal
Issue: Cost of Service Study, Rate Design and Tariff Issues
Sponsoring Party: Midwest Gas Users' Association
Case No.: GR-2001-292



MISSOURI PUBLIC SERVICE COMMISSION

MISSOURI GAS ENERGY

CASE NO. GR-2001-292

# SURREBUTTAL TESTIMONY OF

# CHARLES D. LADEROUTE

June 12, 2001

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

| | | |
|---|---|---|
| In the Matter of Missouri Gas Energy's tariff sheets designed to increase rates for gas service in the Company's Missouri service area. | ) ) ) ) ) | GR-2001-292 |

AFFIDAVIT OF CHARLES D. LADEROUTE

STATE OF MISSOURI )
) ss
COUNTY OF JACKSON )

Charles D. Laderoute, of lawful age, on his oath states: That he has reviewed the attached written testimony in question and answer form, all to be presented in the above case, that the answers in the attached written testimony were given by him; that he has knowledge of the matters set forth in such answers; that such matters are true to the best of his knowledge, information and belief.

Charles D. Laderoute

Subscribed and sworn to before me this 11th day of June, 2001.

CAROLYN R. BELDEN
Jackson County
My Commission Expires
November 3, 2003

Notary Public

[SEAL]

My Commission expires: Nov. 3, 2003

**SURREBUTTAL TESTIMONY OF**
**CHARLES D. LADEROUTE**

**Q. Please state your name, occupation and address.**

A. My name is Charles D. Laderoute. I am an energy consultant and President of Charles D. Laderoute, Ltd., 5114 Amazonia Road, St. Joseph, Missouri 64505.

**Q. By whom have you been retained?**

A. My testimony is on behalf of the Midwest Gas Users' Association ("MGUA")

**Q. Are you the same Charles D. Laderoute who has previously filed testimony in this case?**

A. Yes.

**Q. What is the purpose of your Surrebuttal Testimony in this proceeding?**

A. I address portions of the Rebuttal Testimony of Missouri Gas Energy ("MGE") witness Dr. Cummings, Staff Witness Beck and Office of the Public Counsel ("OPC") Witnesses Busch and Hu. The areas I focus on are related to cost of service studies ("COSS"), setting rate levels, rate design issues and their Rebuttal Testimony in respect to my Direct Testimony with

respect to these matters. Finally, I am sponsoring a Revised Schedule CDL-Reb-5.

**Q. Please explain Schedule CDL-Reb-5 Revised.**

A. In developing the associated spreadsheet, I inadvertently referred to the wrong fixed charge rate in the determination of the revenue requirements associated with Services, Meters, House Regulators and EGM Equipment. Se Lines 5 - 8 of the attached Schedule CDL-Reb-5 Revised Pages 2 and 3. The cells which changed are highlighted in grey. In addition, some formulas did not get copied for Rows 12 and 13, Columns c - e. These have been corrected on Pages 2 and 3 of this Schedule. The information is then carried forward to Schedule CDL-Reb-5 Revised Page 1. Based on this modified and corrected data, the net effect indicates that by focusing on just the cost items shown, I can account for 84% of the difference between my COSS and that of the Staff and 83% of the difference between my COSS and that of the OPC. No other conclusions within my Rebuttal Testimony are affected.

**<u>MGE Witness Dr. Cummings</u>**

**Q. At Page 4, Lines 15 - 16 of his Rebuttal, Dr. Cummings states that "class cost of service study findings tend to**

**vary widely among analysts and do not provide clear guidance to the decision maker". Please comment.**

A. I have several comments. First, MGE in its last two cases sponsored cost studies. Mr. Noack also sponsored a cost study in the last MGE rate case. Second, it is true that cost studies often vary. That does **not** mean that one study is not better than others. That does **not** mean that each study is based on sound cost allocation methods and generally accepted rate making principles. Gas cost studies can vary primarily on three factors: the method used to allocate Mains, cost assignment and other allocators. In my experience, when more than one study is presented, often one or more of the studies are flawed, to a greater or lesser extent, by using inappropriate assignments or allocators. As I indicated in my Rebuttal, the difference between my study and that of Staff really has virtually nothing to do with how we each allocated Mains.

Looking at my COSS versus the OPC study, their use of RSUM to allocate Mains is not the driving force behind the differences. In sum, cost studies may vary, but it does not necessarily follow that: 1) cost should be meaningless in setting rate levels or 2) all cost studies are equally bad or inaccurate.

**Q. At Page 5, Lines 21 - 24 of his Rebuttal, Dr. Cummings indicates that the MGE proposal in spreading the revenue increase "accomplishes moderation in the increase to both the residential and LVS class". Please comment.**

A. Compared against the OPC COSS, I guess one could make that claim. However, simply because the MGE proposal allocates less of an increase to LVS than the OPC study or less to the Residential class than the MGUA study, does **not** mean that the MGE approach is desirable, correct or best. It is flawed since it has no cost basis.

## OPC Witness Busch

**Q. At Page 1, Lines 22 - 23 of his Rebuttal Testimony, Mr. Busch suggests that LVS customers should be allocated Gas Inventory costs associated with Working Capital because "If a LVS customer decides to switch from transport to sales, it would have the right to stored gas like any Residential, SGS or LGS customer". Please comment.**

A. First, that certainly is no reason to allocate costs to the LVS class - just because they might do something. Second, it is doubtful that MGE holds in Gas Inventory some amount of gas on the offhand chance that a LVS customer might switch from Transport to Sales. There is one customer on

LVS that is currently a Sales customer and that customer did not switch from Transport to Sales. They switched from rate LGS last year.

**Q. At Page 2, Lines 1 - 2, Mr. Busch indicates:**

> **Storage is also used for system reliability. This is the same reliability that transport customers need to ensure the deliverability of their required volumes.**

**Do you agree?**

A. No. MGE has no on-system storage. Any storage that it has is upstream. That storage is used for winter gas supply to Sales customers and may be used to an extent for system reliability. However, since it takes place upstream, MGE has no on-system storage, MGE has no compression, and LVS customers are burner tip balanced, this Storage serves no purpose for Transport customers. Deliverability of LVS Transport customers gas is performed by the pipelines - not by MGE.

**Q. Does the fact that there is one Sales customer on Rate LVS mean that any Sales related costs should be allocated to the**

**Transport customers on LVS? See Mr. Busch's Testimony at Page 2, Lines 8 - 10.**

A. No. As I indicated in my earlier testimony, if it desirable that Sales customers be allowed to stay on Rate LVS, then those LVS Sales customers should bear the costs they cause. I performed a full COSS just to show what these costs are. The other LVS customers did not cause these costs. This should not be used as an excuse to load costs up on customers who do not cause them.

**Q. Mr Busch indicates at Page 2, Lines 11 - 14 that you didn't take this customer into consideration. Is that correct?**

A. No. As I just indicated, I performed a complete COSS just to identify the costs that this customer causes. See my Supplemental Direct Testimony at: Page 3 Lines 10 - 15, Page 5 through Page 7 Line 16, Page 10 Line 13 - Page 11 Line 11, and Page 12 Line 12 - Page 13 Line 2. Within my COSS to account for this customer, I in fact allocated all appropriate costs due to having one Sales customer on Rate LVS. Just because this one Sales customer is on Rate LVS does not mean that **all** LVS loads, usage, et cetera should be included in a COSS study as if they were Sales customers. There are basically three options: 1) This rate should be closed to Sales and the customer returned to Rate LGS - where he was

early last year before he switched. In its last case MGE proposed that this rate should not allow sales. 2) If the customer is allowed to stay, then he should bear all the allocated costs that he causes. I have clearly identified these costs and discussed them in my Supplemental Testimony. 3) As a final option, the least desirable, all the costs that he causes should be assigned to the LVS class and borne by the other LVS customers. This is the least fair of these three choices.

**Q. At Page 2, Lines 15 - 22, Mr Busch argues that LVS customers should also be allocated Sales Expenses, again because Sales customers are allowed on this rate. Do you agree?**

A. No. For the same reasons that I just stated with respect to Gas Inventory related costs. Again, this issue is just being used inappropriately as leverage to load costs up to a class that does not cause them.

**Q. At Page 3, Lines 1 - 7 Mr. Busch indicates that "gas supply personnel not only work to acquire supplies of natural gas, but they also work to make sure that MGE has sufficient capacity to deliver natural gas to all customers. Therefore, these costs need to be assigned to all classes." Do you agree?**

A. No. Capacity has nothing to do with these people's function. Capacity is the ability of the system to carry the gas and is a function of sizing the system. The referenced personnel work to supply commodity gas for Sales customers. Now Mr. Busch may have meant something other than capacity. If so, it is still inappropriate. If he meant deliverability or reliability, these do not matter as well since MGE has no on-system storage or compression and does not balance the LVS Transportation customers. The LVS customers are burner tip balanced - their balancing is done upstream on the transporting pipeline.

**Q. Mr. Laderoute, at least with respect to Gas Inventory and these payroll costs related to gas supply, are their circumstances where some portion of these costs might in fact be allocated to transportation customers?**

A. Yes. If MGE were in fact providing balancing services, then some portion of the costs would be allocable to LVS (transport) customers. However, they would not be allocated some proportionate amount of the full costs in a one step allocation. For example, if MGE provided balancing, it might be found that say, XX% of the indicated costs were considered balancing related. In that case, transport customers would receive an allocated portion of only XX% of the costs. The

other 100 - XX% of the costs would be allocated to Sales customers. But since balancing is done upstream on the transporting pipeline, MGE does not provide balancing and therefore none of these costs should be allocated to LVS customers.

**Staff Witness Beck**

**Q. Mr. Laderoute, with respect to Witness Beck's Rebuttal Testimony at Page 1, Lines 22 - 24 and Page 2, Lines 1 - 12, does Mr. Beck miss the point you were trying to make?**

A. Yes. It is possible for a utility to add Mains, add Services add customers and not file rate cases for years. Embedded in the **costs** that are embedded in a rate are depreciation, return, income taxes et cetera. As plant is added, the additional sales or delivery of Mcf generate additional revenue which covers some portion of return and depreciation, among other costs. My point was simply that if a rate is set too low - in particular not set on the basis of costs, then there is a higher probability that the utility will have to file more frequent rate cases if much of its growth is taking place within the classes whose rates are not covering costs.

**Q. At Page 3, Lines 6 - 8, Mr. Beck indicates "I know of no reasonable combination of rate design and extension policy that will not result in rate subsidies for certain customers or groups of customers". He goes on to say that "I do not think that it is a reasonable expectation that rate subsidies can be completely eliminated". Please comment.**

A. With respect to the first portion of quoted material, I would encourage the Staff to review Extension Policies used in other jurisdictions by other utilities. They might find that there are better policies than that currently in place. With respect to both quoted portions, setting rates at or near costs would be a major step in reducing subsidies. For example, I clearly laid out in my Rebuttal Testimony a number of areas in which the Staff and OPC COSS differ from mine. One of the areas was AMR meters. These meters cannot be used by and are not put in place for, LVS customers. The subsidy that LVS provides to Sales customers in the Staff and OPC COSS could easily and appropriately be eliminated by not allocating those costs to LVS customers. That would be reasonable.

Of course it would not be possible to entirely eliminate subsidies. But it is fairly easy and quite reasonable to use **cost** as an **important factor** in setting

rates. It is quite reasonable to work from the assumption that costs should be borne by the cost causers. In the instant case, that is easy to do since in my Rebuttal Testimony I have clearly identified well over a dozen cost items that should not be allocated to the LVS class.

**Q. With respect to Mr. Beck's testimony at Page 3, Line 10 through Page 4, Line 14, do you agree that a gas LDC should collect the correct amount of revenue from a customer over the long term?**

A. I only agree partially with Mr. Beck. Of course I understand that at some point in time a customer is sharing in a slice of the system and that slice is composed of older facilities that are more depreciated and newer facilities which are not. In terms of the rates one is paying, a customer should be paying a rate based on costs. Period. If a customer is on the system for only three years, they should be paying the costs on average attributable to the rate class they are on for that three year period. And that can only happen if the rate is based on some nuance of cost!

**Q. At Pages 5 and 6 of his Rebuttal Testimony, Mr. Beck discusses the number of LVS customers. Specifically at Page 5 Lines 1 - 15 he believes that your evidence is contradictory. In addition, apparently some numbers have changed. Please comment, elaborate and clarify, to the best of your knowledge.**

A. The evidence that I presented was not contradictory. In fact, based on numbers available to me, I consistently used the same number of customers for LVS throughout my work. Over the course of this and the last two MGE rate cases, there has been a lot of confusion regarding the number of meters, billing equivalents and number of customers on Rate LVS. In the instant case, several factors are involved.

First, apparently an error was found in the original files that MGE used to build up number of meters and billing equivalents for LVS based on year-end 2000 updated filing. (See Witness Beck's Rebuttal Testimony at Page 6 Lines 3-6.) Unfortunately no one told me about this error, nor supplied me with the corrected spreadsheet. Second, apparently in the process of correcting the error, MGE supplied Mr. Beck with a file that included another error or at least was subject to misinterpretation. Apparently this file was developed

as part of Settlement discussions which I personally did not take part in and that data was not supplied to me as well. Based on that data, Mr. Beck arrived at his number of customers for LVS of 495. However, that value is not the number of customers, but the number of Meters. Moreover, it was wrong in that it had double counted the additional 30 Meters that are in place for LVS customers with more than one Meter. Mr. Noack informed me on May 31 that based on data at that time, the correct number of Meters for LVS is in fact 465 which includes the additional 30 Meters. Thus the actual number of customers is less than 465. Third, I misinterpreted the data that I originally used - though the impact within my COSS actually **hurts** the LVS class.

Finally, there is the issue of "at the Company convenience" versus "at the customer convenience" issue. (Beck Response to MGUA DR No. 354.) Neither Mr. Beck nor I made an issue of this in this case and this is just another complicating factor in dealing with LVS customers, billing units and Meters.

Based on MGE data filed in this case, for the test year I assumed there were 441 billable customers on Rate

LVS. I assumed these billable customers had an additional 30 Meters that serve them. Within my COSS from the start, I acknowledged (incorrectly) that there were 441 customers with 471 Meters. See for example Page 40 Lines 1 - 9 and Page 41 Lines 21 - 25 of my Direct Testimony. The number of customers that I used within my COSS for the LVS class was 471. See Direct Testimony Schedule CDL-7 Page 20 Line 28 LVS column. That was carried to my later COSS revision and correction.

Until May 25, the date that I received Mr. Beck's Rebuttal testimony, I had seen no information presented by any party that would lead me to believe that the number of LVS customers was not 441 with some of these customers having multiple meters so that the total number of meters I used was 471. This was based on MGE filed data. At Page 6, Lines 5 - 6 of his Rebuttal Testimony, Mr. Beck indicates that "The latest information that I have received from the Company indicates that the correct number is actually 495". As I indicated above that too is wrong. As confirmed in a telephone call with Mr. Noack on May 31, the number of Meters in place for LVS customers is 465. Based on the data that MGE submitted in this case, there are 15

customers in LVS who have multiple Meters. These 15 customers have 61 Meters in total - 31 billable at the full rate and 30 billable at the 50% discount. This data was taken from the MGE file: LVS Discount Meters.xls. Note that it only pertains to determining information for customers who get discounts. There very well might be other customers with two Meters who would not be included in this file. This is a bit confusing, but what one can conclude is that the actual number of LVS customers, based on the 465 value, cannot be greater than 450.

Finally, at Page 5, Lines 6 - 8 of Mr. Beck's Rebuttal, he misstates or misconstrues my testimony. I did not state that the change between 1997 and 2000 was due to customers switching from SGS and LGS. I clearly indicated in my Direct Testimony at Page 11, Lines 9 - 14 that, based on the data I had available, all of the customer additions to LVS for 2000 was a function of customers switching from Rates SGS and LGS. Mr. Beck in fact confirmed this in his Response to MGUA DR No. 354 Part G.

**Q. At Page 5 Lines 12 - 15 of his Rebuttal Testimony, Mr. Beck indicates that "it seems odd that so many customers would switch to a rate class if they were being significantly overcharged, as Mr. Laderoute's CCOS study would have the Commission believe". Do you agree?**

A. No, this statement is not meaningful. A customer switches from one rate to another based on the existing rate relationships. If they are economically and financially better off on Rate A than Rate B, they switch to Rate A. This has nothing to do with any cost of service studies that were or were not used to develop those rates. With respect to customers switching from SGS and LGS to LVS during 2000, with the exception of one customer, they switched to take advantage of Transportation. Customers switching to LVS transportation take into consideration the price of commodity gas as well as the base rate. In such cases, the customer calculates their bill on Rate SGS and LGS, as appropriate, and compares that to what their cost would be on rate LVS plus the cost of them securing their own gas. In 2000, one customer switched to LVS Sales from LGS.

**Q. At Page 5 Lines 16 - 24, Mr. Beck discusses customers switching to LVS and states that this "almost always means that**

**the company will receive less marginal revenues from that customer after the switch". Please comment.**

A. I fail to see the point. When values are normalized for a rate case, for larger LDCs such as MGE, there will always be commercial and industrial customers switching between rates. An analyst takes this into consideration as best they can and then proceeds with further analysis. As I indicated above, the customers themselves switch only if it is to their advantage. The advantage is usually a function of money saved on the new rate.

Mr. Beck goes on to state that if all the changes in the number of customers on Rate LVS over the past three years came from switching, the Company likely received less revenue. If the Company receives less money after a customer switches from one rate to another, I fail to see any point. This happens and it happens all the time for utilities. If <u>existing</u> customers are switching, that is <u>not</u> growth for MGE and that was my key point. For the test year in this case, not one customer who was new to MGE came on Rate LVS.

**Q. Mr. Laderoute, based on Mr. Beck's Rebuttal Testimony from Page 1 through Page 6 Line 10, does he actually address any**

**of the issues, methods or approaches in your cost of service studies?**

A. No. All of the material that he addressed were issues of background and only of secondary importance. I raised these issues only for the purpose of providing additional background information, should the Commission wish to consider factors other than the COSS in its decision. I could have left all of that material out of my testimony and it would not change the results of my COSS. Mr. Beck did not address either my methods or results of my cost of service studies.

**OPC Witness Hu**

**Q. At Page 2 Lines 17 - 23, Witness Hu discusses incremental costs and stand-alone costs. Do you have any comments?**

A. Yes. First, with respect to incremental costs, rates are not set based on incremental costs in this jurisdiction. They are set based on fully embedded historical cost plus known and measurable changes in the true up period. Second, the economic theory is a function of marginal costs, not incremental costs. All her other testimony respecting this is inapplicable. Moreover, no one in this case performed an incremental or marginal cost study.

Third, with respect to Witness Hu's discussion of stand-alone costs as she describes at Page 2 Lines 19 - 21, let's focus on how MGE might address the issue from the perspective of LVS transportation customers. As she defines it, stand-alone cost is "the cost necessary to provide the service assuming none of the facilities already exist to provide other services". Hu Rebuttal Testimony at Page 2, Lines 20 - 21. Would MGE invest in AMR meters for LVS customers? No. These customers are required to provide Electronic Gas Measurement ("EGM") equipment that each LVS customer must pay for when becoming an LVS customer - up to $5,000. Would MGE hold Gas Inventory in Storage to supply gas to LVS customers in the Winter months? No. The LVS transportation customers supply their own gas. Would MGE spend money on Gas Supply personnel for LVS transportation customers? No. Those customers provide their own gas supplies. How would MGE size the pipe necessary to meet the LVS customer's coincident peak loads? The question answers itself. In order to deliver the LVS transportation customers loads, MGE would size its Mains based on the coincident demands of the LVS transportation customers.

I am not going to go through all the issues that I addressed in my Rebuttal Testimony. Suffice it to say, within my COSS I considered what costs are attributable to LVS. With respect to the one LGS customer who switched to LVS Sales service during the test year, I performed an entire COSS to account for the additional costs that would be allocated to LVS to account for this oddity.

**Q. With respect to Witness Hu's Rebuttal Testimony at Page 3, Lines 12 - 23, do you have any comments?**

A. Yes. First, allocated costs are allocated costs. They are not estimates. While one may disagree with the results, they are <u>not</u> estimates. Second, there are many costs within a COSS that have nothing to do with allocating joint or common costs. Mains is the primary cost item that is joint, but many costs are not common. For example, a utility usually can, with good precision, determine the actual embedded costs of Meters, Services and Regulators for larger customers. These costs then are not common or joint, but are known actual costs that need not be allocated by an analyst.

With respect to my "carelessly" using the word subsidy and being "naive" or "erroneous", according to Witness Hu, in using fully allocated costs as the bench mark test, perhaps Witness Hu is unaware of the use of fully allocated costs in certain jurisdictions. For example, for many years, the classic test of anti-trust and price squeeze cases coming from FERC cases was in fact a function of fully allocated cost studies. Jurisdictions such as Michigan and Massachusetts set required rate class revenue levels approximately precisely at allocated costs from a COSS.

**Q. Regarding Witness Hu's Rebuttal Testimony at Page 5, Lines 4 - 23, why did you use Peak Month Mcf rather than a peak day value?**

A. Because the latter was not readily available to me. I asked MGE to supply such data and was informed that it was not available. Knowing that Peak Month Mcf would result in a value near that of Coincident Peak day values (based on experience), I did not feel the effort warranted the time to make the calculations. Comparison of the relative values in the Staff allocators for Mains with my values shows that my statement is correct. While Witness Hu thinks RSUM is better than a Peak allocator, I don't - and as she points

out, I am the person who developed RSUM. It does not appropriately reflect cost causation.

**Q. At Page 6, of her Rebuttal Testimony, Lines 3 - 23, Witness Hu goes on at length regarding Customer related Mains. Please comment?**

A. Since I did not in fact assign a portion of Mains as Customer related, her indications of what I might do or would presumably do are meaningless.

**Q. Does Witness Hu's Rebuttal Testimony at page 7 Line 2 through Page 9 Line 2 accurately portray your proposal at this time for class revenue requirements?**

A. No. I did not go through the mechanics to see if she accurately portrayed my updated COSS values. As I indicated in my Rebuttal Testimony at Page 49, Line 11 through Page 51 Line 9, I revised my original proposal for class revenue requirements.

**Q. With respect to Witness Hu's Rebuttal Testimony at Page 9, Lines 3 - 15, do you have any comments?**

A. While OPC Witness Hu may view my COSS as "questionable", and allege that it is based on "unrealistic allocators" and is "imprecise", even if the Commission chose to allocate Mains

on RSUM, my COSS is **more accurate** than the OPC study for all the reasons I have laid out in my various prepared testimonies in this case. While one may be concerned about affordability - and to the OPC that clearly means simply affordability for Residential customers only - the price of gas has impacted **all** customers - not just Residential. Though I disagree that COSS are necessarily always imprecise, even if they were so viewed, that does not mean that an accurate COSS result should be rejected and that class revenue requirements should be set on such amorphous and innocuous "other factors" as affordability, rate impact, et cetera.

Q. Does this conclude your Rebuttal testimony?

A. Yes it does.

**Missouri Gas Energy - Case No. GR-2001-292**
Differences Between COSS - MGUA vs Staff & OPC
LVS Class



| Line | Item | $ | Source |
|---|---|---|---|
| | **MGUA Required Revenue Neutral Revenues Adjusted for Staff & OPC Allocation Methods** | | |
| 1 | Required Revenue Neutral Revenue per MGUA COSS | 7,595,444 | Schedule CDL-Reb-1 Page 14 Line 27 |
| 2 | | | |
| 3 | Plus: Added Rev Req based on Staff Allocation Methods | 1,966,338 | Schedule CDL-Reb-5 Page 2 |
| 4 | | | |
| 5 | **Total MGUA COSS Req Rev Neutral Rev with Staff Allocations** | **9,561,782** | |
| 6 | | | |
| 7 | | | |
| 8 | Required Revenue Neutral Revenue per MGUA COSS | 7,595,444 | Schedule CDL-Reb-1 Page 14 Line 27 |
| 9 | | | |
| 10 | Plus: Added Rev Req based on OPC Allocation Methods | 3,870,851 | Schedule CDL-Reb-5 Page 3 |
| 11 | | | |
| 12 | **Total MGUA COSS Req Rev Neutral Rev with OPC Allocations** | **11,466,295** | |
| 13 | | | |
| 14 | | | |
| 15 | | | |

**Determination of COSS Fractions**

| | | Total | Other Classes | LVS | |
|---|---|---|---|---|---|
| 19 | MGUA COSS Mod I Revised | 131,882,802 | 124,287,358 | 7,595,444 | Schedule CDL-Reb-1 Page 14 Line 27 |
| 20 | Fractions | 1.000000000 | 0.942407622 | 0.057592378 | Fraction of total |
| 21 | | | | | |
| 22 | MGUA COSS with Staff Allocations | 131,882,802 | 122,321,020 | 9,561,782 | Line 5 |
| 23 | Fractions | 1.000000000 | 0.927497888 | 0.072502112 | Fraction of total |
| 24 | | | | | |
| 25 | MGUA COSS with OPC Allocations | 131,882,802 | 120,416,507 | 11,466,295 | Line 12 |
| 26 | Fractions | 1.000000000 | 0.913056937 | 0.086943063 | Fraction of total |
| 27 | | | | | |
| 28 | | | | | |
| 29 | Staff Filed COSS Fractions | 1.000000000 | 0.91399086 | 0.08600914 | Beck Testimony Schedule 1 |
| 30 | | | | | |
| 31 | OPC Filed COSS Fractions | 1.000000000 | 0.894752021 | 0.105247979 | Busch Testimony Schedule JAB-RD2 |
| 32 | | | | | |
| 33 | | | | | |

**Percentage of Differences Explained**

| | | | |
|---|---|---|---|
| 36 | MGUA vs Staff | **84** | Line 23 / Line 29 |
| 37 | | | |
| 38 | MGUA vs OPC including Mains | **83** | Line 26 / Line 31 |

File: RebuttalCDLRev.xls
Date: June 8 , 2001
Prep: CDL

**Missouri Gas Energy - Case No. GR-2001-292**

Impact Upon MGUA COSS Costs Allocated to LVS of Using Various Staff Allocation Methods

| Line | Item | Total to be Allocated | Staff Allocation Basis | Staff Allocation Factor | Allocated Costs on Staff Allocator | MGUA Allocated Costs | Fraction | Excess Cost Allocation Using Staff Allocator | Fixed Charge Factor (3) | Revenue Requirement Impact Staff |
|---|---|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) |
| 1 | AMR Communication Equipment - A/C 397.1 | 32,969,219 | Total P, T & D PIS | 0.083991283 | 2,769,127 | 0 | 0.00000000 | 2,769,127 | 0.0713 | 197,547 |
| 2 | AMR Intangible related PIS | 415,236 | C-O-S Revenues (1) | 0.086009136 | 35,714 | 0 | 0.00000000 | 35,714 | 0.0713 | 2,548 |
| 3 | Working Capital Gas Inventory | 52,457,645 | C-O-S Revenues | 0.086009136 | 4,511,837 | 0 | 0.00000000 | 4,511,837 | 0.0713 | 321,870 |
| 4 | Working Capital - Working Cash - O&M Purchased Gas | 5,584,312 | Volumes | 0.365683019 | 2,042,088 | 0 | 0.00000000 | 2,042,088 | 0.0713 | 145,681 |
| 5 | Services A/C 380 | 248,048,065 | Service Allocator | 0.007566860 | 1,876,945 | 1,311,611 | 0.00528773 | 565,334 | 0.1233 | 69,714 |
| 6 | Meters A/C 381 | 28,150,505 | WTD CUST. - METERS | 0.053323930 | 1,501,096 | 1,061,762 | 0.03771733 | 439,334 | 0.1233 | 54,176 |
| 7 | House Regulators & Install A/C 383-4 | 9,540,154 | WTD CUST. - REGULATORS | 0.020918586 | 199,567 | 186,920 | 0.01959298 | 12,647 | 0.1233 | 1,560 |
| 8 | EGM Equipment A/C 385 | 320,088 | LARGE VOLUME SALES (2) | 0.924238932 | 295,838 | 320,088 | 1.00000000 | (24,250) | 0.1233 | (2,990) |
| 9 | Total Rate Base Related Costs | | | | | | | 10,351,830 | | 790,105 |
| 10 | | | | | | | | | | |
| 11 | | | | | | | | | | |
| 12 | A/C 920-1 Assigned to Transports | 35,208 | C-O-S Revenues | 0.086009136 | 3,028 | 35,208 | 1.00000000 | (32,180) | | (32,180) |
| 13 | A/C 923 Assigned to Sales | 1,485,054 | C-O-S Revenues | 0.086009136 | 127,728 | 0 | 0.00000000 | 127,728 | | 127,728 |
| 14 | Uncollectibles-A/C 904 | 3,455,836 | C-O-S Revenues | 0.086009136 | 297,233 | 84,644 | 0.02449306 | 212,589 | | 212,589 |
| 15 | Sales Expenses | 773,040 | C-O-S Revenues | 0.086009136 | 66,489 | 0 | 0.00000000 | 66,489 | | 66,489 |
| 16 | Total O&M Exp Related Costs | | | | | | | | | 374,626 |
| 17 | | | | | | | | | | |
| 18 | | | | | | | | | | |
| 19 | AMR Amortization - AMR Beta | 27,682 | Total P, T & D PIS | 0.083991283 | 2,325 | 0 | 0.00000000 | 2,325 | | 2,325 |
| 20 | AMR Depreciation - Gen Pt A/C 397.1 | 1,648,461 | Total P, T & D PIS | 0.083991283 | 138,456 | 0 | 0.00000000 | 138,456 | | 138,456 |
| 21 | Total Depr & Amort Related Costs | | | | | | | | | 140,781 |
| 22 | | | | | | | | | | |
| 23 | | | | | | | | | | |
| 24 | Other Op Rev-Late Pay Charge A/C 487 | 983,440 | NUMBER OF RES/SGS BILLS | 0.000000000 | 0 | 160,189 | 0.16288640 | 160,189 | | 160,189 |
| 25 | Other Op Rev-Misc Service Chg A/C 488 | 3,073,529 | NUMBER OF RES/SGS BILLS | 0.000000000 | 0 | 500,636 | 0.16288638 | 500,636 | | 500,636 |
| 26 | Total Offsetting Revenue Related | | | | | | | | | 660,825 |
| 27 | | | | | | | | | | |
| 28 | Subtotal - AMR Related | | | | | | | | | 340,876 |
| 29 | Subtotal - Other | | | | | | | | | 1,625,462 |
| 30 | **Grand Total** | | | | | | | | | **1,966,338** |
| 31 | | | | | | | | | | |
| 32 | | | | | | | | | | |

(1) Actually total COS or Required Margin Revenue
(2) Actually LVS & LGS

(3) Fixed Charged Rates

| | | |
|---|---|---|
| Return | 30,509,229 | 0.058804568 |
| FIT | 6,503,183 | 0.012534465 |
| Depreciation | 26,966,363 | 0.051975923 |
| Rate Base | 518,824,134 | |
| Return, FIT & Depr | | 0.123314956 |
| Return & FIT Only | | 0.071339033 |

Sources: Column

| | |
|---|---|
| b | Various pages from Schedule CDL-15 and as revised at Schedule CDL-Reb-1 |
| c | Staff COSS model in this case |
| d | Staff COSS model in this case |
| e | Column b times Column d |
| f | Various pages from Schedule CDL-15 and as revised at Schedule CDL-Reb-1 |
| g | Column f divided by Column b |
| h | Column e less Column f |
| i | Footnote 3 - Data from CDL-Reb-1 Page 14 |
| j | Lines 1-8 Column h tims Column i Other Lines equal Column h |

File: RebuttalCDLRev.xls
Date: June 8 , 2001
Prep: CDL

## Missouri Gas Energy - Case No. GR-2001-292

Impact Upon MGUA COSS Costs Allocated to LVS of Using Various OPC Allocation Methods

| Line | Item | Total to be Allocated | OPC Allocation Basis | OPC Allocation Factor | Allocated Costs on OPC Allocator | MGUA Allocated Costs | MGUA Fraction | Excess Cost Allocation Using OPC Allocator | Fixed Charge Factor (3) | Revenue Requirement Impact OPC |
|---|---|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) |
| 1 | AMR Communication Equipment - A/C 397.1 | 32,969,219 | Cost of Service | 0.105486530 | 3,477,809 | 0 | 0.00000000 | 3,477,809 | 0.0713 | 248,103 |
| 2 | AMR Intangible related PIS | 415,236 | Cost of Service | 0.105486530 | 43,802 | 0 | 0.00000000 | 43,802 | 0.0713 | 3,125 |
| 3 | Working Capital Gas Inventory | 52,457,645 | Total Rate Base | 0.113101619 | 5,933,045 | 0 | 0.00000000 | 5,933,045 | 0.0713 | 423,258 |
| 4 | Working Capital - Working Cash - O&M Purchased Gas | 5,584,312 | Cost of Service | 0.105486530 | 589,070 | 0 | 0.00000000 | 589,070 | 0.0713 | 42,024 |
| 5 | Services A/C 380 | 248,048,065 | Services Weighted Customers | 0.021000000 | 5,209,009 | 1,311,611 | 0.00528773 | 3,897,398 | 0.1233 | 480,608 |
| 6 | Meters A/C 381 | 28,150,505 | Meters Weighted Customers | 0.045000000 | 1,266,773 | 1,061,762 | 0.03771733 | 205,011 | 0.1233 | 25,281 |
| 7 | House Regulators & Install A/C 383-4 | 9,540,154 | Regulators Weighted Customers | 0.032000000 | 305,285 | 186,920 | 0.01959298 | 118,365 | 0.1233 | 14,596 |
| 8 | EGM Equipment A/C 385 | 320,088 | C & I Customers | 0.006928119 | 2,218 | 320,088 | 1.00000000 | (317,870) | 0.1233 | (39,198) |
| 9 | Total Rate Base Related Costs | | | | | | | | | 1,197,796 |
| 10 | | | | | | | | | | |
| 11 | | | | | | | | | | |
| 12 | A/C 920-1 Assigned to Transports | 35,208 | Cost of Service | 0.105486530 | 3,714 | 35,208 | 1.00000000 | (31,494) | | (31,494) |
| 13 | A/C 923 Assigned to Sales | 1,485,054 | Cost of Service | 0.105486530 | 156,653 | 0 | 0.00000000 | 156,653 | | 156,653 |
| 14 | Uncollectibles-A/C 904 | 3,455,836 | Cost of Service | 0.105486530 | 364,544 | 84,644 | 0.02449306 | 279,900 | | 279,900 |
| 15 | Sales Expenses | 773,040 | Cost of Service | 0.105486530 | 81,545 | 0 | 0.00000000 | 81,545 | | 81,545 |
| 16 | Total O&M Exp Related Costs | | | | | | | | | 486,605 |
| 17 | | | | | | | | | | |
| 18 | | | | | | | | | | |
| 19 | AMR Amortization - AMR Beta | 27,682 | Gross NON-GENERAL PLANT | 0.107519598 | 2,976 | 0 | 0.00000000 | 2,976 | | 2,976 |
| 20 | AMR Depreciation - Gen Pt A/C 397.1 | 1,648,461 | Total COS | 0.105486530 | 173,890 | 0 | 0.00000000 | 173,890 | | 173,890 |
| 21 | Total Depr & Amort Related Costs | | | | | | | | | 176,867 |
| 22 | | | | | | | | | | |
| 23 | | | | | | | | | | |
| 24 | Other Op Rev-Late Pay Charge A/C 487 | 983,440 | Cost of Service | 0.105486530 | 103,740 | 160,189 | 0.16288640 | 56,449 | | 56,449 |
| 25 | Other Op Rev-Misc Service Chg A/C 488 | 3,073,529 | Cost of Service | 0.105486530 | 324,216 | 500,636 | 0.16288638 | 176,420 | | 176,420 |
| 26 | Total Offsetting Revenue Related | | | | | | | | | 232,869 |
| 27 | | | | | | | | | | |
| 28 | Subtotal - AMR Related | | | | | | | | 428,095 | |
| 29 | Subtotal - Other | | | | | | | | 1,666,042 | |
| 30 | **Subtotal - this page** | | | | | | | | | **2,094,137** |
| 31 | | | | | | | | | | |
| 32 | **Mains Costs** from Schedule CDL-Reb-4 Page 1 | | | | | | | | | **1,776,714** |
| 33 | | | | | | | | | | |
| 34 | **Grand Total** | | | | | | | | | **3,870,851** |
| 35 | | | | | | | | | | |

(1) Actually total COS or Required Margin Revenue
(2) Actually LVS & LGS

(3) Fixed Charged Rates

| | | |
|---|---|---|
| Return | 30,509,229 | 0.058804568 |
| FIT | 6,503,183 | 0.012534465 |
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Schedule CDL-Reb-5 Revised
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