

Schedule JMB-1

The following 8 pages comprise Schedule JMB-1, the proposed Facilities Extension Tariff for the MPS and SJLP natural gas operating divisions.

STATE OF MISSOURI, PUBLIC SERVICE COMMISSION

P.S.C. MO. No. 1 Original Sheet No. R-40
Canceling P.S.C. MO. No. _____ Original Sheet No. _____

**AQUILA NETWORKS – MPS and L&P
KANSAS CITY, MO 64138**

FOR: All Communities and Rural Areas
Receiving Natural Gas Service

**RULES AND REGULATIONS
GAS**

7.0 EXTENSION OF GAS FACILTIES

7.01 Purpose and Availability

A. The purpose of this policy is to set forth the service connection and distribution system extension requirements when one or more applicants request gas service at premises not connected to Aquila’s distribution system or request an alteration in service to premises already connected where such change necessitates additional investment.

B. The provisions of this policy are subject to the applicable rules and regulations of the Commission. This policy is available for applications where Aquila is expected to commence construction on or after _____ [date to be set pending resolution of rate case].

7.02 DEFINITION OF TERMS

A. **APPLICANT:** The developer, builder, or other person, partnership, association, firm, private or public corporation, trust, estate, political subdivision, governmental agency or other legal entity recognized by law applying for the construction of a gas Distribution Extension, Extension Upgrade, or Relocation.

B. **BASIC EXTENSION REQUEST:** A request by Applicant for a Distribution Extension for which the Aquila specified facilities are provided free of charge to the Applicant, provided the Applicant commits to use natural gas for its basic space heating requirements for at least one (1) year. Gas fireplaces will not be considered basic space heating and Applicant will be required to pay the full non-refundable construction charge to initiate service. The operation of a natural gas furnace used in conjunction with an alternative and supplemental space heating source will be considered as meeting minimum requirements for a free extension of service.

C. **CONSTRUCTION ALLOWANCE:** The cost of that portion of the Distribution Extension which is for economically justifiable and necessary construction and which is made by Aquila at its expense. The formula used to determine the appropriate Construction Allowance will be based on Aquila’s feasibility model. Generally, the formula used by the feasibility model is the Estimated Margin divided by the Fixed Carrying Cost percentage as measured over the first five (5) year life of the Distribution Extension.

$$CA = \frac{\text{SUM (EM1 + EM2 + EM3 + EM4 + EM5)}}{\text{SUM (FCC1 + FCC2 + FCC3 + FCC4 + FCC5)}}$$

Where, CA = Construction Allowance;
EM = Estimated Margin;
FCC = Fixed Carrying Cost;

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- D. **CONSTRUCTION CHARGES:** That portion of the Distribution Extension's construction costs for which the Applicant is responsible. This extension policy specifies which cost segments shall be furnished by Applicant and which segments are provided by Aquila at cost to Applicant. These charges may consist of the following components:
 - 1. Nonrefundable charges represent the portion of Construction Charges which are not supported by the expected revenue stream or for non-standard costs associated with the Distribution Extension and will not be reimbursable to Applicant. (Exception: Non-standard costs for Excess Facilities may be recovered on a surcharge basis as mutually agreed to by Applicant and Aquila and specified in the Facilities Extension Agreement.)
 - 2. Refundable charges represent the portion of Construction Charges that may be reimbursed to the Applicant during the Open Extension Period, dependent upon the Applicant's requisite performance as outlined in the Facilities Extension Agreement.
- E. **DISTRIBUTION EXTENSION:** Distribution facilities including mains, services, and meter installation facilities installed by Aquila.
- F. **ESTIMATED CONSTRUCTION COSTS:** The Estimated Construction Costs shall be the necessary cost of the Distribution Extension and shall include the cost of all materials, labor, rights-of-way, trench and backfill, together with all incidental expenses connected therewith.
- G. **ESTIMATED MARGIN:** The Estimated Margin will be determined by first multiplying the effective rates for each customer class by the estimated incremental usage – and then subtracting applicable margin allocation for network and infrastructure support costs.
- H. **EXTENSION COMPLETION DATE:** The date on which the construction of a Distribution Extension, Extension Upgrade or Relocation is completed as shown by Aquila's records.
- I. **EXTENSION UPGRADE:** The increase in capacity of existing gas distribution facilities necessitated by Applicant's estimated gas requirements and for which Aquila determines that such facilities can be reasonably installed.
- J. **FACILITIES EXTENSION AGREEMENT:** Written agreement between Applicant and Aquila setting out the contractual provisions of Construction Allowance, Construction Charges, payment arrangements, the Open Extension Period, end-use commitments, etc. in accordance with this extension policy.
- K. **FIXED CARRYING COST:** Aquila's cost of capital to provide the requisite return on its investment as well as the costs for depreciation, property taxes and property insurance.

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- L. OPEN EXTENSION PERIOD: The period of time, five (5) years, during which Aquila shall calculate and pay refunds of Construction Charges according to the provisions of this extension policy. The (5) five-year period begins on the Extension Completion Date.

- M. PERMANENT SERVICE:
 - 1. Residential Applicants: Gas extensions where a continuous return to Aquila of sufficient revenue to support the necessary investment is reasonably assured. Applicant agrees to a minimum of one (1) year of service at the end-use commitments outlined in the Facilities Extension Agreement.
 - 2. Non-Residential Applicants: Gas extensions where the use of service is to be permanent and where a continuous return to Aquila of sufficient revenue to support the necessary investment is reasonably assured. For 50,000 Ccfs or less, Applicant agrees to a minimum of one (1) year of service at the end-use commitments outlined in the Facilities Extension Agreement. For usage greater than 50,000 Ccfs, Applicant agrees to a minimum of three (3) years of service at the end-use commitments outlined in the Facilities Extension Agreement.

- N. TEMPORARY or LIMITED SERVICE:
 - 1. Residential Applicants: Any service that is of a known temporary or limited nature and/or the Applicant is unwilling to agree to specific end-use commitments for a period of at least one (1) year.
 - 2. Non-Residential Applicants: Any service that is of a known temporary or limited nature and/or the Applicant is unwilling to agree to specific end-use commitments for a period of at least one (1) and three (3) years as applicable per the definitions under paragraph M

7.03 GENERAL PROVISIONS

Aquila at its sole discretion, after consideration of Applicant's gas requirements and commitment, will designate the class of service requested as Permanent or Temporary (Limited) in accordance with the definitions set forth herein.

- A. The determination of facility type and routing will be made by Aquila to be consistent with the characteristics of an Applicant's requirements and for the territory in which service is to be rendered and the nature of Aquila's Service's existing facilities in the area.

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- B. Facilities Extension Agreements will be based upon Aquila's Estimated Construction Cost for providing the facilities necessary to supply the service requested by Applicant. Aquila shall exercise due diligence with respect to providing the estimate of total costs to the customer. If it is necessary or desirable to use private, public and/or government rights-of-way to furnish service, Applicant may, at Aquila's discretion, be required to pay the cost of providing such rights-of-way. All Distribution Extensions, provided wholly, or in part, at the expense of an Applicant shall become the property of Aquila.
- C. Aquila shall construct, own, operate and maintain distribution system facilities only on or along public streets, roads and highways which Aquila has the legal right to occupy, and on or along private property across which right-of-ways and easements satisfactory to Aquila have been received.
- D. Rights-of-way and easements which are satisfactory to Aquila must be furnished by the Applicant in reasonable time to meet construction and service requirements and before Aquila shall be required to commence its installation; such rights-of-way and easements must be cleared of trees, tree stumps, and other obstructions, and graded to within six (6) inches of final grade by Applicant at no charge to Aquila. Such clearance and grading must be maintained by the Applicant during construction by Aquila. If the grade is changed subsequent to construction of the distribution system in such a way as to require relocation of any of the gas facilities, the estimated cost of such relocation shall be paid by the Applicant or its successors as a non-refundable Construction Charge.
- E. An additional Construction Charge shall be paid by the applicant to Aquila for any ditching required to be performed by Aquila due to soil conditions including, but not limited to, the presence of rock or other environmental issues which prevent the use of normal trenching and backfilling practices used in trenchable soil. The charge under this provision shall be the estimated trenching and backfilling costs to be incurred by Aquila less the estimated cost of normal trenching and backfilling. Applicant may be required to perform said ditching.

7.04 APPLICATION FOR EXTENSION OF GAS FACILITIES – PERMANENT SERVICE

- A. Each application to Aquila for gas service of a permanent nature to premises requiring extension of Aquila's existing distribution facilities will be evaluated by Aquila in order that Aquila may determine the amount of investment (Construction Allowance) warranted by Aquila in making such extension. In the absence of special financing arrangements between the Applicant and Aquila, the Construction Charges as specified in the Facilities Extension Agreement shall be paid by the Applicant to Aquila before Aquila's construction commences.

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- B. The Construction Charges may be refundable in part, or in their entirety, to the original Applicant during the Open Extension Period. The Facilities Extension Agreement, to be executed by Applicant and Aquila, shall outline the applicable refund mechanism as related to the performance required by Applicant. In no event shall refunds aggregate an amount greater than the Construction Charges. Refundable Construction Charges shall not accrue interest. No interest in any potential refunds may be assigned. Applicant shall be responsible for notifying Aquila within six months time of qualifying permanent loads connected to Aquila’s system. On a periodic basis, Aquila shall make the applicable refund(s) as specified in the Facilities Extension Agreement. No refunds will be made for performance after the Open Extension Period.
- C. Aquila will evaluate the feasibility of growth for an existing area when determining the amount of Construction Charges. Where sufficient growth is anticipated, the extension maybe made without an additional charge or at a reduced rate.

7.05 APPLICATION FOR EXTENSION OF GAS FACILITIES – TEMPORARY OR LIMITED SERVICE

A residential Applicant, or a non-residential Applicant requesting a basic extension, shall make at least a one (1) year commitment of gas space heating service. And a non-residential Applicant, requesting greater than a basic extension, shall include at least a three (3) year commitment of gas service. Service commitments less than these minimums are considered temporary or limited. For gas service of a temporary or limited nature, Applicant shall be required to pay to Aquila as non-refundable Construction Charges as outlined in the Facilities Extension Agreement an amount equal to the estimated net cost of installing, owning and removing the Distribution Extension including non-salvageable materials. Applicant shall pay Aquila before Aquila’s construction commences.

7.06 EXTENSION UPGRADES

Where a gas distribution Extension Upgrade is required to serve a non-residential customer’s load requirements, the Facilities Extension Agreement between Aquila and Applicant shall apply the Estimated Construction Costs, Construction Allowance, and Construction Charges provisions contained in this extension policy to the Extension Upgrade.

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7.07 RELOCATION OR CONVERSION REQUEST

An Applicant desiring to have Aquila's existing facilities relocated may request Aquila to make such changes. If Aquila determines that such conversion or relocation can reasonably be made, Aquila will make such conversion or relocation on the following basis: The cost of removing and relocating such facilities, the related net cost of non-salvageable materials and the cost of any new facilities to be installed shall be paid by the Applicant as non-refundable Construction Charges as outlined in the Facilities Extension Agreement.

7.08 EXCESS FACILITIES REQUEST

In those instances where Aquila chooses to provide facilities at Applicant's request in variance with the normal gas construction standards, Applicant's shall be required to pay Aquila for the cost of such facilities, and to pay Aquila a Nonrefundable Construction Charge or a surcharge as outlined in the Facilities Extension Agreement. The charge is designed to recover the cost of insurance, replacement (or cost of removal), license and fees, taxes, operation and maintenance and appropriate allocable administrative and general expenses associated with such distribution facilities.

7.09 APPLICABILITY LIMITATION

The applicability of this extension policy is limited by the following conditions:

- A. **FACILITIES EXTENSION AGREEMENT NOT TIMELY EXECUTED:** Aquila's Estimated Construction Costs and Construction Charges requirements as calculated for each extension may become void, at Aquila's discretion, after 120 days from the time a proposed Facilities Extension Agreement is provided by Aquila to Applicant. If a Facilities Extension Agreement is not fully executed before that time, it may become necessary for new estimates to be made incorporating the then current construction costs and the terms and conditions of Aquila's extension policy as on file and in effect with the Commission at that time.
- B. **ACCURATE ESTIMATES DOUBTFUL -- TRUE-UP FOR ACTUAL COSTS:** The Estimated Construction Costs will typically be the amount used in calculating the Construction Allowance and Construction Charges. In situations where the accuracy of the estimate is known to be highly uncertain, a true-up to reflect actual costs at the Extension Completion date will be made. The intention to adjust the Estimated Construction Costs to reflect actual costs shall be specified and agreed to by both Applicant and Aquila in the Facilities Extension Agreement.

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7.10 EXTENSION REQUESTS. Aquila has segmented Applicants into the following general categories for administration of this Extension Policy:

A. BASIC EXTENSION REQUEST, RESIDENTIAL SINGLE FAMILY or SMALL GENERAL SERVICE:

Free of Charge – Basic Extension Request: All Applicants, classified as Permanent Service, agreeing to use natural gas for normal space heating, or at least 500 Ccfs annually, for at least one (1) year, will receive the following installed basic facilities free of charge:

- first 150 feet of service line and/or feet of main per Applicant;
- one meter, not to exceed 399 cfh (cubic feet hour) at ½ inch differential;
- one standard regulator and meter bar assembly;

B. NON-BASIC EXTENSION REQUEST for SUBDIVISION PROJECTS:

Non Basic Extension Request: Applicants, classified as permanent service, requiring a Distribution Extension in excess of the basic installed facilities which are provided free of charge may incur construction charges as described below:

- Proven Projects: Projects requested by Applicant (developers) which have a proven track record to constructing projects at the specified number of dwellings and at the specified end-uses within five years, will have the applicable standard Construction Allowance subtracted from the Estimated Construction Costs for the Applicant’s project in order to determine the Nonrefundable Construction Charge to be paid by Applicant. Potentially refundable charges will not be applied to proven projects.
- Unproven/Indeterminate Projects: Projects defined as unproven or indeterminate, at Company’s sole discretion, based upon the Applicant’s (developers’) track record will have a potentially refundable construction charge applied on a per dwelling basis to be paid by Applicant. In addition, the applicable standard Construction Allowance will be subtracted from the Estimated Construction Costs for the Applicant’s project in order to determine the Nonrefundable Construction Charge to be paid by Applicant.

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C. RESIDENTIAL MULTIFAMILY or RESIDENTIAL MOBILE HOME TRAILER PARKS:

All applicants, classified as permanent service, will have a Construction Allowance calculated per the feasibility model (Section 7.02 C. Construction Allowance) for the customized project. The Construction Allowance is subtracted from the Estimated Construction Cost for the Applicant's project in order to determine the Nonrefundable Construction Charge to be paid by Applicant. Potentially refundable construction charges may be applied at Aquila's discretion as dependent on the Applicant's credit history and project complexity and/or size. All mobile homes will be served natural gas at each mobile home position. Company will install all mains, services, regulators, meters, and termination valves for serving individual mobile home spaces in mobile home courts.

D. COMMERCIAL or INDUSTRIAL:

All applicants, classified as permanent service, will have a Construction Allowance calculated per the feasibility model (Section 7.02 C. Construction Allowance) for the customized project. The Construction Allowance is subtracted from the Estimated Construction Cost for the Applicant's project in order to determine the Nonrefundable Construction Charge to be paid by Applicant. Potentially refundable construction charges may be applied at Aquila's discretion as dependent on the Applicant's credit history and project complexity and/or size.

Schedule JMB-2

The following seven pages comprise Schedule JMB-2, the existing Facilities Extension Tariff for MPS Electric, an operating division of Aquila.

P.S.C. MO. No. 2 (Original) SHEET NO. R-37.1

(Revised)

Canceling P.S.C. MO. No. _____ (Original) SHEET NO. _____

(Revised)

**MISSOURI PUBLIC SERVICE
KANSAS CITY, MO 64138**

FOR: All Territory Supplied Electric Service

Available for Applications where MPS is Expected to Commence Construction On or After January 1, 1999

RULES AND REGULATIONS
ELECTRIC

7. EXTENSION OF ELECTRIC FACILITIES

7.01 PURPOSE AND AVAILABILITY

- A. The purpose of this policy is to set forth the service connection and distribution system extension requirements when one or more applicants request overhead or underground electric service at premises not connected to Missouri Public Service's distribution system or request an alteration in service to premises already connected where such change necessitates additional investment.
- B. The provisions of this policy are subject to the applicable rules and regulations of the Commission. This policy is available for applications where MPS is expected to commence construction on or after January 1, 1999.

7.02 DEFINITION OF TERMS

- A. **APPLICANT:** The developer, builder, or other person, partnership, association, firm, private or public corporation, trust, estate, political subdivision, governmental agency or other legal entity recognized by law applying for the construction of an electric Distribution Extension, Extension Upgrade, or Relocation.
- B. **BASIC EXTENSION REQUEST:** A request by Applicant for a Distribution Extension for which the Missouri Public Service specified facilities are provided free of charge to the Applicant.
- C. **CONSTRUCTION ALLOWANCE:** The cost of that portion of the Distribution Extension which is for economically justifiable and necessary construction and which is made by Missouri Public Service at its expense. The formula used to determine the appropriate Construction Allowance will be based on Missouri Public Service's feasibility model. Generally, the formula used by the feasibility model is the Estimated Margin divided by the Fixed Carrying Cost percentage as measured over the first five (5) year life of the Distribution Extension.

$$CA = \frac{\text{SUM (EM1 + EM2 + EM3 + EM4 + EM5)}}{\text{SUM (FCC1 + FCC2 + FCC3 + FCC4 + FCC5)}}$$

Where, CA = Construction Allowance;
 EM = Estimated Margin;
 FCC = Fixed Carrying Cost;

- D. **CONSTRUCTION CHARGES:** That portion of the Distribution Extension's construction costs for which the Applicant is responsible. The Electric Extension Standards and the provisions in this extension policy specify which segments of service shall be furnished by Applicant and which segments are provided by Missouri Public Service at cost to Applicant. These charges may consist of the following components:
 1. Nonrefundable charges represent the portion of Construction Charges which are not supported by the expected revenue stream or for non-standard costs associated with the Distribution Extension and will not be reimbursable to Applicant. (Exception: Non-standard costs for Excess Facilities may be recovered on a surcharge basis as mutually agreed to by Applicant and Missouri Public Service and specified in the Facilities Extension Agreement.)
 2. Refundable charges represent the portion of Construction Charges that may be reimbursed to the Applicant during the Open Extension Period, dependent upon the Applicant's requisite performance as outlined in the Facilities Extension Agreement.

P.S.C. MO. No. 2 (Original) SHEET NO. R-37.2

~~(Revised)~~

Cancelling P.S.C. MO. No. _____ (Original) SHEET NO. _____

(Revised)

**MISSOURI PUBLIC SERVICE
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- E. **DISTRIBUTION EXTENSION:** Distribution facilities including primary and secondary distribution lines, transformers, service laterals and all appurtenant facilities and meter installation facilities installed by Missouri Public Service.
- F. **ELECTRIC EXTENSION STANDARDS:** Missouri Public Service's Electric Extension Standards handbook, available upon request to any Applicant, defines Missouri Public Service's uniform standards and requirements for installation, wiring and system design.
- G. **ESTIMATED CONSTRUCTION COSTS:** The Estimated Construction Costs shall be the necessary cost of the Distribution Extension and shall include the cost of all materials, labor, rights-of-way, trench and backfill, together with all incidental underground and overhead expenses connected therewith. Where special items, not incorporated in the Electric Extension Standards, are required to meet construction conditions, the cost thereof shall also be included as a non-standard cost.
- H. **ESTIMATED MARGIN:** The Estimated Margin will be determined by first multiplying the effective rates for each customer class by the estimated incremental usage – and then subtracting 1) applicable margin allocation for network and infrastructure support costs; and 2) incremental power and energy supply costs.
- I. **EXTENSION COMPLETION DATE:** The date on which the construction of a Distribution Extension, Extension Upgrade or Relocation is completed as shown by Missouri Public Service records.
- J. **EXTENSION UPGRADE:** The increase in capacity of existing electric distribution facilities necessitated by Applicant's estimated electric requirements and for which Missouri Public Service determines that such facilities can be reasonably installed.
- K. **FACILITIES EXTENSION AGREEMENT:** Written agreement between Applicant and Missouri Public Service setting out the contractual provisions of Construction Allowance, Construction Charges, payment arrangements, the Open Extension Period, etc. in accordance with this extension policy.
- L. **FIXED CARRYING COST:** Missouri Public Service's cost of capital to provide the requisite return on its investment as well as the costs for depreciation, property taxes and property insurance.
- M. **INDETERMINATE SERVICE:** Service which is of an indefinite or indeterminate nature where the amount and permanency of service cannot be reasonably assured in order to predict the revenue stream from Applicant. For purposes of uniform application, "Indeterminate Service" may include such service as may be required for the speculative development of property, mobile buildings, mines, quarries, oil or gas wells, sand pits and other ventures that may reasonably be deemed to be speculative in nature.
- N. **OPEN EXTENSION PERIOD:** The period of time, five (5) years, during which Missouri Public Service shall calculate and pay refunds of Construction Charges according to the provisions of this extension policy. The (5) five-year period begins on the Extension Completion Date.
- O. **PERMANENT SERVICE:** Overhead or underground electric line extensions for primary or secondary service where the use of service is to be permanent and where a continuous return to Missouri Public Service of sufficient revenue to support the necessary investment is reasonably assured.
- P. **TEMPORARY SERVICE:** Any service which is of a known temporary nature, excluding service for construction power, and shall not be continued for a period longer than twelve (12) months.

P.S.C. MO. No. 2 (Original) SHEET NO. R-37.3

(Revised)

Cancelling P.S.C. MO. No. _____ (Original) SHEET NO. _____

(Revised)

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7.03 GENERAL PROVISIONS

Missouri Public Service at its sole discretion, after consideration of Applicant's electric requirements, will designate the class of service requested as Permanent, Indeterminate or Temporary in accordance with the definitions set forth herein.

- A. The determination of facility type and routing will be made by Missouri Public Service to be consistent with the characteristics of an Applicant's requirements and for the territory in which service is to be rendered and the nature of Missouri Public Service's existing facilities in the area.
- B. The facilities provided will be constructed to conform to the Electric Extension Standards. Except as otherwise provided (Section 7.09 Excess Facilities), the type of construction required to serve the Applicant appropriately will be determined by Missouri Public Service.
- C. Facilities Extension Agreements will be based upon Missouri Public Service's Estimated Construction Cost for providing the facilities necessary to supply the service requested by Applicant. Missouri Public Service shall exercise due diligence with respect to providing the estimate of total costs to the customer. If it is necessary or desirable to use private, public and/or government rights-of-way to furnish service, Applicant may, at Missouri Public Service's discretion, be required to pay the cost of providing such rights-of-way. All Distribution Extensions, with the exception of service conduits, provided wholly, or in part, at the expense of an Applicant shall become the property of Missouri Public Service once approved and accepted by Missouri Public Service.
- D. Missouri Public Service shall construct, own, operate and maintain new overhead and/or underground feeder lines, service lines and related distribution system facilities only on or along public streets, roads and highways which Missouri Public Service has the legal right to occupy, and on or along private property across which right-of-ways and easements satisfactory to Missouri Public Service have been received.
- E. Rights-of-way and easements which are satisfactory to Missouri Public Service including those as may be required for street lighting, must be furnished by the Applicant in reasonable time to meet construction and service requirements and before Missouri Public Service shall be required to commence its installation; such rights-of-way and easements must be cleared of trees, tree stumps, and other obstructions, and graded to within six (6) inches of final grade by Applicant at no charge to Missouri Public Service. Such clearance and grading must be maintained by the Applicant during construction by Missouri Public Service. If the grade is changed subsequent to construction of the distribution system in such a way as to require relocation of any of the electric facilities, the estimated cost of such relocation shall be paid by the Applicant or its successors as a non-refundable Construction Charge.
- F. An additional Construction Charge shall be paid by the applicant to Missouri Public Service for any ditching required to be performed by Missouri Public Service due to soil conditions including, but not limited to, the presence of rock or other environmental issues which prevent the use of normal trenching and backfilling practices used in trenchable soil. The charge under this provision shall be the estimated trenching and backfilling costs to be incurred by Missouri Public Service including conduit or padding for feeder lines, if required, less the estimated cost of normal trenching and backfilling. Applicant may be required to perform said ditching.

P.S.C. MO. No.	<u>2</u>	<u>1st</u>	(Original) (Revised)	SHEET NO. <u>R-37.4</u>
Cancelling P.S.C. MO. No.	<u>2</u>		(Original) (Revised)	SHEET NO. <u>R-37.4</u>

**MISSOURI PUBLIC SERVICE
KANSAS CITY, MO 64138**

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7.04 PERMANENT SERVICE

- A. Each application to Missouri Public Service for electric service of a permanent nature to premises requiring extension of Missouri Public Service's existing distribution facilities will be evaluated by Missouri Public Service in order that Missouri Public Service may determine the amount of investment (Construction Allowance) warranted by Missouri Public Service in making such extension. In the absence of special financing arrangements between the Applicant and Missouri Public Service, the Construction Charges as specified in the Facilities Extension Agreement shall be paid by the Applicant to Missouri Public Service before Missouri Public Service's construction commences.
- B. The Construction Charges may be refundable in part, or in their entirety, to the original Applicant during the Open Extension Period. The Facilities Extension Agreement, to be executed by Applicant and Missouri Public Service, shall outline the applicable refund mechanism as related to the performance required by Applicant. In no event shall refunds aggregate an amount greater than the Construction Charges. Refundable Construction Charges shall not accrue interest. No interest in any potential refunds may be assigned. Applicant shall be responsible for notifying Missouri Public Service within six months time of qualifying permanent loads connected to Missouri Public Service's system. On a periodic basis, Missouri Public Service shall make the applicable refund(s) as specified in the Facilities Extension Agreement. No refunds will be made for performance after the Open Extension Period.
- C. Missouri Public Service will evaluate the feasibility of growth for an existing area when determining the amount of Construction Charges. Where sufficient growth is anticipated, the extension maybe made without an additional charge or at a reduced rate.

7.05 INDETERMINATE SERVICE

- A. For all types of electric service of an indeterminate character, Applicant shall be required to pay to Missouri Public Service in advance of Missouri Public Service's construction all of the Estimated Construction Costs as Construction Charges as outlined in the Facilities Extension Agreement.
- B. The Construction Charges will be considered non-refundable unless, at the sole discretion of Missouri Public Service and upon written request of the Applicant, the Applicant is reclassified to Permanent Service during the Open Extension Period. In that event, the refund procedure applicable to Permanent Service Applicants will apply.
- C. Where the length or cost of an extension is so great and the anticipated revenue to be derived is so limited as to make it doubtful whether the necessary operating costs on the investment would be recovered an additional charge to Applicant may be required. The additional charge will cover the cost of insurance, cost of removal, license and fees, taxes, operation and maintenance and appropriate allocable administrative and general expenses of such facilities.

7.06 TEMPORARY SERVICE

For electric service of a temporary nature, Applicant shall be required to pay to Missouri Public Service as non-refundable Construction Charges as outlined in the Facilities Extension Agreement an amount equal to the estimated net cost of installing, owning and removing the Distribution Extension including non-salvageable materials. Applicant shall pay Missouri Public Service before Missouri Public Service's construction commences. (Note that this classification does not include temporary meter sets furnished to service an Applicant's construction requirements. The charge for these sets is shown in Section 9 of these Rules.)

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(Revised)

Cancelling P.S.C. MO. No. _____ (Original) SHEET NO. _____

(Revised)

**MISSOURI PUBLIC SERVICE
KANSAS CITY, MO 64138**

FOR: All Territory Supplied Electric Service

Available for Applications where MPS is Expected to Commence Construction On or After January 1, 1999

**RULES AND REGULATIONS
ELECTRIC**

7.07 EXTENSION UPGRADE

Where an electric distribution Extension Upgrade is required to serve a non-residential customer's load requirements, the Facilities Extension Agreement between Missouri Public Service and Applicant shall apply the Estimated Construction Costs, Construction Allowance, and Construction Charges provisions contained in this extension policy to the Extension Upgrade.

7.08 RELOCATION OR CONVERSION REQUEST

An Applicant desiring to have Missouri Public Service's existing overhead facilities installed underground or to have existing overhead or underground facilities relocated may request Missouri Public Service to make such changes. If Missouri Public Service determines that such conversion or relocation can reasonably be made, Missouri Public Service will make such conversion or relocation on the following basis: The cost of removing and relocating such facilities, the related net cost of non-salvageable materials and the cost of any new facilities to be installed shall be paid by the Applicant as non-refundable Construction Charges as outlined in the Facilities Extension Agreement.

7.09 EXCESS FACILITIES REQUEST

In those instances where Missouri Public Service chooses to provide facilities at Applicant's request in variance with the Electric Extension Standards, Applicant's shall be required to pay Missouri Public Service for the cost of such facilities, and to pay Missouri Public Service a Nonrefundable Construction Charge or a surcharge as outlined in the Facilities Extension Agreement. The charge is designed to recover the cost of insurance, replacement (or cost of removal), license and fees, taxes, operation and maintenance and appropriate allocable administrative and general expenses associated with such distribution facilities.

7.10 APPLICABILITY LIMITATION

The applicability of this extension policy is limited by the following conditions:

- A. **FACILITIES EXTENSION AGREEMENT NOT TIMELY EXECUTED:** Missouri Public Service's Estimated Construction Costs and Construction Charges requirements as calculated for each extension may become void, at Missouri Public Service's discretion, after 120 days from the time a proposed Facilities Extension Agreement is provided by Missouri Public Service to Applicant. If a Facilities Extension Agreement is not fully executed before that time, it may become necessary for new estimates to be made incorporating the then current construction costs and the terms and conditions of Missouri Public Service's extension policy as on file and in effect with the Commission at that time.
- B. **ACCURATE ESTIMATES DOUBTFUL -- TRUE-UP FOR ACTUAL COSTS:** The Estimated Construction Costs will typically be the amount used in calculating the Construction Allowance and Construction Charges. In situations where the accuracy of the estimate is known to be highly uncertain, a true-up to reflect actual costs at the Extension Completion date will be made. The intention to adjust the Estimated Construction Costs to reflect actual costs shall be specified and agreed to by both Applicant and Missouri Public Service in the Facilities Extension Agreement.

P.S.C. MO. No.	<u>2</u>	<u>1st</u>	(Original)	SHEET NO.	<u>R-37.6</u>
			(Revised)		
Cancelling P.S.C. MO. No.	<u>2</u>		(Original)	SHEET NO.	<u>R-37.6</u>
			(Revised)		

**MISSOURI PUBLIC SERVICE
KANSAS CITY, MO 64138**

FOR: All Territory Supplied Electric Service

**RULES AND REGULATIONS
ELECTRIC**

7.11 SUMMARY OF POLICY ADMINISTRATION

Missouri Public Service has segmented Applicants into the following general categories for administration of this Extension Policy and also requires the Applicant to provide the specified facilities as referenced in the Electric Extension Standards:

A. RESIDENTIAL SINGLE FAMILY:

1. **Free of Charge – Basic Extension Request:** All Applicants, classified as Permanent Service, will receive the following installed basic facilities free of charge:
 - first 100 feet of primary or secondary overhead conductor;
 - one thirty-five foot wood utility pole with guy and anchor;
 - 10 kva transformer including applicable mounting and protection hardware;
 - first 100 feet of overhead service conductor and 200 amp meter;

2. **Excess Charge – Non Basic Extension Request:** Applicants requiring a Distribution Extension in excess of the basic installed facilities which are provided free of charge may incur a non-refundable construction charge as described below:
 - **Individual Projects:** Projects defined as including four or less, including one, residential dwelling(s). The applicable Construction Allowance will be subtracted from the Estimated Construction Costs for the Applicant’s project in order to determine the Nonrefundable Construction Charge to be paid by Applicant to Missouri Public Service. The cost of the distribution extension on public right-of-way will be included in the Estimated Construction Costs.
 - **Subdivision Projects:** Projects defined as including five (5) or more residential dwellings. The Nonrefundable Construction Charge is calculated based on a per lot basis and is determined by subtracting the applicable standard Construction Allowance from the standard Estimated Construction Costs. Additional Nonrefundable Construction Charges will be calculated for excess service lengths and excess extension lengths on an average per foot basis, with the per foot charge shown in Section 9 of these Rules. Applicant will also be responsible for all Estimated Construction Costs related to the cost of connecting the subdivision project to Missouri Public Service’s existing and adequate distribution facilities when the length is greater than 100 feet. These costs will be paid by Applicant to Missouri Public Service as a Nonrefundable Construction Charge.

[Note: Construction Allowance is set equal to the cost of facilities provided free of charge plus standard adders, determined from the feasibility model, based on the electric end-use and project type committed to by Applicant.]

B. RESIDENTIAL MULTI-FAMILY or RESIDENTIAL MOBILE HOME TRAILER PARKS:

All applicants, classified as permanent service, will have a Construction Allowance calculated per the feasibility model (Section 7.02 C. Construction Allowance) for the customized project. The Construction Allowance is subtracted from the Estimated Construction Cost for the Applicant’s project in order to determine the Nonrefundable Construction Charge to be paid by Applicant. Applicant will also be responsible for all Estimated Construction Charges related to the cost of connecting to Missouri Public Service’s existing and adequate distribution facilities when the length is greater than 100 feet. These costs will be paid by Applicant to Missouri Public Service as a Nonrefundable Construction Charge.

STATE OF MISSOURI, PUBLIC SERVICE COMMISSION

P.S.C. MO. No. 2 1st (~~Original~~) SHEET NO. R-8.1
(Revised)
Cancelling P.S.C. MO. No. 2 (~~Original~~) SHEET NO. R-8.1
(Revised)

MISSOURI PUBLIC SERVICE
KANSAS CITY, MO 64138

FOR: All Territory Supplied Electric Service

RULES AND REGULATIONS
ELECTRIC

C. COMMERCIAL or INDUSTRIAL:

All applicants, classified as permanent service, will have a Construction Allowance calculated per the feasibility model (Section 7.02 C. Construction Allowance) for the customized project. The Construction Allowance is subtracted from the Estimated Construction Cost for the Applicant's project in order to determine the Nonrefundable Construction Charge to be paid by Applicant. The cost of the Distribution Extension on public right-of-way is generally included in the Estimated Construction Cost except where the Applicant requires not to have a standard overhead extension provided. Where underground service on public right-of-way is required and agreed to by Missouri Public Service, the Applicant will be required to pay for the required facilities as either a Nonrefundable Construction Charge or as a surcharge on its monthly bill, at Missouri Public Service's discretion.

Aquila, Inc.

Facilities Extension Agreement

Activity I. D. xxx
Work Order Tracking No. xxx

THIS AGREEMENT, made and entered into by and between Aquila, hereinafter called "Company", and
(insert customer name here) hereinafter called "Customer".

Customer Information		Select Customer Type: Commercial	
Principal Contact: <u>xxx</u>	Customer/Name: <u>xxx</u>		
Address: <u>xxx</u>	City: <u>xxx</u>	State: <u>xx</u>	Zip Code: <u>xxxxx</u>
Phone #: <u>xxx</u>	Fax #: <u>xxx</u>	Cellular #: <u>xxx</u>	Pager #: <u>xxx</u>
Location of electric extension (Street Address, City, County): <u>xxx</u>			
Subdivision Name and Phase # or Project Name: <u>xxx</u>			

WITNESSETH:

That in consideration of the mutual covenants and agreements herein contained, the parties hereto agree as follows:

1. Company, for and in consideration by Customer as described below, does hereby covenant and agree to furnish natural gas facilities, as defined by Company's gas distribution extension policy, to Customer at the location(s) described above. Customer, for residential use agrees to take service for a minimum of one (1) year at the end-uses prescribed in Part I per Exhibit A - Residential. Commercial customers agree to take service for a minimum of three (3) years at the end-uses prescribed on Exhibit A - Commercial. If Customer cannot complete its obligation with respect to end-use commitment and/or length of service, Customer will be liable to the extent of the non-performance provision of Part III of Exhibit A.
2. Customer, for and in consideration of the construction work to be done by the Company in order to furnish such service, agrees to make the following considerations prior to Company starting construction:

a) **Non-Refundable Construction Charge (Contribution) @** **\$7,500.00**

b) **Potentially Refundable Construction Charge (Advance) @** **\$5,000.00**
This advance is potentially refundable based upon Customer's performance as described in Exhibit A, Part II.
Method of Payment for Contribution and Advance: Certified Check

c) **Excess Facilities Surcharge:** Should Extension facilities, at Customer's request, vary from Company's Gas Extension Standards, a surcharge will be added to the Non-Refundable Construction Charge, at Company's discretion, if noted here: Yes No If Yes, amount of monthly surcharge @ **\$ -**

3. The Non-Refundable Construction Charge is based upon construction estimates. Where the Charge is considered highly uncertain, a comparison of estimated to actual costs will be made at extension completion, at Company's discretion, if noted here: Yes No

4. Classification of Service by Company: Permanent Temporary

5. Customer is responsible for providing special ditching required for soil conditions including, but not limited to the presence of rock or other environmental issues which prevents the use of normal trenching and backfilling practices used in trenchable soil. Customer is responsible for maintaining grade and clearance during Company's construction.

6. The estimated Company construction start date for this natural gas extension is: **xx/xx/xx**

7. Company's Construction Charges requirements, as calculated for this Extension Agreement, may become void after 120 days, at Company's discretion, after Agreement is presented to Customer, unless Agreement is fully executed before that time, indicated by signature and date below.

Upon receipt of a fully executed original copy of this Extension Agreement and the applicable considerations for Construction Charges, Company will begin the design and installation of the electric distribution system for the specified property(ies) above. IN WITNESS WHEREOF, the parties hereto have affixed their signatures as dated below:

Customer	Aquila, Inc.
Customer Name - Printed	Company
Customer Signature	Company Signature
Date of Signature: _____	Date of Signature: _____

Aquila, Inc.

Facilities Extension Agreement

Activity I.D. xxx

Work Order Tracking No. xxx

EXHIBIT A - Residential
Part I - Schedule of Construction Charges

Subdivision Name and Phase # or Project Name: xxx

Aquila Construction Cost Estimate \$ **16,500**

Yes No
Check if Indeterminate Buildout

	Per Feasibility Model Standard Construction Allowance		Potentially Refundable If Indeterminate Buildout Ref Part II below		Performance Req'd. Col A - Col B Ref Part III below	
	(A)		(B)		(C)	
	per lot	total project	per lot	total project	per lot	total project
2 Type I Natural gas furnace, no water heating	\$1,050	\$2,100	\$500	\$1,000	\$550	\$1,100
3 Type II Natural gas furnace & water heating	\$1,250	\$3,750	\$500	\$1,500	\$750	\$2,250
3 Type III Dual fueled heat pump, no water heating	\$850	\$2,550	\$500	\$1,500	\$350	\$1,050
2 Type IV Dual fueled heat pump & gas water heating	\$1,050	\$2,100	\$500	\$1,000	\$550	\$1,100
Totals by Columns A, B, C		<u>\$10,500</u>		<u>\$5,000</u>		<u>\$5,500</u>

10 Total Units	Subtotal Charges	\$11,000	=	\$ 6,000	+	\$5,000
	Non-Standard Charges	\$0	=	\$0	+	\$0
	Sub-Total Required	\$11,000	=	\$ 6,000	+	\$5,000
	Income Tax Gross-up		=	\$ 1,500		
	Total Amount Required	\$12,500	=	\$ 7,500	+	\$5,000

NOTE: The company may, at its discretion, conduct a comparison of the actual energy used versus the estimated load and perform an economic feasibility analysis to determine whether the Customer shall be charged for non-performance.

PART II – Refund of Construction Charges (Advance)

The structure(s) to be built by the Customer at the above described location are to be completed within the Open Extension Period of five (5) years commencing from the Company's Construction Start date in this contract in order for Customer to qualify for a refund from Company of the Potentially Refundable Construction Charges. Company may extend this five year requirement after review of Customer's written request if circumstances beyond Customer's control exist, such as severe weather, labor disputes, governmental actions, or labor/material shortages. Upon written notification from Customer to Company and upon the Company's verification of required performance, Company will refund construction charges to Customer, in part or in whole as stated above per Part I. Charges collected on a per structure/unit basis will be refunded quarterly on a per unit basis after completion of the units committed.

To apply for a refund, send a written request to:
Amber Adcock, CIAC Coordinator, Aquila, PO Box 879, Sedalia, Missouri 65302
Start Date End of Open Period

PART III - Charges Due to Non-Performance*

In the event that the structure(s) are not built within the **five (5) year** period, or structure(s) are not built in accordance with this Agreement, Customer will be required to pay the applicable Construction Charges. It shall be the Customer's responsibility to inform all persons building on the described location of the obligations set forth in this Extension Agreement. Further, Customer will be responsible for any breach of this Extension Agreement regardless of whether caused by Customer or a builder or contractor.

Start Date Performance Deadline
 Maximum Amount Due for Non-Performance*

* where Construction Charges are set at per structure/unit basis – Charges for non-performance will be pro-rated per referenced basis.

MPS Gas Model, 06/01/03 **Aquila Networks -- MPS Gas -- Capital Feasibility Model**

INPUT SCREEN

Project Name **Typical Subdivision Project -- Dual Fueled Heat Pumps, No natural gas water heating**

Note: Inputs @ >>> (yellow)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Residential Customer/Usage										
Projected # of Incremental Customers >>>	3	4	3	-	-	-	-	-	-	-
Total Resid Customers Per Project	10	7	10	10	10	10	10	10	10	10
Per Avg Customer MCF/Kwh Usage >>>	56	56	56	56	56	56	56	56	56	56
Margin per MCF/Kwh >>>	\$ 2.230	\$ 2.230	\$ 2.230	\$ 2.230	\$ 2.230	\$ 2.230	\$ 2.230	\$ 2.230	\$ 2.230	\$ 2.230
Monthly Customer Charge >>>	\$ 9.00	\$ 9.00	\$ 9.00	\$ 9.00	\$ 9.00	\$ 9.00	\$ 9.00	\$ 9.00	\$ 9.00	\$ 9.00

Commercial Customer/Usage										
	YES	Enter YES, if single customer w/ escalating usage, else NO & model assumes usage/cust is at level w/ year cust going forward								
Projected # of Incremental Customers >>>	-	-	-	-	-	-	-	-	-	-
Total Coml Customers Accumulated	-	-	-	-	-	-	-	-	-	-
Per Avg Customer MCF/Kwh Usage >>>	-	-	-	-	-	-	-	-	-	-
Margin per MCF/Kwh >>>	\$ 2.23	\$ 2.23	\$ 2.23	\$ 2.23	\$ 2.23	\$ 2.23	\$ 2.23	\$ 2.23	\$ 2.23	\$ 2.23
Monthly Customer Charge >>>	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00

Capital Investment										
From Customer Estimate Form see "ConE \$	-	\$	-	\$	-	\$	-	\$	-	\$
OR Enter Below										
Infrastructure Cost -- Mains, Other >>>	\$ 10,000	\$	-	\$	-	\$	-	\$	-	\$
Cost per Resid Cust -- Services >>>	\$ 650	\$	650	\$	650	\$	650	\$	650	\$
Cost per Coml Cust -- Services >>>	\$ -	\$	-	\$	-	\$	-	\$	-	\$
Customer Contribution (if required, from page 2) \$	(7,703)	\$	-	\$	-	\$	-	\$	-	\$

Other Costs										
Cost per Resid Customer >>>	\$ -	\$	-	\$	-	\$	-	\$	-	\$
Cost per Coml Customer >>>	\$ -	\$	-	\$	-	\$	-	\$	-	\$
Cust Acquisition Costs-Direct "Fixed" >>>	\$ -	\$	-	\$	-	\$	-	\$	-	\$

MPS Gas Model, 06/01/03	Aquila Networks -- MPS Gas -- Capital Feasibility Model
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Output Screen

Project Name **Typical Subdivision Project -- Dual Fueled Heat Pumps, No natural gas water heating**

Calculations from Input Screen (User Input) & Support Screen (Static Formulas Provided)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
CASH IN										
Projected Margins from Residential	\$ 699	\$ 1,630	\$ 2,329	\$ 2,329	\$ 2,329	2,329	2,329	2,329	2,329	2,329
Projected Margins from Commercial	-	-	-	-	-	-	-	-	-	-
Total Margins From Project	\$ 699	\$ 1,630	\$ 2,329	\$ 2,329	\$ 2,329	2,329	2,329	2,329	2,329	2,329
CASH OUT										
Total Incremental Investment by Year	\$ 4,247	\$ 2,600	\$ 1,950	\$ -	\$ -	-	-	-	-	-
Total Net Project Investment	\$ 8,797									
Total Other Costs Incurred (Var&Fixed)	\$ -	\$ -	\$ -	\$ -	\$ -	-	-	-	-	-

PROFITABILITY CHECKS	calculated	TOTAL PROJECT
OK (A) NPV @ 10 Yrs with Residual		<u>\$ 937</u> Must be Greater than Zero
NPV @ 10 Yrs w/o Residual		<u>\$ (1,823)</u> \$ (2,760) Var Reference Only
NPV @ 20 Yrs w/o Residual		<u>\$ 1,247</u> \$ 310 Var Reference Only
OK (B) Average ROE @ 5 Yrs		<u>12.0%</u> Must be Greater than 12.0%
Avg Return on Equity @ 10 Yrs		14.2% Reference Only

Required Customer Contribution to Meet ROE Feasibility for First 5 Years Average

Go to Cell H67; Use Goal Seek under Tools (set h69 to Zero by changing e73) \$ (0) (approximate value on first run, if negative then ROE > Target)

Contribution must be at least \$1 less than Cur Yr Investment, else ERROR will show

Amounts from this line transferred to Input Screen	\$ 7,703	\$ -	\$ -	\$ -	\$ -
Multiple Years will require more reruns of Goal	Year 1	Year 2	Year 3	Year 4	Year 5

>>> Project Margins Allocated 33% Applied to Embedded System/Infrastructure Cost

>>> Contract Length 30.0

MPS Gas Model, 06/01/03 **Aquila Networks -- MPS Gas -- Capital Feasibility Model**

Support Screen

Project Name **Typical Subdivision Project -- Dual Fueled Heat Pumps, No natural gas water heating**

Targeted UED Discount Rate	8.22%	MPS Gas
Effective Income Tax Rate	38.50%	(35% Federal & 7% State)
Statutory Income Tax Rate	38.50%	(35% Federal & 7% State)
Selected Deprec Rate, by default or contract	3.33%	(30 year life estimated, unless contract length specified)
Property Tax/Insur Rate	1.00%	MPS Gas
Equity as a Percent of Capital	50%	MPS Gas
LongTerm Debt as a Percent of Capital	50%	MPS Gas
Weighted Cost of LTDebt @ 8%	3.62%	MPS Gas
Cash Car Chg (Ptax-IncTx-(Dep*IncTx))	-0.668%	

Accumulated # Resid Customers from pg 1	3	7	10	10	10	10	10	10	10	10
Accumulated Resid Usage Volumes from pg 1	168	392	560	560	560	560	560	560	560	560
Accumulated # Coml Customers from pg 1	-	-	-	-	-	-	-	-	-	-
Accumulated Coml Usage Volumes from pg 1	-	-	-	-	-	-	-	-	-	-

Calculated from Pages 1&2 and Support	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Cash FLOW										
Less Contribution to System Cust 33%	\$ 231	\$ 538	\$ 768	\$ 768	\$ 768	\$ 768	\$ 768	\$ 768	\$ 768	\$ 768
Less Inc Tax on Net Margins	180	420	601	601	601	601	601	601	601	601
CASH IN COMING Sum +pg 2	\$ 288	\$ 672	\$ 959	\$ 959	\$ 959	\$ 959	\$ 959	\$ 959	\$ 959	\$ 959
Less Inc Tax on Cust Acq Costs	-	-	-	-	-	-	-	-	-	-
Add Net Cash Carrying Charges	(28)	(46)	(59)	(59)	(59)	(59)	(59)	(59)	(59)	(59)
CASH OUT GOING Sum +pg 2	\$ 4,219	\$ 2,554	\$ 1,891	\$ (59)	\$ (59)	\$ (59)	\$ (59)	\$ (59)	\$ (59)	\$ (59)
Cash NET of Project (w/residual value in yr 10)	\$ (3,931)	\$ (1,883)	\$ (932)	\$ 1,018	\$ 1,018	\$ 1,018	\$ 1,018	\$ 1,018	\$ 1,018	\$ 7,100
Cash NET of Project (w/o residual value)	\$ (3,931)	\$ (1,883)	\$ (932)	\$ 1,018	\$ 1,018	\$ 1,018	\$ 1,018	\$ 1,018	\$ 1,018	\$ 1,018

Book Checks										
Projected Running Gross Plant In Service	\$ 4,247	\$ 6,847	\$ 8,797	\$ 8,797	\$ 8,797	\$ 8,797	\$ 8,797	\$ 8,797	\$ 8,797	\$ 8,797
Projected Running Net Plant in Service	4,105	6,477	8,134	7,841	7,547	7,254	6,961	6,668	6,374	6,081
Projected Avg Common Equity Balance	\$ 2,088	\$ 3,296	\$ 4,140	\$ 3,994	\$ 3,847	\$ 3,700	\$ 3,554	\$ 3,407	\$ 3,261	\$ 3,114
first 5 yrs >>	\$ 17,365									
Operating Book Income	\$ 468	\$ 1,092	\$ 1,560	\$ 1,560	\$ 1,560	\$ 1,560	\$ 1,560	\$ 1,560	\$ 1,560	\$ 1,560
Less Depreciation Expense	142	228	293	293	293	293	293	293	293	293
Less Carrying Costs (Interest & P-Tax)	193	304	382	369	355	342	328	314	301	287
Less Statutory Income Tax	51	215	341	346	351	356	361	367	372	377
NET Income Available for Shareholders	\$ 82	\$ 344	\$ 544	\$ 552	\$ 561	\$ 569	\$ 577	\$ 586	\$ 594	\$ 602
first 5 yrs >>	\$ 2,084									

RETURN ON EQUITY	3.9%	10.4%	13.1%	13.8%	14.6%	15%	16%	17%	18%	19%
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MPS Gas -- Eastern System -- Allocation of Impairment by Account

Schedule JMB-5

page 1 of 2

	w/o Resid Meters / Alloc GP	PE Main	Plast Main	Misc Main	Reg Stat	Iron Serv	PE Serv	Iron Serv	Plast Serv
	<u>Total</u>	<u>376.002</u>	<u>376.005</u>	<u>376.007</u>	<u>378.000</u>	<u>380.001</u>	<u>380.002</u>	<u>380.003</u>	<u>380.005</u>
<u>CPR @ 12-31-02</u>									
Rolla	10,159,901	1,174,623	5,401,188	93,691	16,818	288,162	603,187	6,216	865,995
Salem	3,380,073	149,766	1,898,748	1,180	-	150,181	126,119	-	440,374
Owensville	<u>1,239,565</u>	<u>36,673</u>	<u>746,610</u>	<u>3,985</u>	<u>-</u>	<u>29,487</u>	<u>179,609</u>	<u>-</u>	<u>85,059</u>
<u>Total Eastern</u>	<u>14,779,539</u>	<u>1,361,062</u>	<u>8,046,546</u>	<u>98,856</u>	<u>16,818</u>	<u>467,830</u>	<u>908,915</u>	<u>6,216</u>	<u>1,391,428</u>
<u>Adjustments, Pre-Impairment</u>									
Rolla	(599,660)	(395,176)	-	-	-	-	-	-	(68,813)
Salem	79,438	-	-	-	-	-	-	-	-
Owensville	<u>520,222</u>	<u>395,176</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>68,813</u>
<u>Total Eastern</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
<u>Adjusted CPR, Pre-Impairment</u>									
Rolla	9,560,241	779,447	5,401,188	93,691	16,818	288,162	603,187	6,216	797,182
Salem	3,459,511	149,766	1,898,748	1,180	-	150,181	126,119	-	440,374
Owensville	<u>1,759,787</u>	<u>431,849</u>	<u>746,610</u>	<u>3,985</u>	<u>-</u>	<u>29,487</u>	<u>179,609</u>	<u>-</u>	<u>153,872</u>
<u>Total Eastern</u>	<u>14,779,539</u>	<u>1,361,062</u>	<u>8,046,546</u>	<u>98,856</u>	<u>16,818</u>	<u>467,830</u>	<u>908,915</u>	<u>6,216</u>	<u>1,391,428</u>
<u>Adjusted CPR, Pre-Impairment (% by account by town)</u>									
Rolla	64.69%	5.27%	36.55%	0.63%	0.11%	1.95%	4.08%	0.04%	5.39%
Salem	23.41%	1.01%	12.85%	0.01%	0.00%	1.02%	0.85%	0.00%	2.98%
Owensville	<u>11.91%</u>	<u>2.92%</u>	<u>5.05%</u>	<u>0.03%</u>	<u>0.00%</u>	<u>0.20%</u>	<u>1.22%</u>	<u>0.00%</u>	<u>1.04%</u>
<u>Total Eastern</u>	<u>100.00%</u>	<u>9.21%</u>	<u>54.44%</u>	<u>0.67%</u>	<u>0.11%</u>	<u>3.17%</u>	<u>6.15%</u>	<u>0.04%</u>	<u>9.41%</u>
<u>Impairment Allocated by Account</u>									
		<u>376.092</u>	<u>376.095</u>	<u>376.097</u>	<u>378.090</u>	<u>380.091</u>	<u>380.092</u>	<u>380.093</u>	<u>380.095</u>
Rolla	5,808,771	473,589	3,281,744	56,926	10,219	175,086	366,494	3,777	484,365
Salem	2,101,988	90,997	1,153,673	717	-	91,249	76,629	-	267,570
Owensville	<u>1,069,241</u>	<u>262,390</u>	<u>453,638</u>	<u>2,421</u>	<u>-</u>	<u>17,916</u>	<u>109,130</u>	<u>-</u>	<u>93,492</u>
<u>Total Eastern</u>	<u>\$ 8,980,000</u>	<u>826,977</u>	<u>4,889,055</u>	<u>60,065</u>	<u>10,219</u>	<u>284,252</u>	<u>552,254</u>	<u>3,777</u>	<u>845,427</u>
Depreciation Rate Current	2.78%	2.40%	2.40%	2.40%	2.40%	4.68%	4.68%	4.68%	4.68%
Annual Depreciation	\$ 250,049	19,847	117,337	1,442	245	13,303	25,845	177	39,566
<u>Adjusted Net Plant, Post-Impairment</u>									
		<u>376.002</u>	<u>376.005</u>	<u>376.007</u>	<u>378.000</u>	<u>380.001</u>	<u>380.002</u>	<u>380.003</u>	<u>380.005</u>
Rolla	3,751,470	305,858	2,119,444	36,765	6,599	113,076	236,693	2,439	312,817
Salem	1,357,523	58,769	745,075	463	-	58,932	49,490	-	172,804
Owensville	<u>690,546</u>	<u>169,459</u>	<u>292,972</u>	<u>1,564</u>	<u>-</u>	<u>11,571</u>	<u>70,479</u>	<u>-</u>	<u>60,380</u>
<u>Total Eastern</u>	<u>5,799,539</u>	<u>534,085</u>	<u>3,157,491</u>	<u>38,791</u>	<u>6,599</u>	<u>183,578</u>	<u>356,661</u>	<u>2,439</u>	<u>546,001</u>

MPS Gas -- Eastern System -- Allocation of Impairment by Account

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	w/o F	H Piping	H Reg	Com/Indus	LV Meters	Meters	Rolla	Total
		<u>382.001</u>	<u>383.001</u>	<u>385.001</u>	<u>385.002</u>	<u>381.000</u>	<u>Gen Plant</u>	<u>Plant</u>
<u>CPR @ 12-31-02</u>						\$ 2,868,819	\$390,000	before other
Rolla		1,172,021	518,288	5,488	14,224	avg 2002		allocated
Salem		530,411	83,294	-	-	res & coml cust		general plant
<u>Owensville</u>		<u>66,751</u>	<u>88,346</u>	<u>1,795</u>	<u>1250</u>	<u>46,063</u>		<u>Corp & Mo Common</u>
<u>Total Eastern</u>		<u>1,769,183</u>	<u>689,928</u>	<u>7,283</u>	<u>15,474</u>	\$ 62.28		
<u>Adjustments, Pre-Impair</u>						<u>Avg Cust</u>		
Rolla		(39,349)	(96,322)	-	-	2,734		
Salem		(16,884)	96,322	-	-	919		
<u>Owensville</u>		<u>56,233</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>370</u>		
<u>Total Eastern</u>		<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>4,023</u>		
<u>Adjusted CPR, Pre-Impair</u>								
Rolla		1,132,672	421,966	5,488	14,224	\$ 170,274	\$ 252,274	\$ 9,982,789
Salem		513,527	179,616	-	-	57,236	91,289	\$ 3,608,036
<u>Owensville</u>		<u>122,984</u>	<u>88,346</u>	<u>1,795</u>	<u>1,250</u>	<u>23,044</u>	<u>46,437</u>	<u>\$ 1,829,268</u>
<u>Total Eastern</u>		<u>1,769,183</u>	<u>689,928</u>	<u>7,283</u>	<u>15,474</u>	<u>\$ 250,554</u>	<u>\$ 390,000</u>	<u>\$15,420,093</u>
<u>Adjusted CPR, Pre-Impair</u>								
Rolla		7.66%	2.86%	0.04%	0.10%			
Salem		3.47%	1.22%	0.00%	0.00%			
<u>Owensville</u>		<u>0.83%</u>	<u>0.60%</u>	<u>0.01%</u>	<u>0.01%</u>			
<u>Total Eastern</u>		<u>11.97%</u>	<u>4.67%</u>	<u>0.05%</u>	<u>0.10%</u>			
<u>Impairment Allocated I</u>		<u>382.091</u>	<u>383.091</u>	<u>385.091</u>	<u>385.092</u>			
Rolla		688,208	256,385	3,334	8,642			
Salem		312,017	109,134	-	-			
<u>Owensville</u>		<u>74,725</u>	<u>53,679</u>	<u>1,091</u>	<u>759</u>			
<u>Total Eastern</u>		<u>1,074,950</u>	<u>419,198</u>	<u>4,425</u>	<u>9,402</u>			
Depreciation Rate Curr		2.00%	2.50%	2.22%	2.22%			
Annual Depreciation		21,499	10,480	98	209			
<u>Adjusted Net Plant, Po</u>		<u>382.001</u>	<u>383.001</u>	<u>385.001</u>	<u>385.002</u>			
Rolla		444,464	165,581	2,154	5,582			
Salem		201,510	70,482	-	-			
<u>Owensville</u>		<u>48,259</u>	<u>34,667</u>	<u>704</u>	<u>491</u>			
<u>Total Eastern</u>		<u>694,233</u>	<u>270,730</u>	<u>2,858</u>	<u>6,072</u>			

MPS Gas -- Eastern System -- FASB 144 Test Value
Summary of Model Runs and Weighted Test Value

<u>Model Run</u>	<u>\$000s</u> <u>Sum of Value, Not Discounted, wo Interest Exp, Accumulated</u>	<u>Used</u> <u>30 yr</u>	<u>Prob.</u>	<u>Wghtd</u> <u>Test Value</u>
A	1% Margin Increase AFTER year 2 Rate Case Cash Flow	\$ 6,951	10%	\$ 695
B	.5% Margin Increase AFTER year 2 Rate Case Cash Flow	4,820	40%	1,928
C	0% Margin Increase AFTER year 2 Rate Case Cash Flow	2,874	40%	1,149
D	-.5% Margin Increase AFTER year 2 Rate Case Cash Flow	1,095	10%	109
			100%	<u>\$ 3,882</u>

MPS Gas -- Eastern System -- FASB 144 Test Value

Model Run A, 1.0% Increase in Margins after Year 2

\$000s	1.0%	2.25%	2.25%	Bef Alloc	58.5%	2.25%	2.25%	2.25%	After alloc	58.5%	0.0%			58.5%	Cash Flow
	Margins	Dir Exp	IBU Dir	EBITDA	Aft Tx	Dir Alloc	IBU Alloc	ESF Alloc	EBITDA	Aft Tx	Dir Deprec	Int Exp	Op Income	Aft Tx	NET INC
Year 1	1,400	600	200	600	351	100	100	200	200	117	410	-	(210)	(123)	287
Year 2	1,566	614	205	748	438	102	102	205	339	198	410	-	(71)	(42)	369
Year 3	1,582	627	209	745	436	105	105	209	327	191	410	-	(83)	(49)	362
Year 4	1,597	641	214	742	434	107	107	214	315	184	410	-	(96)	(56)	354
Year 5	1,613	656	219	739	432	109	109	219	302	177	410	-	(109)	(64)	347
Year 6	1,630	671	224	735	430	112	112	224	288	169	410	-	(122)	(71)	339
Year 7	1,646	686	229	732	428	114	114	229	274	161	410	-	(136)	(79)	331
Year 8	1,662	701	234	727	426	117	117	234	260	152	410	-	(150)	(88)	322
Year 9	1,679	717	239	723	423	119	119	239	245	143	410	-	(165)	(97)	314
Year 10	1,696	733	244	718	420	122	122	244	230	134	410	-	(181)	(106)	305
Year 11	1,713	750	250	713	417	125	125	250	214	125	410	-	(197)	(115)	295
Year 12	1,730	766	255	708	414	128	128	255	197	115	410	-	(213)	(125)	286
Year 13	1,747	784	261	702	411	131	131	261	180	105	410	-	(230)	(135)	276
Year 14	1,765	801	267	696	407	134	134	267	162	95	410	-	(248)	(145)	265
Year 15	1,782	819	273	690	404	137	137	273	144	84	410	-	(267)	(156)	254
Year 16	1,800	838	279	683	400	140	140	279	125	73	410	-	(286)	(167)	243
Year 17	1,818	857	286	676	395	143	143	286	105	61	410	-	(305)	(179)	232
Year 18	1,836	876	292	668	391	146	146	292	85	49	410	-	(326)	(191)	220
Year 19	1,855	896	299	661	386	149	149	299	63	37	410	-	(347)	(203)	207
Year 20	1,873	916	305	652	382	153	153	305	42	24	410	-	(369)	(216)	195
Year 21	1,892	936	312	643	376	156	156	312	19	11	410	-	(391)	(229)	182
Year 22	1,911	957	319	634	371	160	160	319	(4)	(2)	410	-	(414)	(242)	168
Year 23	1,930	979	326	625	365	163	163	326	(28)	(16)	410	-	(438)	(256)	154
Year 24	1,949	1,001	334	615	360	167	167	334	(53)	(31)	410	-	(463)	(271)	139
Year 25	1,969	1,023	341	604	353	171	171	341	(78)	(46)	410	-	(489)	(286)	125
Year 26	1,988	1,046	349	593	347	174	174	349	(105)	(61)	410	-	(515)	(301)	109
Year 27	2,008	1,070	357	582	340	178	178	357	(132)	(77)	410	-	(542)	(317)	93
Year 28	2,028	1,094	365	570	333	182	182	365	(160)	(94)	410	-	(570)	(334)	77
Year 29	2,049	1,119	373	557	326	186	186	373	(189)	(110)	410	-	(599)	(351)	60
Year 30	2,069	1,144	381	544	318	191	191	381	(219)	(128)	410	-	(629)	(368)	42
30 Year sum					11,715				(9,874)	1,842				(5,360)	\$ 6,951

MPS Gas -- Eastern System -- FASB 144 Test Value
Model Run B, .5% Increase in Margins after Year 2

\$000s	0.5%	2.25%	2.25%	Bef Alloc	58.5%	2.25%	2.25%	2.25%	After alloc	58.5%	Bef Tax		58.5%	Cash Flow
	Margins	Dir Exp	IBU Dir	EBITDA	Aft Tx EBITDA	Dir Alloc	IBU Alloc	ESF Alloc	EBITDA	Aft Tx EBITDA	Dir Deprec	Op Income	NET INC	Add Back Deprec
Year 1	1,400	600	200	600	351	100	100	200	200	117	410	(210)	(123)	287
Year 2	1,566	614	205	748	438	102	102	205	339	198	410	(71)	(42)	369
Year 3	1,574	627	209	737	431	105	105	209	319	187	410	(91)	(53)	357
Year 4	1,582	641	214	726	425	107	107	214	299	175	410	(112)	(65)	345
Year 5	1,590	656	219	715	418	109	109	219	278	163	410	(132)	(77)	333
Year 6	1,598	671	224	703	411	112	112	224	256	150	410	(154)	(90)	320
Year 7	1,606	686	229	691	404	114	114	229	234	137	410	(176)	(103)	307
Year 8	1,614	701	234	679	397	117	117	234	211	124	410	(199)	(116)	294
Year 9	1,622	717	239	666	389	119	119	239	188	110	410	(223)	(130)	280
Year 10	1,630	733	244	652	382	122	122	244	164	96	410	(247)	(144)	266
Year 11	1,638	750	250	639	374	125	125	250	139	81	410	(272)	(159)	252
Year 12	1,646	766	255	624	365	128	128	255	113	66	410	(297)	(174)	237
Year 13	1,654	784	261	609	357	131	131	261	87	51	410	(323)	(189)	221
Year 14	1,663	801	267	594	348	134	134	267	60	35	410	(350)	(205)	205
Year 15	1,671	819	273	578	338	137	137	273	32	19	410	(378)	(221)	189
Year 16	1,679	838	279	562	329	140	140	279	4	2	410	(407)	(238)	173
Year 17	1,688	857	286	546	319	143	143	286	(26)	(15)	410	(436)	(255)	155
Year 18	1,696	876	292	528	309	146	146	292	(56)	(33)	410	(466)	(273)	138
Year 19	1,705	896	299	510	299	149	149	299	(87)	(51)	410	(497)	(291)	120
Year 20	1,713	916	305	492	288	153	153	305	(118)	(69)	410	(529)	(309)	101
Year 21	1,722	936	312	473	277	156	156	312	(151)	(88)	410	(561)	(328)	82
Year 22	1,730	957	319	454	265	160	160	319	(185)	(108)	410	(595)	(348)	62
Year 23	1,739	979	326	434	254	163	163	326	(219)	(128)	410	(629)	(368)	42
Year 24	1,748	1,001	334	413	242	167	167	334	(254)	(149)	410	(665)	(389)	22
Year 25	1,756	1,023	341	392	229	171	171	341	(291)	(170)	410	(701)	(410)	0
Year 26	1,765	1,046	349	370	216	174	174	349	(328)	(192)	410	(738)	(432)	(22)
Year 27	1,774	1,070	357	347	203	178	178	357	(366)	(214)	410	(776)	(454)	(44)
Year 28	1,783	1,094	365	324	190	182	182	365	(405)	(237)	410	(816)	(477)	(67)
Year 29	1,792	1,119	373	300	176	186	186	373	(446)	(261)	410	(856)	(501)	(90)
Year 30	1,801	1,144	381	275	161	191	191	381	(487)	(285)	410	(897)	(525)	(115)
30 Yr sum					9,585					(289)			(7,491)	\$ 4,820

MPS Gas -- Eastern System -- FASB 144 Test Value
Model Run C, 0.0% Increase in Margins after Year 2

\$000s	0.0%	2.25%	2.25%	Bef Alloc	58.5%	2.25%	2.25%	2.25%	After alloc	58.5%	Bef Tax	58.5%	Cash Flow	
	Margins	Dir Exp	IBU Dir	EBITDA	Aft Tx EBITDA	Dir Alloc	IBU Alloc	ESF Alloc	EBITDA	Aft Tx EBITDA	Dir Deprec	Op Income	NET INC	Add Back Deprec
Year 1	1,400	600	200	600	351	100	100	200	200	117	410	(210)	(123)	287
Year 2	1,566	614	205	748	438	102	102	205	339	198	410	(71)	(42)	369
Year 3	1,566	627	209	730	427	105	105	209	311	182	410	(99)	(58)	352
Year 4	1,566	641	214	711	416	107	107	214	283	166	410	(127)	(74)	336
Year 5	1,566	656	219	692	405	109	109	219	254	149	410	(156)	(91)	319
Year 6	1,566	671	224	672	393	112	112	224	225	131	410	(186)	(109)	302
Year 7	1,566	686	229	652	381	114	114	229	195	114	410	(216)	(126)	284
Year 8	1,566	701	234	631	369	117	117	234	164	96	410	(247)	(144)	266
Year 9	1,566	717	239	610	357	119	119	239	132	77	410	(278)	(163)	248
Year 10	1,566	733	244	589	344	122	122	244	100	58	410	(310)	(182)	229
Year 11	1,566	750	250	567	331	125	125	250	67	39	410	(343)	(201)	209
Year 12	1,566	766	255	544	318	128	128	255	33	19	410	(377)	(221)	190
Year 13	1,566	784	261	521	305	131	131	261	(1)	(1)	410	(412)	(241)	170
Year 14	1,566	801	267	498	291	134	134	267	(37)	(21)	410	(447)	(261)	149
Year 15	1,566	819	273	474	277	137	137	273	(73)	(42)	410	(483)	(283)	128
Year 16	1,566	838	279	449	263	140	140	279	(109)	(64)	410	(520)	(304)	106
Year 17	1,566	857	286	424	248	143	143	286	(147)	(86)	410	(558)	(326)	84
Year 18	1,566	876	292	398	233	146	146	292	(186)	(109)	410	(596)	(349)	62
Year 19	1,566	896	299	372	218	149	149	299	(225)	(132)	410	(635)	(372)	39
Year 20	1,566	916	305	345	202	153	153	305	(265)	(155)	410	(676)	(395)	15
Year 21	1,566	936	312	318	186	156	156	312	(307)	(179)	410	(717)	(419)	(9)
Year 22	1,566	957	319	289	169	160	160	319	(349)	(204)	410	(759)	(444)	(34)
Year 23	1,566	979	326	261	153	163	163	326	(392)	(229)	410	(802)	(469)	(59)
Year 24	1,566	1,001	334	231	135	167	167	334	(436)	(255)	410	(846)	(495)	(85)
Year 25	1,566	1,023	341	201	118	171	171	341	(481)	(281)	410	(891)	(521)	(111)
Year 26	1,566	1,046	349	171	100	174	174	349	(527)	(308)	410	(937)	(548)	(138)
Year 27	1,566	1,070	357	139	81	178	178	357	(574)	(336)	410	(984)	(576)	(166)
Year 28	1,566	1,094	365	107	63	182	182	365	(622)	(364)	410	(1,033)	(604)	(194)
Year 29	1,566	1,119	373	74	43	186	186	373	(671)	(393)	410	(1,082)	(633)	(223)
Year 30	1,566	1,144	381	41	24	191	191	381	(722)	(422)	410	(1,132)	(662)	(252)
30 Yr sum					7,638					(2,235)			(9,437)	\$ 2,874

MPS Gas -- Eastern System -- FASB 144 Test Value
Model Run D, -.5% Decrease in Margins after Year 2

\$000s	-0.5%	2.25%	2.25%	Bef Alloc	58.5%	2.25%	2.25%	2.25%	After alloc	58.5%	Bef Tax	58.5%	Cash Flow	
	Margins	Dir Exp	IBU Dir	EBITDA	Aft Tx EBITDA	Dir Alloc	IBU Alloc	ESF Alloc	EBITDA	Aft Tx EBITDA	Dir Deprec	Op Income	NET INC	Add Back Deprec
Year 1	1,400	600	200	600	351	100	100	200	200	117	410	(210)	(123)	287
Year 2	1,566	614	205	748	438	102	102	205	339	198	410	(71)	(42)	369
Year 3	1,558	627	209	722	422	105	105	209	304	178	410	(107)	(62)	348
Year 4	1,550	641	214	695	407	107	107	214	268	157	410	(143)	(84)	327
Year 5	1,543	656	219	668	391	109	109	219	231	135	410	(179)	(105)	305
Year 6	1,535	671	224	641	375	112	112	224	194	113	410	(217)	(127)	284
Year 7	1,527	686	229	613	359	114	114	229	156	91	410	(255)	(149)	261
Year 8	1,520	701	234	585	342	117	117	234	117	69	410	(293)	(171)	239
Year 9	1,512	717	239	556	325	119	119	239	78	46	410	(332)	(194)	216
Year 10	1,504	733	244	527	308	122	122	244	38	22	410	(372)	(218)	193
Year 11	1,497	750	250	498	291	125	125	250	(2)	(1)	410	(412)	(241)	169
Year 12	1,489	766	255	468	274	128	128	255	(43)	(25)	410	(454)	(265)	145
Year 13	1,482	784	261	437	256	131	131	261	(85)	(50)	410	(496)	(290)	120
Year 14	1,475	801	267	406	238	134	134	267	(128)	(75)	410	(538)	(315)	95
Year 15	1,467	819	273	375	219	137	137	273	(171)	(100)	410	(582)	(340)	70
Year 16	1,460	838	279	343	201	140	140	279	(216)	(126)	410	(626)	(366)	44
Year 17	1,453	857	286	310	182	143	143	286	(261)	(152)	410	(671)	(392)	18
Year 18	1,445	876	292	277	162	146	146	292	(306)	(179)	410	(717)	(419)	(9)
Year 19	1,438	896	299	244	143	149	149	299	(353)	(207)	410	(763)	(447)	(36)
Year 20	1,431	916	305	210	123	153	153	305	(401)	(234)	410	(811)	(474)	(64)
Year 21	1,424	936	312	175	103	156	156	312	(449)	(263)	410	(859)	(503)	(92)
Year 22	1,417	957	319	140	82	160	160	319	(498)	(291)	410	(908)	(531)	(121)
Year 23	1,410	979	326	104	61	163	163	326	(548)	(321)	410	(959)	(561)	(150)
Year 24	1,402	1,001	334	68	40	167	167	334	(599)	(351)	410	(1,010)	(591)	(180)
Year 25	1,395	1,023	341	31	18	171	171	341	(651)	(381)	410	(1,062)	(621)	(211)
Year 26	1,388	1,046	349	(7)	(4)	174	174	349	(704)	(412)	410	(1,115)	(652)	(242)
Year 27	1,382	1,070	357	(45)	(26)	178	178	357	(759)	(444)	410	(1,169)	(684)	(273)
Year 28	1,375	1,094	365	(84)	(49)	182	182	365	(814)	(476)	410	(1,224)	(716)	(306)
Year 29	1,368	1,119	373	(124)	(72)	186	186	373	(870)	(509)	410	(1,280)	(749)	(338)
Year 30	1,361	1,144	381	(164)	(96)	191	191	381	(927)	(542)	410	(1,337)	(782)	(372)
30 Yr sum					5,860					(4,014)			(11,215)	\$ 1,095

MPS Gas -- Eastern System -- FASB 144 Fair Value

Summary of Weighted Probability Outcome

Schedule JMB-7

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	Test Value	Fair Value	
	[Reference]	Part 1: Hold NPV	Part 2: Sale NPV
	<u>\$Millions</u>	<u>\$Millions</u>	<u>\$Millions</u>
Current Net Investment Estimated	12	12	12
Per Valuation Schedule, per FASB 144	<u>4</u>	<u>2.5</u>	<u>5.1</u>
Net Impaired Value, I.e. Writedown	<u>8</u>	<u>9.5</u>	<u>6.9</u>
Assumed Weighting of Outcomes		80%	20%
Weighted Probability of Asset Impairment		\$8.980	
Fair Value left on Books		\$3.020	

MPS Gas -- Eastern System -- FASB 144 Fair Value

Part 1: Hold Value, Aquila continues to own and operate

Schedule JMB-7

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	\$000s	<u>NPV</u>	<u>Prob.</u>	<u>Wghtd</u>
Model Run	<u>Sum of 30 year Net Present Value @ 7.56%</u>			<u>Fair Value</u>
A	1% Margin Increase AFTER year 2 Rate Case Cash Flow	\$ 3,325	10%	\$ 333
B	.5% Margin Increase AFTER year 2 Rate Case Cash Flow	\$ 2,815	40%	\$ 1,126
C	0% Margin Increase AFTER year 2 Rate Case Cash Flow	\$ 2,340	40%	\$ 936
D	-.5% Margin Increase AFTER year 2 Rate Case Cash Flow	\$ 1,899	10%	\$ 190
			100%	<u>\$ 2,584</u>

<u>Capital Structure</u>	<u>Pct</u>	<u>Cost</u>	<u>Wght Cost</u>	<u>Aft Tx Cost</u>
Common Equity	50%	10.50%	5.25%	5.25%
Long-Term Debt	50%	7.90%	3.95%	2.31%
		Assumed Discount Rate		<u>7.56%</u>

<u>Current Rate Base @ 12-31-02</u>	<u>\$millions</u>
Direct Gross Plant	\$ 15.3
Direct Accum Deprec	(2.6)
Alloc Gross Plant	1.1
Alloc Accum Deprec	(0.3)
Deferred Taxes, Direct	(1.2)
Deferred Taxes, Alloc	(0.3)
Estimated Rate Base	<u>\$ 12.0</u>

MPS Gas -- Eastern System -- FASB 144 Fair Value
Part 1, Hold Value: Model Run A, 1% Increase in Margins after Year 2

\$000s	1.0%	2.25%	2.25%	Bef Alloc	58.5%	2.25%	2.25%	2.25%	After alloc	58.5%	Bef Tax	58.5%	Cash Flow
	Margins	Dir Exp	IBU Dir		Aft Tx					Dir Alloc			
				EBITDA	EBITDA				EBITDA	EBITDA	Dir Deprec	Op Income	Deprec
Year 1	1,400	600	200	600	351	100	100	200	200	117	410	(210)	287
Year 2	1,566	614	205	748	438	102	102	205	339	198	410	(71)	369
Year 3	1,582	627	209	745	436	105	105	209	327	191	410	(83)	362
Year 4	1,597	641	214	742	434	107	107	214	315	184	410	(96)	354
Year 5	1,613	656	219	739	432	109	109	219	302	177	410	(109)	347
Year 6	1,630	671	224	735	430	112	112	224	288	169	410	(122)	339
Year 7	1,646	686	229	732	428	114	114	229	274	161	410	(136)	331
Year 8	1,662	701	234	727	426	117	117	234	260	152	410	(150)	322
Year 9	1,679	717	239	723	423	119	119	239	245	143	410	(165)	314
Year 10	1,696	733	244	718	420	122	122	244	230	134	410	(181)	305
Year 11	1,713	750	250	713	417	125	125	250	214	125	410	(197)	295
Year 12	1,730	766	255	708	414	128	128	255	197	115	410	(213)	286
Year 13	1,747	784	261	702	411	131	131	261	180	105	410	(230)	276
Year 14	1,765	801	267	696	407	134	134	267	162	95	410	(248)	265
Year 15	1,782	819	273	690	404	137	137	273	144	84	410	(267)	254
Year 16	1,800	838	279	683	400	140	140	279	125	73	410	(286)	243
Year 17	1,818	857	286	676	395	143	143	286	105	61	410	(305)	232
Year 18	1,836	876	292	668	391	146	146	292	85	49	410	(326)	220
Year 19	1,855	896	299	661	386	149	149	299	63	37	410	(347)	207
Year 20	1,873	916	305	652	382	153	153	305	42	24	410	(369)	195
Year 21	1,892	936	312	643	376	156	156	312	19	11	410	(391)	182
Year 22	1,911	957	319	634	371	160	160	319	(4)	(2)	410	(414)	168
Year 23	1,930	979	326	625	365	163	163	326	(28)	(16)	410	(438)	154
Year 24	1,949	1,001	334	615	360	167	167	334	(53)	(31)	410	(463)	139
Year 25	1,969	1,023	341	604	353	171	171	341	(78)	(46)	410	(489)	125
Year 26	1,988	1,046	349	593	347	174	174	349	(105)	(61)	410	(515)	109
Year 27	2,008	1,070	357	582	340	178	178	357	(132)	(77)	410	(542)	93
Year 28	2,028	1,094	365	570	333	182	182	365	(160)	(94)	410	(570)	77
Year 29	2,049	1,119	373	557	326	186	186	373	(189)	(110)	410	(599)	60
Year 30	2,069	1,144	381	544	318	191	191	381	(219)	(128)	410	(629)	42
30 Year sum					11,715					1,842		(5,360)	6,951
NPV					\$4,767					\$1,326		(\$1,493)	\$3,325

7.56% discount rate

MPS Gas -- Eastern System -- FASB 144 Fair Value
Part 1, Hold Value: Model Run B, .5% Increase in Margins after Year 2

\$000s	0.5%	2.3%	2.3%	Bef Alloc	58.5%	2.3%	2.3%	2.3%	After alloc	58.5%	Dir Deprec	Bef Tax	58.5%	Cash Flow
	Margins	Dir Exp	IBU Dir		EBITDA	Dir Alloc	IBU Alloc	ESF Alloc		EBITDA			Aft Tx	
Year 1	1,400	600	200	600	351	100	100	200	200	117	410	(210)	(123)	287
Year 2	1,566	614	205	748	438	102	102	205	339	198	410	(71)	(42)	369
Year 3	1,574	627	209	737	431	105	105	209	319	187	410	(91)	(53)	357
Year 4	1,582	641	214	726	425	107	107	214	299	175	410	(112)	(65)	345
Year 5	1,590	656	219	715	418	109	109	219	278	163	410	(132)	(77)	333
Year 6	1,598	671	224	703	411	112	112	224	256	150	410	(154)	(90)	320
Year 7	1,606	686	229	691	404	114	114	229	234	137	410	(176)	(103)	307
Year 8	1,614	701	234	679	397	117	117	234	211	124	410	(199)	(116)	294
Year 9	1,622	717	239	666	389	119	119	239	188	110	410	(223)	(130)	280
Year 10	1,630	733	244	652	382	122	122	244	164	96	410	(247)	(144)	266
Year 11	1,638	750	250	639	374	125	125	250	139	81	410	(272)	(159)	252
Year 12	1,646	766	255	624	365	128	128	255	113	66	410	(297)	(174)	237
Year 13	1,654	784	261	609	357	131	131	261	87	51	410	(323)	(189)	221
Year 14	1,663	801	267	594	348	134	134	267	60	35	410	(350)	(205)	205
Year 15	1,671	819	273	578	338	137	137	273	32	19	410	(378)	(221)	189
Year 16	1,679	838	279	562	329	140	140	279	4	2	410	(407)	(238)	173
Year 17	1,688	857	286	546	319	143	143	286	(26)	(15)	410	(436)	(255)	155
Year 18	1,696	876	292	528	309	146	146	292	(56)	(33)	410	(466)	(273)	138
Year 19	1,705	896	299	510	299	149	149	299	(87)	(51)	410	(497)	(291)	120
Year 20	1,713	916	305	492	288	153	153	305	(118)	(69)	410	(529)	(309)	101
Year 21	1,722	936	312	473	277	156	156	312	(151)	(88)	410	(561)	(328)	82
Year 22	1,730	957	319	454	265	160	160	319	(185)	(108)	410	(595)	(348)	62
Year 23	1,739	979	326	434	254	163	163	326	(219)	(128)	410	(629)	(368)	42
Year 24	1,748	1,001	334	413	242	167	167	334	(254)	(149)	410	(665)	(389)	22
Year 25	1,756	1,023	341	392	229	171	171	341	(291)	(170)	410	(701)	(410)	0
Year 26	1,765	1,046	349	370	216	174	174	349	(328)	(192)	410	(738)	(432)	(22)
Year 27	1,774	1,070	357	347	203	178	178	357	(366)	(214)	410	(776)	(454)	(44)
Year 28	1,783	1,094	365	324	190	182	182	365	(405)	(237)	410	(816)	(477)	(67)
Year 29	1,792	1,119	373	300	176	186	186	373	(446)	(261)	410	(856)	(501)	(90)
Year 30	1,801	1,144	381	275	161	191	191	381	(487)	(285)	410	(897)	(525)	(115)
30 Year sum					9,585					(289)			(7,491)	4,820
NPV					\$4,257					\$815			(\$2,003)	\$2,815
7.56% discount rate														

MPS Gas -- Eastern System -- FASB 144 Fair Value
Part 1, Hold Value: Model Run C, 0.0% Increase in Margins after Year 2

\$000s	0.0%	2.3%	2.3%	Bef Alloc	58.5%	2.3%	2.3%	2.3%	After alloc	58.5%	Bef Tax	58.5%	Cash Flow
	Margins	Dir Exp	IBU Dir	EBITDA	Aft Tx EBITDA	Dir Alloc	IBU Alloc	ESF Alloc	EBITDA	Aft Tx EBITDA	Op Income	Aft Tx NET INC	Add Back Deprec
Year 1	1,400	600	200	600	351	100	100	200	200	117	410	(210)	287
Year 2	1,566	614	205	748	438	102	102	205	339	198	410	(71)	369
Year 3	1,566	627	209	730	427	105	105	209	311	182	410	(99)	352
Year 4	1,566	641	214	711	416	107	107	214	283	166	410	(127)	336
Year 5	1,566	656	219	692	405	109	109	219	254	149	410	(156)	319
Year 6	1,566	671	224	672	393	112	112	224	225	131	410	(186)	302
Year 7	1,566	686	229	652	381	114	114	229	195	114	410	(216)	284
Year 8	1,566	701	234	631	369	117	117	234	164	96	410	(247)	266
Year 9	1,566	717	239	610	357	119	119	239	132	77	410	(278)	248
Year 10	1,566	733	244	589	344	122	122	244	100	58	410	(310)	229
Year 11	1,566	750	250	567	331	125	125	250	67	39	410	(343)	209
Year 12	1,566	766	255	544	318	128	128	255	33	19	410	(377)	190
Year 13	1,566	784	261	521	305	131	131	261	(1)	(1)	410	(412)	170
Year 14	1,566	801	267	498	291	134	134	267	(37)	(21)	410	(447)	149
Year 15	1,566	819	273	474	277	137	137	273	(73)	(42)	410	(483)	128
Year 16	1,566	838	279	449	263	140	140	279	(109)	(64)	410	(520)	106
Year 17	1,566	857	286	424	248	143	143	286	(147)	(86)	410	(558)	84
Year 18	1,566	876	292	398	233	146	146	292	(186)	(109)	410	(596)	62
Year 19	1,566	896	299	372	218	149	149	299	(225)	(132)	410	(635)	39
Year 20	1,566	916	305	345	202	153	153	305	(265)	(155)	410	(676)	15
Year 21	1,566	936	312	318	186	156	156	312	(307)	(179)	410	(717)	(9)
Year 22	1,566	957	319	289	169	160	160	319	(349)	(204)	410	(759)	(34)
Year 23	1,566	979	326	261	153	163	163	326	(392)	(229)	410	(802)	(59)
Year 24	1,566	1,001	334	231	135	167	167	334	(436)	(255)	410	(846)	(85)
Year 25	1,566	1,023	341	201	118	171	171	341	(481)	(281)	410	(891)	(111)
Year 26	1,566	1,046	349	171	100	174	174	349	(527)	(308)	410	(937)	(138)
Year 27	1,566	1,070	357	139	81	178	178	357	(574)	(336)	410	(984)	(166)
Year 28	1,566	1,094	365	107	63	182	182	365	(622)	(364)	410	(1,033)	(194)
Year 29	1,566	1,119	373	74	43	186	186	373	(671)	(393)	410	(1,082)	(223)
Year 30	1,566	1,144	381	41	24	191	191	381	(722)	(422)	410	(1,132)	(252)
30 Year sum					7,638					(2,235)		(9,437)	2,874
NPV					\$3,782					\$341		(\$2,478)	\$2,340

7.56% discount rate

MPS Gas -- Eastern System -- FASB 144 Fair Value
Part 1, Hold Value: Model Run D, -.5 Decrease in Margins after Year 2

\$000s	-0.5%	2.3%	2.3%	Bef Alloc	58.5%	2.3%	2.3%	2.3%	After alloc	58.5%	Bef Tax	58.5%	Cash Flow	
	Margins	Dir Exp	IBU Dir	EBITDA	Aft Tx EBITDA	Dir Alloc	IBU Alloc	ESF Alloc	EBITDA	Aft Tx EBITDA	Dir Deprec	Op Income	NET INC	Add Back Deprec
Year 1	1,400	600	200	600	351	100	100	200	200	117	410	(210)	(123)	287
Year 2	1,566	614	205	748	438	102	102	205	339	198	410	(71)	(42)	369
Year 3	1,558	627	209	722	422	105	105	209	304	178	410	(107)	(62)	348
Year 4	1,550	641	214	695	407	107	107	214	268	157	410	(143)	(84)	327
Year 5	1,543	656	219	668	391	109	109	219	231	135	410	(179)	(105)	305
Year 6	1,535	671	224	641	375	112	112	224	194	113	410	(217)	(127)	284
Year 7	1,527	686	229	613	359	114	114	229	156	91	410	(255)	(149)	261
Year 8	1,520	701	234	585	342	117	117	234	117	69	410	(293)	(171)	239
Year 9	1,512	717	239	556	325	119	119	239	78	46	410	(332)	(194)	216
Year 10	1,504	733	244	527	308	122	122	244	38	22	410	(372)	(218)	193
Year 11	1,497	750	250	498	291	125	125	250	(2)	(1)	410	(412)	(241)	169
Year 12	1,489	766	255	468	274	128	128	255	(43)	(25)	410	(454)	(265)	145
Year 13	1,482	784	261	437	256	131	131	261	(85)	(50)	410	(496)	(290)	120
Year 14	1,475	801	267	406	238	134	134	267	(128)	(75)	410	(538)	(315)	95
Year 15	1,467	819	273	375	219	137	137	273	(171)	(100)	410	(582)	(340)	70
Year 16	1,460	838	279	343	201	140	140	279	(216)	(126)	410	(626)	(366)	44
Year 17	1,453	857	286	310	182	143	143	286	(261)	(152)	410	(671)	(392)	18
Year 18	1,445	876	292	277	162	146	146	292	(306)	(179)	410	(717)	(419)	(9)
Year 19	1,438	896	299	244	143	149	149	299	(353)	(207)	410	(763)	(447)	(36)
Year 20	1,431	916	305	210	123	153	153	305	(401)	(234)	410	(811)	(474)	(64)
Year 21	1,424	936	312	175	103	156	156	312	(449)	(263)	410	(859)	(503)	(92)
Year 22	1,417	957	319	140	82	160	160	319	(498)	(291)	410	(908)	(531)	(121)
Year 23	1,410	979	326	104	61	163	163	326	(548)	(321)	410	(959)	(561)	(150)
Year 24	1,402	1,001	334	68	40	167	167	334	(599)	(351)	410	(1,010)	(591)	(180)
Year 25	1,395	1,023	341	31	18	171	171	341	(651)	(381)	410	(1,062)	(621)	(211)
Year 26	1,388	1,046	349	(7)	(4)	174	174	349	(704)	(412)	410	(1,115)	(652)	(242)
Year 27	1,382	1,070	357	(45)	(26)	178	178	357	(759)	(444)	410	(1,169)	(684)	(273)
Year 28	1,375	1,094	365	(84)	(49)	182	182	365	(814)	(476)	410	(1,224)	(716)	(306)
Year 29	1,368	1,119	373	(124)	(72)	186	186	373	(870)	(509)	410	(1,280)	(749)	(338)
Year 30	1,361	1,144	381	(164)	(96)	191	191	381	(927)	(542)	410	(1,337)	(782)	(372)
30 Year sum					5,860					(4,014)			(11,215)	1,095
NPV					\$3,341					(\$101)			(\$2,919)	\$1,899

7.56% discount rate

