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Eastern System
Witness: Joseph M. Bahr
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MISSOURI PUBLIC SERVICE COMMISSION

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DIRECT TESTIMONY

OF

JOSEPH M. BAHR

ON BEHALF OF

AQUILA, INC.
d/b/a
AQUILA NETWORKS – MPS
and
AQUILA NETWORKS – L&P

Kansas City, Missouri

August, 2003

_____ Exhibit No. 6
Date 3/31/04 Case No. GR-2001-0072
Reporter KF

State of Missouri)
) ss
County of Jackson)

AFFIDAVIT OF JOSEPH M.BAHR

Joseph M. Bahr, being first duly sworn, deposes and says that he is the witness who sponsors the accompanying testimony and schedules entitled "Direct Testimony of Joseph M. Bahr"; that said testimony was prepared by him and/or under his direction and supervision; that if inquiries were made as to the facts in said testimony and schedules, he would respond as therein set forth; and that the aforesaid testimony and schedules are true and correct to the best of his knowledge, information, and belief.

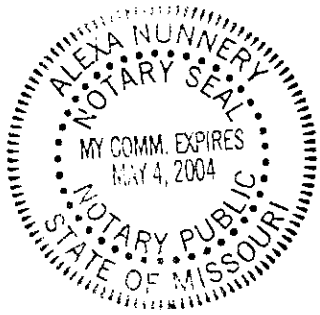
Joseph M Bahr

Subscribed and sworn to before me this 17th day of July, 2003.

Alexa Nunnery
Notary Public

My Commission expires:

ALEXA NUNNERY
Notary Public – State of Missouri
County of Jackson
My Commission Expires May 4, 2004



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DIRECT TESTIMONY OF JOSEPH M. BAHR

Q. Please state your name and business address.

A. My name is Joseph M. Bahr and my business address is 10700 E 350 Hwy. Kansas City, MO 64138.

Q. By whom are you employed and in what capacity?

A. I am employed by Aquila Inc. ("Aquila") in the Financial Management group of the domestic networks business unit. My position is Senior Manager, Financial Management, directly supporting the state jurisdictions of Iowa Gas and Missouri Gas. I am submitting this testimony on behalf of Aquila's two natural gas operating divisions in Missouri: Missouri Public Service ("MPS") and St Joseph Light & Power ("SJLP").

Q. Please state your educational background and experience.

A. I attended Fort Hays State University in Hays, Kansas from which I received a Bachelor of Science Degree in Business in 1981 and a Masters Business Administration Degree in 1993. I have worked for Aquila and its predecessor companies since 1981 and have held various positions with Aquila in the areas of accounting, budgeting, planning, regulatory, business management, retails services and now financial management.

Q. Have you ever testified before any utility regulatory commission?

A. Yes. I have testified on two occasions before the Colorado Public Utilities Commission with respect to Integrated Resource Planning dockets related to WestPlains Energy, another operating division of Aquila. I also provided testimony in Missouri Public Service's electric filing of its new extension policy in case no. ET-99-126.

Q. What is the purpose of your testimony?

A. My testimony will cover two matters in this rate case filing. First, I will review the rationale, financial support and analysis for Aquila's proposed **Gas Facilities**

Extension Policy for its Missouri operating divisions, MPS and SJLP. Second, I will describe the rate case impact that were made as related to the MPS "**Eastern System Impairment and Pro Forma Adjustments**".

Section 1. Gas Facilities Extension Policy

Q. What is a facility extension?

A. This term refers to the expansion of Aquila's plant from a service main to the customer's premise. The additions to plant can range from extension of a single residential line to piping of subdivisions, to extensive additions to serve large commercial or industrial users. This portion of my testimony will address a proposed model that will standardize what portion of the costs of these extensions should be borne by Aquila and the new customer.

Q. Is the proposed extension policy tariff the same for MPS and SJLP.

A. Yes. As Aquila witness Robert Amdor references in his testimony, in this rate case filing Aquila is proposing to integrate the full set of rules and regulations for the two gas divisions, including the extension policy.

Q. Please identify any supporting schedules that you sponsor.

A. I am sponsoring the following Schedules, which were prepared by me or under my direct supervision:

JMB-1 "Aquila, Extension of Gas Facilities Tariff"
[MPS & SJLP operating divisions]

JMB-2 "MPS Electric, Extension of Electric Facilities Tariff"
[Approved by MPSC, July 29, 1999 in case ET-99-126]

JMB-3 "Aquila, Gas Facilities Extension Agreement"

JMB-4 "Aquila Capital Feasibility Model"

Q. How have you outlined your testimony with respect to the proposed gas facilities extension policy?

A. First, I will cover the background for the changes to the tariff and the relationship to the MPS electric tariff. Second, I will describe the new tariff. Next, I will review the approach and financial methodology and modeling incorporated in the proposed policy.

Background for Changing the Tariff

Q. What is the underlying concept of Aquila's proposed extension policy?

A. The principal objective of this tariff is to match new cost causers with new cost payers in order to avoid any cross subsidization from existing ratepayers to new customers. The approach proposed is intended to set out the parameters under which Aquila will extend new facilities to connect new customers or update facilities for existing customers. One significant feature is a free basic service extension. The policy delineates the two types of construction charges, non-refundable and potentially refundable, which are sometimes also referred to as contributions and advances, respectively. The methodology for the calculation of the charges is outlined. An underlying component of the proposed policy is the application of a feasibility model, a standard justification premise for capital investment. This model will be reviewed in greater detail later in my testimony, but basically refers to an economic feasibility test of matching projected incoming revenues from customers in relationship to the costs of owning, operating and maintaining gas distribution assets and servicing customers.

Q. Why is Aquila requesting this change to modify its policy on "extension of gas facilities"?

A. There are three primary reasons why Aquila is proposing to change its policy. First, some of the current tariff provisions are outdated and need an update to reflect the future economic factors of the gas divisions. Second, Aquila would like to standardize the tariff with respect to facilities extensions, between MPS and SJLP. Third, there is an interest in adopting the principles and format

embodied in the "extension of electric facilities" for its MPS Electric division as approved by the Missouri Public Service Commission (MPSC) on July 29, 1999 in case ET-99-126 (reference Schedule JMB-2). The feasibility model incorporated in this proposed extension policy was also recently accepted for use by Aquila's Minnesota gas operations by the Minnesota Public Utilities Commission in Docket No. G-007,011/GR-00-951 on June 5, 2003.

Q. What are the current provisions in the tariff that are either out-dated or omitted?

A. There are four issues in the existing tariffs that need to be addressed. First, in both the current MPS & SJLP tariffs, there is a separate provision for service and main extensions for residential and commercial customers. This additional detail requires additional tariff language and application of two footage/dollar cost tests and two potential charges leading to potential customer confusion and misapplication. The margin rates of Aquila are not separated into recovery of distinct mains and service extension costs.

Second, the test formula for MPS commercial customers in the current tariff uses a factor multiplied times revenue to calculate the revenue test or construction allowance. The current tariff formula factor is: 18% x Revenue to Derive Net Revenue. The original intention of this calculation appears to try to capture the margin contribution from the customer. We now recognize that by using annual revenue, one includes the variably priced commodity cost of gas. This factor is unpredictable and unstable to both the customer and the company for purposes of calculating construction charges. SJLP currently relies on a two year revenue test for excess length of services. Both jurisdictional divisions would benefit from the introduction of a standard feasibility model, as Aquila proposes in its new policy.

Third, an omission or potential interpretation gap exists, because the treatment of the meter and regulator cost is not addressed in the current SJLP line extension tariff.

Fourth, in both the MPS and SJLP tariffs, there is a lack of certain commitment on the part of the customer for length of service and/or end-use equipment using natural gas. For example, a customer applying for service to a natural gas fireplace is presently accorded the same standing as a customer applying for service for natural gas space heating. The standard service connection from the company's main to the customer's house is approximately $700. A typical residential customer using natural gas for its full space heating and water heating requirements would provide approximately $304 annually in margins to Aquila under current MPS rates. On the other hand, a MPS residential customer using natural gas only for a fireplace would generate approximately $114, assuming twelve months of customer charges are paid. Clearly, the capital justification for the two residential homes is vastly different. Absent specific recognition of this difference, existing customers will subsidize the capital investment to serve limited use customers like fireplaces.

Q. What are the principles from the MPS Electric division's "extension of electric facilities" that Aquila is interested in applying to its "extension of gas facilities"?

A. In its filing with the MPSC in case no. ET-99-126, Aquila outlined five characteristics of a sound extension policy as listed below. Aquila believes these characteristics should apply whether considering gas or electric facilities. Those characteristics are:

1. **Choice**. Basic service is provided free of charge. Those applicants choosing service above and beyond the plain vanilla service may pay more;

2. **Administration**. A simple and consistent basis for administration by Aquila personnel and ease of understanding and fair interaction with customers;
3. **Standards.** To the extent feasible, avoids non-productive paperwork and reduces potential for discrimination, a consistent application;
4. **Subsidization**. Communication of up-front price signals via construction charges to applicants will benefit stakeholders by mitigating subsidization between customer groups and by preventing subsidization of expansion by other ratepayers;
5. **Balance**. Provides a fair and reasonable sharing of costs between new customers, the existing customer base, and Aquila.

Description of New Tariff

Q. Please describe the new tariff for "extension of gas facilities" proposed by Aquila.

A. The proposed tariff is attached as Schedule JMB-1. The new tariff is intended to provide solutions to the four short-comings in the current tariff referenced in the previous section of my testimony. The tariff is also very similar in format and structure to the currently effective MPS electric tariff. The proposed tariff generally provides greater detail, explanation, and additional coverage of items like Extension Upgrades, Relocation Request, Conversion Request, and Excess Facilities Request than the existing tariff.

Q. Please proceed to describe the provisions in the proposed tariff.

A. There are 10 subsections in the tariff. I will provide a brief overview of the subsections and how each subsection may be related to others.

7.01 Purpose and Availability
This section outlines the applicability for extension requirements for facilities to serve new customers as well as facilities to be modified to serve existing customers. The commencement date of Aquila's revised policy is tied to the effective date to be determined in this rate case docket.

7.02 Definition of Terms
This section provides a clear set of descriptions of common utility terms used throughout the tariff and the specifics of the Aquila feasibility model. The

feasibility model and the application of construction charges and construction allowance is discussed in greater detail in the next section of my testimony.

7.03 General Provisions
This section is a simple reiteration of the practices of Aquila and its general application of its extension policy regardless of customer class of service.

7.04 Application for Extension of Gas Facilities – Permanent Service
This section, as linked to the definition of terms, supplements the next section, i.e. a customer is classified by Aquila as either permanent or temporary service. This section sets out the minimum provisions required to be classified as permanent. Residential customers must commit to one year of service with natural gas as its basic heating requirement. Fireplaces will not qualify. Dual fueled heat pumps using electricity for supplemental space heating and natural gas for base space heating would meet this minimum qualification. Small Commercial customers requesting eligibility for a basic extension service (free of charge) must commit to one year of service for a minimum of five-hundred (500) therms on an annual basis. Larger Commercial and Industrial customers relying upon greater than five thousand (5000) therms annually to justify their construction allowance must commit to a minimum of three (3) years of service to meet the minimum qualifications. An example of the "Facilities Extension Agreement" is provided as Schedule JMB-3.

7.05 Application for Extension of Gas Facilities – Temporary or Limited Service
As referenced in the section just above, this is the classification for those customers either not willing to commit to the specified length of service or have minimal limited usage, i.e. fireplaces. These customers will not produce sufficient revenue to Aquila to justify the extension of facilities and as such are required to pay the full installed and removal construction cost, as estimated by Aquila, as a non-refundable construction charge.

7.06 – 7.09 Four subsections with self-explanatory language in each section, Extension Upgrade, Relocation or Conversion Request, Excess Facilities Request and Applicability Limitation. The latter section sets out two provisions related to the proposed policy; 1) the timely execution of a proposed construction cost estimate by Aquila; and 2) the intention to use estimated construction costs unless specifically agreed upon between customer and Aquila.

7.10 Summary of Policy Administration
This section summarizes and integrates the previous nine sections into the more specific application of charges by customer type. Specifically, the provision for "Free of Charge – Basic Extension Request" is outlined as the first 150 feet of

service line and/or feet of main, one meter of less than 399 cfh (cubic feet hour) at ½ inch differential and one standard regulator and meter bar assembly. "Excess Charges", those costs above the free facilities, are separately identified for "proven" projects and "unproven" or "indeterminate" residential projects, with respect to subdivision developers. The application of calculating the non-refundable construction charge is the same for both, while the "unproven/indeterminate" project class will have a "potentially refundable construction charge" to mitigate the earnings risk that Aquila may otherwise incur. The determination by Aquila of whether to charge a construction advance will be based upon the Applicant's history of building out subdivisions as previously committed to and a requirement of at least $10,000.00 or more as a minimum threshold for the calculated advance. This latter provision, by default, will generally require about 15 or more lots to be piped, which is a infrequent occurrence in Aquila's service territory. Aquila will use one primary factor in reviewing the developer's track record: for the past five (5) years in Aquila's service territory, developer must have successfully built out at least ninety percent (90%) of the specified dwellings at the specified end-use within five (5) years. Commercial and industrial projects will be analyzed using the Aquila feasibility model.

Q. Please explain in more detail the requirement of a construction advance for "unproven or indeterminate" subdivision type projects referenced in the previous paragraph?

A. The construction advance charge, per our extension policy, is classified as "potentially refundable". For example for a subdivision project, if the Applicant builds houses as committed to in the extension facilities agreement, within five (5) years, the complete construction charge would be refunded to the Applicant. The construction advance acts to serve as an assurance that Aquila will be made whole with respect to its capital investment. Typically, Aquila would be required to make about 50% of its investment upfront, before houses are built and service lines extended, to lay the mains before roads and other subdivision infrastructure is laid over. Developers that have a good track record with Aquila will not be required to provide the cash contribution upfront, but will be monitored for non-performance and will be subject to back billing for not meeting the commitments executed in the Facilities Extension Agreement. Developers

with a poor record, no record, or classified as unproven or indeterminate, will be required to provide the cost of the project before the extension is constructed.

Aquila Approach and Financial Methodology

Q. Please describe Aquila's approach in determining the proposed gas facilities extension policy.

A. We started by considering what is required to justify basic service for a typical residential or commercial customer applicant and what facilities should be provided by Aquila free of charge. Those facilities are outlined in section X.10.A of Schedule JMB-2: one hundred and fifty (150) feet of service line and/or feet of main, one meter of less than 399 cfh at ½ inch differential and one standard regulator and meter bar assembly. The cost of these basic facilities equals a base construction allowance derived from the Aquila feasibility model, estimated at $900, based upon 500 therms of annual usage. We then tested the feasibility model, Aquila's capital justification formula, to ensure that other more advanced projects would yield accurate results. We are confident that simple to complex projects can be reviewed with the same model to ensure consistent application of the line extension parameters across customer classes.

In each test of our feasibility model, we reviewed whether the model matched new costs with the new cost causers. In other words, we tested our model to assure that each new applicant wishing to become a customer of Aquila would pay his or her fair share of the new cost necessary to serve them.

Q. What are these "new costs"?

A. The new costs reflect the incremental service requirements necessary to serve new customers and are broken down into the following four broad components:

1) the capital for the direct or local project construction cost required by Aquila to serve the applicant's facilities, which reflects the requisite rate of return, depreciation, property tax and insurance;

2) improvements to the larger network or backbone system that supports the local system, including the rate of return, depreciation, property tax and insurance as well as on-going operations and maintenance expense;
3) customer care expenses, (for example twenty-four hour availability for service inquiries) and metering, billing, and collecting;
4) enterprise and infrastructure support such as for accounting, information technology, customer information systems and other utility management requirements.

Q. Please explain the derivation of the "new cost" components outlined above.

A. The "new costs" driven by item one are readily determined for each project type based on the applicant's service requirements. "New costs" for the latter three items are based on engineering and financial analysis of a fair and reasonable allocation. This latter set of costs is the derivation for the "O&M factor" discussed in the next response.

Q. What is the resulting cost for the latter three components?

A. Aquila proposes to use an O&M factor of thirty-three percent (33%) of the customer's expected margin from their annual billing. In other words, this calculation works as a deduction from the annual margins billed, deriving a net margin, of which this remainder is used as the portion of margins used to provide the economic justification for the direct or local project construction costs.

Q. Why was this thirty-three percent (33%) O&M factor chosen by Aquila?

A. This amount was chosen as a reasonable estimate, balancing the short-term and long-term impacts of new customers on the Aquila network. A significant portion of the balancing of cost rationale is represented by fixed costs or costs that will not be variable to an increase in new customers. Investment in information technology systems or upgrading a backbone main from 2" to 4" or

hiring the next customer service associate at the call center are made on a step scale, i.e. a single or even a few customers will not by themselves require the upgrade in capital or human resource expenditures. However, with an accumulation of several of these individual or smaller projects, system improvements and/or additions may be required. Aquila believes it is fair that new cost causers contribute some of its margins towards this new cost it is ultimately causing.

Q. Please summarize Aquila's position on the allocation of margins?

A. In summary, the tariff rates for customers are designed to capture the total cost of service, which includes all of the costs identified in parts 1 through 4 above as well as the other basic costs of managing, operating and maintaining a natural gas utility. Aquila believes it is only fair that a portion of the new customer's margins assist the existing customers in covering this set of costs leaving a balance of the new customer's margins to justify the specific capital required for the new customer project extension which primarily only benefits the new customer.

Q. What is the impact if Aquila chose a higher or lower percent contribution?

A. If Aquila chose to use a higher allocation in its feasibility model, the resulting construction charges to new customers would be proportionally larger, potentially causing feasible projects to not be completed. Conversely, if Aquila chose a lower allocation in its feasibility model, the resulting construction charges to new customers would be proportionally lower, causing existing customers to subsidize new customers. It is Aquila's judgment that a thirty-three percent (33%) percent allocation is a fair and reasonable representation of the sharing of costs between existing customers and by Applicants wishing to become customers of Aquila.

Q. Has a factor similar to thirty-three percent (33%) been adopted in other extension policies in Missouri or other states?

A. Yes. First, MPS Electric, in Case No. ET-99-126, used a simple formula that calculated $315 in margins for a typical residential customer and allocated a fixed amount of $105, or thirty-three percent (33%), to O&M. Second, as previously discussed, Aquila uses a contribution factor of thirty-three percent (33%) in its feasibility model in Minnesota.

Q. How would you describe the proposed policy in terms of economic justification?

A. The proposed policy accurately provides for a fair and economic justification of new capital projects and will align incremental costs with the projects that cause costs to increase. As a result, we will send appropriate price signals, via construction charges, to applicants wishing to become customers of Aquila.

Q. Please explain.

A. The construction charges will be made visible to the cost causers, and those decision makers will make better economic decisions based on their service requirements, location and load types. Unless, the Applicant requests a plain vanilla extension, a review of the different cost options, i.e. trade-offs, will be communicated by Aquila to them, i.e. more end-use commitments for natural gas will generally lessen their cost burden. Without this proposed policy, a potential unfavorable alternative is for the construction charges to be subsidized by current customers in the long term and by Aquila in the short term.

Q. Please explain in more detail your latter point on short-term and long-term effects.

A. Aquila operates as a regulated utility in the state of Missouri under the guidance of what is commonly referred to as the "regulatory model". This model is premised on the following parameters:

- Aquila is provided an opportunity to earn a fair and reasonable return based on a cost of service (return on capital and coverage of expenses) established at a specific point in time (effective date of rate case order) as determined over an annual calendar year (test period).
- The time between the change in rates resulting from a rate case order to the next rate case order is called "regulatory lag". In relation to my point above, I will refer to this as the short-term company effect.
- The costs incurred between rate case orders are incurred solely at the expense of Aquila. If revenues do not adequately cover costs, Aquila is disadvantaged in the short term between rate cases.

Q. How does the problem move from a short-term company issue to a long-term customer effect?

A. For each day of regulatory lag, Aquila accumulates this cost over time until the next rate case order, which translates into the long-term customer effect. At the time of the next rate case order, Aquila is made whole with respect to the level of its earnings in relation to all of its costs. The new revenue requirement is set at a reasonable and fair return commensurate with the new level of cost of service, which includes those capital projects for which customers had not paid their fair share, generating a revenue shortage. In the cost of service phase of a rate case, this shortage is allocated across the entire customer base, and if approved by the MPSC, the subsidies become embedded in the new rates to the aggregate customer base. As a result if subsidization occurs, existing or established customers pay more on their utility gas bills then they otherwise would.

Q. Can this amount be clearly identified in rates?

A. No. Often there are many issues in a rate case with varying plus and minus effects. The negative results from an extension policy are masked by the inherent complexity of utility regulation.

Q. Is there a significant difference with respect to the amount of expected investment capital required by Aquila between the current and proposed policies?

A. No. Aquila currently connects about 500 new customers per year to its natural gas networks in Missouri. Most of these are residential customers on the MPS system (73%) where they are currently provided a construction allowance of $1025, subject to footage limitations, service and main extensions combined. Under the new policy, dependent on the customer's end-use commitment, on average it is expected that the per customer construction allowance will not change. Customers choosing full natural gas heating and water heating could pay slightly less, projected at $75 in reduced construction charges, while a customer choosing only basic space heating from natural gas may pay $125 more. The two referenced examples would reflect the delta change in construction allowances, but the actual construction charge is dependent on the total project cost for extending mains and services. Projects that are within the basic extension services request are provided free of charge. Residential customers wanting only fireplace "heating" from natural gas would now pay the full cost of the extension. (This customer group is probably only ten new connects annually, or about $10,000 favorable impact, i.e. less capital investment paid by Aquila.) New connections for commercial customers occur only about 110 times per year and on average will not see any significant change. The nominal number of new industrial customer connections each year are already subject to an economic justification test and will not see any significant changes in construction charges.

Q. Please describe the assumptions used in the financial feasibility model incorporated in Aquila's proposed extension policy.

A. Aquila has used the following assumptions and formulas in the development of its financial feasibility model (Reference Schedule JMB-4):

- **Project's first five years average activity**. Aquila proposes to use an average of the first five years of project activity as an appropriate balance between the short-term company effect and the long-term customer effect as described above.
- **Project revenues**. Annual revenues, often referred to as margin, for the applicant's incremental project will be determined by applying the Commission-approved margin rates in this rate case against the applicant's projected load profiles for each year, plus the applicable billed customer charges. [Gas commodity and pipeline charges are excluded].
- **Project cost allocation**. Costs have been determined based on engineering and financial analysis for network distribution, customer care, and other infrastructure requirements. (In my earlier testimony, I provided the detail behind this justification, i.e. thirty-three percent (33%).)
- **Project net benefit**. Subtract the "project cost allocation" from the "project revenues" and then subtract the income tax cost per the rate consistent with the determination in this rate case.
- **Project carrying costs**. Costs for return on equity, cost of debt, depreciation expense, and property tax will be consistent with the results from this rate case.
- **Project construction allowance**. The construction allowance is equal to the "project net benefit" divided by the "project carrying costs" as measured during the "project's first five years average activity."
- **Project capital cost**. Cost of construction estimates for each project are prepared by Aquila design experts.
- **Project construction charges**. The applicant is responsible to pay the difference between the "project capital cost" and the "project construction allowance" plus an adder of twenty percent (25%) to account for federal and

state income taxes. Aquila will not bill Applicants for construction charges less than one-hundred dollars ($100.00).

Q. Please explain in greater detail the average five-year determination period.

A. First, please note that this planning assumption should not be confused with a five-year pay back. In other words, an applicant is not required to generate a benefit to Aquila that would pay back all of the capital and associated operations and maintenance costs incurred by Aquila in the first five years. The planning premise is built on the assumption that Aquila will at least be given an opportunity to earn at its authorized rate of return on its investment as based on a simple average of the first five years. This basis includes using Commission approved depreciation rates, which generally are based on an asset life of about thirty years.

Q. What standard usage volumes are proposed for use in Aquila's gas facilities extension policy?

A. For residential customers, Aquila based on previous integrated end-uses studies for both electricity and natural gas from its electric facilities extension policy filing, has determined that four standard types are appropriate for a natural gas utility. These can also be found on "Exhibit A-Residential" of Schedule JMB-3.

Type I: Natural gas furnace, no water heating.

Type II: Natural gas furnace with water heating.

Type III: Dual fueled heat pump; no water heating.

Type IV: Dual fueled heat pump with water heating.

Q. Does the use of standard residential end-use types lead to standard construction allowances?

A. Yes. Once we have the final disposition of model assumptions from this rate case filing, Aquila will run the standard end-use types through its feasibility model to calculate standard construction allowances. The table below outlines the calculated construction allowances under current rates:

Summary of Standards under Proposed Policy		
Type	Therms	Const. Allowance
I	72	$1,000.00
II	88	1,100.00
III	56	900.00
IV	72	1,000.00

Q. How does Aquila's proposed tariff compare to other tariffs of other jurisdictional gas utilities in the state of Missouri?

A. The following table is a simple comparison of the major components:

Summary of Major LDC Gas Tariffs in Missouri				
	Customer Size	Service Extension	Main Extension	Notes
Missouri Gas	< 6000 ccf	<60 feet upto $450	< 75 feet free	
	> 6000 ccf	"analysis of revenue and return"		
Laclede Gas	< 6000 therms	< 75 feet free	< 175 feet free	< $1000 together
	> 6000 therms	"analysis of revenue and return"		
Union Electric	< 160 feet of main	<60 feet + $100	free	
	> 160 feet of main	"3 year net revenue test"		
Aquila Proposed	< 150 feet	service or main is free		
	> 150 feet	"feasbility model"		

Q. Please summarize the basic methodology for customers wishing to have natural gas service extended to their premise under Aquila's proposed policy.

A. The five basic steps are:

1. Applicant contacts Aquila regarding service location, end-use commitments, and date service needed. Examples of applications could be for a residential customer to request a relocation of a service line, a residential subdivision piping project, or a 1000 foot main extension to serve a new industrial plant. Each Applicant is processed according to the tariff and these five steps outlined here.
2. Aquila determines the necessary facilities and estimated cost required to connect the new customer to the existing Aquila distribution network.
3. Aquila determines if the Applicant's request meets the requirements of being a permanent service. If customer proposed service passes the simple tests referenced earlier in testimony, then go to step 4. If the proposed service is determined by Aquila to have a temporary or limited service, then go to step 5, and Applicant will be responsible for the non-refundable construction charge of installing and removing the facilities required to serve the Applicant.
4. For permanent service, Aquila will calculate the construction charges, if any, based on the following:
    i. If the length of service and main extension is less than 150 feet, the service is provided free of charge.
    ii. If the length of service is greater than 150 feet, next steps dependent on customer type:
        a) Residential Single Family: the standard construction allowance is subtracted from the total project cost to calculate the non-refundable construction charge.
        b) Non-Residential Single Family: for other projects the following inputs are needed for the Feasibility Model for the first five years, year by year: 1) the annual usage in therms and number of meters as committed to by Applicant; 2) the

applicable margin rate per therm plus customer charge; 3) the estimated construction costs by Aquila. The Feasibility Model automatically calculates the construction allowance, generates the carrying costs on the estimated construction costs, and as measured over the first five years of the project, outputs the non-refundable construction charge required from the Applicant.

5. Aquila prepares the Facilities Extension Agreement, including the Construction Charges as applicable from step 3 or 4. Upon execution of the agreement by signature of the Applicant and payment of the construction charges, Aquila builds the necessary facilities to connect and serve the customer.

Q. Does this conclude your testimony with respect to gas facilities extension policy?

A. Yes it does.

Section 2. Eastern System Impairment & Pro Forma Adjustment

Q. Please identify any supporting schedules which you sponsor.

A. I am sponsoring the following schedules which were reviewed and prepared under my direct supervision:

JMB-5	Allocation of Asset Impairment by Account
JMB-6	FASB 144, Test Value

Q. Please describe how you have outlined your testimony with respect to the Eastern System Impairment and Pro Forma Adjustment?

A. First, I will briefly cover historical background of the Eastern System. Next, I will review the justification by Aquila for the original entries to account for the Impairment under FASB 144. Last, I will provide the analysis of the proposed rate case impact of the pro forma adjustments to cost-of-service.

Background of Eastern System

Q. What is the Eastern System?

A. The "Eastern System" is a MPS tariff term that refers to the collective distribution systems serving three individual towns (Rolla, Salem and Owensville) that are supplied natural gas off the same interstate pipeline and two intrastate pipelines. These three towns are situated along Interstate 44, generally and remotely to the southeast of the other systems of MPS: Northern and Southern. Each of the three MPS systems has separate accounting for its purchased gas adjustment (PGA). However, the three systems otherwise have the same rates.

Q. How did the Eastern System originate?

A. For each of the towns of Rolla, Salem, and Owensville, MPS filed applications with the MPSC for certificates of convenience and necessity authorizing it to construct, install, own, operate, and manage a gas distribution system. These individual applications were approved by the MPSC in 1994, 1995, and 1997, respectively. Shortly after receiving approval of each application, MPS began its build-out of the distribution system to convert customers from propane primarily, and also to serve new homes and businesses in the area.

Q. How does the current financial performance of the Eastern System compare to the business cases reflected in the approved applications?

A. The financial performance of the Eastern System has not met expectations. Over the next three sections, I will cover the collective variances from expectations for the Eastern System.

Customer Count: The projection for the number of customers expected to convert or be added has fallen short by about thirty-five percent (35%), from 6,360 projected versus a year-end 2002 customer count of 4,154.

Margins: Along with a loss of margins from a reduced customer count, the volumes used by the converted customers have been less than anticipated. This volume shortfall generally has been due to a low success rate of converting water heaters and an over estimation of the volumes expected to be used by customers in southeast Missouri. The variance between weather normalized 2002 margins and the original business cases is a shortfall of $1.5 million or fifty-two percent (52%).

Plant Invested: The physical build-out of the Eastern System, with respect to the number of feet of mains and, was largely completed as planned. However, in total, the financial cost was higher than expected by about twenty-eight percent (28%), or $3.3 million.

Q. What is the primary reason for the failure to meet expectations on the Eastern System?

A. The anticipated economy of scale (plant invested divided by number of customers) was not attained. Specifically, the actual investment per customer was $3,659 versus the projected cost of $1,790. The primary reason for the shortfall in customer conversions was that competition with un-regulated propane dealers was more fierce than anticipated.

Impairment per FASB 144

Q. What does FASB stand for?

A. FASB is the industry acronym for the Financial Accounting Standards Board. The stated mission of FASB is "to establish and improve standards of financial accounting and reporting for the guidance and education of the public, including issuers, auditors, and users of financial information." From time to time, FASB issues new pronouncements to support its mission. FASB 144 is one such pronouncement.

Q. What are the requirements of FASB 144?

A. The key FASB 144 paragraphs regarding the methodology for determining if an asset is impaired are noted below, with specific quotes in parentheses:

- Impairment, paragraph 7. "For purposes of this statement, impairment is the condition that exists when the carrying amount of a long-lived asset (asset group) is not recoverable and exceeds its fair value. The carrying amount of a long-lived asset is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset."
- Test Value, paragraph 16. "Estimates of the future cash flows used to test the recoverability of a long-lived asset shall include only the future cash flows that are directly associated with ..... those estimates shall exclude interest charges that will be recognized as an expense is incurred."
- Assumptions, paragraph 17. "... shall consider all available evidence. The assumptions used in developing those estimates shall be reasonable in relation to the assumptions used in developing other information used by the entity for comparable periods, such as internal budgets and projections. A probability-weighted approach may be useful in considering the likelihood of those possible outcomes."

- Fair Value, paragraph 22. "The fair value of asset is the amount at which the asset could be bought or sold (settled) in a current transaction between willing parties, that is, other than in a forced or liquidation sale. Quoted market prices in active markets are the best evidence of fair value ... if not available ... in those instances the estimate of fair value shall be based on the best information available ... and the results of using other valuation techniques."

Q. When did Aquila recognize that an impairment existed for the Eastern System assets?

A. Aquila recorded the impairment on its books at year-end 2002. The entries on the corporate books are as follows:

Debit account 426.5, Misc Operating Income $8,980,000
Credit account 101, Plant in Service 8,980,000

In May of 2003, the above entries were reversed on the corporate books and the following entries were made on the books of the MPS Gas business unit as follows:

Debit account 426.5, Misc Operating Income $8,980,000
Credit account 108, Accum Deprec Reserve 8,980,000

Q. What are the tax consequences of the impairment expense?

A. An expense for asset impairment reduces the book income of the reporting entity, MPS, thus reducing the corresponding book amount of income taxes. However, the recognition of the expense for tax purposes is not made until the asset is disposed of. This creates a book-to-tax timing difference, which drives the additional entries for deferred income tax expense and a deferred income tax asset for MPS. The effective federal and state income tax rate for MPS is 38.39%. This tax rate multiplied by the reduced income of $8,980,000 calculates an income tax impact of $3,447,422. The entries and accounts are as follows:

Credit account 410 Deferred Income Tax Expense		$3,447,422
Debit account 282 Deferred Income Tax Liability*		$3,447,422

*Account 282 is normally a liability account with a credit balance. The referenced entry, as a "tax asset", reduces the level of credit balance, hence increasing rate base.

Q. Why, in May 2003, was the credit entry made to the reserve account instead of to plant in service as it was at year-end?

A. The effect on net plant, which is plant in service less accumulated depreciation reserve, is the same regardless of which is account is credited. The decision to credit the reserve account was made after consulting with the accounting staff of the Federal Energy Regulatory Commission ("FERC").

Q. How will the impairment, via a reduction in accumulated reserve, affect future depreciation expense?

A. Given that the impairment is almost sixty percent (60%) of gross plant for the Eastern System, a recognition of the change in either depreciable plant or depreciation rates is significant and necessary. Aquila has determined that a manual adjustment to depreciable plant and the associated calculation of depreciation expense is the most effective means of recognizing this change. This results in no change to depreciation rates. Aquila has an accounting system that will continue to calculate pre-impairment depreciation expense on an automated basis as reflected by the pre-impairment depreciable plant in service. Referencing Schedule JMB-6, Aquila has allocated the $8.98 million impairment across the plant accounts in service on the Eastern System. Applying the MPSC approved depreciation rates, by plant account, against the allocated impaired plant accounts, will determine the depreciation expense attributable to the impairment. On a monthly basis, Aquila will credit depreciation expense related to the impairment on its income statement. On a

quarterly basis, Aquila will accumulate the depreciation expense credit for the three months, and credit accumulated depreciation reserve.

Q. What model and assumptions did Aquila use in developing the valuation analysis of the impairment?

A. First, remember that FASB 144 requires a test to determine if an impairment exists. If an impairment exists, a determination of fair value is required. I will first describe the test phase. Then, I will describe the fair value phase, which actually determined the impairment of $8.98 million referenced in the preceding question.

Test Value Phase:

In summary, the purpose of this phase is to determine or test what level of recoverable investment is supported by the projected level of future cash flows. The valuation model starts with a simple extrapolation of the 2003 budget. This model is attached per schedule JMB-6. The base budget for 2003 is carried forward for an additional twenty-nine (29) years subject to the assumptions below. In most instances, the 2003 Budget was not prepared at the specific level of detail for the Eastern System, so allocations and extrapolations were used as explained below. As prescribed by FASB 144, the cash flow is undiscounted and interest expense is excluded.

The beginning base level margins (2003 year) are derived from a known measurement of year-end 2002 customers multiplied by weather-normalized use per customer multiplied by current rates. In 2004, or year 2 of the model, a projected conservative increase of three percent (3%) in revenue, or approximately twelve percent (12%) in margins, from the 2003 rate case was included. The growth rate, net of customer additions and retirements, for the remaining twenty-eight (28) years was measured across the variability of incremental margins as measured across four levels, year over year change in

margins. Per Schedule JMB-6, these models were run as 1% increase per version A (page 2 of 5), .5% increase per version B (page 3 of 5), 0% increase per version C (page 4 of 5) and -.5% decrease per version D, (page 5 of 5). The current budget assumption for Missouri Gas is a growth rate of .5% per year. This variability was used in the weighted probability approach discussed later.

Expenses are either directly assigned or allocated. A distinct operating department is responsible for the Eastern System, and other costs such as property taxes and bad debts were directly assigned. Inter Business Unit (IBU) expenses were estimated to be 2/3 direct related and 1/3 allocated. Additional allocated costs included Enterprise Support Functions (ESF) and other Missouri management. All expenses were assumed to escalate by 2.25% per year. Depreciation expense was extrapolated to its current rates at about 3.4% per year.

Based upon the above analysis, a weighted probability outcome test value of $3.882 million was derived from the thirty (30) years of projected cash flow. Reference Schedule JMB-6, page 1, for the summarized results and the underlying weighting of the four varying margin increase scenarios (A,B,C,& D). With a present net investment base estimated at about $12.0 million, the impairment as tested is almost $8 million.

Fair Value Phase:

As prescribed by FASB 144, upon failure of the test valuation referenced above, i.e. impairment was evident and material, a fair valuation was necessary. The same assumptions from the valuation model used in Schedule JMB-6, with respect to the baseline operating income and changes in margins and expenses over thirty (30) years, and applying a discount rate of 7.56% was used to

estimate the fair value if Aquila continues to hold this asset under a regulatory framework. The weighted fair value, of continuing to hold or selling the system, was estimated at $3.02 million on the then estimated $12 million rate base. This results in an impaired value or required write-down of $8.89 million.

Pro Forma Adjustment to Cost of Service

Q. What are the Pro Forma Adjustments to Cost of Service that Aquila is proposing in relation to the asset Impairment of the Eastern System?

A. The following adjustments are proposed:

1. Accumulated Depreciation Reserve $8,980,000 credit
   Schedule 5, MPS Depreciation Reserve

2. Deferred Tax Liability $3,447,422 debit
   Testimony of Rich Petersen, RBO-30

3. Depreciation Expense $310,972 credit
   Testimony of Becky Tangeman, CS-97

Q. Please summarize the impacts of these adjustments on the customers of MPS?

A. First, I should remind everyone that the original entries for FASB 144 impairment were not included on the specific books of MPS Gas, but instead were included at the corporate level for summary accounting of Aquila, Inc. at year-end 2002. As such these proposed adjustments are necessary to reflect the impact on the pro forma books of MPS. The net result is to reduce rate base by $5,532,578. Per company witness, Dr. Donald A. Murry, the proposed rate of return is 9.74%. Applying this proposed rate of return to the rate base adjustment made necessary by the impairment reduces the overall revenue requirement by

$538,818. Adjusting for income taxes represents a further reduction of $335,887. Combining the rate of return effect with the decrease of $310,972 in depreciation expense related to the impairment results in a reduction of $1,185,677 in the revenue requirement requested by Aquila in this case.

Q. Does this conclude your testimony?

A. Yes it does.

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.

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.

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

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. 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.

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.

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.

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.

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.

RULES AND REGULATIONS
GAS

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.

RULES AND REGULATIONS
GAS

C. 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. 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.

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.

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

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.

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

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.

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

7.03 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.

MISSOURI PUBLIC SERVICE
KANSAS CITY, MO 64138

FOR: All Territory Supplied Electric Service

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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.)

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

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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.

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.

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: xxx Customer/Name: xxx

Address: xxx City: xxx State: xx Zip Code: xxxxx

Phone #: xxx Fax #: xxx Cellular # xxx Pager #: xxx

Location of electric extension (Street Address, City, County): xxx

Subdivision Name and Phase # or Project Name: xxx

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 Exhibt 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

Commitment of End-uses by Type (Insert # to calculate in box)		Per Feasibility Model Standard Construction Allowance (A)		Potentially Refundable If Indeterminate Buildout Ref Part II below (B)		Performance Reqd. Col A - Col B Ref Part III below (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		$10,500		$5,000		$5,500

			Non-Refundable Charge Contribution		Potentially Refundable Advance
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 xx/xx/xx **End of Open Period** #VALUE!

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 xx/xx/xx **Performance Deadline** #VALUE!

$5,500 **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 forwar								
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	$ 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 Acqusition Costs-Direct "Fixed"	>>>	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

MPS Gas Model. 06/01/03

Aquila Networks -- MPS Gas -- Capital Feasibility Model

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	$ 937	Must be Greater than Zero		
	NPV @ 10 Yrs w/o Residual	$ (1,823)	$ (2,760) Var	Reference Only	
	NPV @ 20 Yrs w/o Residual	$ 1,247	$ 310 Var	Reference Only	
OK (B)	**Average ROE @ 5 Yrs**	**12.0%**	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 Scre	$ 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%	

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
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%**

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

	w/o Resid Meters / Alloc GP Total	PE Main 376.002	Plast Main 376.005	Misc Main 376.007	Reg Stat 378.000	Iron Serv 380.001	PE Serv 380.002	Iron Serv 380.003	Plast Serv 380.005
CPR @ 12-31-02									
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	1,239,565	36,673	746,610	3,985	-	29,487	179,609	-	85,059
Total Eastern	14,779,539	1,361,062	8,046,546	98,856	16,818	467,830	908,915	6,216	1,391,428
Adjustments, Pre-Impairment									
Rolla	(599,660)	(395,176)	-	-	-	-	-	-	(68,813)
Salem	79,438	-	-	-	-	-	-	-	-
Owensville	520,222	395,176	-	-	-	-	-	-	68,813
Total Eastern	-	-	-	-	-	-	-	-	-
Adjusted CPR, Pre-Impairment									
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	1,759,787	431,849	746,610	3,985	-	29,487	179,609	-	153,872
Total Eastern	14,779,539	1,361,062	8,046,546	98,856	16,818	467,830	908,915	6,216	1,391,428
Adjusted CPR, Pre-Impairment (% by account by town)									
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	11.91%	2.92%	5.05%	0.03%	0.00%	0.20%	1.22%	0.00%	1.04%
Total Eastern	100.00%	9.21%	54.44%	0.67%	0.11%	3.17%	6.15%	0.04%	9.41%
Impairment Allocated by Account		***376.092***	***376.095***	***376.097***	***378.090***	***380.091***	***380.092***	***380.093***	***380.095***
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	**1,069,241**	**262,390**	**453,638**	**2,421**	**-**	**17,916**	**109,130**	**-**	**93,492**
Total Eastern	**$ 8,980,000**	**826,977**	**4,889,055**	**60,065**	**10,219**	**284,252**	**552,254**	**3,777**	**845,427**
Depreciation Rate Curre	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
Adjusted Net Plant, Post-Impairment		***376.002***	***376.005***	***376.007***	***378.000***	***380.001***	***380.002***	***380.003***	***380.005***
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	**690,546**	**169,459**	**292,972**	**1,564**	**-**	**11,571**	**70,479**	**-**	**60,380**
Total Eastern	**5,799,539**	**534,085**	**3,157,491**	**38,791**	**6,599**	**183,578**	**356,661**	**2,439**	**546,001**

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

w/o F	H Piping	H Reg	Com/Indus	LV Meters	Meters	Rolla	Total
	382.001	383.001	385.001	385.002	381.000	Gen Plant	Plant
CPR @ 12-31-02					$ 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
Owensville	66,751	88,346	1,795	1250	46,063		Corp & Mo Common
Total Eastern	1,769,183	689,928	7,283	15,474	$ 62.28		
Adjustments, Pre-Impair					Avg Cust		
Rolla	(39,349)	(96,322)	-	-	2,734		
Salem	(16,884)	96,322	-	-	919		
Owensville	56,233	-	-	-	370		
Total Eastern	-	-	-	-	4,023		
Adjusted CPR, Pre-Impa							
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
Owensville	122,984	88,346	1,795	1,250	23,044	46,437	$ 1,829,268
Total Eastern	1,769,183	689,928	7,283	15,474	$ 250,554	$ 390,000	$15,420,093
Adjusted CPR, Pre-Impa							
Rolla	7.66%	2.86%	0.04%	0.10%			
Salem	3.47%	1.22%	0.00%	0.00%			
Owensville	0.83%	0.60%	0.01%	0.01%			
Total Eastern	11.97%	4.67%	0.05%	0.10%			
Impairment Allocated I	***382.091***	***383.091***	***385.091***	***385.092***			
Rolla	**688,208**	**256,385**	**3,334**	**8,642**			
Salem	**312,017**	**109,134**	**-**	**-**			
Owensville	**74,725**	**53,679**	**1,091**	**759**			
Total Eastern	**1,074,950**	**419,198**	**4,425**	**9,402**			
Depreciation Rate Curre	2.00%	2.50%	2.22%	2.22%			
Annual Depreciation	21,499	10,480	98	209			
Adjusted Net Plant, Pc	***382.001***	***383.001***	***385.001***	***385.002***			
Rolla	**444,464**	**165,581**	**2,154**	**5,582**			
Salem	**201,510**	**70,482**	**-**	**-**			
Owensville	**48,259**	**34,667**	**704**	**491**			
Total Eastern	**694,233**	**270,730**	**2,858**	**6,072**			

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

Summary of Model Runs and Weighted Test Value

Model Run	$000s Sum of Value, Not Discounted, wo Interest Exp, Accumulated	Used 30 yr	Prob.	Wghtd Test Value
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%	$ 3,882

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

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

$000s	1.0% Margins	2.25% Dir Exp	2.25% IBU Dir	Bef Alloc EBITDA	58.5% Aft Tx EBITDA	2.25% Dir Alloc	2.25% IBU Alloc	2.25% ESF Alloc	After alloc EBITDA	58.5% Aft Tx EBITDA	Dir Deprec	0.0% Int Exp	Bef Tax Op Incom	58.5% Aft Tx NET INC	Cash Flow 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	1,582	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% Margins	2.25% Dir Exp	2.25% IBU Dir	Bef Alloc EBITDA	58.5% Aft Tx EBITDA	2.25% Dir Alloc	2.25% IBU Alloc	2.25% ESF Alloc	After alloc EBITDA	58.5% Aft Tx EBITDA	Dir Deprec	Bef Tax p Incom	58.5% Aft Tx NET INC	Cash Flow 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 Y 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% Margins	2.25% Dir Exp	2.25% IBU Dir	Bef Alloc EBITDA	58.5% Aft Tx EBITDA	2.25% Dir Alloc	2.25% IBU Alloc	2.25% ESF Alloc	After alloc EBITDA	58.5% Aft Tx EBITDA	Dir Deprec	Bef Tax Op Incom	58.5% Aft Tx NET INC	Cash Flow 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 Ye 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% Margins	2.25% Dir Exp	2.25% IBU Dir	Bef Alloc EBITDA	58.5% Aft Tx EBITDA	2.25% Dir Alloc	2.25% IBU Alloc	2.25% ESF Alloc	After alloc EBITDA	58.5% Aft Tx EBITDA	Dir Deprec	Bef Tax Op Incom	58.5% Aft Tx NET INC	Cash Flow 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**