EXHIBIT NO. ___(BAV-6)
DOCKET NO. UE-06___/UG-06___
2006 PSE GENERAL RATE CASE
WITNESS: BERTRAND A. VALDMAN

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY, INC.,** **Respondent.**	**Docket No. UE-06____** **Docket No. UG-06____**

FIFTH EXHIBIT (NONCONFIDENTIAL) TO THE PREFILED DIRECT TESTIMONY OF BERTRAND A. VALDMAN ON BEHALF OF PUGET SOUND ENERGY, INC.

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Comparative ROE Attributes of US Local Gas Distribution Companies

Summary Opinion

- Moody's reviewed its portfolio of local gas distribution companies (LDCs) in search of the characteristics that differentiated those companies that either met or exceeded their allowed rates of equity return (ROE) from its utility commissions with those that did not.
- We found a positive correlation between ROEs and credit ratings. Companies that either met or exceeded their allowed rates of equity return (ROE) were more likely to have higher credit ratings, were concentrated in urban areas, and focused their operations in a single-state jurisdiction with more mature customer profiles. In addition, they tended to be larger companies with larger total number of customers and delivered the most gas volumes.
- Companies performing well also tended to have formal weather normalization clauses (WNC) in place that have helped to steady their operating performance and credit metrics which resulted in the higher credit ratings.
- The single most common determinant as to whether a company met or exceeded its allowed ROE was the degree of regulatory lag and the timeliness of capital expenditure and cost recoveries. Companies growing very quickly or having protracted negotiations with their regulators tended to fare more poorly than those growing more slowly or able to obtain specific provisions for timely rate relief.
- Companies having significant amounts of goodwill were at a distinct disadvantage compared with their peers, as they typically are not allowed to earn returns on the premium portion of acquisition assets.
- While in several respects LDCs were equally concerned with improving operating efficiencies through automation, centralizing shared services and implementing various programs for workforce reduction as a means to contain the ever-rising costs of salary, pension and medical benefits, the ones that met or exceeded their allowed ROEs had lower operating expense to employee ratios.

Introduction

As LDCs have embarked on a "back to basics" strategy, overall efficiency of operations and returns on capital employed resurface as key factors in the rating process. We therefore analyzed our portfolio of 32 issuers with a view toward identifying the key factors that separate the LDCs' ability to achieve or exceed their allowed returns. We define "realized" as those gas LDCs that had either met or exceeded their regulated allowed rates of equity return (ROE) on a consistent basis during the past three fiscal years ending with 2003. Where no specific rates were stipulated, Moody's still recognized a company as "realized" if they achieved an ROE of at least 10% during the past three years. Companies that were within one percentage point of making their allowed ROEs were deemed to have met their targets. Those companies not able to realize their allowed ROEs are designated in this study as "not-realized."

From this point of demarcation, the analysis then moves on toward identifying the various factors that may have contributed toward an LDC's success. Some of these points might be intuitive (size and density of population served), while others were more empirical (variances in regulatory lag).

By analyzing the attributes of these realized LDCs, one could discern a pattern for likely future success that could serve as a guide for management focus on key factors for improving their returns as well as assisting investors with differentiating the companies that have stronger operating performance.

While almost all issuers approached were able to respond, some of their reports had to be excluded from consideration as they were compiled in a manner which made comparisons difficult. For example, in cases where a company co-mingled electric and gas utility data, the responses were deleted as the focus of this study is only on gas LDCs. It is also important to recognize that in a few cases issuers have asked that their names and figures be kept confidential and as a result, their responses were included as part of the general study without any attempts at identification or attribution. Altogether, Moody's identified 15 LDCs that either met or exceeded their allowed ROEs while 17 others did not.

Not surprisingly, the realized LDCs (henceforth known as the R-class) tended to have more "A" credit ratings relative to "Baa" credit ratings than those companies that did not meet their allowed ROEs (known as the NR-class). In fact, the ratio of issuers rated "A" vs. those rated "Baa" is 2.75 for the R-class compared with 1.125 for the NR-class.

Focused Critical Mass

The R-class names also tend to have the largest number of gas customers, deliver the most volumes of gas as measured in Bcf, are focused in a single-state jurisdiction and are more likely to be located in urban[1] areas with a more mature customer profile exhibiting slower but steady growth as opposed to newer and rapid growth.

The average number of R-class customers is approximately 1.1 million compared with the 653 thousand average for the NR-class, while the volume of R-class delivered gas averages 222Bcf compared with 114Bcf for the NR-class.

The overwhelming majority of R-class LDCs are focused on a single-state vs. multiple states (11:4) compared with the NR-class LDCs (6:11) and are more likely to be operating in urban areas rather than rural (2.25 urban/rural ratio for R compared with 1.7 ratio for NR). Moreover, the average customer growth rate for the R-companies is 1.5%p.a. while that for the NR companies is 2.0%p.a. While different companies may experience different rates of customer growth, the ideal range appears to lie between 1.5%-3.0% p.a. Anything slower could hinder the generation of earnings growth to satisfy equity investors while anything faster could push up various cost factors which when combined with the sector's "regulatory lag" could compress a company's ROE and credit metrics.

The above numbers suggest that the profile of the R-companies are larger, more firmly established or entrenched in their single-state jurisdictions which tend to be more urban than rural and are growing at a slower but steady rate in comparison with the NR-companies. The single state focus and critical mass developed in key urban areas of the state appear to position these LDCs well for steady and successful growth. A good example of an R-company fitting this profile might be Southern California Gas Company (rated A2 Sr. Unsec.) with 5.4 million customers (growing at about 1% p.a.) delivering approximately 939Bcf of gas each year in the State of California with 97% of the company's operations concentrated in urban areas. Its authorized ROE for 2003 was 10.82% but it achieved 15.64% instead.

Impact of Weather

Moody's has taken the position for some time that gas LDCs are far better off having weather normalization clauses (or their equivalent) built into their basic rate designs (see Special Comment #76344 published in October of 2002 titled *Negative Rating Trend for Local Gas Distribution Companies: Impact of Diversification And Warm Weather*). This opinion seems to be reinforced by the fact that nine of the 15 R LDCs have formally approved weather normalization clauses (WNC) or recognized weather mitigants built into their rate designs compared with only five out of the 17 LDCs that were NR.

Companies that do not have such WNC provisions for the majority of their customer base which did not make their target ROEs and cited warm weather as part of the reason include Cascade Natural Gas, SEMCO Energy, Southwest Gas Corporation and Vectren's Indiana Gas Company. In the case of Indiana Gas Company, the company estimates that a 1% annualized deviation from normal heating weather would impact pre-tax margins by $900,000, a condition which the company is presently attempting to rectify in its current rate filing through the introduction of a WNC feature.

One company in the R-class that was afflicted by warmer than normal winters and has since implemented a weather mitigation rate design is Laclede Gas Company. In its 10-Q filing for the six months ending March 31, 2004

1. *For purposes of this study, Moody's defines urban as any city or town that is served by the LDC's main gas line in a contiguous flow of proximity for 100,000 or more customers. Any number less is considered rural.*

when temperatures in its service area were 12% warmer than normal and 14% warmer than the same period last year, Laclede Gas Company states: "The magnitude of the effect of lower sales was smaller than would have previously been the case due to the impact of the fully-implemented weather mitigation rate design that produced higher margin revenue for the six months ended March 31, 2004, compared with the same period last year."

While various forms of weather mitigants are available to LDCs (weather insurance, weather derivatives, use of declining block rates), Moody's finds that WNC or their rate design equivalents are the most cost-effective means of protecting against warmer than normal weather conditions.

It is worth noting however, that the loss of gas volumes resulting from customer energy conservation (or improved efficiency ratings of customer home insulation and equipment) is a separate but growing factor in reducing LDC operating margins. Two companies that report meaningful reductions in gross margins on account of energy conservation by their customers in recent years are Public Service Company of North Carolina, Inc. (PSNC at 8%) and Questar Gas Corporation (7%). Altogether nine R-class companies and 10 NR-class companies report having suffered some degree of gross margins on account of gas conservation. Some companies are also building this factor into their volumetric rate designs or implementing "conservation" margin trackers to protect margins. These margin trackers allow LDCs to recover from customers a portion of gross margins lost on account of customer gas consumption declines resulting from their energy conservation measures.

Impact of Regulatory Lag

The most common explanation offered by LDCs for not being able to meet their allowed ROE is the impact of regulatory lag, especially as it affects the most significant component of cost, the depreciation, depletion and amortization portion resulting from capital expenditures. The average time frame for R-class LDCs to recover capital expenditure costs is over an average depreciable life of their assets of 374.5 months compared with 386.6 months for the NR-class companies. While this may not appear to make much of a difference in and of itself, it is noteworthy when combined with the fact that the faster growing NR-class companies appear to be more burdened with the "growth" component of capital expenditures as opposed to the "maintenance" capital expenditures which appear to be the focus of the more established R-class companies

The consequence of recurring regulatory lag is that companies often find themselves in an increasingly negative free cash flow[2] position. In addition, companies on a fast growth track have this problem accentuated and invariably find themselves having to issue debt to fund the deficits in operating cash flows which over time, increase leverage to higher levels and undermine a company's credit metrics.

In 2003 for example, the average growth capital expenditure for the R-class companies was $29.3 million compared with $43.8 million for the NR-class companies, which was 50% more. In absolute terms, the total growth capital expenditure for the R-class was $439 million compared with $701 million for the NR-class companies. In fact, the total number spent by the NR-class LDCs on growth capital expenditures was substantially higher than that spent by the R-class for each of the past five years under study. The average of the maintenance capital expenditures however, spent by the R-class is 42% higher at $59.3 million in 2003 compared with $41.8 million for the NR-class. The credit implications of this greater emphasis on growth capital expenditures on the part of NR companies is more evident when we also consider their lower free cash flows, gross cash flow to capital expenditures and retained cash flow to debt ratios compared with those of the R companies. When we consider the lower free cash flows and retained cash flow to debt ratios of the NR companies it is easier to understand why their credit metrics and credit ratings are relatively lower than those of the R companies. These weaker credit measures for the NR companies are apparent in the Appendix that follows this study.

This difference in emphasis in capital expenditure spending also appears to take on greater significance when the we take into account the comments made by at least three LDCs (National Fuel Gas, Questar Gas Company and Vectren for Indiana Gas Company) in stating that the maintenance expenditures (as in repairing leaks) tend to be recovered over a 12 month period rather than over the depreciable life of assets which is what is applied in the case of growth capital expenditures. If this difference in regulatory treatment is applied in other jurisdictions, it could help to explain why higher spending in growth capital expenditure programs over maintenance may hinder the NR-class LDCs from attaining their allowed ROEs. Companies that have cited capital expenditures related to infrastructure investments as a reason for regulatory lag leading to lower ROE include Southwest Gas Corporation, TXU Gas Company and Yankee Gas Services Company.

2. *Moody's defines free cash flow as gross cash flow from operations less capital expenditures, cash dividends and adjusting for deferred taxes. It serves as a measure of a company's ability to self-fund its operating needs.*

LDCs in at least four states are able to use forward test year data: California, Illinois, New York and Wisconsin, which tend to favor their LDCs and help close the gap caused by regulatory lag. Illinois in fact, allows for future test years as long as they do not exceed 24 months from the date of filing. Furthermore, Laclede Gas Company states that the Missouri legislature passed a recent law known as the Infrastructure System Replacement Surcharge that allows gas companies to file for a surcharge twice a year to recover depreciation expense, property taxes and a return on investment for all safety related or government mandated line replacements and relocations since the last rate case. Clearly LDCs in these states have better prospects for recovering their costs and reaching their target rates of return.

Impact of Goodwill

Another deterrent to achieving allowed ROEs is the regulatory treatment of goodwill which arises in acquisitions under purchase accounting. Most regulators do not allow any returns to be made on assets represented by goodwill, which oftentimes is funded through the issuance of debt that needs to be serviced each year as a fixed charge. Keyspan for example, mentions that a substantial portion of the shortfalls in the earned ROEs for their New England LDCs, Boston Gas and Colonial Gas, are attributable to the non-recoverability through basic rates on the goodwill incurred in connection with the acquisition of these properties in 2000.

Another example is the case of Wisconsin Gas Company. The Public Service Commission of Wisconsin does not recognize for ratemaking purposes the goodwill that was pushed down to Wisconsin Gas in its acquisition by Wisconsin Energy Corp. Consequently, while Wisconsin Gas has met its allowed rates of return on a regulatory basis, its US-GAAP ROEs adjusted for goodwill have been a fraction of its allowed levels. In adopting SFAS 142, Wisconsin Gas wrote down most of the goodwill that it incurred in its acquisition, in recognition of the high multiple that was paid in that merger and the level of returns that the utility is able to generate. This non-cash charge has brought Wisconsin Gas's US-GAAP ROEs closer to its allowed ROEs.

Workforce Reduction as a Means of Cost Control

Both R-class and NR-class LDCs have employed various means of workforce reduction as a means of containing rising costs of operation. This is done either unilaterally as part of a labor bargaining process or in conjunction with automating various repetitive functions such as in the use of automated meter readings in its gas operations.

While pension expense, medical expense and bad debt expense average 4%, 7% and 6% respectively, for both classes of LDCs as a percentage of total operating expense, workforce as a percentage of operating expense averages 48%. Companies are aiming to gradually reduce the number of employees in order to better contain not only wages and salaries but also the rises in costs of pension and medical benefits. In this regard, it is interesting to note that while the average number of employees for the R-class LDCs is greater than those in the NR-class (1,695 in 2003 to 1,042) perhaps because of their larger size, the total operating expense to employee ratio is lower ($122,180 to $142,109).

In terms of actual workforce reduction and the use of automation in operations, the reported figures are very similar between the two classes of LDCs. In the R-class, 12 companies report having taken actions to reduce the number of employees in recent years compared with 10 in the NR-class. While ten companies in each class report having automated various aspects of operations, few have specifically quantified their automated savings. One company however, that has made strides in the area of automated meter reading and been able to calculate the savings is The Peoples Gas Light and Coke Company (Peoples Gas). Peoples Gas states that it began its automated meter reading program in the mid-1990's with over 90% of all meters being automated by the end of 2002. The cost of meter reading in 1995 was $4.8 million for Peoples Gas and this cost fell to $2.2 million in 2002, representing a 54% reduction in this component of operating expenditures. Peoples Gas also noted additional savings from automated meter reading in the form of reduced estimated billing costs, billing error costs, non-registering meters, theft, and unauthorized use, which were not quantified. It appears that for some companies such as Peoples Gas which considers its customer base to be 100% urban, the benefits of automation could go farther given their greater customer concentration in the urban areas serviced by the company. This could be a case where customer concentration in urban areas might work towards the benefit of the LDCs located in large population centers.

The ability to control the number of employees is one key to controlling expenses. It stands to reason that companies growing the fastest would have the greatest pressures on rising employee count and employee benefits, which are more difficult to control than those companies experiencing slower growth. LDCs that have cited workforce restructuring charges or rising pension and medical expenses as special challenges in meeting their allowed ROEs include Cascade Natural Gas Corporation and Yankee Gas Services Company.

Conclusion

In its study of LDC ROE attributes, Moody's finds that the portfolio of companies could be divided into two approximately equal camps, those that meet or exceed their allowed ROEs and those that do not. Those companies that do realize their allowed ROEs (R-class companies), have a higher proportion of "A" credit ratings, tend to be focused in one-state jurisdictions and operate more often in urban areas compared with those with lower ROEs (NR-class companies). In addition, the R-class companies have a tendency to be larger, deliver greater volumes of gas, are more mature, experience slower or steady growth and concentrate on maintaining their operating systems rather than on expanding them into new service territories and are better positioned to control the rising operating costs of employee pension and medical benefits through workforce reduction programs. Their larger size and scope of operations tend to avail the R-class companies greater critical mass (especially when combined with urban concentration) and enable them to have better economies of scale in their operations.

Other factors that impact an LDC's relative success in achieving their allowed ROEs are the existence of weather normalization clauses or their rate design equivalents, the absence of goodwill from prior acquisitions and the widespread use of automation and central shared services to reduce duplication of functions at the field divisions. Finally, a progressive and supportive regulatory environment would certainly help companies achieve their earnings goals more easily. Given the pervasive "regulatory lag" that permeates the industry, jurisdictions that permit the use of future test periods for cost recovery, especially capital cost recovery, would go a long way toward helping these companies attain their allowed rates of return on equity and help stabilize their credit metrics.

Companies that actively seek to promote growth could find themselves squeezed by a combination of high growth capital expenditures, rising workforce, rising costs of employee pension and medical benefits, which when superimposed with goodwill, the absence of cost effective weather protection and ongoing regulatory lag, could keep them from achieving their full allowed rates of return.

Atmos Energy Corporation currently attains their allowed ROE in most of their 15 regulatory jurisdictions that are largely rural and mature. However, the proportion of maintenance capital expenditures far outweigh those for growth capital expenditures and many of its jurisdictions employ weather protection in their rate designs. Moreover, its operating expense to employee and operating expense to gross margin ratios are considerably less than the average of the 32 LDCs analyzed. Also, Atmos has one of the lowest proportions of unionized workforce at 10% compared with the 54% average for the industry, which undoubtedly gives it significant leverage to affect cost controls in the employment and benefits areas. Moody's notes that Atmos recently agreed to acquire the assets of TXU Gas, a neighboring utility in a more urban, somewhat higher growth service territory. It remains to be seen how this major acquisition that would roughly double its assets would affect Atmos's efficiency.

It is by examining the particular circumstances of individual issuers in comparison with the norms of the industry that we could attain a better understanding of the factors that impact their overall operating performance as we incorporate these findings into the credit ratings. As LDCs re-focus on their core regulated business, Moody's will continue to monitor their key operating as well as financial metrics in the overall credit evaluation process.

Related Research

Special Comment

Negative Rating Trend For Local Gas Distribution Companies: Impact Of Diversification And Warm Weather, October 2002 (# 76344)

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

Appendix

Chart 1

Customer Size and Volumes Distributed in BCF of Gas

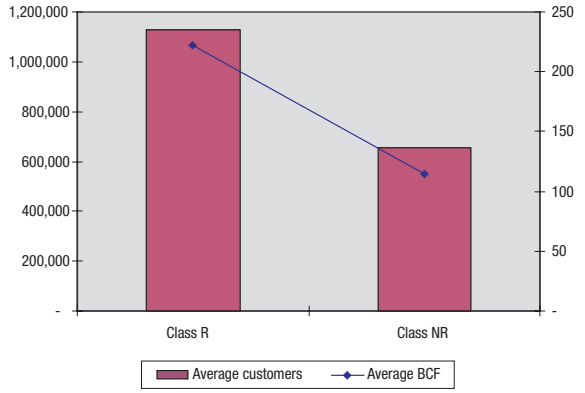
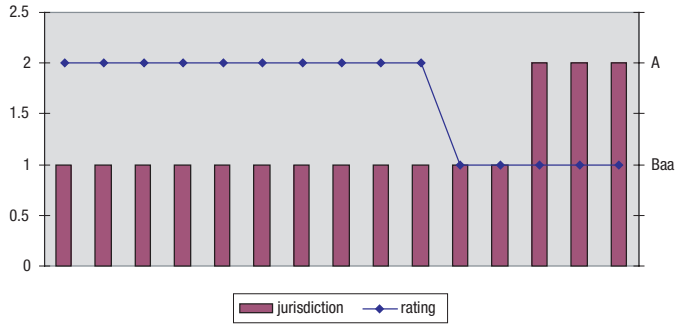


Chart 2

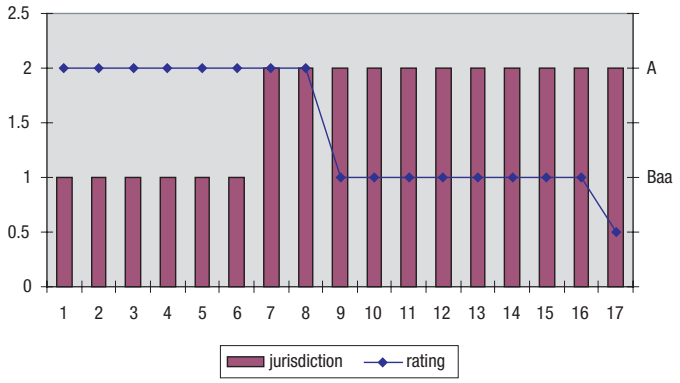
Class R Rating vs. Jurisdiction*



** Jurisdiction is graphed as "1" for single jurisdiction and "2" for multiple*

Chart 3

Class NR Rating vs. Jurisdiction*



** Jurisdiction is graphed as "1" for single jurisdiction and "2" for multiple*

Chart 4

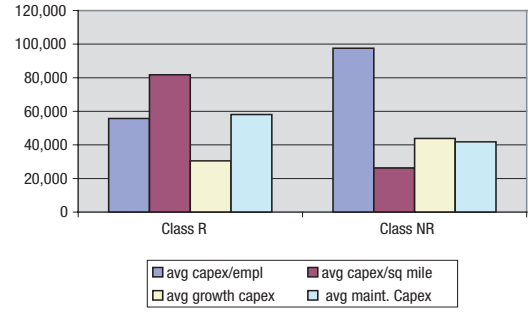


Chart 5

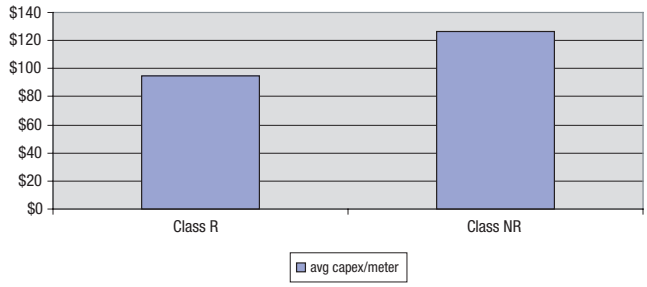


Chart 6

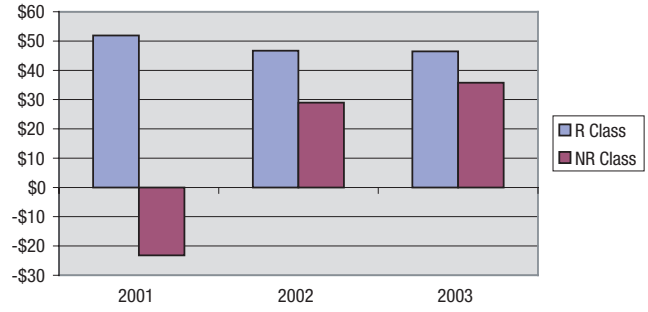


Chart 7

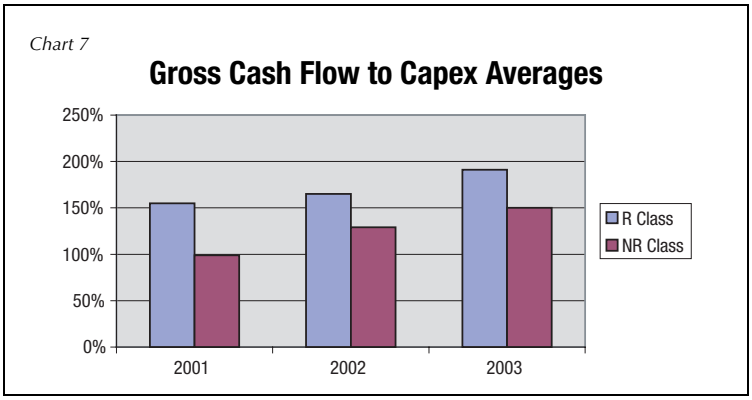
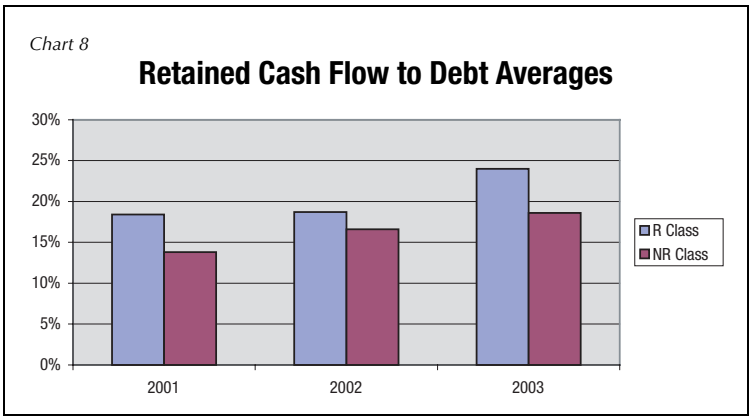


Chart 8



Selected Statistics for 2003

	% Rural customers	Urban customers	Number of customers	Annual Gas Volume (BCF)	5 yr avg customer growth	CAPEX Reg. Lag (Mos.)
Average Total	43%	57%	875,181	165	2.2%	381
Average R	**35%**	**65%**	**1,126,191**	**222**	**1.6%**	**374.5**
Average NR	49%	51%	653,703	114	2.2%	386.6

	GCF	Operating expense/ employee	Opex/ sq mile service area	Gross cash flow/ sq mile service area	Operating expense as % of gross margins	Workforce expense/ operating exp	Pension expense/ operating exp	Medical expense/ operating exp	Bad debt expense/ operating exp	% of Unionized workforce
Average Total	126,131	133,223	15,579	12,048	46%	48%	4%	7%	6%	54%
Average R	153,524	122,180	18,934	13,863	47%	49%	4%	7%	7%	55%
Average NR	101,961	142,109	12,643	10,460	46%	48%	4%	7%	6%	53%

$thousands	Growth Capex	Maintenance Capex	Total Capex	Capex per meter	Capex per employee	Capex per sq mile
Average Total	35,798	50,321	86,644	112	77,346	52,116
Average R	29,298	59,322	88,888	95	55,748	81,710
Average NR	43,806	41,883	84,664	126	97,595	26,221

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