



# **GAS UTILITY COST OF SERVICE ANALYSIS**

**For the Period Ending  
June 20, 2012**

**Prepared for**

**City of Richmond  
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**I. INTRODUCTION**

Concentric Energy Advisors, Inc. (“Concentric”) was retained by the Department of Public Utilities’ (“DPU”) of the City of Richmond to perform a cost of service study and analysis for the Gas Utility. Over the past several months, Concentric worked with the DPU to develop the data used in the cost of service model. The Cost of Service (“COS”) study is based upon June 30, 2012 test year data, June 30, 2013 budget data and June 30, 2011 adjusted revenues and volumes. The study was prepared using traditional cost allocation and rate design methodologies that are consistent with those currently utilized in the industry.

**II. SUMMARY OF GAS COS RESULTS**

The 2011-2012 Gas utility cost of service study results show a total gas utility rate base of approximately \$308 million and a total return on rate base of approximately \$18.0 million, representing a system-wide return of 5.84%. The study results also demonstrate that there is an under collection of the costs that are allocated to the residential customer class of approximately \$5.7 million to achieve equalized rates of return across all customer classes.

**III. OVERVIEW OF THE COS STUDY**

The costs to serve the customers of any utility company consist of operating expenses, taxes, and capital costs. Cost of service is traditionally performed using either a historical test period or some modified future test period. In this case, we relied on both a historical test period for certain inputs and a projected test period for other inputs. The purpose of the COS study is to provide a measure of the cost responsibility of each of the City’s rate classes based on cost causation principles. The basic methodology that is relied on in a fully allocated embedded cost of service studies includes: functionalization, classification, and allocation. The functional groups that are typically considered for a natural gas distribution company include production, purchased gas, storage, distribution, customer accounting and customer service. Classification then groups costs based on the function for which they are incurred; customer, demand, and commodity classifications. Finally, the costs are assigned or allocated to the various classes. The result of the study is a detailed breakdown of the costs of serving each customer class. This approach provides the objective basis, which allows costs to be recovered from customers based on the resources that are required to provide service to that customer class.

#### IV. RATE CLASSES

The following is a list of DPU Gas Utility's Rate Classes that were identified in the study:

- Residential
- General Service
- Commercial and Industrial Service (“CIS”)
- Large Volume Sales (“LVS 1”)
- Very Large Sales (“LVS 2”)
- Flex
- Transportation
- Municipal

#### V. DATA ASSUMPTIONS

The data used in the study was compiled in a joint effort with the DPU staff and has been verified by DPU staff members.

##### Plant Data

Net plant, rate base adjustments, depreciation expense, interest and taxes other an income were derived from 2011-2012 test year data.

##### Operations and Maintenance

Operations and Maintenance (“O&M”) data was derived from the 2013 budget to ensure that known and measurable changes in costs for the coming year were considered. Concentric categorized the O&M data from “service” accounts as provided by the DPU into Federal Energy Regulatory Commission (“FERC”) accounts. In general, utility COS models use FERC account numbers and account descriptions and are allocated based on those accounts. Concentric follows the FERC accounting cost allocation methods and therefore changed the DPU O&M categories to FERC accounts.

### Revenue and Volumetric Data

Finally, revenue and volume data were taken from 2010-2011 since the 2011-2012 data was not considered a normal weather year. The revenues and volumes from 2011-2012 were particularly low and therefore after a review of the 2010-2011 year revenues and volumes it was clear that that year could be considered a “normal year”.

## **VI. OVERVIEW OF THE FUNCTIONALIZATION, CLASSIFICATION, AND ALLOCATION METHODOLOGY**

The COS consists of a three-step analytical process that is facilitated by a cost study model. The following steps outline the process used to develop the COS:

Functionalization - Plant investment costs are categorized by the operational functions with which they are most closely associated. These functions include production, purchased gas, storage, distribution, and customer services. Administrative and General Costs must be functionalized to these categories depending on the purpose of the sub-accounts, i.e. what function they support.

Classification - The functionalized costs are classified by the utilization of categories that most closely match the purpose for which the cost was incurred or to which the cost is most directly correlated (i.e. to meet maximum demand, to serve each customer and to supply the commodity). The criteria used to identify the most appropriate factors were as follows:

- *Demand costs* are costs that are independent of hour-to-hour changes in throughput but are related to peak requirements.
- *Customer costs* are those costs that are required to provide service to a customer, independent of throughput or peak demand. Meters and customer billing are obvious examples of such costs.
- *Commodity costs* are those costs that are dependent on throughput. Gas cost is the primary example, but in this COS, gas costs are excluded since they are a pass through cost to the customer.

Allocation - In the allocation process, the determinants or cost causing factors of the specific investments or costs are identified and developed by class. Next, these costs or investments are assigned to customer classes based on internally or externally derived allocation factors. Internally

derived factors are developed based on directly assigned costs and are used to allocate general costs such as general plant or administrative and general costs. Externally derived factors are based on data such as the commodity use by class, the peak demand by class, the number of customers, revenue by class, etc.

## VII. ALLOCATION OF COSTS

### A. Rate Base

The following outlines the methodology used in the allocation process after functional categories are assigned to each investment and expense account.

- Production plant and storage plant investment costs are generally classified as demand-related and allocated to customer classes based on class contribution to peak day demand. The peak day demand by customer class was not available for this study; therefore, the coldest month (peak month) demand was used to develop the peak consumption-related allocations.
- The sub-accounts of distribution plant are allocated as follows:
  - Mains are classified based on the minimum system classifier, discussed in detail below. Once classified, the demand component of the mains costs is then allocated to customer classes based on peak and average demand, while the customer component is allocated based on the number of customers in the class. (The peak and average demand method allocates demand-related costs based on a 50/50 weighting of each class's contribution to peak demand (coldest month) and average demand (total throughput volumes)).
    1. A portion of the mains cost was identified as being incurred exclusively to serve the industrial rates classes (CIS, LVS 1 and LVS 2). Therefore, the associated costs were directly assigned to the industrial rate classes using the mains allocation methodology. The remainder of the mains cost was allocated to all customer classes based on the minimum system analysis discussed above.

- Land and land rights, structures and improvements, and measuring and regulating equipment are classified as demand-related and allocated to classes based on the peak and average demand allocator.
- Services are allocated based on the number of services in each class for both the demand and customer components of the services costs. The allocation between demand and customer is based on the results of the weighted meter study.
- All other distribution sub-accounts are classified as customer-related costs and are allocated to the customer classes based on various internal and external allocators. These methods include direct assignment, revenues, weighted meters, weighted regulators, and services. Whenever possible, specific information detailing cost responsibilities were utilized in order to develop the allocators.
- General plant is allocated based on the internal allocator developed for gross plant.
- Accumulated reserves for depreciation for each of the rate base accounts were allocated on the same basis as the associated rate base accounts.

## B. O&M Expenses

The allocation of O&M expenses are also based on cost causation principles. These allocations are described below:

- Production expenses are classified based on a determination of whether they are demand-related expenses or commodity-related expenses.
- Distribution operating expenses are classified as either demand expenses or customer expenses and are allocated to customer classes on a peak and average basis or in the case of regulators by the weighted meters study. The majority of distribution maintenance expenses are associated with mains and service. Those costs are allocated to customer classes based on the mains and services plant accounts.
- Distribution maintenance expenses are classified as demand expenses, customer expenses or like in the case of maintenance of mains and services on the minimum size classifier. Supervision and engineering is allocated based on total distribution plant. Structures and improvements is allocated based on peak and average. The maintenance of mains is allocated based on peak and average and customer while maintenance of

services is allocated on a services allocation factors. Finally, meter and house regulator maintenance is allocated based on the weighted meters study.

- Customer expenses are allocated based on the number of customers. Uncollectible accounts are directly assigned based on the percentage of uncollectible revenues in each customer class. The class level allocation of uncollectible revenues used to develop these percentages was provided by the DPU staff.
- Customer assistance expenses and sales expenses are classified as a customer cost and were allocated based on number of customers.
- Administrative and General expenses are allocated based on internal allocators, largely on the basis of labor expensed and capitalized for each account in the test year. Exceptions to this are costs related to security that are allocated based on plant.

#### C. Labor Expenses

All labor expenses for Production, Distribution Operation Expenses, Distribution Maintenance Expenses, Customer Account, Sales Expenses, and Administrative and General are allocated using the same criteria as were used to allocate the corresponding O&M expenses.

#### D. Remaining Expenses

The remaining expenses include depreciation expenses and taxes other than income taxes. These costs were allocated as follows:

- Depreciation expense for each of the rate base accounts was allocated on the same basis as the associated rate base accounts.
- Taxes other than income taxes include gross receipts, real estate and personal property taxes and miscellaneous taxes.
  - Gross receipts taxes are allocated based on revenues
  - Miscellaneous taxes are allocated on the basis of labor, an internal allocator.
  - Real estate taxes are allocated on the basis of total plant, also an internal allocator.
- Interest Expense is allocated based on total ratebase

## VIII. EXTERNAL STUDIES

While the majority of the allocators are based on data provided by the Gas Utility, more detailed analysis is required to develop the following allocators.

### A. Weighted Meters Study

The weighted meters study is conducted in order to develop an external allocator that assigns costs to the customer classes based the classes' share of the total meter investment. That allocator is used in the study to assign meter costs as well as the meter-related portion of other rate base accounts such as CWIP, working capital, administrative and general expenses, general plant and construction not classified. To develop the total meter replacement cost for the residential, flex and municipal rate classes, Concentric analyzed the cost of all meters, determined the number and type of meters in each customer class, and calculated the total replacement cost of meters by customer class. Book costs for each meter type were not available; therefore, Concentric relied upon replacement cost for each meter size that was provided by the DPU. Concentric mapped each individual meter type by customer class, to the replacement meter cost categories and produced a total replacement cost of meters by customer class. The total meter replacement cost for the commercial and industrial classes was developed based on the average meter cost for the industrial and commercial classes provided by the DPU. The average meter cost was applied to the total meter count for each rate class to arrive at a total replacement cost of meters for the industrial and commercial rate classes. As shown in Exhibit II, the weighted meters study allocates 32.60 percent of the meter costs to the residential class and 57.40 percent to the general service class. Each of the remaining customer classes assumes less than 6 percent of the meter costs.

### B. Weighted Regulators Allocator

Similar to the weighted meters allocator, the weighted regulators allocator is used to functionalize and allocate customer-related costs. Since sufficient data was not readily available for Concentric to conduct a study that specifically allocated the regulatory costs, Concentric relied on the weighted meter study to allocate regulator cost in the COS.

C. *Weighted Services Study*

Similar to the weighted meters allocator and the weighted regulators allocator, the services allocator is used to functionalize and allocate customer-related costs. Since sufficient services data was not readily available for Concentric to conduct a new study, the number of meters by meter type was linked with the corresponding customer class. The number of meters per customer class was then multiplied by an average service cost per rate class that was provided by the DPU. As shown in Exhibit III, the services study allocates 88.59 percent of the services costs to the residential class and 10.44 percent to the general service class. The remaining classes are allocated less than 1 percent of the services costs.

D. *Minimum System Study*

The minimum system study identifies the appropriate classification of distribution mains costs between demand and customer categories based on the minimum size of main necessary to serve the minimum load requirements of the customers. Once the cost of the minimum system or zero size main is identified, that portion of the total system mains cost is assumed to be required to serve each customer and is therefore allocated on a customer basis. The remaining costs are considered demand based and are allocated to customer classes on a peak and average basis.

In this analysis, Concentric relied on the total inventory of mains, by pipe size and the total book cost of mains that are currently included in rate base as provided by DPU Staff. Using this data, Concentric derived a per unit cost (\$/ft) for each size of main in the system. That cost was compared to the actual cost of all mains to produce a percentage of main costs to be classified as customer related. The remaining percentage is classified as demand related.

As shown in Exhibit IV, the minimum system study estimates that 76.67 percent of the total mains cost was related to all customers and therefore should be distributed to all of the customers based on customer count. Because the Gas Utility's residential rate class is approximately 90.00 percent of its customer base, a significant portion of the mains costs was distributed to the residential class in the COS study. This allocation is a significant driver of the cost allocation to the residential class and results in the under-collection from the residential class. In prior COS analyses, the data was not

available to conduct this study and mains were allocated equally to customers and demand, which allocated the costs of mains more broadly across the customer classes.

#### **E. Multiple Meter Study**

The multiple meter study was conducted in order to determine if the current charges were reflective of the cost to serve customers with multiple meters on an individual account. In this analysis, Concentric analyzed the costs of individual meters and the cost to serve the multiple metered accounts. In order to estimate the cost of additional meters on customer premises, Concentric relied on the meter rate base, meter reading expense, meter depreciation expense and total meter count data provided by DPU for the remainder of the study to estimate the cost per meter. DPU provided specific account level detail for customers with multiple meters which Concentric relied on to estimate the annual cost by rate class associated with multiple meter customers that is not currently being recovered in the existing rate structure. The results of that analysis indicate that the total under collection from multiple meter customers is approximately \$207,072. Based on discussions with DPU staff, it was determined that since there are multiple rate changes proposed for DPU customers in several service offerings, that it would not be appropriate to adjust these rates at this time.

### **IX. COST OF CAPITAL**

Concentric assumed a cost of capital of 4.47 percent as provided by DPU staff.

### **X. REVENUE REQUIREMENT**

The final step in the COS study is the determination of the revenue requirement and the unit cost to serve each customer. The total revenue requirement is computed as the sum of total operating expenses and total expected return on rate base, as adjusted for income taxes. Review of the 2010-2011 revenues indicates that on a system-wide basis, the Gas Utility's total distribution revenues were \$69.1 million (excluding natural gas commodity costs). The net operating income to the Utility for this fiscal year was \$18.0 million. Rate base as of June 30, 2012 was \$308.8 million. Therefore, for FY 2012, the Gas Utility achieved a system-wide return of 5.84 percent.

Concentric understands that the Gas Utility has a target rate of return on rate base of 4.47%. Based on the results of the COS study, in order to achieve this target rate, a rate decrease would have to occur for most rate classes except for the residential rate class. As shown in Exhibit I, at a rate of return of 4.47 percent, the residential rate class was under collecting by over \$5.7 million.

## XI. RATE DESIGN

The rate design process begins with a review of the results of the cost of service study. As has been discussed above, in this review, Concentric seeks to determine which classes have contributed at a level above the target system return and which classes have contributed below the targeted system return. Often times the goal of the rate design process is to move rates generally toward the state wherein customer classes contribute equally to the overall system return.

While equalized rates of return are often a rate design goal, this goal is usually tempered by other influences on the rate design process. Political influences on the rate structure of the Gas Utility could include insulating certain customer classes from rate increases, attracting large industrial customers to the region, or minimizing the incentive for larger industrial customers to relocate. Alternatively, the political environment could support the movement towards equalized rates of return. Economic pressures could require that phase in periods be established to avoid hardship in certain classes. Such outside influences must be identified prior to the development of the new rate structure. Once the overall objectives are established, it is possible to develop rate design alternatives. Often times, rate design objectives conflict. As a result, it is likely that several rate design scenarios will need to be developed in order to determine the rate design that best meets the majority of the rate design goals.

The final step in the rate design process is to determine that the rate structure will recover the revenues that the Gas Utility requires in order to meet the target rate of return. This is verified using a proof of revenues analysis which calculates total revenues using actual customer level monthly consumption and currently effective rates by class. That data is aggregated to determine the contribution of each customer class to the total system return. That information is used to refine the rate design in order to achieve the social and political goals that were established for the rate design process.

The rate design process is iterative and generally requires the development of multiple scenarios to understand the effect of various rate changes on each customer class. Usually it is necessary to develop multiple scenarios to arrive at an alternative that meets the stated objectives and the desired return. Concentric uses the following approach in the rate design process:

- Review cost of service study results;
- Review of political and socioeconomic considerations;
- Benchmarking analysis;
- Detailed analysis of residential customer data
- Development of rate design alternatives;
- Review customer impacts;
- Finalize rate design; and
- Perform proof of revenue (to verify that the new rates will produce the required revenues by class, as designed).

## XII. REVIEW OF THE COST OF SERVICE RESULTS

The COS provides an understanding of the projected contribution by each class to the total revenue requirement. The revenues identified above indicate that there is a need to modify the currently effective rate structure. Reviewing the class specific contributions to the rate of return, provided in the Summary schedule of the COS study (see Exhibit I), the residential, customers have significantly under-contributed to the total revenue requirement, with a return of 3.28 percent. Conversely, General Service, CIS, Large Volume, Very Large Volume, Flex, Transportation and Municipal customers provided returns in excess of 8 percent. Return on rate base from the General Service class was 11.46 percent, CIS contributed 34.41 percent, Large Volume contributed 11.57 percent, Very Large Volume contributed 8.19 percent, Flex contributed 87.54 percent, Transportation contributed 13.70 percent and the Municipal class contributed 40.45 percent.

### Socio-economic and Political Considerations

Concentric understands that the DPU has a desire to equalize the rates of return across the customer classes. In addition to meeting this goal, Concentric considered other factors including; the effect of rate design on the city and county customers, the effect of rate design on lower use and higher use customers, and monthly and annual bill impacts from rate design changes.

### Gradualism

Concentric recognizes that the decision to increase rates is difficult and can result in community concern. As discussed above, the under-collection of costs from the residential class is significant and cannot be resolved in a single year without large increases in costs for those customers. Therefore, Concentric's approach to designing rates considers the principle of gradualism, focusing on a five-year time horizon to achieve parity in the residential contributions to the revenue requirement. Furthermore, given the current low commodity cost environment, Concentric believes that this would be an appropriate time to begin to make progress on such a restructuring effort. Finally, since the rate designs discussed below propose changes to increase residential customer rates over several years, Concentric believes that it would be appropriate to maintain the current rate structures for all other rate classes until there is parity in the return for the residential class.

### Benchmarking Analysis

In order to understand how the DPU's gas utility rates compare to other similarly situated utilities and other utilities in the region, Concentric performed a benchmarking analysis that compared the gas utility rates to twelve regional utilities. Specifically, that study compared the distribution rates of Richmond to the distribution rates of twelve other natural gas utilities. To estimate the distribution rates of the benchmarking group, Concentric relied on sales and transportation volume and revenue data by company for the residential, commercial and industrial rate classes as published by the Energy Information Administration ("EIA").<sup>1</sup> The EIA data presents total revenue, including gas costs. Because the purpose of the COSS is to establish the distribution costs, the most meaningful comparison of Richmond's costs to the benchmarking group would be exclusive of gas and gas purchasing costs. Therefore, while we have provided benchmarking results that use the EIA data as presented, Concentric also benchmarked DPU's natural gas distribution costs against estimated distribution costs for the proxy. Distribution rates can be approximated by removing an estimate of the purchased gas revenue from the reported revenue for the proxy group. In order to estimate the purchase gas revenue by rate class for the proxy companies, Concentric relied on the average unit cost of gas estimated by DPU for its customers by rate class. That purchased gas rate was applied to each proxy company's sales volume by rate class to estimate purchased gas revenue by class. Estimated purchased gas revenue was then subtracted out of total revenue to arrive at an estimate

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<sup>1</sup> Concentric relied on the EIA data published for 2011, which is the most recent data published by this source.

of non-gas revenue by rate class. This process was repeated for the residential, commercial and industrial rate classes of each Company. Detailed results of the benchmarking analysis for the residential, commercial and industrial rate classes are shown in Exhibit V.

As shown in Exhibit V, Concentric's analysis included the residential distribution rates for the following companies:

- Atmos (VA)
- Baltimore Gas & Electric
- Chesapeake,
- Charlottesville
- Columbia Gas (MD)
- Columbia Gas (VA)
- Danville
- Public Utilities Holding Company
- Roanoke
- Virginia Natural Gas
- Washington Gas Light (MD)
- Washington Gas Light (VA)

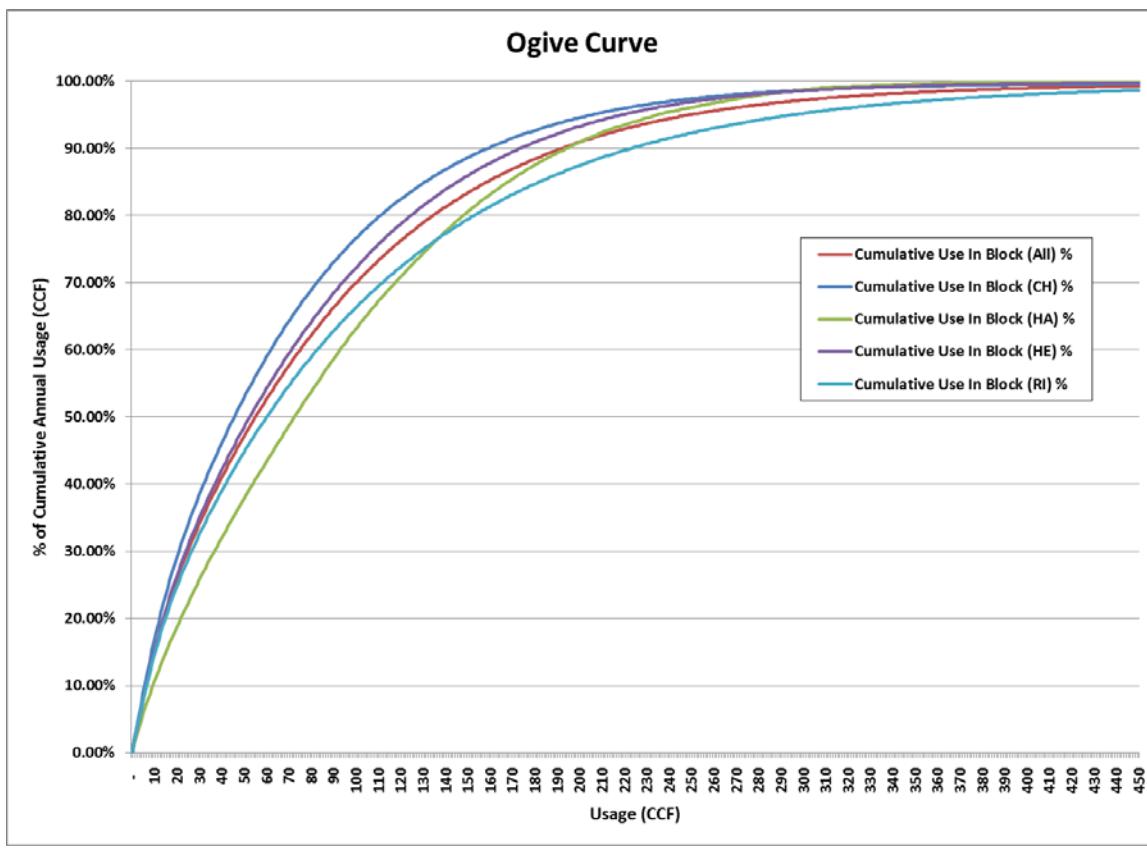
The results of that analysis demonstrate that the range of residential distribution rates excluding purchased gas cost is from \$3.25 per MCF to \$11.08 per MCF. Richmond's residential distribution rate is in the third quartile at \$6.51 per MCF, which is approximately 11.00 percent above the average and approximately 41.00 percent below the high of the range.

In addition to the residential distribution rates excluding purchased gas cost, Concentric considered distribution rates including purchased gas cost for the residential customer class. As shown in Exhibit V, the range of distribution rates including purchased gas cost for the benchmarking group is wide, from \$10.10 per MCF to \$17.92 per MCF, with Richmond's residential distribution rate of \$13.36 per MCF slightly above the mean of that range. Based on these results and the results from the section above, Concentric concludes that it would be reasonable to adjust the residential distribution rate in order to satisfy the shortfall in the revenue collections from this customer class.

### Analysis of Residential Customer Data

Developing rate design that achieves the objective of equalizing rates of return for residential customers, while taking into consideration socioeconomic considerations resulted in the need to review the usage patterns of DPU's customers at a very detailed level. Concentric worked with DPU staff to obtain residential customer usage data for all residential customers on the Richmond system in the 2011 fiscal year. Fiscal year 2011 was the most recent year that exhibited what was near a normal year in terms of weather (heating degree days), and therefore was considered the most appropriate data set on which to design rates. Concentric analyzed the data for all residential customers in this year, by county to gain an understanding of the customers' usage patterns.

In order to understand the usage patterns of the Gas Utility customers, Concentric developed a table of the cumulative use in block for the whole service territory and each county. The table represented block sizes that ranged from 1 CCF to 3,000 CCFs. By calculating the use in block for various block sizes, Concentric determined by county how much usage would be in a certain block size. For example, if the head block of the residential class was set at 100 CCFs, the table would show how much usage would be in the 100 CCF block. This analysis provides a greater understanding of the amount of gas consumed by customers within the City of Richmond and outside the county. To depict the results of the table graphically, the cumulative use in block for each block size was normalized by total usage. Therefore, the curves presented in Chart 1 depict the percentage of total usage in a particular block. As shown in the chart, residential customers within the City of Richmond would have a larger percent of annual usage in the tail block of a block rate structure. For example, if a block of 100 CCFs was used in rate design, then 65% of annual usage for the City of Richmond would fall into the 100 CCF block; however, over 72% of annual usage for Henrico would fall into the 100 CCF block. Therefore, this analysis suggests that an increase the volumetric component of residential rates will result in a greater increase in the costs for customers that are within the City as compared with the surrounding counties.

**CHART 1- OGIVE CURVE****Rate Design Alternatives**

Based on the analysis of residential customer data and the benchmarking analysis, Concentric concluded that it would be beneficial to consider rate design alternatives that adjust both the customer charge and the volumetric charge. Increasing the customer charge has the advantage of allocating a portion of the incremental cost increase to every customer on the system, without respect to usage on an equal basis across all residential customers. Concentric recognizes that it is necessary to balance that objective with the understanding that increases in fixed costs result in a greater percentage increase in total distribution costs for lower usage customers. Increases in volumetric charges affect higher usage customers more than the lower usage customers, which is a consideration that must also be balanced in the final rate structure.

### Block Rates

Concentric considered various forms of block rates in the rate design analysis including the Gas Utility's existing block rate design and an inverted rate structure.

#### 1. Current Residential Block Rates

DPU's current residential rate has two blocks, with the second block beginning at a usage of 500 CCF per month. Analysis of DPU's monthly customer data indicates that only 0.49% percent of the volume is billed under the second block at a lower volumetric rate, which seems inefficient.

#### 2. Inverted Block Rates

Inverted block rates, which would result in an increased volumetric rate at higher usage levels shifts cost increases to higher usage customers. As shown in Chart 1 above, however, in-city residential customers have higher usage than the surrounding counties. Therefore, the use of inverted block rates would allocate a greater portion of the cost increases to in-city customers.

#### 3. Flat Rates

As shown in the bill frequency analysis provided in Exhibit VI, the majority of the Gas Utility's customers have monthly usage that is below 500 CCFs a month. This suggests that a rate structure utilizing a second block with a breakpoint of 500 CCFs is inefficient. It also indicates that few customers actually benefited from the rate structure and those that did received minimal decreases due to small \$0.10 difference between the head block and tail block rates. Based on those conclusions, a flat rate structure would be a reasonable alternative to the current block rate structure. By utilizing a flat rate structure, the inefficiency of the current block rate structure would be removed and the effect on residential bills would be minimal as shown by the bill frequency analysis. Therefore, Concentric is proposing a rate design that utilizes a flat rate structure.

### Bill Impact Analysis

Concentric prepared detailed bill impact analyses to determine the effect of the proposed rate design. The bill impact analysis shows the effect of the proposed rate design on a set of typical residential customers over an appropriate range of annual usage levels. More specifically, as shown in Exhibit VII, Concentric prepared monthly usage profiles for as many as 50 ranges of annual use. Based on those typical monthly usage profiles, Concentric calculated the monthly bills at current rates and at proposed rates and summed the monthly bills to get annual totals. To calculate the

monthly bills at current rates, Concentric used the currently effective base rates. To calculate monthly bills at proposed rates, Concentric used the proposed rate design.<sup>2</sup>

### Rate Design

The proposed rate design increases residential customer rates in annual inflation adjustments of 2.8% over the five-year phase in period. As shown in Exhibit VIII, in year 1, the customer charge would increase from \$11.05 to \$11.36. The volumetric rate would increase from \$0.4700 to \$0.4832. In this scenario, the under-recovery in year 1 for the residential class would be reduced from \$3,726,769 to \$2,474,652. In year three, assuming a 5.68 percent<sup>3</sup> increase in costs overall, the under-recovery would decline to \$1,290,120 and by year five, the under-recovery would be reduced to \$44,164.

### Customer Impact

As shown in Table 3 and Exhibit VIII, the increases in rates would result in annual bill increases ranging from 2.8% for customers using 35 CCFs per year to 4.35% for larger customers using 16,989 CCFs per year. The rate increase for customers with average usage would be 2.8%. Under the proposed rate design, \$13,465,933 will be recovered through the monthly customer charge compared to the \$32,371,720, which will be recovered through the flat rate volumetric charge. The average monthly bill impact for customers with average usage would be \$0.98 in the first year.

**TABLE 3: PROPOSED RATE DESIGN - BILL IMPACTS**

Percentile	Average Annual CCF	Annual Bill				Cumul. # Customers
		Current Bill	New Bill	\$ Change	% Change	
5%	35	\$ 149	\$ 153	\$ 4	2.800%	4,548
7%	69	\$ 165	\$ 170	\$ 5	2.800%	6,776
9%	111	\$ 185	\$ 190	\$ 5	2.800%	9,017
20%	283	\$ 266	\$ 273	\$ 7	2.800%	20,260
29%	394	\$ 318	\$ 327	\$ 9	2.800%	29,237
40%	519	\$ 377	\$ 387	\$ 11	2.800%	40,508
49%	611	\$ 420	\$ 432	\$ 12	2.800%	49,447
60%	727	\$ 474	\$ 488	\$ 13	2.800%	60,628
69%	827	\$ 521	\$ 536	\$ 15	2.800%	69,659
80%	979	\$ 593	\$ 609	\$ 17	2.800%	80,847
89%	1,157	\$ 677	\$ 695	\$ 19	2.800%	89,805
98%	1,596	\$ 883	\$ 908	\$ 25	2.800%	98,772
100%	16,989	\$ 7,997	\$ 8,345	\$ 348	4.354%	101,014

<sup>2</sup> Some of the monthly usage profiles represent customers with a large amount of annual gas usage. For example, the largest profile represents a customer with annual usage of 16,989 CCFs. Concentric believes that this customer might be misclassified as a residential customer and might actually be a GS or CIS customer. Therefore, Concentric recommends focusing less attention on the bill impacts of the larger use customers because some maybe reclassified based on annual usage.

<sup>3</sup> An annual increase of 2.80 percent per year, compounded over two years.

**XIII. CONCLUSIONS**

Based on the data reviewed by Concentric, the COS study indicates that there is currently a moderate cost shift from residential customers to the remaining customer classes. Concentric proposes to reduce the under collection from increase residential customers by increasing the rates for that rate class by approximately 2.8% per year, as discussed in the Rate Design section of this report. Under this proposed change, the effect on an average residential customer bill would be approximately \$2 per month in the winter months, which are typically the highest throughput months of the year. Concentric proposes that the rates for the remainder of the customer classes be held at their current levels. Over time, as costs increase the over collection from the commercial and industrial classes will diminish and the percentage of recovery of the costs to serve the residential customer segment will continue to improve.

## **Exhibit I - COS Model - Summary**

## **CLASS COST OF SERVICE STUDY**

## Summary of Results

Line No.	Description	System Total	Residential	General Service	CIS	Large Volume	Very Large Volume	Flex	Transportation	Municipal
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
<b>Rate Base</b>										
1	Plant in Service	\$ 440,884,859	\$ 352,025,527	\$ 60,545,794	\$ 8,825,160	\$ 6,811,830	\$ 7,151,020	\$ 468,909	\$ 3,239,236	\$ 1,817,383
2	Accumulated Reserve	(150,337,764)	(123,669,074)	(17,074,425)	(2,762,483)	(2,084,183)	(2,601,754)	(124,965)	(1,309,324)	(711,557)
3	Other Rate Base Items	18,206,266	11,090,079	3,522,654	1,280,520	934,496	1,024,295	5,878	40,604	307,740
4	<b>Total Rate Base</b>	<b>\$ 308,753,360</b>	<b>\$ 239,446,531</b>	<b>\$ 46,994,024</b>	<b>\$ 7,343,197</b>	<b>\$ 5,662,144</b>	<b>\$ 5,573,561</b>	<b>\$ 349,821</b>	<b>\$ 1,970,517</b>	<b>\$ 1,413,566</b>
<b>Revenues at Current Rates</b>										
5	Delivery Revenue	\$ 68,639,778	\$ 42,611,674	\$ 15,410,198	\$ 4,796,553	\$ 1,895,170	\$ 1,627,179	\$ 542,995	\$ 675,106	\$ 1,080,904
6	PGA - Gas Cost Revenue	-	-	-	-	-	-	-	-	-
7	Commodity Revenue	-	-	-	-	-	-	-	-	-
8	BIPP Revenue	-	-	-	-	-	-	-	-	-
9	Miscellaneous Revenues	506,652	259,802	50,989	7,967	6,143	6,047	380	173,790	1,534
10	<b>Total Revenues</b>	<b>\$ 69,146,430</b>	<b>\$ 42,871,475</b>	<b>\$ 15,461,187</b>	<b>\$ 4,804,520</b>	<b>\$ 1,901,313</b>	<b>\$ 1,633,227</b>	<b>\$ 543,375</b>	<b>\$ 848,896</b>	<b>\$ 1,082,438</b>
<b>Expenses at Current Rates</b>										
11	Operations & Maintenance Expenses	\$ 32,211,976	\$ 23,289,227	\$ 5,990,430	\$ 784,346	\$ 774,016	\$ 792,402	\$ 60,395	\$ 357,416	\$ 163,743
12	Depreciation Expense	12,202,186	9,818,531	1,653,555	203,271	178,443	193,617	13,032	91,160	50,576
13	Taxes Other Than Income Taxes	4,519,483	3,370,826	737,332	157,202	86,102	83,324	13,971	36,536	34,189
14	Income Taxes	2,193,267	(1,455,169)	1,694,973	1,133,014	207,527	107,254	149,730	93,824	262,114
15	<b>Total Expenses - Current</b>	<b>\$ 51,126,912</b>	<b>\$ 35,023,415</b>	<b>\$ 10,076,290</b>	<b>\$ 2,277,834</b>	<b>\$ 1,246,089</b>	<b>\$ 1,176,598</b>	<b>\$ 237,129</b>	<b>\$ 578,936</b>	<b>\$ 510,622</b>
16	<b>Current Operating Income</b>	<b>18,019,519</b>	<b>7,848,060</b>	<b>5,384,897</b>	<b>2,526,686</b>	<b>655,224</b>	<b>456,629</b>	<b>306,246</b>	<b>269,960</b>	<b>571,816</b>
17	<b>Return at Current Rates</b>	<b>5.84%</b>	<b>3.28%</b>	<b>11.46%</b>	<b>34.41%</b>	<b>11.57%</b>	<b>8.19%</b>	<b>87.54%</b>	<b>13.70%</b>	<b>40.45%</b>
18	<b>Present Revenue Requirement at Equal Rates of Return</b>									
19	Present Return	5.84%	5.84%	5.84%	5.84%	5.84%	5.84%	5.84%	5.84%	5.84%
20	Present Operating Income @ Equal Return	\$ 18,019,519	\$ 13,974,621	\$ 2,742,674	\$ 428,565	\$ 330,455	\$ 325,285	\$ 20,416	\$ 115,004	\$ 82,499
21	Income Taxes	2,193,267	1,700,938	333,828	52,163	40,222	39,592	2,485	13,998	10,041
22	Other Expenses	48,933,644	\$ 36,478,584	\$ 8,381,317	\$ 1,144,820	\$ 1,038,562	\$ 1,069,344	\$ 87,398	\$ 485,112	\$ 248,508
23	<b>Present Revenues @ Equal Rates of Return</b>	<b>\$ 69,146,430</b>	<b>52,154,143</b>	<b>11,457,818</b>	<b>1,625,548</b>	<b>1,409,239</b>	<b>1,434,221</b>	<b>110,300</b>	<b>614,113</b>	<b>341,048</b>
24	<b>Present (Subsidies)/Excesses</b>	<b>\$ 0</b>	<b>\$ (9,282,668)</b>	<b>\$ 4,003,369</b>	<b>\$ 3,178,972</b>	<b>\$ 492,074</b>	<b>\$ 199,005</b>	<b>\$ 433,075</b>	<b>\$ 234,782</b>	<b>\$ 741,390</b>
<b>Revenue Requirement at Equal Rates of Return</b>										
25	Required Return	4.47%	4.47%	4.47%	4.47%	4.47%	4.47%	4.47%	4.47%	4.47%
26	Required Operating Income	\$ 13,800,040	\$ 10,702,302	\$ 2,100,445	\$ 328,212	\$ 253,075	\$ 249,116	\$ 15,636	\$ 88,074	\$ 63,181
27	<b>Operating Income (Deficiency)/Surplus</b>	<b>\$ 4,219,479</b>	<b>\$ (2,854,242)</b>	<b>\$ 3,284,452</b>	<b>\$ 2,198,475</b>	<b>\$ 402,149</b>	<b>\$ 207,513</b>	<b>\$ 290,610</b>	<b>\$ 181,886</b>	<b>\$ 508,635</b>
<b>Expenses at Required Return</b>										
28	Operations & Maintenance Expenses	\$ 32,211,976	\$ 23,289,227	\$ 5,990,430	\$ 784,346	\$ 774,016	\$ 792,402	\$ 60,395	\$ 357,416	\$ 163,743
29	Depreciation Expense	12,202,186	9,818,531	1,653,555	203,271	178,443	193,617	13,032	91,160	50,576
30	Taxes Other than Income Taxes	4,519,483	3,370,826	737,332	157,202	86,102	83,324	13,971	36,536	34,189
31	Income Taxes	1,668,301	1,391,219	191,563	26,369	19,300	22,538	944	8,696	7,671
32	<b>Total Expense - Required</b>	<b>\$ 50,601,945</b>	<b>\$ 37,869,804</b>	<b>\$ 8,572,879</b>	<b>\$ 1,171,189</b>	<b>\$ 1,057,862</b>	<b>\$ 1,091,882</b>	<b>\$ 88,342</b>	<b>\$ 493,808</b>	<b>\$ 256,179</b>
33	<b>Total Revenue Requirement at Equal Return</b>	<b>\$ 64,401,985</b>	<b>\$ 48,572,106</b>	<b>\$ 10,673,324</b>	<b>\$ 1,499,401</b>	<b>\$ 1,310,937</b>	<b>\$ 1,340,998</b>	<b>\$ 103,978</b>	<b>\$ 581,882</b>	<b>\$ 319,360</b>
34	<b>Revenue (Deficiency)/Surplus</b>	<b>\$ 4,744,445</b>	<b>\$ (5,700,631)</b>	<b>\$ 4,787,863</b>	<b>\$ 3,305,119</b>	<b>\$ 590,376</b>	<b>\$ 292,229</b>	<b>\$ 439,396</b>	<b>\$ 267,014</b>	<b>\$ 763,079</b>

## **Exhibit I - COS Model - Summary**

## **CLASS COST OF SERVICE STUDY**

Exhibit I - COS Model - Summary

**CLASS COST OF SERVICE STUDY**

**Functional Rate Base**

	System Total	Residential	General Service	CIS	Large Volume	Very Large Volume	Flex	Transportation	Municipal
<b>Production</b>									
Demand	\$ 474,516	\$ 239,477	\$ 99,117	\$ 41,957	\$ 30,452	\$ 33,520	\$ -	\$ 19,772	\$ 10,220
Customer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commodity	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Sub-total</i>	<i>\$ 474,516</i>	<i>\$ 239,477</i>	<i>\$ 99,117</i>	<i>\$ 41,957</i>	<i>\$ 30,452</i>	<i>\$ 33,520</i>	<i>\$ -</i>	<i>\$ 19,772</i>	<i>\$ 10,220</i>
<b>Purchased Gas</b>									
Demand	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Customer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commodity	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Sub-total</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>
<b>Storage</b>									
Demand	\$ 12,901,025	\$ 6,789,078	\$ 2,809,933	\$ 1,189,465	\$ 863,312	\$ 950,290	\$ -	\$ 9,222	\$ 289,725
Customer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commodity	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Sub-total</i>	<i>\$ 12,901,025</i>	<i>\$ 6,789,078</i>	<i>\$ 2,809,933</i>	<i>\$ 1,189,465</i>	<i>\$ 863,312</i>	<i>\$ 950,290</i>	<i>\$ -</i>	<i>\$ 9,222</i>	<i>\$ 289,725</i>
<b>Distribution</b>									
Demand	\$ 22,210,088	\$ 3,977,462	\$ 5,615,622	\$ 3,478,337	\$ 2,697,390	\$ 3,789,595	\$ 142,027	\$ 1,843,161	\$ 666,494
Customer	\$ 273,167,731	\$ 228,440,514	\$ 38,469,352	\$ 2,633,438	\$ 2,070,989	\$ 800,155	\$ 207,794	\$ 98,362	\$ 447,127
Commodity	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Sub-total</i>	<i>\$ 295,377,819</i>	<i>\$ 232,417,976</i>	<i>\$ 44,084,974</i>	<i>\$ 6,111,775</i>	<i>\$ 4,768,379</i>	<i>\$ 4,589,750</i>	<i>\$ 349,821</i>	<i>\$ 1,941,523</i>	<i>\$ 1,113,621</i>
<b>TOTAL</b>									
Demand	\$ 35,585,629	\$ 11,006,017	\$ 8,524,672	\$ 4,709,759	\$ 3,591,155	\$ 4,773,406	\$ 142,027	\$ 1,872,155	\$ 966,439
Customer	\$ 273,167,731	\$ 228,440,514	\$ 38,469,352	\$ 2,633,438	\$ 2,070,989	\$ 800,155	\$ 207,794	\$ 98,362	\$ 447,127
Commodity	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL RATE BASE</b>	<b>\$ 308,753,360</b>	<b>\$ 239,446,531</b>	<b>\$ 46,994,024</b>	<b>\$ 7,343,197</b>	<b>\$ 5,662,144</b>	<b>\$ 5,573,561</b>	<b>\$ 349,821</b>	<b>\$ 1,970,517</b>	<b>\$ 1,413,566</b>

Exhibit I - COS Model - Summary

**CLASS COST OF SERVICE STUDY**

**Functional Revenue Requirement**

	System Total	Residential	General Service	CIS	Large Volume	Very Large Volume	Flex	Transportation	Municipal
<b>Production</b>									
Demand	\$ 52,473	\$ 26,482	\$ 10,961	\$ 4,640	\$ 3,367	\$ 3,707	\$ -	\$ 2,186	\$ 1,130
Customer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commodity	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Sub-total</i>	<i>\$ 52,473</i>	<i>\$ 26,482</i>	<i>\$ 10,961</i>	<i>\$ 4,640</i>	<i>\$ 3,367</i>	<i>\$ 3,707</i>	<i>\$ -</i>	<i>\$ 2,186</i>	<i>\$ 1,130</i>
<b>Purchased Gas</b>									
Demand	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Customer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commodity	\$ 31,742	\$ 13,649	\$ 5,967	\$ 3,650	\$ 3,016	\$ 4,602	\$ 317	\$ -	\$ 540
<i>Sub-total</i>	<i>\$ 31,742</i>	<i>\$ 13,649</i>	<i>\$ 5,967</i>	<i>\$ 3,650</i>	<i>\$ 3,016</i>	<i>\$ 4,602</i>	<i>\$ 317</i>	<i>\$ -</i>	<i>\$ 540</i>
<b>Storage</b>									
Demand	\$ 1,159,740	\$ 610,131	\$ 252,527	\$ 106,897	\$ 77,585	\$ 85,402	\$ -	\$ 1,160	\$ 26,037
Customer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commodity	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Sub-total</i>	<i>\$ 1,159,740</i>	<i>\$ 610,131</i>	<i>\$ 252,527</i>	<i>\$ 106,897</i>	<i>\$ 77,585</i>	<i>\$ 85,402</i>	<i>\$ -</i>	<i>\$ 1,160</i>	<i>\$ 26,037</i>
<b>Distribution</b>									
Demand	\$ 11,730,729	\$ 5,223,708	\$ 2,345,062	\$ 1,140,717	\$ 885,502	\$ 1,233,744	\$ 48,625	\$ 620,648	\$ 232,724
Customer	\$ 52,670,255	\$ 42,484,129	\$ 8,860,953	\$ 422,346	\$ 534,261	\$ 206,419	\$ 57,962	\$ 23,482	\$ 80,704
Commodity	\$ 1,338,388	\$ 830,873	\$ 300,479	\$ 93,527	\$ 36,953	\$ 31,728	\$ 10,588	\$ 13,164	\$ 21,076
<i>Sub-total</i>	<i>\$ 65,739,371</i>	<i>\$ 48,538,710</i>	<i>\$ 11,506,493</i>	<i>\$ 1,656,589</i>	<i>\$ 1,456,717</i>	<i>\$ 1,471,891</i>	<i>\$ 117,174</i>	<i>\$ 657,293</i>	<i>\$ 334,504</i>
<b>TOTAL</b>									
Demand	\$ 12,942,942	\$ 5,860,321	\$ 2,608,549	\$ 1,252,253	\$ 966,455	\$ 1,322,853	\$ 48,625	\$ 623,994	\$ 259,891
Customer	\$ 62,182,614	\$ 51,148,844	\$ 9,661,420	\$ 450,909	\$ 537,591	\$ 207,705	\$ 59,096	\$ 23,860	\$ 93,188
Commodity	\$ 1,370,129	\$ 844,522	\$ 306,447	\$ 97,177	\$ 39,969	\$ 36,330	\$ 10,905	\$ 13,164	\$ 21,616
<b>Total Revenue Requirement</b>	<b>\$ 76,495,685</b>	<b>\$ 57,853,687</b>	<b>\$ 12,576,416</b>	<b>\$ 1,800,338</b>	<b>\$ 1,544,015</b>	<b>\$ 1,566,889</b>	<b>\$ 118,626</b>	<b>\$ 661,017</b>	<b>\$ 374,695</b>

# Exhibit I - COS Model - Summary

## CLASS COST OF SERVICE STUDY

### Unit Costs

	System Total	Residential	General Service	CIS	Large Volume	Very Large Volume	Flex	Transportation	Municipal
<b>Production</b>									
Demand	\$ 0.0436	\$ 0.0436	\$ 0.0436	\$ 0.0436	\$ 0.0436	\$ 0.0436	-	\$ 0.0436	0.0436
Customer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	\$ -	-
Commodity	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	\$ -	-
<b>Purchased Gas</b>									
Demand	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	\$ -	-
Customer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	\$ -	-
Commodity	\$ 0.0019	\$ 0.0020	\$ 0.0019	\$ 0.0022	\$ 0.0023	\$ 0.0021	\$ 0.0024	\$ -	\$ 0.0019
<b>Storage</b>									
Demand	\$ 0.9644	\$ 1.0053	\$ 1.0053	\$ 1.0053	\$ 1.0053	\$ 1.0053	-	\$ 0.0231	1.0053
Customer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	\$ -	-
Commodity	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	\$ -	-
<b>Distribution</b>									
Demand	\$ 9.7550	\$ 8.6073	\$ 9.3360	\$ 10.7282	\$ 11.4742	\$ 14.5234	-	\$ 12.3867	8.9858
Customer	\$ 40.7383	\$ 35.8382	\$ 87.9063	\$ 114.2710	\$ 1,011.8589	\$ 1,011.8589	\$ 322.0086	\$ 391.3592	40.7595
Commodity	\$ 0.0820	\$ 0.1240	\$ 0.0980	\$ 0.0576	\$ 0.0277	\$ 0.0147	\$ 0.0798	\$ 0.0130	0.0741
<b>TOTAL</b>									
Demand	\$ 10.7631	\$ 9.6563	\$ 10.3849	\$ 11.7772	\$ 12.5232	\$ 15.5724	-	\$ 12.4535	10.0347
Customer	\$ 48.0958	\$ 43.1474	\$ 95.8474	\$ 121.9991	\$ 1,018.1640	\$ 1,018.1640	\$ 328.3137	\$ 397.6643	47.0646
Commodity	\$ 0.0840	\$ 0.1260	\$ 0.0999	\$ 0.0599	\$ 0.0300	\$ 0.0168	\$ 0.0822	\$ 0.0130	0.0760
Total Fixed (SFV Charge per month)	\$ 58.1066	\$ 48.0910	\$ 121.7259	\$ 460.8121	\$ 2,848.5713	\$ 7,502.7375	\$ 598.4519	\$ 10,797.5633	178.3229
<b>Peak Day Throughput Volumes [Peak Month]</b>	<b>100,211</b>	<b>50,574</b>	<b>20,932</b>	<b>8,861</b>	<b>6,431</b>	<b>7,079</b>	<b>0</b>	<b>4,176</b>	<b>2,158</b>
<b>Number of Customers</b>	<b>107,741</b>	<b>98,787</b>	<b>8,400</b>	<b>308</b>	<b>44</b>	<b>17</b>	<b>15</b>	<b>5</b>	<b>165</b>
<b>Total Throughput Volumes</b>	<b>16,313,483</b>	<b>6,700,000</b>	<b>3,066,186</b>	<b>1,622,496</b>	<b>1,332,768</b>	<b>2,162,610</b>	<b>132,696</b>	<b>1,012,178</b>	<b>284,549</b>

## Exhibit I - COS Model - Internal Allocators

Class Cost of Service Study  
Internal Allocators

<b>Internal Allocators</b>										
<b>Allocator Name</b>	<b>Description</b>	<b>Total</b>	<b>RSH</b>	<b>GS</b>	<b>CIS</b>	<b>LVS 1</b>	<b>LVS 2</b>	<b>FLX</b>	<b>FT 1</b>	<b>MUN</b>
LABOR	Labor (excluding A&G)	15,538,941	10,427,094	3,645,186	384,521	449,071	410,656	42,122	112,621	67,672
	Percent	100.00%	67.10%	23.46%	2.47%	2.89%	2.64%	0.27%	0.72%	0.44%
PSTDPLT	Production, Storage, Transmission & Distribution Plant	396,929,552	316,929,312	54,509,504	7,945,310	6,132,705	6,438,078	422,160	2,916,291	1,636,194
	Percent	100.00%	79.85%	13.73%	2.00%	1.55%	1.62%	0.11%	0.73%	0.41%
LABTD	Transmission & Distribution Labor	11,181,515	6,859,229	3,189,078	278,693	369,268	290,226	33,438	112,484	49,098
	Percent	100.00%	61.34%	28.52%	2.49%	3.30%	2.60%	0.30%	1.01%	0.44%
DISTPLT	Distribution Plant	394,725,003	315,816,727	54,049,016	7,750,382	5,991,226	6,282,346	422,160	2,824,433	1,588,714
	Percent	100.00%	80.01%	13.69%	1.96%	1.52%	1.59%	0.11%	0.72%	0.40%
PLANT	Total Plant in Service	440,884,859	352,025,527	60,545,794	8,825,160	6,811,830	7,151,020	468,909	3,239,236	1,817,383
	Percent	100.00%	79.85%	13.73%	2.00%	1.55%	1.62%	0.11%	0.73%	0.41%
OMXGPU	Total O&M excluding Gas Purchases & Uncollectibles	27,786,441	20,705,424	5,215,632	489,139	548,826	478,703	47,838	197,311	103,568
	Percent	100.00%	74.52%	18.77%	1.76%	1.98%	1.72%	0.17%	0.71%	0.37%
RATEBASE	Rate Base	308,753,360	239,446,531	46,994,024	7,343,197	5,662,144	5,573,561	349,821	1,970,517	1,413,566
	Percent	100.00%	77.55%	15.22%	2.38%	1.83%	1.81%	0.11%	0.64%	0.46%
PLT_37680	Distribution Mains & Service Plant	359,490,765	303,920,000	37,856,149	5,170,649	3,771,223	4,732,872	236,549	2,372,347	1,430,976
	Percent	100.00%	84.54%	10.53%	1.44%	1.05%	1.32%	0.07%	0.66%	0.40%
LABDISTO	Labor - Distribution Operations	5,636,594	3,878,161	1,153,594	159,559	160,573	164,459	12,321	74,770	33,158
	Percent	100.00%	68.80%	20.47%	2.83%	2.85%	2.92%	0.22%	1.33%	0.59%
LABDISTM	Labor - Distribution Maintenance	4,581,867	2,327,162	1,803,725	99,803	183,746	106,204	18,858	30,117	12,253
	Percent	100.00%	50.79%	39.37%	2.18%	4.01%	2.32%	0.41%	0.66%	0.27%
TDPLT	Transmission & Distribution Plant	394,725,003	315,816,727	54,049,016	7,750,382	5,991,226	6,282,346	422,160	2,824,433	1,588,714
	Percent	100.00%	80.01%	13.69%	1.96%	1.52%	1.59%	0.11%	0.72%	0.40%
GENPLT	General Plant	694,255	554,330	95,341	13,897	10,726	11,261	738	5,101	2,862
	Percent	100.00%	79.85%	13.73%	2.00%	1.55%	1.62%	0.11%	0.73%	0.41%
DISTMAINT	Distribution Maintenance	12,759,474	8,663,592	3,070,568	256,116	330,558	259,198	29,927	100,664	48,851
	Percent	100.00%	67.90%	24.07%	2.01%	2.59%	2.03%	0.23%	0.79%	0.38%
GRSPSD	Gross Plant	396,929,552	316,929,312	54,509,504	7,945,310	6,132,705	6,438,078	422,160	2,916,291	1,636,194
	Percent	100.00%	79.85%	13.73%	2.00%	1.55%	1.62%	0.11%	0.73%	0.41%

## Exhibit I - COS Model - External Allocators

Class Cost of Service Study  
External Allocation Factors

Name	Description	Total	RSH	GS	CIS	LVS 1	LVS 2	FLX	FT 1	MUN
<b>DEMAND ALLOCATORS</b>										
SALESXT	Total Sales Volume excluding Transportation	DEM								
	Current Costs	15,301,306	43.79%	20.04%	10.60%	8.71%	14.13%	0.87%	0.00%	1.86%
	Year 3 Costs		6,700,000	3,066,186	1,622,496	1,332,768	2,162,610	132,696		284,549
	Year 5 Costs	15,301,306	6,700,000	3,066,186	1,622,496	1,332,768	2,162,610	132,696		284,549
		15,301,306	6,700,000	3,066,186	1,622,496	1,332,768	2,162,610	132,696		284,549
PKDAY	Peak Day Throughput Volumes [Peak Month]	DEM								
	Current Costs	3,106,540	50.47%	20.89%	8.84%	6.42%	7.06%	0.00%	4.17%	2.15%
	Year 3 Costs		1,567,799	648,897	274,683	199,364	219,450		129,441	66,906
	Year 5 Costs	3,106,540	1,567,799	648,897	274,683	199,364	219,450		129,441	66,906
		3,106,540	1,567,799	648,897	274,683	199,364	219,450		129,441	66,906
PKDAY_XT	Peak Day Throughput Volumes excluding Transportation	DEM								
	Current Costs	2,977,099	52.66%	21.80%	9.23%	6.70%	7.37%	0.00%	0.00%	2.25%
	Year 3 Costs		1,567,799	648,897	274,683	199,364	219,450			66,906
	Year 5 Costs	2,977,099	1,567,799	648,897	274,683	199,364	219,450			66,906
		2,977,099	1,567,799	648,897	274,683	199,364	219,450			66,906
PK_AVG	Peak and Average Volumes	DEM								
	Current Costs	1	45.77%	19.84%	9.39%	7.29%	10.16%	0.41%	5.19%	1.95%
	Year 3 Costs	1	0.46	0.20	0.09	0.07	0.10	0.00	0.05	0.02
	Year 5 Costs	1	0.46	0.20	0.09	0.07	0.10	0.00	0.05	0.02
		1	0.46	0.20	0.09	0.07	0.10	0.00	0.05	0.02
COG_D	Actual Cost of Gas by Class	DEM								
	Current Costs	88,000,000	43.00%	18.80%	11.50%	9.50%	14.50%	1.00%	0.00%	1.70%
	Year 3 Costs		37,840,000	16,544,000	10,120,000	8,360,167	12,759,833	880,000	-	1,496,000
	Year 5 Costs	88,000,000	37,840,000	16,544,000	10,120,000	8,360,167	12,759,833	880,000	-	1,496,000
		88,000,000	37,840,000	16,544,000	10,120,000	8,360,167	12,759,833	880,000	-	1,496,000
SRVC_2D	Service Allocator	DEM								
	Current Costs	203,186,575	88.59%	10.44%	0.33%	0.27%	0.10%	0.02%	0.03%	0.20%
	Year 3 Costs		180,012,719	21,220,196	676,726	552,154	213,332	41,882	62,745	406,821
	Year 5 Costs	203,186,575	180,012,719	21,220,196	676,726	552,154	213,332	41,882	62,745	406,821
		203,186,575	180,012,719	21,220,196	676,726	552,154	213,332	41,882	62,745	406,821
INDPKDAY	Industrial Peak Day Throughput Volumes [Peak Month]	DEM								
	Current Costs	693,497	0.00%	0.00%	39.61%	28.75%	31.64%	0.00%	0.00%	0.00%
	Year 3 Costs		-	-	274,683	199,364	219,450	-	-	-
	Year 5 Costs	693,497	-	-	274,683	199,364	219,450	-	-	-
		693,497	-	-	274,683	199,364	219,450	-	-	-
INDPK_AVG	Industrial Peak and Average Volumes	DEM								
	Current Costs	1	0.00%	0.00%	35.66%	27.39%	36.95%	0.00%	0.00%	0.00%
	Year 3 Costs	1	-	-	0.36	0.27	0.37	-	-	-
	Year 5 Costs	1	-	-	0.36	0.27	0.37	-	-	-
		1	-	-	0.36	0.27	0.37	-	-	-

# Exhibit I - COS Model - External Allocators

**Class Cost of Service Study**  
External Allocation Factors

Name	Description		Total	RSH	GS	CIS	LVS 1	LVS 2	FLX	FT 1	MUN
<b>CUSTOMER ALLOCATORS</b>											
TOTTHRU	Total Throughput Volumes	CUS									
	Current Costs		16,313,483	41.07%	18.80%	9.95%	8.17%	13.26%	0.81%	6.20%	1.74%
	Year 3 Costs		16,313,483	6,700,000	3,066,186	1,622,496	1,332,768	2,162,610	132,696	1,012,178	284,549
	Year 5 Costs		16,313,483	6,700,000	3,066,186	1,622,496	1,332,768	2,162,610	132,696	1,012,178	284,549
CUSTS	Number of Customers	CUS									
	Current Costs		107,741	91.69%	7.80%	0.29%	0.04%	0.02%	0.01%	0.00%	0.15%
	Year 3 Costs		107,741	98,787	8,400	308	44	17	15	5	165
	Year 5 Costs		107,741	98,787	8,400	308	44	17	15	5	165
UNCOLLECTIBLE	Uncollectible Accounts in Dollars	CUS									
	Current Costs		1,095,765	87.49%	12.12%	0.39%	0.00%	0.00%	0.00%	0.00%	0.00%
	Year 3 Costs		1,095,765	958,710	132,819	4,236	-	-	-	-	-
	Year 5 Costs		1,095,765	958,710	132,819	4,236	-	-	-	-	-
WTD_METERS	Weighted Meters Study	CUS									
	Current Costs		40,080,154	32.60%	57.40%	1.83%	5.31%	2.05%	0.60%	0.18%	0.02%
	Year 3 Costs		40,080,154	13,067,728	23,007,547	733,726	2,126,770	821,707	241,678	72,779	8,219
	Year 5 Costs		40,080,154	13,067,728	23,007,547	733,726	2,126,770	821,707	241,678	72,779	8,219
WTD_REGS	Weighted Regulators	CUS									
	Current Costs		40,080,154	32.60%	57.40%	1.83%	5.31%	2.05%	0.60%	0.18%	0.02%
	Year 3 Costs		40,080,154	13,067,728	23,007,547	733,726	2,126,770	821,707	241,678	72,779	8,219
	Year 5 Costs		40,080,154	13,067,728	23,007,547	733,726	2,126,770	821,707	241,678	72,779	8,219
SRVC_2C	Service Allocator	CUS									
	Current Costs		203,186,575	88.59%	10.44%	0.33%	0.27%	0.10%	0.02%	0.03%	0.20%
	Year 3 Costs		203,186,575	180,012,719	21,220,196	676,726	552,154	213,332	41,882	62,745	406,821
	Year 5 Costs		203,186,575	180,012,719	21,220,196	676,726	552,154	213,332	41,882	62,745	406,821
INDTOTTHRU	Industrial Total Throughput Volumes	CUS									
	Current Costs		5,117,874	0.00%	0.00%	31.70%	26.04%	42.26%	0.00%	0.00%	0.00%
	Year 3 Costs		5,117,874	-	-	1,622,496	1,332,768	2,162,610	-	-	-
	Year 5 Costs		5,117,874	-	-	1,622,496	1,332,768	2,162,610	-	-	-
INDCUSTS	Industrial Number of Customers	CUS									
	Current Costs		369	0.00%	0.00%	83.47%	11.92%	4.61%	0.00%	0.00%	0.00%
	Year 3 Costs		369	-	-	308	44	17	-	-	-
	Year 5 Costs		369	-	-	308	44	17	-	-	-
			-			308	44	17	-	-	-

## Exhibit I - COS Model - External Allocators

**Class Cost of Service Study**  
External Allocation Factors

Name	Description		Total	RSH	GS	CIS	LVS 1	LVS 2	FLX	FT 1	MUN
<b>COMMODITY ALLOCATORS</b>											
<b>FIRMSALES</b>	Annual Sales Volumes - Firm Only	COM									
Current Costs			15,168,609	44.17%	20.21%	10.70%	8.79%	14.26%	0.00%	0.00%	1.88%
Year 3 Costs				6,700,000	3,066,186	1,622,496	1,332,768	2,162,610			284,549
Year 5 Costs				6,700,000	3,066,186	1,622,496	1,332,768	2,162,610			284,549
<b>ALLSALES</b>	All Sales	COM									
Current Costs			15,301,306	43.79%	20.04%	10.60%	8.71%	14.13%	0.87%	0.00%	1.86%
Year 3 Costs				6,700,000	3,066,186	1,622,496	1,332,768	2,162,610	132,696		284,549
Year 5 Costs				6,700,000	3,066,186	1,622,496	1,332,768	2,162,610	132,696		284,549
<b>PK_AVGC</b>	Peak and Average	COM									
Current Costs			0.95	48.27%	20.93%	9.91%	7.69%	10.72%	0.43%	0.00%	2.06%
Year 3 Costs				0.46	0.20	0.09	0.07	0.10	0.00		0.02
Year 5 Costs				0.95	0.46	0.20	0.09	0.10	0.00		0.02
<b>REVENUE</b>	Non-Gas Revenue in Dollars	COM									
Current Costs			68,811,430	62.08%	22.45%	6.99%	2.76%	2.37%	0.79%	0.98%	1.57%
Year 3 Costs				42,718,235	15,448,736	4,808,548	1,899,909	1,631,249	544,353	676,794	1,083,607
Year 5 Costs				42,718,235	15,448,736	4,808,548	1,899,909	1,631,249	544,353	676,794	1,083,607
<b>COG</b>	Actual Cost of Gas by Class	COM									
Current Costs			88,000,000	43.00%	18.80%	11.50%	9.50%	14.50%	1.00%	0.00%	1.70%
Year 3 Costs				37,840,000	16,544,000	10,120,000	8,360,167	12,759,833	880,000	-	1,496,000
Year 5 Costs				37,840,000	16,544,000	10,120,000	8,360,167	12,759,833	880,000	-	1,496,000
<b>TRANS_VOL</b>	Transport Volume	COM									
Current Costs			1,012,178	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%
Year 3 Costs				-	-	-	-	-	-	1,012,178	-
Year 5 Costs				-	-	-	-	-	-	1,012,178	-
<b>OTHER ALLOCATORS</b>											
<b>ROR</b>	Rate of Return	COM									
Current Costs			4.47%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Year 3 Costs				4.47%	4.47%	4.47%	4.47%	4.47%	4.47%	4.47%	4.47%
Year 5 Costs				4.47%	4.47%	4.47%	4.47%	4.47%	4.47%	4.47%	4.47%
<b>RTBASE</b>	Rate Base	COM									
Current Costs			308,753,360	77.55%	15.22%	2.38%	1.83%	1.81%	0.11%	0.64%	0.46%
Year 3 Costs				239,446,531	46,994,024	7,343,197	5,662,144	5,573,561	349,821	1,970,517	1,413,566
Year 5 Costs				239,446,531	46,994,024	7,343,197	5,662,144	5,573,561	349,821	1,970,517	1,413,566

City of Richmond  
Weighted Meters Study  
Residential, Flex and Municipal

	Average Meter Cost	RS	MN	FL	Total
<b>10CD</b>	\$ 120.54	\$ 241.08	\$ -	\$ -	<b>\$ 241.08</b>
<b>10CE</b>	\$ 120.54	\$ 7,834.98	\$ 3,857.22	\$ -	<b>\$ 11,692.20</b>
<b>11CE</b>	\$ 120.54	\$ -	\$ -	\$ -	<b>\$ -</b>
<b>11CG</b>	\$ 120.54	\$ -	\$ 482.15	\$ 120.54	<b>\$ 602.69</b>
<b>14XJ</b>	\$ 120.54	\$ -	\$ -	\$ -	<b>\$ -</b>
<b>15CC</b>	\$ 120.54	\$ -	\$ -	\$ -	<b>\$ -</b>
<b>15CD</b>	\$ 120.54	\$ 120.54	\$ 120.54	\$ -	<b>\$ 241.08</b>
<b>175A</b>	\$ 120.54	\$ 205,638.00	\$ 120.54	\$ -	<b>\$ 205,758.54</b>
<b>18MG</b>	\$ 120.54	\$ -	\$ 723.23	\$ 482.15	<b>\$ 1,205.38</b>
<b>200A</b>	\$ 120.54	\$ 152,119.08	\$ -	\$ -	<b>\$ 152,119.08</b>
<b>20CE</b>	\$ 120.54	\$ 120.54	\$ 241.08	\$ -	<b>\$ 361.61</b>
<b>23CG</b>	\$ 120.54	\$ -	\$ -	\$ -	<b>\$ -</b>
<b>250G</b>	\$ 120.54	\$ -	\$ 361.61	\$ -	<b>\$ 361.61</b>
<b>25CG</b>	\$ 120.54	\$ 361.61	\$ 1,928.61	\$ 361.61	<b>\$ 2,651.84</b>
<b>275A</b>	\$ 120.54	\$ 11,321,782.12	\$ 2,651.84	\$ -	<b>\$ 11,324,433.96</b>
<b>27MG</b>	\$ 216.01	\$ -	\$ 216.01	\$ -	<b>\$ 216.01</b>
<b>3</b>	\$ 216.01	\$ -	\$ -	\$ -	<b>\$ -</b>
<b>30CE</b>	\$ 216.01	\$ -	\$ 864.02	\$ -	<b>\$ 864.02</b>
<b>30MH</b>	\$ 216.01	\$ -	\$ -	\$ -	<b>\$ -</b>
<b>40CG</b>	\$ 216.01	\$ -	\$ 432.01	\$ -	<b>\$ 432.01</b>
<b>415D</b>	\$ 216.01	\$ 1,098,607.61	\$ 2,808.08	\$ 216.01	<b>\$ 1,101,631.70</b>
<b>45CG</b>	\$ 782.05	\$ -	\$ 782.05	\$ -	<b>\$ 782.05</b>
<b>48CG</b>	\$ 782.05	\$ -	\$ 1,564.10	\$ 782.05	<b>\$ 2,346.15</b>
<b>500D</b>	\$ 782.05	\$ 4,692.30	\$ -	\$ -	<b>\$ 4,692.30</b>
<b>50CF</b>	\$ 782.05	\$ 3,128.20	\$ 4,692.30	\$ -	<b>\$ 7,820.50</b>
<b>50CG</b>	\$ 782.05	\$ 4,692.30	\$ 30,499.95	\$ 6,256.40	<b>\$ 41,448.65</b>
<b>60MI</b>	\$ 782.05	\$ -	\$ -	\$ -	<b>\$ -</b>
<b>70CG</b>	\$ 782.05	\$ -	\$ -	\$ -	<b>\$ -</b>
<b>750D</b>	\$ 782.05	\$ 186,909.95	\$ 15,641.00	\$ -	<b>\$ 202,550.95</b>
<b>880D</b>	\$ 798.82	\$ 81,479.58	\$ 1,597.64	\$ -	<b>\$ 83,077.22</b>
<b>90CF</b>	\$ 798.82	\$ -	\$ 3,195.28	\$ -	<b>\$ 3,195.28</b>
<b>Total</b>		<b>\$ 13,067,727.89</b>	<b>\$ 72,779.26</b>	<b>\$ 8,218.76</b>	<b>\$ 13,148,725.90</b>

City of Richmond  
Weighted Meters Study  
Residential, Flex and Municipal

	Rate Class				
	GS	CIS	LVS 1	LVS 2	TS 1
<b>Meter Count</b>	10,427	333	244	94	28
<b>Average Meter Cost</b>	\$ 2,206	\$ 2,206	\$ 8,716	\$ 8,716	\$ 8,716
<b>Total Meter Cost</b>	<b>\$ 23,007,547</b>	<b>\$ 733,726</b>	<b>\$ 2,126,770</b>	<b>\$ 821,707</b>	<b>\$ 241,678</b>

**Exhibit II - Weighted Meters Study**

City of Richmond  
Weighted Meters Study  
Residential, Flex and Municipal

	<b>RS</b>	<b>GS</b>	<b>CIS</b>	<b>LVS 1</b>	<b>LVS 2</b>	<b>TS 1</b>	<b>MN</b>	<b>FL</b>	<b>Total</b>
<b>Total Meter Cost</b>	\$ 13,067,728	\$ 23,007,547	\$ 733,726	\$ 2,126,770	\$ 821,707	\$ 241,678	\$ 72,779	\$ 8,219	\$ 40,080,154
<b>% of Total Meter Cost</b>	33%	57%	2%	5%	2%	1%	0%	0%	100%

Exhibit III - Weighted Services Study

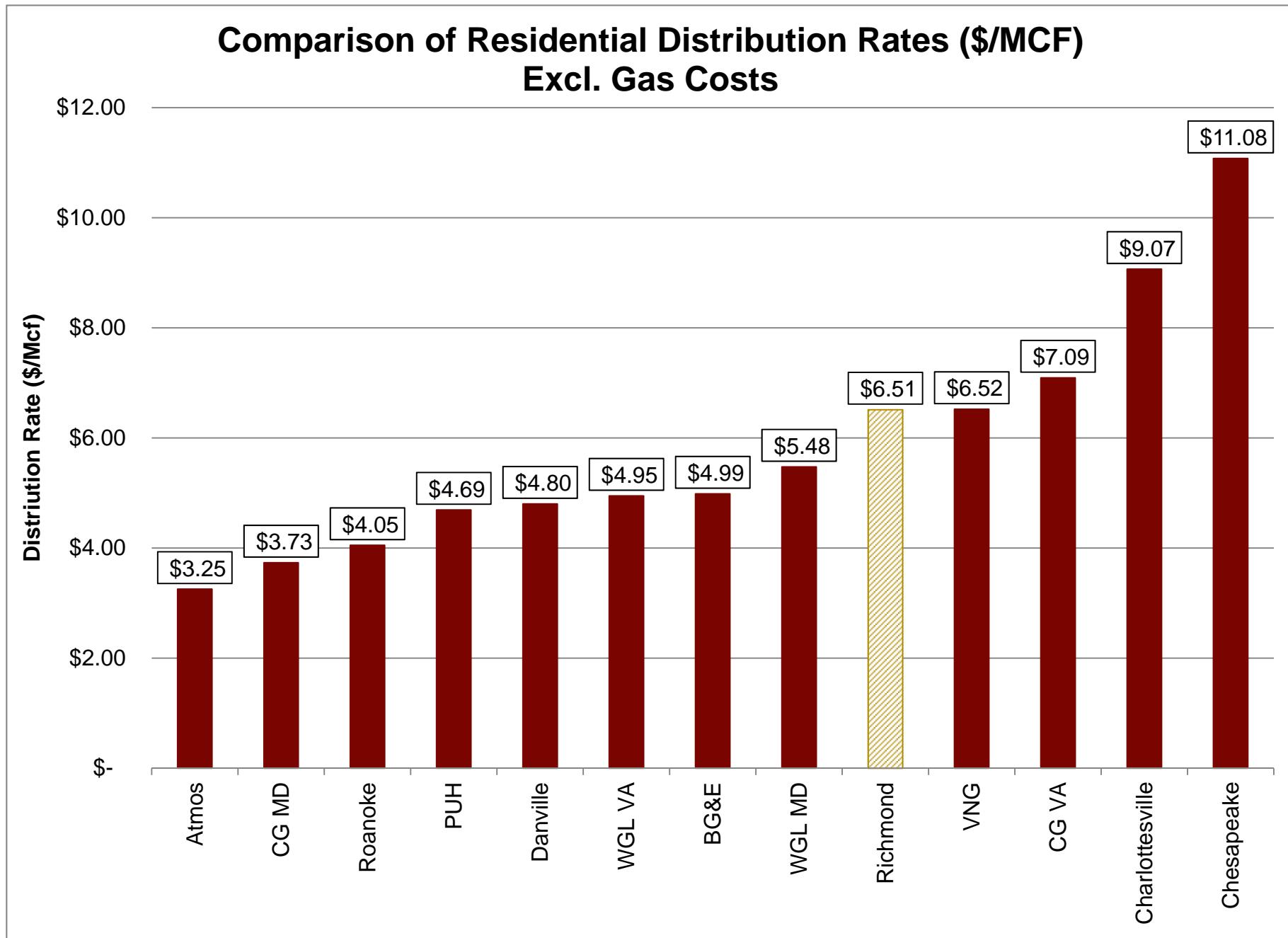
City of Richmond  
Weighted Services Study

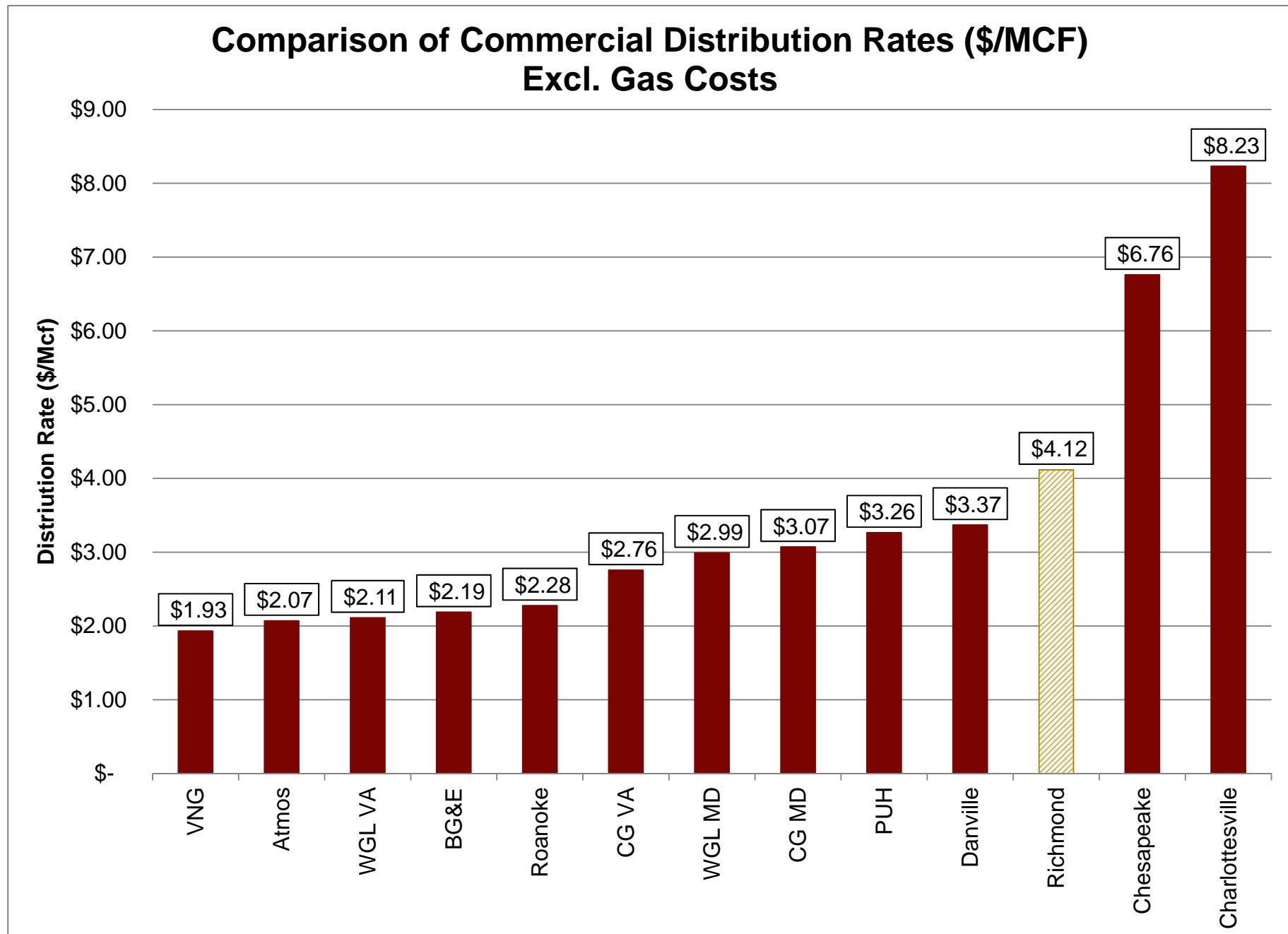
	Average Service Cost	RS	GS	CIS	LVS 1	LVS 2	TS 1	MN	FL	Total
<b>10CD</b>	\$ 1,735.33	\$ 3,470.65	\$ 47,087.49	\$ 1,501.65	\$ -	\$ -	\$ -	\$ -	\$ -	<b>\$ 52,059.79</b>
<b>10CE</b>	\$ 1,735.33	\$ 112,796.21	\$ 2,774,798.27	\$ 88,490.15	\$ 23,137.68	\$ 8,939.56	\$ 2,629.28	\$ 55,530.44	\$ -	<b>\$ 3,066,321.60</b>
<b>11CE</b>	\$ 1,735.33	\$ -	\$ 5,045.09	\$ 160.89	\$ -	\$ -	\$ -	\$ -	\$ -	<b>\$ 5,205.98</b>
<b>11CG</b>	\$ 1,735.33	\$ -	\$ 62,222.75	\$ 1,984.32	\$ 1,156.88	\$ 446.98	\$ 131.46	\$ 6,941.31	\$ 1,735.33	<b>\$ 74,619.03</b>
<b>14XJ</b>	\$ 1,735.33	\$ -	\$ -	\$ -	\$ 2,313.77	\$ 893.96	\$ 262.93	\$ -	\$ -	<b>\$ 3,470.65</b>
<b>15CC</b>	\$ 1,735.33	\$ -	\$ 18,498.66	\$ 589.93	\$ -	\$ -	\$ -	\$ -	\$ -	<b>\$ 19,088.59</b>
<b>15CD</b>	\$ 1,735.33	\$ 1,735.33	\$ 60,541.05	\$ 1,930.69	\$ -	\$ -	\$ -	\$ 1,735.33	\$ -	<b>\$ 65,942.40</b>
<b>175A</b>	\$ 1,735.33	\$ 2,960,466.70	\$ 132,853.98	\$ 4,236.80	\$ -	\$ -	\$ -	\$ 1,735.33	\$ -	<b>\$ 3,099,292.80</b>
<b>18MG</b>	\$ 1,735.33	\$ -	\$ 63,904.45	\$ 2,037.95	\$ 11,568.84	\$ 4,469.78	\$ 1,314.64	\$ 10,411.96	\$ 6,941.31	<b>\$ 100,648.93</b>
<b>200A</b>	\$ 1,735.33	\$ 2,189,981.81	\$ 149,670.94	\$ 4,773.11	\$ -	\$ -	\$ -	\$ -	\$ -	<b>\$ 2,344,425.85</b>
<b>20CE</b>	\$ 1,735.33	\$ 1,735.33	\$ 75,676.32	\$ 2,413.37	\$ -	\$ -	\$ -	\$ 3,470.65	\$ -	<b>\$ 83,295.66</b>
<b>23CG</b>	\$ 1,735.33	\$ -	\$ 5,045.09	\$ 160.89	\$ -	\$ -	\$ -	\$ -	\$ -	<b>\$ 5,205.98</b>
<b>250G</b>	\$ 1,735.33	\$ -	\$ 40,360.70	\$ 1,287.13	\$ -	\$ -	\$ -	\$ 5,205.98	\$ -	<b>\$ 46,853.81</b>
<b>25CG</b>	\$ 1,735.33	\$ 5,205.98	\$ 933,341.24	\$ 29,764.87	\$ 20,823.92	\$ 8,045.60	\$ 2,366.35	\$ 27,765.22	\$ 5,205.98	<b>\$ 1,032,519.16</b>
<b>275A</b>	<b>\$ 1,735.33</b>	\$ 162,993,994.98	\$ 6,624,200.24	\$ 211,250.12	\$ 6,941.31	\$ 2,681.87	\$ 788.78	\$ 38,177.18	\$ -	<b>\$ 169,878,034.48</b>
<b>27MG</b>	\$ 2,104.15	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,104.15	\$ -	<b>\$ 2,104.15</b>
<b>3</b>	\$ 2,104.15	\$ -	\$ 2,039.12	\$ 65.03	\$ -	\$ -	\$ -	\$ -	\$ -	<b>\$ 2,104.15</b>
<b>30CE</b>	\$ 2,104.15	\$ -	\$ 146,816.48	\$ 4,682.07	\$ -	\$ -	\$ -	\$ 8,416.59	\$ -	<b>\$ 159,915.14</b>
<b>30MH</b>	\$ 2,104.15	\$ -	\$ 26,508.53	\$ 845.37	\$ 5,611.06	\$ 2,167.91	\$ 637.62	\$ -	\$ -	<b>\$ 35,770.49</b>
<b>40CG</b>	\$ 2,104.15	\$ -	\$ 146,816.48	\$ 4,682.07	\$ 4,208.29	\$ 1,625.93	\$ 478.22	\$ 4,208.29	\$ -	<b>\$ 162,019.29</b>
<b>415D</b>	<b>\$ 2,104.15</b>	\$ 10,701,689.73	\$ 3,966,084.14	\$ 126,481.04	\$ 280,552.88	\$ 108,395.43	\$ 31,881.01	\$ 27,353.91	\$ 2,104.15	<b>\$ 15,244,542.29</b>
<b>45CG</b>	\$ 2,877.21	\$ -	\$ 8,364.87	\$ 266.76	\$ 5,754.42	\$ 2,223.30	\$ 653.91	\$ 2,877.21	\$ -	<b>\$ 20,140.46</b>
<b>48CG</b>	\$ 2,877.21	\$ -	\$ 41,824.33	\$ 1,333.81	\$ 1,918.14	\$ 741.10	\$ 217.97	\$ 5,754.42	\$ 2,877.21	<b>\$ 54,666.97</b>
<b>500D</b>	\$ 2,877.21	\$ 17,263.25	\$ 13,941.44	\$ 444.60	\$ -	\$ -	\$ -	\$ -	\$ -	<b>\$ 31,649.30</b>
<b>50CF</b>	\$ 2,877.21	\$ 11,508.84	\$ 574,387.48	\$ 18,317.60	\$ 9,590.70	\$ 3,705.50	\$ 1,089.85	\$ 17,263.25	\$ -	<b>\$ 635,863.22</b>
<b>50CG</b>	\$ 2,877.21	\$ 17,263.25	\$ 1,265,883.09	\$ 40,369.85	\$ 24,935.81	\$ 9,634.29	\$ 2,833.62	\$ 112,211.16	\$ 23,017.67	<b>\$ 1,496,148.74</b>
<b>60MI</b>	\$ 2,877.21	\$ -	\$ 13,941.44	\$ 444.60	\$ 9,590.70	\$ 3,705.50	\$ 1,089.85	\$ -	\$ -	<b>\$ 28,772.09</b>
<b>70CG</b>	\$ 2,877.21	\$ -	\$ 33,459.46	\$ 1,067.04	\$ -	\$ -	\$ -	\$ -	\$ -	<b>\$ 34,526.51</b>
<b>750D</b>	<b>\$ 2,877.21</b>	\$ 687,652.98	\$ 3,401,712.27	\$ 108,482.85	\$ 140,024.18	\$ 54,100.25	\$ 15,911.84	\$ 57,544.18	\$ -	<b>\$ 4,465,428.55</b>
<b>880D</b>	\$ 3,019.16	\$ 307,954.15	\$ 552,985.85	\$ 17,635.08	\$ -	\$ -	\$ -	\$ 6,038.32	\$ -	<b>\$ 884,613.40</b>
<b>90CF</b>	<b>\$ 3,019.16</b>	\$ -	\$ 32,184.36	\$ 1,026.38	\$ 4,025.54	\$ 1,555.32	\$ 457.45	\$ 12,076.63	\$ -	<b>\$ 51,325.69</b>
<b>Total</b>		<b>\$ 180,012,719.19</b>	<b>\$ 21,220,195.61</b>	<b>\$ 676,726.06</b>	<b>\$ 552,154.12</b>	<b>\$ 213,332.27</b>	<b>\$ 62,744.79</b>	<b>\$ 406,821.49</b>	<b>\$ 41,881.64</b>	<b>\$ 203,186,575.16</b>
<b>% of Total</b>		<b>88.59%</b>	<b>10.44%</b>	<b>0.33%</b>	<b>0.27%</b>	<b>0.10%</b>	<b>0.03%</b>	<b>0.20%</b>	<b>0.02%</b>	<b>100.00%</b>

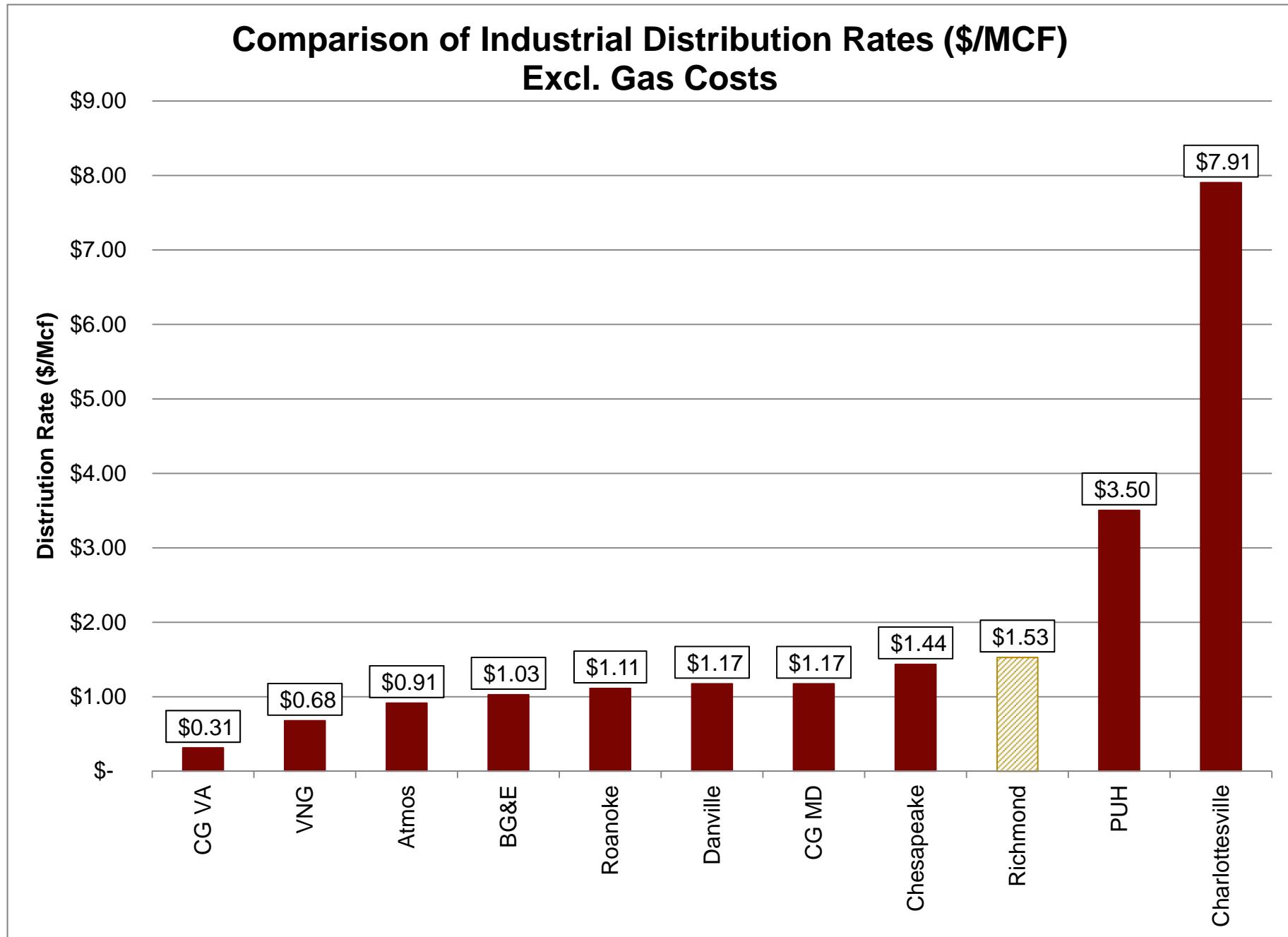
## Exhibit IV - Minimum System

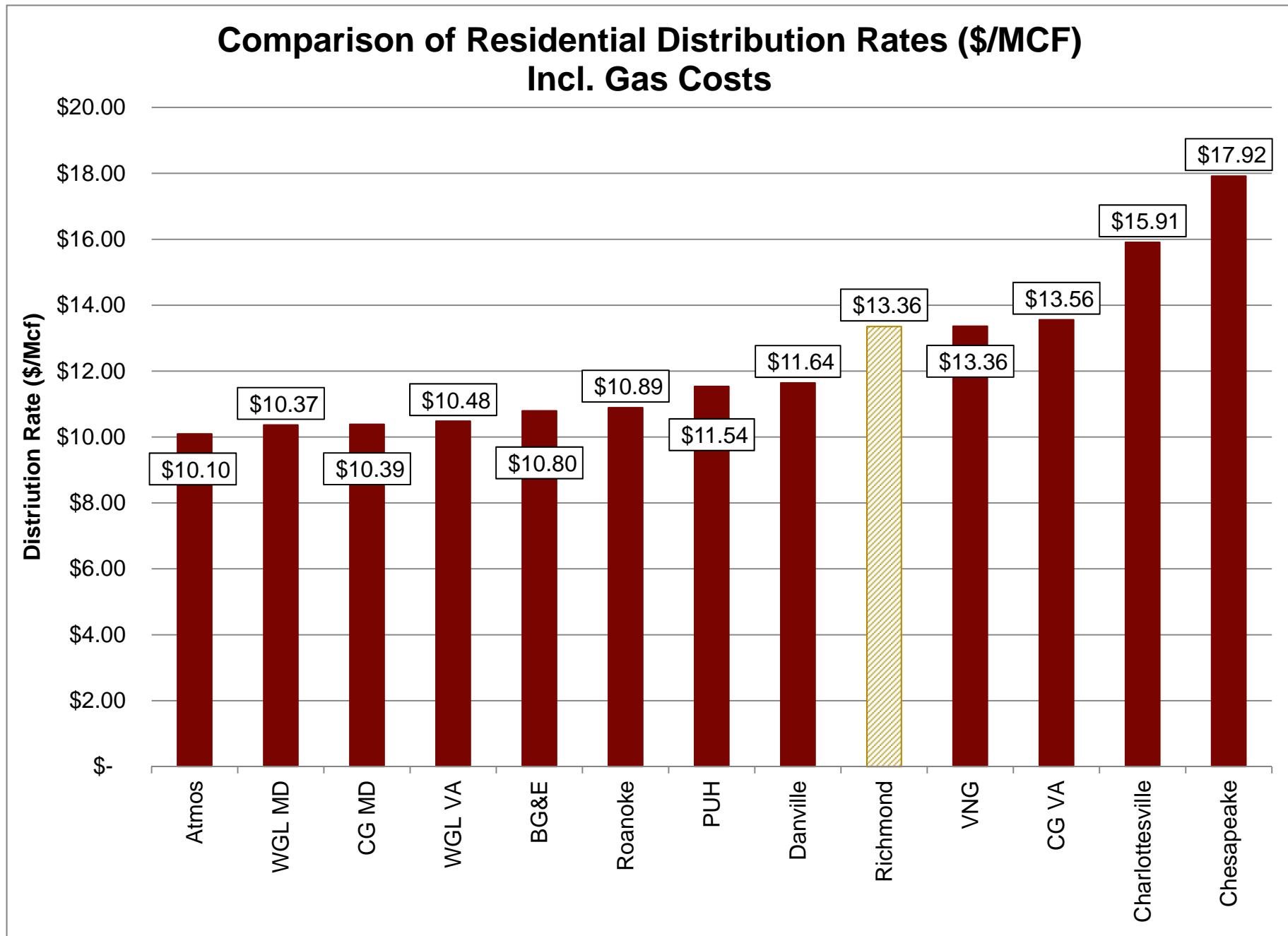
City of Richmond  
Minimum System Calculation

Line No.	Description (A)	Miles of Main (B)	Ft of Main (C)	Replacement Unit Cost per ft (D)	Replacement Cost (E)
<b>2" or less</b>					
1	Cast Iron	0.98	5,148.30	\$70.78	\$ 364,410
2	Copper	-	-	\$70.78	-
3	Ductile Iron	0.91	4,802.16	\$70.78	339,909
4	Plastic	645.62	3,408,887.10	\$70.78	241,289,922
5	Steel	233.77	1,234,315.69	\$70.78	87,368,085
6	Unknown	0.74	3,909.25	\$70.78	276,707
7	Total	882.02	4,657,062.50		\$ 329,639,033
<b>Over 2" thru 4"</b>					
8	Cast Iron	129.50	683,740.37	\$87.51	\$ 59,831,723
9	Copper	-	-	\$87.51	-
10	Ductile Iron	34.72	183,306.74	\$87.51	16,040,530
11	Plastic	277.64	1,465,950.23	\$87.51	128,280,164
12	Steel	12.15	64,152.69	\$87.51	5,613,777
13	Unknown	0.01	33.53	\$87.51	2,935
14	Total	454.01	2,397,183.57		\$ 209,769,128
<b>Over 4" thru 8"</b>					
15	Cast Iron	138.38	730,637.48	\$102.50	\$ 74,890,342
16	Copper	-	-	\$102.50	-
17	Ductile Iron	53.40	281,944.48	\$102.50	28,899,309
18	Plastic	120.08	634,014.83	\$102.50	64,986,520
19	Steel	133.03	702,382.19	\$102.50	71,994,174
20	Unknown	-	-	\$102.50	-
21	Total	444.88	2,348,978.98		\$ 240,770,345
<b>Over 8" thru 12"</b>					
22	Cast Iron	44.79	236,484.42	\$193.43	\$ 45,743,507
23	Copper	-	-	\$193.43	-
24	Ductile Iron	15.13	79,902.83	\$193.43	15,455,714
25	Plastic	0.14	727.08	\$193.43	140,641
26	Steel	87.44	461,686.80	\$193.43	89,304,712
27	Unknown	-	-	\$193.43	-
28	Total	147.50	778,801.13		\$ 150,644,572
<b>Over 12"</b>					
29	Cast Iron	1.54	8,126.79	\$193.43	\$ 1,571,977
30	Copper	-	-	\$193.43	-
31	Ductile Iron	-	-	\$193.43	-
32	Plastic	-	-	\$193.43	-
33	Steel	15.73	83,031.11	\$193.43	16,060,821
34	Unknown	-	-	\$193.43	-
35	Total	17.26	91,157.90		\$ 17,632,798
<b>Total</b>					
36	Cast Iron	315.18	1,664,137.37		\$ 182,401,958
37	Copper	-	-		-
38	Ductile Iron	104.16	549,956.20		60,735,462
39	Plastic	1,043.48	5,509,579.25		434,697,247
40	Steel	482.12	2,545,568.48		270,341,568
41	Unknown	0.75	3,942.79		279,642
42	Total	1,945.68	10,273,184.08		\$ 948,455,877
43	Total System at Most Common Size Unit Cost				\$ 727,162,769
44	Minimum System Customer Percentage				76.7%

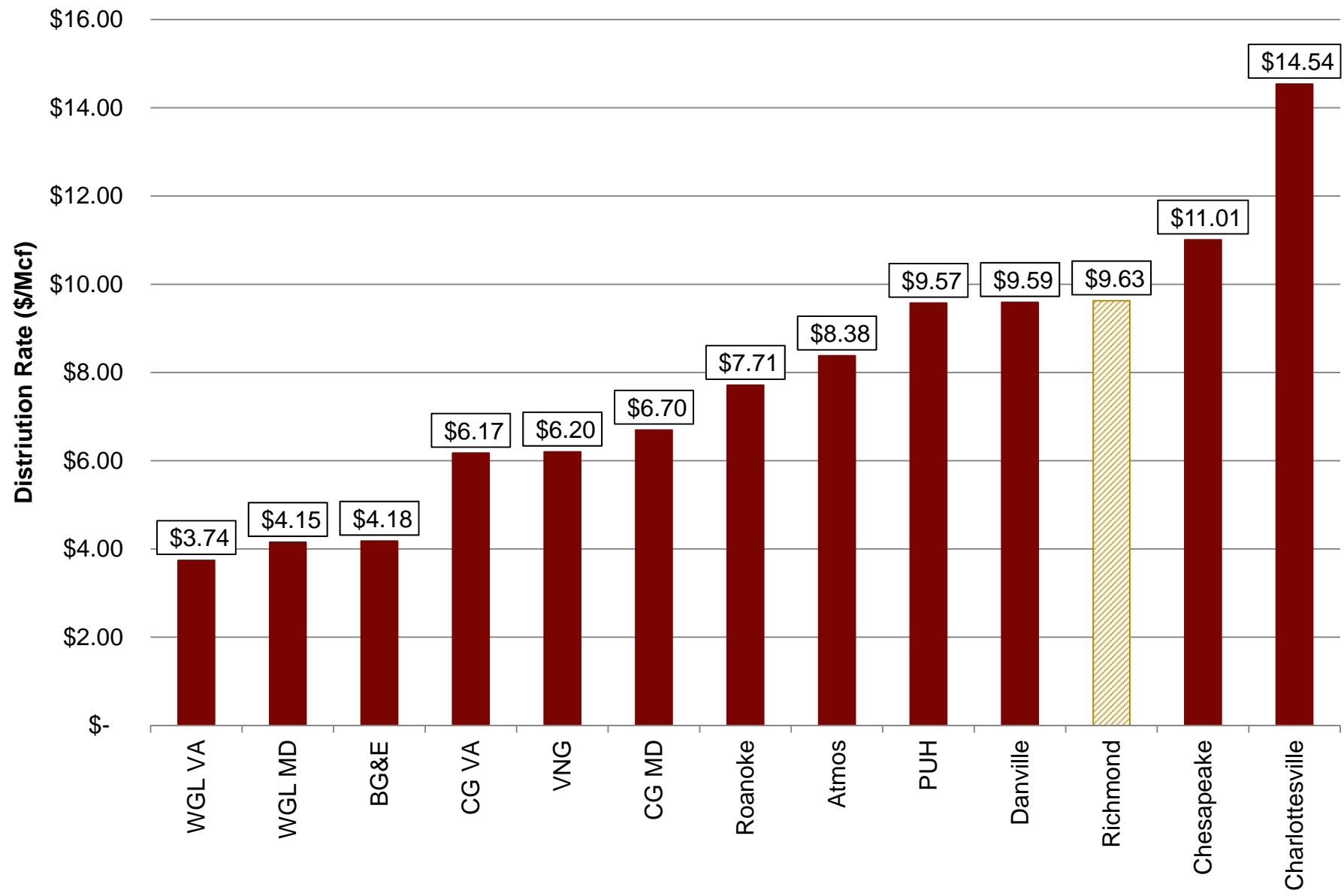


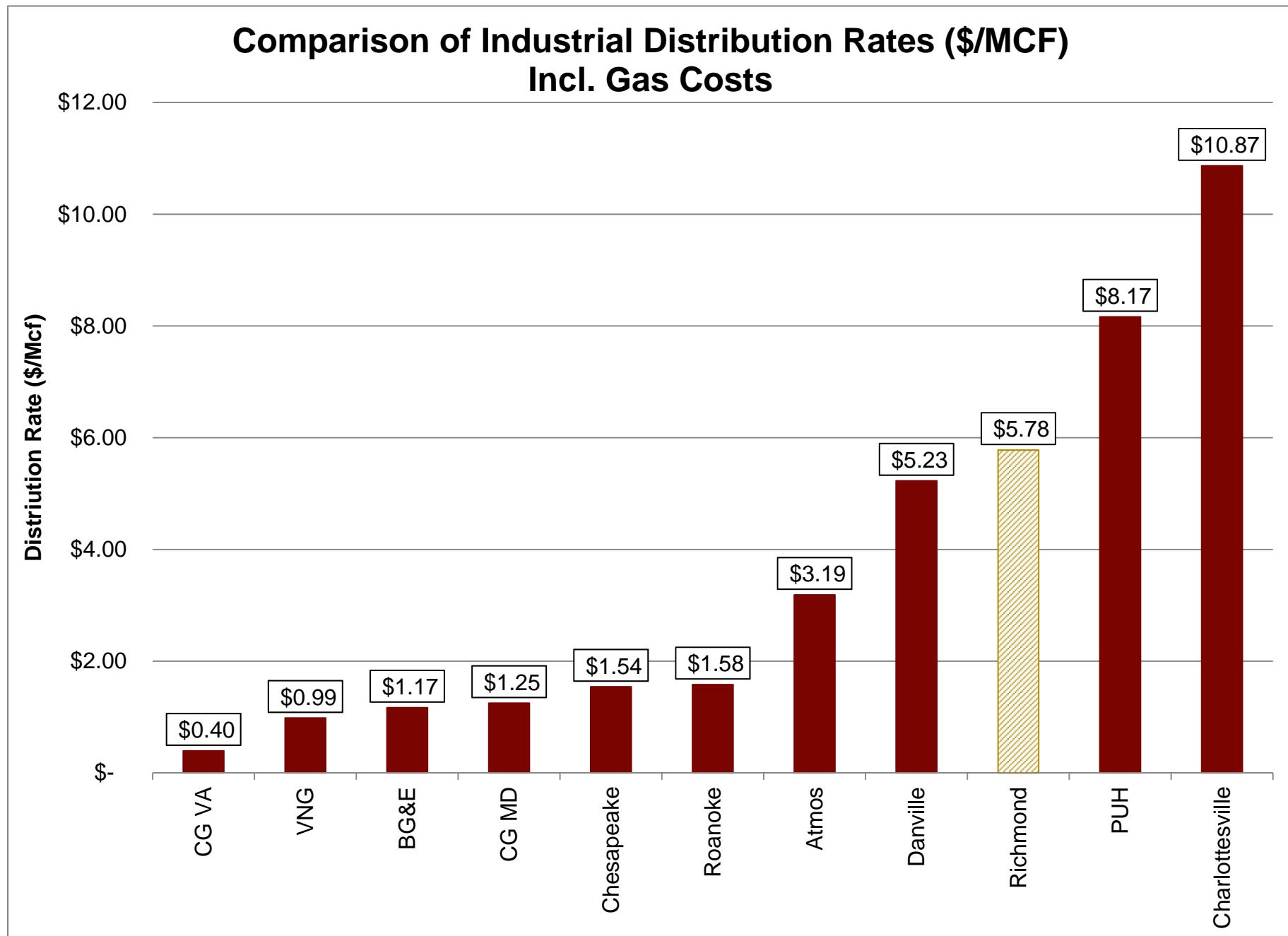






## Comparison of Commercial Distribution Rates (\$/MCF) Incl. Gas Costs





**Bill Frequency Tables for Billing Months 2010-07 to 2011-06****All Customers****Rate Block Structure****Residential**

Therm	Cumulative CCF <=	Cumulative Bills <=	Bills Exceeding	Consolidated Use	Block (Therms)	Use In Block	
	TME Jun-11	TME Jun-11	TME Jun-11	TME Jun-11		TME Jun-11	%
-	-	144,752	1,116,460	-		-	
500	67,141,532	1,258,894	2,318	68,300,532	0 to 500	68,300,532	99.51%
2,815	68,637,752	1,261,212	-	68,637,752	500+	337,220	0.49%
Total Above						68,637,752	
Total Data 2010-07 to 2011-06						<u>68,637,752</u>	
Difference						-	

[1] Source: Richmond Residential Database - FY2011 - DV - Excl. Neg. Use.xls

**Bill Frequency Tables for Billing Months 2010-07 to 2011-06**  
**Chesterfield Customers**

**Rate Block Structure**  
**Residential**

Therm	Cumulative CCF <=	Cumulative Bills <=	Bills Exceeding	Consolidated Use	Block (Therms)	Use In Block	
	TME Jun-11	TME Jun-11	TME Jun-11	TME Jun-11		TME Jun-11	%
-	-	6,628	50,132	-		-	
500	2,700,364	56,727	33	2,716,864	0 to 500	2,716,864	99.65%
2,099	2,726,504	56,760	-	2,726,504	500+	9,640	0.35%
Total Above						2,726,504	
Total Data 2010-07 to 2011-06						<u>2,726,504</u>	
Difference						-	

[1] Source: Richmond Residential Database - FY2011 - DV - Excl. Neg. Use.xls

**Bill Frequency Tables for Billing Months 2010-07 to 2011-06****Hanover Customers****Rate Block Structure****Residential**

Therm	Cumulative CCF <=	Cumulative Bills <=	Bills Exceeding	Consolidated Use	Block (Therms)	Use In Block	
	TME Jun-11	TME Jun-11	TME Jun-11	TME Jun-11		TME Jun-11	%
-	-	58	182	-	0 to 500	-	
500	15,011	240	-	15,011	500+	15,011	100.00%
399	15,011	240	-	15,011		-	0.00%
Total Above						15,011	
Total Data 2010-07 to 2011-06						<u>15,011</u>	
Difference						-	

[1] Source: Richmond Residential Database - FY2011 - DV - Excl. Neg. Use.xls

**Bill Frequency Tables for Billing Months 2010-07 to 2011-06****Henrico Customers****Rate Block Structure****Residential**

Therm	Cumulative CCF <=	Cumulative Bills <=	Bills Exceeding	Consolidated Use	Block (Therms)	Use In Block	
	TME Jun-11	TME Jun-11	TME Jun-11	TME Jun-11		TME Jun-11	%
-	-	52,280	600,532	-	0 to 500	-	
500	37,270,644	652,361	451	37,496,144	500+	37,496,144	99.84%
1,914	37,556,915	652,812	-	37,556,915		60,771	0.16%
Total Above						37,556,915	
Total Data 2010-07 to 2011-06						<u>37,556,915</u>	
Difference						-	

[1] Source: Richmond Residential Database - FY2011 - DV - Excl. Neg. Use.xls

**Bill Frequency Tables for Billing Months 2010-07 to 2011-06****Richmond Customers****Rate Block Structure****Residential**

Therm	Cumulative CCF <=	Cumulative Bills <=	Bills Exceeding	Consolidated Use	Block (Therms)	Use In Block	
	TME Jun-11	TME Jun-11	TME Jun-11	TME Jun-11		TME Jun-11	%
-	-	85,786	465,614	-	0 to 500	-	
500	27,155,513	549,566	1,834	28,072,513	500+	28,072,513	99.06%
2,815	28,339,322	551,400	-	28,339,322		266,809	0.94%
Total Above						28,339,322	
Total Data 2010-07 to 2011-06						<u>28,339,322</u>	
Difference						-	

[1] Source: Richmond Residential Database - FY2011 - DV - Excl. Neg. Use.xls

## Exhibit VII - Monthly Usage Profiles

**Monthly Usage Profiles - All Residential Customers**

Bin	Kth Smallest	Strata (Annual CCFs < X)	12 Billing Months Ending Jun-11												Annual			MDCQ		Count
			Data.RSIF	Data.RSIG	Data.RSIH	Data.RSII	Data.RSIJ	Data.RSIK	Data.RSIL	Data.RSIM	Data.RSIN	Data.RSIP	Data.RSIO	Total	Peak	Off Pk				
			Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011						
1	4,087	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,087		
2	6,332	20	3,458	1,992	1,298	1,149	1,081	1,149	1,306	1,844	1,701	1,534	1,734	2,372	20,618	-	-	2,260		
3	8,577	48	9,540	7,055	5,778	4,788	4,920	5,159	5,670	8,287	7,923	6,439	7,447	6,854	79,860	-	-	2,288		
4	10,821	90	13,563	10,789	9,053	7,819	7,785	8,808	11,141	20,579	20,487	14,822	16,491	12,144	153,481	-	-	2,228		
5	13,066	130	16,328	13,467	11,668	11,116	11,711	14,653	20,486	39,936	38,475	27,594	25,796	18,184	249,414	-	-	2,241		
6	15,311	166	18,777	15,862	13,304	13,615	14,167	18,793	28,920	57,510	56,258	39,159	36,368	23,388	336,121	-	-	2,268		
7	17,556	200	20,182	17,400	14,603	14,997	16,187	21,976	35,349	74,342	71,881	49,167	42,379	26,959	405,422	-	-	2,209		
8	19,800	234	21,665	19,470	16,133	16,778	17,860	24,286	43,820	97,356	93,613	62,415	50,195	30,223	493,814	-	-	2,268		
9	22,045	267	21,971	19,449	16,570	17,001	18,253	25,524	49,441	114,045	112,079	72,755	58,256	33,282	558,626	-	-	2,227		
10	24,290	297	23,188	20,446	17,578	18,044	19,141	27,953	57,890	139,187	134,391	85,607	64,808	34,055	642,288	-	-	2,271		
11	26,535	326	23,351	20,441	17,605	18,542	19,614	29,688	63,773	153,082	148,233	92,319	68,467	35,744	690,859	-	-	2,213		
12	28,779	354	25,573	22,590	19,228	20,082	21,237	32,439	71,874	172,933	168,500	106,714	80,087	40,512	781,769	-	-	2,295		
13	31,024	380	25,464	22,558	19,231	19,734	21,194	32,523	74,694	182,230	177,915	109,320	81,002	40,541	806,406	-	-	2,193		
14	33,269	407	26,821	23,484	20,529	20,907	22,495	35,277	83,074	202,944	200,457	123,059	92,679	45,155	896,881	-	-	2,276		
15	35,514	433	27,644	23,859	20,326	21,095	22,679	36,555	89,149	214,850	211,217	132,113	97,933	47,452	944,872	-	-	2,246		
16	37,758	459	28,148	24,433	21,159	21,761	23,498	39,536	96,371	234,917	230,956	144,477	104,859	49,066	1,019,181	-	-	2,282		
17	40,003	484	28,732	24,055	20,780	21,596	23,443	39,522	98,100	242,048	238,306	150,902	110,291	52,520	1,050,295	-	-	2,225		
18	42,248	507	29,273	24,973	21,652	22,076	25,050	41,524	106,471	258,504	253,545	159,221	117,019	53,542	1,112,850	-	-	2,244		
19	44,493	531	31,751	26,714	22,892	23,068	25,323	44,227	112,559	271,783	269,770	171,690	123,966	57,478	1,181,221	-	-	2,274		
20	46,737	553	30,672	25,688	21,887	22,533	24,553	43,017	114,118	273,815	274,168	173,381	126,771	57,540	1,188,143	-	-	2,190		
21	48,982	576	31,005	25,634	22,092	22,688	25,217	46,557	122,513	293,209	287,525	182,991	132,625	58,757	1,250,813	-	-	2,214		
22	51,227	599	31,890	26,590	22,819	23,214	25,529	46,897	127,968	306,404	304,810	192,985	140,558	63,306	1,312,970	-	-	2,233		
23	53,472	622	34,146	27,359	23,481	24,614	26,981	51,596	138,898	329,302	325,043	206,386	151,521	67,335	1,406,662	-	-	2,302		
24	55,716	644	33,969	27,000	22,987	23,852	26,698	51,780	140,566	329,824	323,305	205,747	151,726	66,672	1,404,126	-	-	2,217		
25	57,961	667	34,454	27,530	22,892	23,617	27,459	54,097	146,554	341,537	334,110	212,673	157,811	67,376	1,450,110	-	-	2,211		
26	60,206	691	36,559	29,022	24,802	25,250	28,788	57,194	159,396	373,638	367,286	234,089	174,852	75,710	1,586,586	-	-	2,335		
27	62,451	715	35,862	28,676	24,378	24,945	28,327	57,902	160,971	377,673	368,244	233,104	175,543	74,405	1,590,030	-	-	2,260		
28	64,695	738	35,807	28,077	23,461	24,115	27,577	57,564	160,261	369,381	362,596	232,177	174,257	73,657	1,568,930	-	-	2,158		
29	66,940	763	38,674	29,858	25,020	25,864	29,804	64,531	179,864	410,968	398,392	251,583	191,319	78,651	1,724,528	-	-	2,296		
30	69,185	788	38,968	29,484	24,813	25,659	29,956	64,885	181,950	420,963	404,827	255,496	191,855	78,613	1,747,469	-	-	2,252		
31	71,430	813	38,069	29,592	24,762	25,667	29,982	67,024	189,477	428,662	411,799	261,781	198,104	79,250	1,784,169	-	-	2,228		
32	73,674	840	40,408	30,221	25,665	26,672	31,472	69,886	193,186	443,352	433,385	275,364	208,865	86,541	1,864,999	-	-	2,255		
33	75,919	868	40,014	30,593	25,294	25,909	31,094	71,592	201,387	447,482	428,475	271,860	209,693	82,890	1,866,283	-	-	2,185		
34	78,164	897	41,561	31,133	25,927	26,782	32,013	73,973	210,784	475,701	454,904	290,942	220,915	89,211	1,973,846	-	-	2,236		
35	80,409	928	44,109	32,630	27,154	28,463	34,107	79,704	227,200	505,022	488,072	309,837	237,688	95,420	2,109,406	-	-	2,311		
36	82,653	961	43,388	31,848	26,990	27,881	33,012	78,841	224,462	493,410	478,348	304,208	232,682	94,069	2,069,139	-	-	2,190		
37	84,898	997	46,051	33,073	27,542	28,969	35,080	85,426	240,221	530,361	513,026	326,976	251,949	100,404	2,219,078	-	-	2,266		
38	87,143	1,035	46,490	33,066	27,411	28,371	34,361	85,012	243,615	536,933	520,082	332,107	255,389	101,889	2,244,726	-	-	2,210		
39	89,388	1,079	48,429	35,003	29,137	30,332	36,886	93,014	260,704	572,127	551,887	352,728	272,411	109,158	2,391,816	-	-	2,262		
40	91,632	1,128	51,084	36,540	30,032	31,710	38,367	97,873	272,719	597,568	570,376	362,025	282,646	110,731	2,481,671	-	-	2,249		
41	93,877	1,187	52,406	36,806	30,414	31,694	39,256	100,996	285,297	619,626	596,332	380,040	297,931	117,963	2,588,761	-	-	2,237		
42	96,122	1,257	55,378	38,635	31,943	33,270	41,436	109,276	302,210	658,886	632,087	398,120	315,278	123,873	2,740,392	-	-	2,243		
43	98,367	1,347	57,378	39,415	32,862	34,493	43,327	118,837	325,516	698,521	664,190	425,968	335,326	132,877	2,908,710	-	-	2,238		
44	100,611	1,486	63,358	42,547	35,767	37,359	47,520	129,344	355,472	754,906	726,749	460,964	365,537	146,116	3,165,639	-	-	2,244		
45	102,856	1,739	70,741	45,521	38,212	39,397	50,620	146,148	399,576	855,602	830,762	522,132	411,452	168,644	3,578,807	-	-	2,242		
46	<b>4,789</b>	106,438	65,012	55,320	58,712	78,225	198,929	528,276	1,137,944	1,101,739	691,628	558,309	235,835	4,816,367	-	-	2,214			
47	<b>7,839</b>	4,441	1,974	1,835	1,927	6,719	7,008	14,827	29,638	26,572	17,134	14,016	7,333	133,424	-	-	24			
48	<b>10,889</b>	150	111	104	120	217	525	1,564	3,907	3,898	2,862	2,092	1,244	16,794	-	-	2			
49	<b>13,939</b>	837	888	755	866	772	823	1,007	1,766	1,609	1,125	1,147	796	12,391	-	-	1			
50	16,989	961	887	696	818	847	1,224	1,689	2,814	2,633	1,749	1,549	1,122	16,989	-	-	1			

## Exhibit VII - Monthly Usage Profiles

Monthly Usage Profiles - All Residential Customers

Strata (Annual CCFs < X)	Average Use Per Strata (CCFs)												Count		
	12 Billing Months Ending Jun-11														
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011			
-	-	-	-	-	-	-	-	-	-	-	-	-	4,087		
20	2	1	1	1	0	1	1	1	1	1	1	1	2,260		
48	4	3	3	2	2	2	4	3	3	3	3	35	2,288		
90	6	5	4	4	3	4	5	9	9	7	7	5	69	2,228	
130	7	6	5	5	5	7	9	18	17	12	12	8	111	2,241	
166	8	7	6	6	6	8	13	25	25	17	16	10	148	2,268	
200	9	8	7	7	7	10	16	34	33	22	19	12	184	2,209	
234	10	9	7	7	8	11	19	43	41	28	22	13	218	2,268	
267	10	9	7	8	8	11	22	51	50	33	26	15	251	2,227	
297	10	9	8	8	8	12	25	61	59	38	29	15	283	2,271	
326	11	9	8	8	9	13	29	69	67	42	31	16	312	2,213	
354	11	10	8	9	9	14	31	75	73	46	35	18	341	2,295	
380	12	10	9	9	10	15	34	83	81	50	37	18	368	2,193	
407	12	10	9	9	10	15	37	89	88	54	41	20	394	2,276	
433	12	11	9	9	10	16	40	96	94	59	44	21	421	2,246	
459	12	11	9	10	10	17	42	103	101	63	46	22	447	2,282	
484	13	11	9	10	11	18	44	109	107	68	50	24	472	2,225	
507	13	11	10	10	11	19	47	115	113	71	52	24	496	2,244	
531	14	12	10	10	11	19	49	120	119	76	55	25	519	2,274	
553	14	12	10	10	11	20	52	125	125	79	58	26	543	2,190	
576	14	12	10	10	11	21	55	132	130	83	60	27	565	2,214	
599	14	12	10	10	11	21	57	137	137	86	63	28	588	2,233	
622	15	12	10	11	12	22	60	143	141	90	66	29	611	2,302	
644	15	12	10	11	12	23	63	149	146	93	68	30	633	2,217	
667	16	12	10	11	12	24	66	154	151	96	71	30	656	2,211	
691	16	12	11	11	12	24	68	160	157	100	75	32	679	2,335	
715	16	13	11	11	13	26	71	167	163	103	78	33	704	2,260	
738	17	13	11	11	13	27	74	171	168	108	81	34	727	2,158	
763	17	13	11	11	13	28	78	179	174	110	83	34	751	2,296	
788	17	13	11	11	13	29	81	187	180	113	85	35	776	2,252	
813	17	13	11	12	13	30	85	192	185	117	89	36	801	2,228	
840	18	13	11	12	14	31	86	197	192	122	93	38	827	2,255	
868	18	14	12	12	14	33	92	205	196	124	96	38	854	2,185	
897	19	14	12	12	14	33	94	213	203	130	99	40	883	2,236	
928	19	14	12	12	15	34	98	219	211	134	103	41	913	2,311	
961	20	15	12	13	15	36	102	225	218	139	106	43	945	2,190	
997	20	15	12	13	15	38	106	234	226	144	111	44	979	2,266	
1,035	21	15	12	13	16	38	110	243	235	150	116	46	1,016	2,210	
1,079	21	15	13	13	16	41	115	253	244	156	120	48	1,057	2,262	
1,128	23	16	13	14	17	44	121	266	254	161	126	49	1,103	2,249	
1,187	23	16	14	14	18	45	128	277	267	170	133	53	1,157	2,237	
1,257	25	17	14	15	18	49	135	294	282	177	141	55	1,222	2,243	
1,347	26	18	15	15	19	53	145	312	297	190	150	59	1,300	2,238	
1,486	28	19	16	17	21	58	158	336	324	205	163	65	1,411	2,244	
1,739	32	20	17	18	23	65	178	382	371	233	184	75	1,596	2,242	
4,789	48	29	25	27	35	90	239	514	498	312	252	107	2,175	2,214	
7,839	185	82	76	80	280	292	618	1,235	1,107	714	584	306	5,559	24	
10,889	75	56	52	60	109	263	782	1,954	1,949	1,431	1,046	622	8,397	2	
13,939	837	888	755	866	772	823	1,007	1,766	1,609	1,125	1,147	796	12,391	1	
16,989	961	887	696	818	847	1,224	1,689	2,814	2,633	1,749	1,549	1,122	16,989	1	

## Exhibit VII - Monthly Usage Profiles

		Monthly Usage Profiles - Chesterfield Residential Customers														Annual				Count
Bin	Kth Smallest	12 Billing Months Ending Jun-11														Annual		MDCQ		Count
		Data RSIF	Data RSIG	Data RSIH	Data RSII	Data RSII	Data RSIK	Data RSIK	Data RSI	Total	Peak	Off Pk								
1	182	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	182	
2	283	28	285	157	70	61	55	58	63	102	78	49	87	81	1,146	-	-	-	103	
3	384	72	515	392	263	271	267	359	321	517	550	453	676	324	4,908	-	-	-	99	
4	485	124	467	426	335	381	347	532	866	1,557	1,520	1,464	1,536	521	9,952	-	-	-	101	
5	586	163	824	726	515	597	604	914	1,603	2,743	2,316	1,473	1,444	728	14,487	-	-	-	101	
6	687	196	849	768	656	726	651	1,099	1,896	4,082	3,068	1,783	1,965	1,046	18,589	-	-	-	104	
7	788	221	644	652	522	596	608	1,109	2,492	5,232	4,116	2,337	1,994	904	21,206	-	-	-	101	
8	889	244	842	804	637	731	698	1,218	2,592	5,430	4,278	2,578	2,194	1,035	23,037	-	-	-	99	
9	991	269	790	771	617	722	744	1,180	3,176	6,785	4,931	2,716	2,340	1,000	25,772	-	-	-	100	
10	1,092	288	733	716	576	673	741	1,505	3,503	7,683	5,871	3,172	2,524	1,024	28,721	-	-	-	103	
11	1,193	309	889	828	625	737	775	1,415	3,549	7,556	6,661	3,352	2,668	1,237	30,292	-	-	-	101	
12	1,294	329	881	841	672	777	795	1,648	4,341	8,662	6,499	3,485	2,871	1,133	32,605	-	-	-	102	
13	1,395	345	1,052	889	617	776	913	1,935	4,025	8,280	6,800	3,895	3,332	1,285	33,799	-	-	-	100	
14	1,496	363	1,168	1,127	860	985	1,046	1,965	4,686	9,605	7,436	4,025	3,310	1,429	37,642	-	-	-	106	
15	1,597	383	1,056	897	684	829	886	1,887	4,271	9,302	7,255	3,852	3,062	1,097	35,078	-	-	-	94	
16	1,698	403	1,061	994	841	1,062	1,020	2,273	5,211	10,058	8,038	4,480	3,485	1,291	39,814	-	-	-	101	
17	1,799	423	1,069	1,016	810	984	1,067	2,165	5,340	11,061	9,060	4,846	3,791	1,443	42,652	-	-	-	103	
18	1,900	442	983	901	745	941	1,069	2,359	5,798	11,889	9,174	5,097	4,074	1,607	44,637	-	-	-	103	
19	2,001	460	1,251	1,166	896	1,051	1,107	2,383	6,201	11,365	9,385	5,303	4,025	1,482	45,615	-	-	-	101	
20	2,102	485	1,122	1,008	786	943	1,053	2,953	6,522	12,478	9,511	5,305	4,242	1,379	47,302	-	-	-	100	
21	2,203	506	1,151	1,107	862	1,020	1,082	2,743	6,848	13,292	10,400	5,895	4,644	1,523	50,567	-	-	-	102	
22	2,304	525	1,342	1,182	902	1,108	1,209	2,921	6,939	13,272	10,419	5,743	4,509	1,599	51,145	-	-	-	99	
23	2,405	544	1,293	1,219	896	1,096	1,259	2,999	7,517	14,062	11,106	6,070	4,962	1,578	54,057	-	-	-	101	
24	2,507	566	1,437	1,328	1,019	1,208	1,362	2,976	7,270	14,183	11,572	6,757	5,149	1,847	56,108	-	-	-	101	
25	2,608	588	1,303	1,259	991	1,204	1,314	3,172	8,060	15,135	12,048	6,796	5,432	1,690	58,404	-	-	-	101	
26	2,709	608	1,194	1,146	841	986	1,087	3,377	8,311	15,942	12,576	7,097	5,621	1,691	59,869	-	-	-	100	
27	2,810	628	1,475	1,368	1,052	1,275	1,408	3,611	8,467	15,922	12,799	7,569	6,063	1,930	62,939	-	-	-	102	
28	2,911	649	1,427	1,337	1,121	1,202	1,352	3,901	8,870	15,956	13,189	7,427	6,137	1,949	63,868	-	-	-	100	
29	3,012	671	1,504	1,429	1,117	1,298	1,518	4,030	9,384	18,219	14,425	8,279	6,695	2,079	69,977	-	-	-	106	
30	3,113	700	1,420	1,335	1,039	1,259	1,455	4,254	9,623	17,422	13,432	7,905	6,562	2,103	67,809	-	-	-	99	
31	3,214	722	1,491	1,362	1,112	1,309	1,503	4,113	9,770	18,572	14,325	8,158	6,722	2,148	70,585	-	-	-	99	
32	3,315	748	1,702	1,557	1,200	1,405	1,612	4,628	11,032	19,557	15,476	9,081	7,502	2,515	77,267	-	-	-	105	
33	3,416	769	1,640	1,534	1,271	1,484	1,706	4,788	10,833	20,084	15,828	9,192	7,543	2,340	78,243	-	-	-	103	
34	3,517	793	1,452	1,281	1,009	1,241	1,530	4,868	11,138	19,796	15,694	9,119	7,463	2,029	76,620	-	-	-	98	
35	3,618	816	1,518	1,379	1,069	1,276	1,625	5,438	12,088	21,133	16,359	9,750	7,558	2,252	81,445	-	-	-	101	
36	3,719	844	1,848	1,659	1,290	1,521	1,961	5,578	12,096	21,513	16,754	9,945	8,070	2,565	84,800	-	-	-	102	
37	3,820	875	1,725	1,365	1,043	1,300	1,655	5,655	12,392	22,221	17,520	10,374	8,425	2,418	86,093	-	-	-	100	
38	3,921	907	1,660	1,379	1,174	1,398	1,725	5,744	12,983	23,782	18,712	10,839	9,037	2,454	90,887	-	-	-	102	
39	4,023	943	1,858	1,632	1,260	1,490	1,813	5,868	13,040	23,109	18,053	10,526	8,649	2,560	89,858	-	-	-	97	
40	4,124	982	1,840	1,559	1,306	1,499	1,902	6,179	14,058	25,870	20,263	12,295	9,754	2,649	99,174	-	-	-	103	
41	4,225	1,031	1,947	1,776	1,196	1,458	2,040	6,642	14,638	26,170	20,437	12,155	10,197	2,969	101,625	-	-	-	101	
42	4,326	1,084	1,925	1,726	1,288	1,572	2,066	7,044	15,412	26,823	21,203	12,601	10,283	2,795	104,738	-	-	-	99	
43	4,427	1,153	1,827	1,627	1,357	1,537	2,122	7,423	16,532	28,892	23,181	14,544	11,210	2,936	113,188	-	-	-	101	
44	4,528	1,253	1,941	1,496	1,200	1,368	2,091	8,357	18,409	31,329	24,947	14,966	12,130	3,019	121,253	-	-	-	101	
45	4,629	1,427	2,306	1,835	1,450	1,683	2,472	9,161	20,397	34,089	27,278	16,476	13,251	3,672	134,070	-	-	-	101	
46	2,782	3,559	2,210	1,754	2,057	3,286	11,1572	24,626	40,022	32,284	19,433	15,386	4,200	160,389	-	-	-	97		
47	4,138	211	216	184	199	250	504	1,053	1,888	1,606	348	237	46	6,742	-	-	-	2		
48	5,493	410	305	246	278	645	880	1,316	2,170	1,755	556	483	282	9,326	-	-	-	2		
49	6,849	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
50	8,204	110	100	90	110	204	492	1,118	2,098	1,653	975	898	356	8,204	-	-	-	1		

## Exhibit VII - Monthly Usage Profiles

Monthly Usage Profiles - Chesterfield Residential Customers

Strata (Annual CCFs < X)	Average Use Per Strata (CCFs)													Count		
	12 Billing Months Ending Jun-11															
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011	Total	MDCQ Peak	Off Pk	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	182
28	3	2	1	1	1	1	1	1	0	1	1	1	11	-	-	103
72	5	4	3	3	3	4	3	5	6	5	7	3	50	-	-	99
124	5	4	3	4	3	5	9	15	15	14	15	5	99	-	-	101
163	8	7	5	6	6	9	16	27	23	15	14	7	143	-	-	101
196	8	7	6	7	6	11	18	39	30	17	19	10	179	-	-	104
221	6	6	5	6	6	11	25	52	41	23	20	9	210	-	-	101
244	9	8	6	7	7	12	26	55	43	26	22	10	233	-	-	99
269	8	8	6	7	7	12	32	68	49	27	23	10	258	-	-	100
288	7	7	6	7	7	15	34	75	57	31	25	10	279	-	-	103
309	9	8	6	7	8	14	35	75	66	33	26	12	300	-	-	101
329	9	8	7	8	8	16	43	85	64	34	28	11	320	-	-	102
345	11	9	6	8	9	19	40	83	68	39	33	13	338	-	-	100
363	11	11	8	9	10	19	44	91	70	38	31	13	355	-	-	106
383	11	10	7	9	9	20	45	99	77	41	33	12	373	-	-	94
403	11	10	8	11	10	23	52	100	80	44	35	13	394	-	-	101
423	10	10	8	10	10	21	52	107	88	47	37	14	414	-	-	103
442	10	9	7	9	10	23	56	115	89	49	40	16	433	-	-	103
460	12	12	9	10	11	24	61	113	93	53	40	15	452	-	-	101
485	11	10	8	9	11	30	65	125	95	53	42	14	473	-	-	100
506	11	11	8	10	11	27	67	130	102	58	46	15	496	-	-	102
525	14	12	9	11	12	30	70	134	105	58	46	16	517	-	-	99
544	13	12	9	11	12	30	74	139	110	60	49	16	535	-	-	101
566	14	13	10	12	13	29	72	140	115	67	51	18	556	-	-	101
588	13	12	10	12	13	31	80	150	119	67	54	17	578	-	-	101
608	12	11	8	10	11	34	83	159	126	71	56	17	599	-	-	100
628	14	13	10	13	14	35	83	156	125	74	59	19	617	-	-	102
649	14	13	11	12	14	39	89	160	132	74	61	19	639	-	-	100
671	14	13	11	12	14	38	89	172	136	78	63	20	660	-	-	106
700	14	13	10	13	15	43	97	176	136	80	66	21	685	-	-	99
722	15	14	11	13	15	42	99	188	145	82	68	22	713	-	-	99
748	16	15	11	13	15	44	105	186	147	86	71	24	736	-	-	105
769	16	15	12	14	17	46	105	195	154	89	73	23	760	-	-	103
793	15	13	10	13	16	50	114	202	160	93	76	21	782	-	-	98
816	15	14	11	13	16	54	120	209	162	97	75	22	806	-	-	101
844	18	16	13	15	19	55	119	211	164	98	79	25	831	-	-	102
875	17	14	10	13	17	57	124	222	175	104	84	24	861	-	-	100
907	16	14	12	14	17	56	127	233	183	106	89	24	891	-	-	102
943	19	17	13	15	19	60	134	238	186	109	89	26	926	-	-	97
982	18	15	13	15	18	60	136	251	197	119	95	26	963	-	-	103
1,031	19	18	12	14	20	66	145	259	202	120	101	29	1,006	-	-	101
1,084	19	17	13	16	21	71	156	271	214	127	104	28	1,058	-	-	99
1,153	18	16	13	15	21	73	164	286	230	144	111	29	1,121	-	-	101
1,263	19	15	12	14	21	83	182	310	247	148	120	30	1,201	-	-	101
1,427	23	18	14	17	24	91	202	338	270	163	131	36	1,327	-	-	101
2,782	37	23	18	21	34	119	254	413	333	200	159	43	1,653	-	-	97
4,138	106	108	92	100	125	252	527	944	803	174	119	23	3,371	-	-	2
5,493	205	153	123	139	323	440	658	1,085	878	278	242	141	4,663	-	-	2
6,849	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8,204	110	100	90	110	204	492	1,118	2,098	1,653	975	898	356	8,204	-	-	1

## Exhibit VII - Monthly Usage Profiles

### Monthly Usage Profiles - Henrico Residential Customers

Bin	Kth Smallest	Strata (Annual CCFs < X)	12 Billing Months Ending Jun-11												Annual Total	MDCQ Peak	Off Pk Count	
			Data.RSIF	Data.RSIG	Data.RSIH	Data.RSII	Data.RSIJ	Data.RSIK	Data.RSIL	Data.RSIM	Data.RSIN	Data.RSIO	Data.RSIP	Data.RSIQ				
			Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011				
1	1,414	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,414	
2	2,591	77	4,606	2,936	2,288	1,817	1,621	1,813	2,608	6,523	6,374	4,554	4,964	3,873	43,977	-	-	1,195
3	3,769	137	7,410	5,838	4,848	4,695	4,756	6,078	10,400	23,985	22,971	15,289	14,008	8,632	128,910	-	-	1,178
4	4,946	183	8,841	7,261	5,918	6,393	6,452	8,820	16,247	36,638	35,530	23,557	20,663	11,134	187,454	-	-	1,165
5	6,124	227	10,792	9,433	7,406	7,779	8,203	10,803	20,306	46,920	46,822	31,548	25,770	15,047	240,829	-	-	1,171
6	7,301	264	11,445	10,299	8,474	8,770	9,079	12,411	24,497	59,065	58,764	39,922	31,571	17,511	291,808	-	-	1,186
7	8,479	297	12,442	10,692	8,900	9,179	9,539	13,583	28,768	70,369	69,757	45,310	34,315	18,481	331,335	-	-	1,176
8	9,656	330	13,164	11,339	9,624	10,122	10,521	14,703	32,250	80,743	80,302	51,048	38,459	20,047	372,322	-	-	1,185
9	10,834	359	13,539	11,993	10,214	10,564	10,631	15,342	35,099	89,258	90,172	57,552	42,367	21,554	408,285	-	-	1,183
10	12,011	387	14,576	12,960	10,795	10,952	11,636	16,100	37,820	95,921	97,743	61,704	46,374	23,487	440,068	-	-	1,178
11	13,189	415	15,262	13,069	11,428	11,504	12,063	17,283	42,640	106,190	107,113	67,718	50,820	24,816	479,906	-	-	1,194
12	14,366	441	14,928	13,018	10,925	11,256	11,978	17,895	43,586	108,767	113,212	71,930	52,598	26,118	496,211	-	-	1,158
13	15,544	466	15,804	13,343	11,474	11,600	12,433	19,267	47,941	121,155	123,052	78,218	56,817	27,662	538,766	-	-	1,186
14	16,721	489	16,064	13,632	11,735	12,064	12,980	19,508	49,612	124,926	126,729	80,768	59,491	29,676	557,185	-	-	1,165
15	17,899	510	16,586	14,113	12,036	12,076	13,418	20,237	54,367	135,552	139,307	88,776	63,879	30,520	600,867	-	-	1,202
16	19,076	533	17,713	14,914	12,823	12,737	13,839	21,663	56,435	137,454	140,376	91,373	67,368	31,805	618,500	-	-	1,185
17	20,254	553	17,144	14,173	11,711	12,065	12,995	20,671	56,340	138,119	144,835	93,441	67,825	32,479	621,798	-	-	1,144
18	21,431	574	17,619	14,275	12,373	12,605	13,497	22,836	61,137	150,572	153,688	99,744	72,103	33,154	663,603	-	-	1,177
19	22,609	595	18,573	15,377	13,253	13,169	14,323	23,696	65,429	158,529	162,807	105,320	76,698	35,202	702,376	-	-	1,201
20	23,786	614	18,062	14,501	12,466	12,696	13,825	23,572	64,311	158,591	161,051	103,942	75,799	35,203	694,019	-	-	1,147
21	24,964	633	18,302	14,688	12,415	13,153	14,039	25,287	70,261	168,221	170,489	110,144	81,455	36,596	735,050	-	-	1,178
22	26,141	652	19,906	15,071	12,843	12,848	14,888	25,928	73,034	173,536	175,251	114,349	84,838	38,151	760,643	-	-	1,183
23	27,319	673	20,361	16,125	13,488	13,781	15,502	28,135	77,641	186,110	186,388	120,019	89,946	39,564	807,060	-	-	1,217
24	28,496	692	19,169	15,054	12,663	12,910	14,594	27,235	79,093	183,754	183,673	118,714	88,577	38,274	793,710	-	-	1,162
25	29,674	712	20,010	15,835	13,274	13,561	15,147	29,160	82,626	193,089	190,503	123,298	91,936	39,557	827,996	-	-	1,179
26	30,851	731	20,020	15,421	12,964	13,260	15,300	29,366	83,663	190,858	190,901	123,406	93,216	39,514	827,889	-	-	1,147
27	32,029	752	21,493	16,632	13,556	13,976	15,920	31,474	90,526	209,743	206,640	133,881	101,825	43,053	898,719	-	-	1,211
28	33,206	773	21,357	16,435	13,587	14,052	16,215	32,546	93,444	210,710	206,413	133,062	101,745	42,283	901,849	-	-	1,182
29	34,384	794	20,956	16,184	13,367	13,965	16,003	32,356	94,632	215,336	209,035	133,794	102,219	41,789	909,636	-	-	1,160
30	35,561	815	21,663	16,265	13,504	13,992	16,043	33,375	98,117	221,094	217,887	138,914	107,263	42,720	940,837	-	-	1,169
31	36,739	838	23,011	17,179	14,327	15,105	17,712	35,755	102,371	232,050	229,994	147,432	113,823	47,052	995,811	-	-	1,204
32	37,916	861	22,583	17,170	13,920	14,374	16,951	36,479	105,600	234,030	228,019	146,586	114,097	45,247	995,056	-	-	1,171
33	39,094	884	22,741	17,571	14,176	14,880	17,529	35,762	106,005	235,684	227,847	147,663	113,717	46,358	999,933	-	-	1,145
34	40,271	909	23,267	17,508	14,170	14,811	17,478	37,825	112,938	249,594	244,950	157,849	120,752	48,677	1,059,819	-	-	1,182
35	41,449	935	23,920	17,992	14,680	15,589	18,487	39,555	115,932	254,921	247,550	158,235	122,736	48,234	1,077,831	-	-	1,169
36	42,626	964	25,355	18,282	15,134	15,758	18,614	41,213	122,690	266,621	261,065	169,424	130,913	52,979	1,138,048	-	-	1,198
37	43,804	994	26,056	18,327	14,771	15,781	18,917	42,800	124,201	271,034	263,027	169,760	132,847	52,145	1,149,666	-	-	1,174
38	44,981	1,024	25,606	18,348	15,071	15,729	18,806	43,316	127,845	276,658	268,801	173,026	134,903	53,237	1,171,346	-	-	1,161
39	46,159	1,061	27,629	20,449	16,415	17,335	20,594	47,026	136,715	295,995	287,324	184,669	143,754	57,735	1,255,640	-	-	1,204
40	47,336	1,100	27,851	20,148	16,182	17,555	21,324	49,266	142,340	299,784	285,026	183,103	145,479	55,473	1,263,531	-	-	1,169
41	48,514	1,147	28,898	20,832	16,382	17,725	21,152	50,771	146,575	311,479	297,266	192,417	153,251	59,783	1,316,531	-	-	1,172
42	49,691	1,204	29,710	21,643	17,258	18,558	22,468	53,646	154,634	324,626	310,176	198,094	159,908	60,417	1,371,138	-	-	1,168
43	50,869	1,272	31,368	22,239	17,749	19,015	23,120	57,707	165,420	345,017	330,725	210,353	169,269	64,063	1,456,045	-	-	1,177
44	52,046	1,368	32,876	23,343	18,712	20,456	25,348	63,488	179,344	367,175	346,040	221,835	180,579	66,654	1,545,850	-	-	1,174
45	53,224	1,555	37,601	25,792	20,346	22,310	28,776	72,425	202,600	401,659	381,691	240,654	198,299	72,167	1,704,320	-	-	1,177
46	5,722	52,751	33,925	26,269	20,848	42,849	102,612	266,605	510,551	476,941	292,837	246,287	90,358	2,172,833	-	-	1,167	
47	5,889	470	383	302	500	1,073	1,730	3,307	7,014	6,777	3,950	2,794	1,525	29,825	-	-	7	
48	8,057	1,145	248	165	186	716	2,230	2,899	5,116	2,642	1,754	1,488	1,104	19,693	-	-	3	
49	10,224	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
50	12,391	837	888	755	866	772	823	1,007	1,766	1,609	1,125	1,147	796	12,391	-	-	1	

## Exhibit VII - Monthly Usage Profiles

### Monthly Usage Profiles - Henrico Residential Customers

Strata (Annual CCFs < X)	Average Use Per Strata (CCFs)												Count				
	12 Billing Months Ending Jun-11																
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011					
-	-	-	-	-	-	-	-	-	-	-	-	-	1,414				
77	4	2	2	2	1	2	5	5	4	4	3	37	-	-	-	1,195	
137	6	5	4	4	4	5	9	20	20	13	12	7	109	-	-	-	1,178
183	8	6	5	5	6	8	14	31	30	20	18	10	161	-	-	-	1,165
227	9	8	6	7	7	9	17	40	40	27	22	13	206	-	-	-	1,171
264	10	9	7	7	8	10	21	50	50	34	27	15	246	-	-	-	1,186
297	11	9	8	8	8	12	24	60	59	39	29	16	282	-	-	-	1,176
330	11	10	8	9	9	12	27	68	68	43	32	17	314	-	-	-	1,185
359	11	10	9	9	9	13	30	75	76	49	36	18	345	-	-	-	1,183
387	12	11	9	9	10	14	32	81	83	52	39	20	374	-	-	-	1,178
415	13	11	10	10	10	14	36	89	90	57	43	21	402	-	-	-	1,194
441	13	11	9	10	10	15	38	94	98	62	45	23	429	-	-	-	1,158
466	13	11	10	10	10	16	40	102	104	66	48	23	454	-	-	-	1,186
489	14	12	10	10	11	17	43	107	109	69	51	25	478	-	-	-	1,165
510	14	12	10	10	11	17	45	113	116	74	53	25	500	-	-	-	1,202
533	15	13	11	11	12	18	48	116	118	77	57	27	522	-	-	-	1,185
553	15	12	10	11	11	18	49	121	127	82	59	28	544	-	-	-	1,144
574	15	12	11	11	11	19	52	128	131	85	61	28	564	-	-	-	1,177
595	15	13	11	11	12	20	54	132	136	88	64	29	585	-	-	-	1,201
614	16	13	11	11	12	21	56	138	140	91	66	31	605	-	-	-	1,147
633	16	12	11	11	12	21	60	143	145	94	69	31	624	-	-	-	1,178
652	17	13	11	11	13	22	62	147	148	97	72	32	643	-	-	-	1,183
673	17	13	11	11	13	23	64	153	153	99	74	33	663	-	-	-	1,217
692	16	13	11	11	13	23	68	158	158	102	76	33	683	-	-	-	1,162
712	17	13	11	12	13	25	70	164	162	105	78	34	702	-	-	-	1,179
731	17	13	11	12	13	26	73	166	166	108	81	34	722	-	-	-	1,147
752	18	14	11	12	13	26	75	173	171	111	84	36	742	-	-	-	1,211
773	18	14	11	12	14	28	79	178	175	113	86	36	763	-	-	-	1,182
794	18	14	12	12	14	28	82	186	180	115	88	36	784	-	-	-	1,160
815	19	14	12	12	14	29	84	189	186	119	92	37	805	-	-	-	1,169
838	19	14	12	13	15	30	85	193	191	122	95	39	827	-	-	-	1,204
861	19	15	12	12	14	31	90	200	195	125	97	39	850	-	-	-	1,171
884	20	15	12	13	15	31	93	206	199	129	99	40	873	-	-	-	1,145
909	20	15	12	13	15	32	96	211	207	134	102	41	897	-	-	-	1,182
935	20	15	13	13	16	34	99	218	212	135	105	41	922	-	-	-	1,169
964	21	15	13	13	16	34	102	223	218	141	109	44	950	-	-	-	1,198
994	22	16	13	13	16	36	106	231	224	145	113	44	979	-	-	-	1,174
1,024	22	16	13	14	16	37	110	238	232	149	116	46	1,009	-	-	-	1,161
1,061	23	17	14	14	17	39	114	246	239	153	119	48	1,043	-	-	-	1,204
1,100	24	17	14	15	18	42	122	256	244	157	124	47	1,081	-	-	-	1,169
1,147	25	18	14	15	18	43	125	266	254	164	131	51	1,123	-	-	-	1,172
1,204	25	19	15	16	19	46	132	278	266	170	137	52	1,174	-	-	-	1,168
1,272	27	19	15	16	20	49	141	293	281	179	144	54	1,237	-	-	-	1,177
1,368	28	20	16	17	22	54	153	313	295	189	154	57	1,317	-	-	-	1,174
1,555	32	22	17	19	24	62	172	341	324	204	168	61	1,448	-	-	-	1,177
3,722	45	29	23	26	37	88	228	437	409	251	211	77	1,862	-	-	-	1,167
5,889	67	55	43	71	153	247	472	1,002	968	564	399	218	4,261	-	-	-	7
8,057	382	83	55	62	239	743	966	1,705	881	585	496	368	6,564	-	-	-	3
10,224	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12,391	837	888	755	866	772	823	1,007	1,766	1,609	1,125	1,147	796	12,391	-	-	-	1

## Exhibit VII - Monthly Usage Profiles

**Monthly Usage Profiles - Richmond Residential Customers**

Bin	Kth Smallest	Strata (Annual CCFs < X)	12 Billing Months Ending Jun-11												Annual Total	MDCQ Peak	Data RSIAH Off Pk	Count
			Data RSIF	Data RSIG	Data RSIH	Data RSII	Data RSIJ	Data RSIK	Data RSIIL	Data RSIM	Data RSIN	Data RSIO	Data RSIP	Data RSIQ				
			Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011				
1	2,491	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,491
2	3,457	9	893	493	308	277	266	299	328	411	386	350	413	526	4,950	-	-	1,003
3	4,423	23	2,180	1,375	1,023	890	818	854	965	1,323	1,294	1,142	1,308	1,617	14,789	-	-	939
4	5,388	38	3,862	2,823	2,275	1,996	2,094	2,145	2,354	3,018	2,942	2,449	2,879	2,805	31,642	-	-	1,006
5	6,354	54	4,664	3,963	3,471	2,760	2,978	3,126	3,258	4,345	3,942	3,512	3,866	3,362	43,247	-	-	952
6	7,320	82	6,243	5,066	4,234	3,553	3,603	3,973	4,910	8,156	7,837	5,785	6,374	5,563	65,297	-	-	961
7	8,286	111	7,223	5,925	5,249	4,935	5,213	6,301	7,455	12,630	12,528	9,107	9,078	7,422	93,066	-	-	954
8	9,251	138	8,367	7,096	6,154	5,913	6,266	7,725	9,909	17,611	17,521	12,931	12,625	9,462	121,580	-	-	970
9	10,217	165	8,541	7,355	6,257	6,208	6,648	8,693	12,336	22,752	22,762	16,435	15,600	11,078	144,665	-	-	956
10	11,183	192	9,341	8,139	7,038	7,028	7,782	10,461	14,890	28,830	27,987	20,255	17,838	12,712	172,301	-	-	962
11	12,149	220	9,286	8,331	7,256	7,357	8,184	11,092	17,824	38,108	35,884	23,770	19,169	12,822	199,083	-	-	965
12	13,114	248	10,031	8,838	7,763	7,816	8,509	11,651	19,944	42,874	42,941	28,150	22,771	14,120	225,408	-	-	962
13	14,080	279	9,556	8,330	7,404	7,459	8,261	11,585	23,120	53,883	53,891	34,410	26,590	14,644	259,133	-	-	979
14	15,046	307	10,105	9,250	8,031	8,273	8,853	13,071	25,476	60,729	59,101	37,078	27,784	15,101	282,852	-	-	964
15	16,012	334	10,271	8,851	8,053	8,287	8,910	13,837	29,224	68,799	65,968	41,679	30,337	15,724	309,940	-	-	966
16	16,977	361	10,357	9,238	8,074	8,320	9,346	14,695	32,142	75,994	73,626	46,016	34,106	17,554	339,468	-	-	976
17	17,943	386	10,587	9,139	8,108	8,222	9,096	15,086	33,829	82,197	79,454	48,016	34,977	17,688	356,399	-	-	952
18	18,909	413	11,268	9,952	8,618	8,790	9,823	16,015	36,796	90,031	88,226	54,708	40,971	20,236	395,434	-	-	989
19	19,875	439	11,212	9,565	8,371	8,544	9,330	16,779	40,493	95,379	91,912	56,476	41,821	19,366	409,248	-	-	959
20	20,840	466	11,164	9,632	8,521	8,829	9,568	17,090	41,069	104,184	101,381	62,584	45,018	20,836	439,876	-	-	971
21	21,806	493	11,780	9,680	8,638	8,897	9,834	18,132	44,996	108,367	104,831	66,951	48,475	21,762	462,343	-	-	963
22	22,772	519	11,820	9,785	8,617	8,612	10,289	18,534	46,673	115,544	110,079	69,238	50,114	22,961	482,266	-	-	952
23	23,738	545	12,024	10,267	9,236	9,339	10,332	20,052	50,185	123,370	120,957	75,035	54,217	23,778	518,792	-	-	974
24	24,703	572	12,623	10,645	9,358	9,580	10,905	21,489	55,011	130,494	124,178	77,479	55,501	24,236	541,499	-	-	969
25	25,669	599	11,551	9,750	8,488	8,786	9,946	20,318	55,220	133,660	129,779	80,440	58,578	25,884	552,400	-	-	943
26	26,635	627	13,317	10,509	9,028	9,676	10,949	22,580	60,234	142,707	137,445	85,489	61,928	26,446	590,308	-	-	962
27	27,601	657	13,433	10,912	9,333	9,468	11,188	24,408	65,802	154,146	147,930	91,138	66,728	28,765	633,251	-	-	986
28	28,566	686	13,344	10,389	9,129	9,367	11,035	23,531	63,872	153,598	150,440	95,546	68,815	30,057	639,123	-	-	951
29	29,532	718	13,425	10,941	9,600	9,644	11,117	24,840	68,618	166,800	161,383	99,261	75,275	31,804	682,708	-	-	972
30	30,498	749	14,102	11,018	9,555	9,603	10,898	25,467	69,700	170,080	166,834	104,619	75,978	32,436	700,290	-	-	954
31	31,464	781	15,286	11,360	9,984	10,107	11,985	27,562	74,239	180,521	174,440	107,644	79,455	33,153	735,736	-	-	961
32	32,429	815	14,816	11,268	9,831	9,786	11,736	28,100	79,754	192,575	186,339	116,885	84,854	35,514	781,458	-	-	980
33	33,395	850	15,074	11,202	9,908	9,798	11,843	29,685	80,683	196,288	188,734	118,893	87,511	36,347	795,966	-	-	956
34	34,361	890	15,755	11,312	10,119	9,762	12,105	31,994	87,759	205,731	196,944	123,860	92,209	38,321	835,871	-	-	961
35	35,327	929	16,819	11,806	10,608	10,604	12,895	33,408	93,426	218,754	211,830	133,092	100,096	41,887	895,225	-	-	984
36	36,292	973	17,055	12,702	11,257	11,250	13,504	35,376	96,486	221,292	216,106	133,654	99,496	41,665	909,843	-	-	957
37	37,258	1,020	16,984	11,523	10,332	10,223	12,561	34,963	98,846	233,898	230,939	146,129	109,139	45,552	961,089	-	-	965
38	38,224	1,073	17,957	12,482	11,165	11,174	13,644	37,926	103,666	244,832	240,102	151,448	113,578	46,920	1,004,894	-	-	960
39	39,190	1,130	19,422	13,067	11,782	11,455	14,057	40,094	110,267	259,861	254,091	158,747	120,478	50,533	1,063,854	-	-	966
40	40,155	1,197	20,805	13,637	11,967	11,672	14,868	42,045	115,972	271,071	267,453	169,028	126,850	54,424	1,119,792	-	-	962
41	41,121	1,271	22,416	14,793	13,004	12,800	16,585	45,506	123,189	291,008	282,334	177,709	137,254	58,325	1,194,923	-	-	969
42	42,087	1,366	22,360	14,826	13,346	13,408	16,492	49,318	133,986	309,148	301,077	192,548	145,850	63,363	1,275,722	-	-	969
43	43,053	1,486	26,300	16,638	14,845	14,492	18,075	52,817	143,747	328,311	322,968	205,804	158,077	69,924	1,371,998	-	-	964
44	44,018	1,654	26,988	16,597	14,697	14,439	18,175	55,247	155,073	362,361	361,308	228,174	173,893	77,631	1,504,583	-	-	961
45	44,984	1,960	33,400	19,582	17,698	17,370	21,559	66,605	183,370	412,479	412,928	260,810	202,044	90,442	1,738,287	-	-	970
46	4,966	49,064	30,411	27,011	26,648	37,320	88,529	240,827	555,245	540,567	345,766	277,083	120,727	2,339,198	-	-	947	
47	7,972	2,416	1,086	1,122	1,009	1,644	2,871	7,909	15,814	16,198	10,556	8,837	4,484	73,946	-	-	13	
48	10,977	40	11	14	10	13	33	446	1,809	2,245	1,887	1,194	888	8,590	-	-	1	
49	13,983	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
50	16,989	961	887	696	818	847	1,224	1,689	2,814	2,633	1,749	1,549	1,122	16,989	-	-	1	

## Exhibit VII - Monthly Usage Profiles

**Monthly Usage Profiles - Richmond Residential Customers**

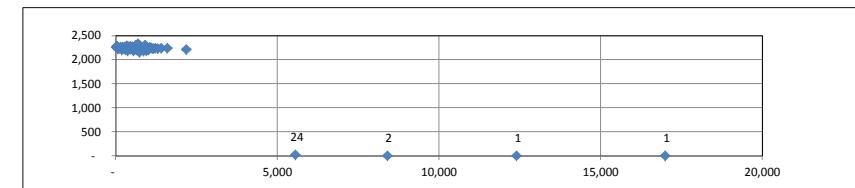
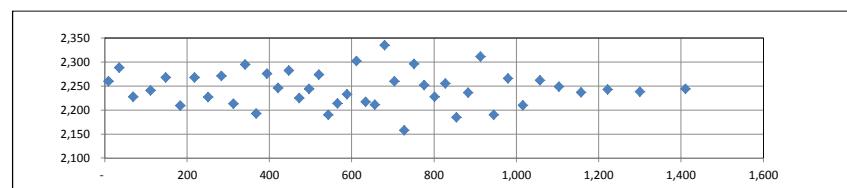
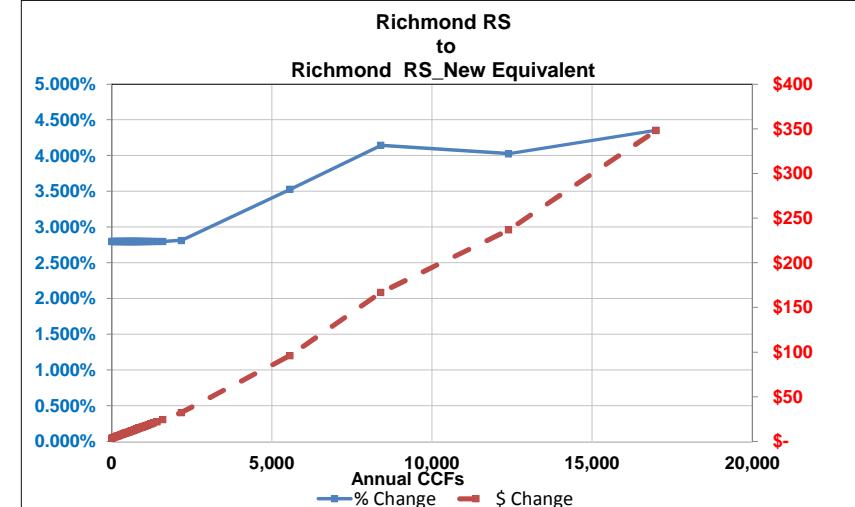
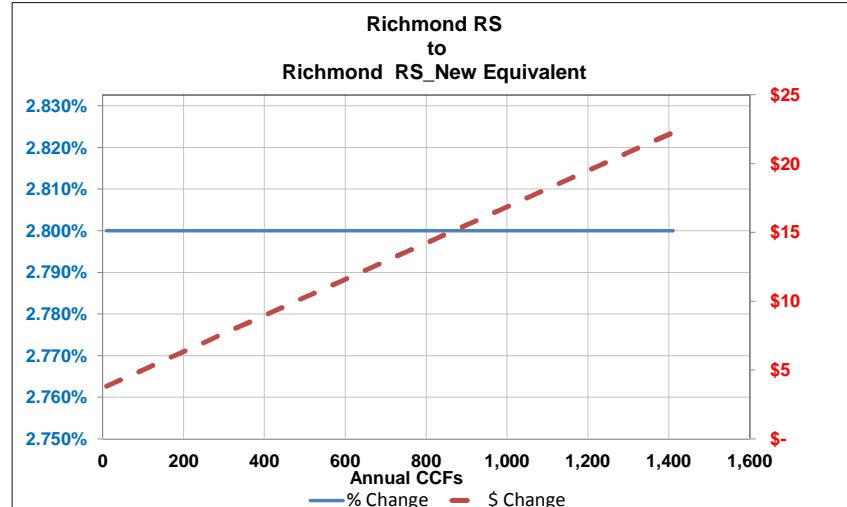
Strata (Annual CCFs x)	Average Use Per Strata (CCFs)												Count				
	12 Billing Months Ending Jun-11																
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011	Annual Total	Peak	Off Pk		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,491	
9	1	0	0	0	0	0	0	0	0	0	0	0	1	5	-	-	1,003
23	2	1	1	1	1	1	1	1	1	1	1	1	2	16	-	-	939
38	4	3	2	2	2	2	2	3	3	2	3	3	3	31	-	-	1,006
54	5	4	4	3	3	3	3	5	4	4	4	4	4	45	-	-	952
82	6	5	4	4	4	4	5	8	8	6	7	6	6	68	-	-	961
111	8	6	6	5	5	7	8	13	13	10	10	8	8	98	-	-	954
138	9	7	6	6	6	8	10	18	18	13	13	10	10	125	-	-	970
165	9	8	7	6	7	9	13	24	24	17	16	12	12	151	-	-	956
192	10	8	7	7	8	11	15	30	29	21	19	13	13	179	-	-	962
220	10	9	8	8	8	11	18	39	37	25	20	13	13	206	-	-	965
248	10	9	8	8	9	12	21	45	45	29	24	15	15	234	-	-	962
279	10	9	8	8	8	12	24	55	55	35	27	15	15	265	-	-	979
307	10	10	8	9	9	14	26	63	61	38	29	16	16	293	-	-	964
334	11	9	8	9	9	14	30	71	68	43	31	16	16	321	-	-	966
361	11	9	8	9	10	15	33	78	75	47	35	18	18	348	-	-	976
386	11	10	9	9	10	16	36	86	83	50	37	19	19	374	-	-	952
413	11	10	9	9	10	16	37	91	89	55	41	20	20	400	-	-	989
439	12	10	9	9	10	17	42	99	96	59	44	20	20	427	-	-	959
466	11	10	9	9	10	18	42	107	104	64	46	21	21	453	-	-	971
493	12	10	9	9	10	19	47	113	109	70	50	23	23	480	-	-	963
519	12	10	9	9	11	19	49	121	116	73	53	24	24	507	-	-	952
545	12	11	9	10	11	21	52	127	124	77	56	24	24	533	-	-	974
572	13	11	10	10	11	22	57	135	128	80	57	25	25	559	-	-	969
599	12	10	9	9	11	22	59	142	138	85	62	27	27	586	-	-	943
627	14	11	9	10	11	23	63	148	143	89	64	27	27	614	-	-	962
657	14	11	9	10	11	25	67	156	150	92	68	29	29	642	-	-	986
686	14	11	10	10	12	25	67	162	158	100	72	32	32	672	-	-	951
718	14	11	10	10	11	26	71	172	166	102	77	33	33	702	-	-	972
749	15	12	10	10	11	27	73	178	175	110	80	34	34	734	-	-	954
781	16	12	10	11	12	29	77	188	182	112	83	34	34	766	-	-	961
815	15	11	10	10	12	29	81	197	190	119	87	36	36	797	-	-	980
850	16	12	10	10	12	31	84	205	197	124	92	38	38	833	-	-	956
890	16	12	11	10	13	33	91	214	205	129	96	40	40	870	-	-	961
929	17	12	11	11	13	34	95	222	215	135	102	43	43	910	-	-	984
973	18	13	12	12	14	37	101	231	226	140	104	44	44	951	-	-	957
1,020	18	12	11	11	13	36	102	242	239	151	113	47	47	996	-	-	965
1,073	19	13	12	12	14	40	108	255	250	158	118	49	49	1,047	-	-	960
1,130	20	14	12	12	15	42	114	269	263	164	125	52	52	1,101	-	-	966
1,197	22	14	12	12	15	44	121	282	278	176	132	57	57	1,164	-	-	962
1,271	23	15	13	13	17	47	127	300	291	183	142	60	60	1,233	-	-	969
1,366	23	15	14	14	17	51	138	319	311	199	151	65	65	1,317	-	-	969
1,486	27	17	15	15	19	55	149	341	335	213	164	73	73	1,423	-	-	964
1,654	28	17	15	15	19	57	161	377	376	237	181	81	81	1,566	-	-	961
1,960	34	20	18	18	22	69	189	425	426	269	208	93	93	1,792	-	-	970
4,966	52	32	29	28	39	93	254	586	571	365	293	127	127	2,470	-	-	947
7,972	186	84	86	78	126	221	608	1,216	1,246	812	680	345	345	5,688	-	-	13
10,977	40	11	14	10	13	33	446	1,809	2,245	1,887	1,194	888	888	8,590	-	-	1
13,983	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16,989	961	887	696	818	847	1,224	1,689	2,814	2,633	1,749	1,549	1,122	1,122	16,989	-	-	1

Exhibit VIII - Bill Impacts - Proposed Rate Design  
All Residential Customers

**Richmond Gas Division Preliminary Rate Analysis - All  
Comparative Annual Billing Under Current And New Rate Structure  
Base Distribution Rates Only**

Current Rate Structure				New Rate Structure			
Richmond RS				Richmond RS_New			
Customer Charge		Peak	Off Peak	Customer Charge		Peak	Off Peak
		\$11.05	\$11.05			\$11.36	\$11.36
Energy Chrg	Max CCF	\$/CCF		Energy Chrg	Max CCF	\$/CCF	
Block	Peak	Off Peak		Block	Peak	Off Peak	
1	500	500	\$ 0.47000	1	500	500	\$ 0.48316
2	-	-	\$ 0.45900	2	-	-	\$ 0.48316
3	-	-	\$ 0.45900	3	-	-	\$ 0.48316
4	-	-	\$ 0.45900	4	-	-	\$ 0.48316
5	-	-	\$ 0.45900	5	-	-	\$ 0.48316

Percentile	Average Annual CCF	Annual Bill				Cumul. # Customers
		Current Bill	New Bill	\$ Change	% Change	
5%	35	\$ 149	\$ 153	\$ 4	2.800%	4,548
7%	69	\$ 165	\$ 170	\$ 5	2.800%	6,776
9%	111	\$ 185	\$ 190	\$ 5	2.800%	9,017
20%	283	\$ 266	\$ 273	\$ 7	2.800%	20,260
29%	394	\$ 318	\$ 327	\$ 9	2.800%	29,237
40%	519	\$ 377	\$ 387	\$ 11	2.800%	40,508
49%	611	\$ 420	\$ 432	\$ 12	2.800%	49,447
60%	727	\$ 474	\$ 488	\$ 13	2.800%	60,628
69%	827	\$ 521	\$ 536	\$ 15	2.800%	69,659
80%	979	\$ 593	\$ 609	\$ 17	2.800%	80,847
89%	1,157	\$ 677	\$ 695	\$ 19	2.800%	89,805
98%	1,596	\$ 883	\$ 908	\$ 25	2.800%	98,772
100%	16,989	\$ 7,997	\$ 8,345	\$ 348	4.354%	101,014



## Exhibit VIII - Bill Impacts - Proposed Rate Design

### All Residential Customers

#### Richmond Gas Division Comparative Monthly Billing Under Current And New Rate Structure

##### Current Rate Structure

Richmond	RS	Rate
Cst_Chrg		Peak \$11.05 Off Peak \$11.05
Energy Charge	Max CCF	\$/CCF
Block	Peak	Off Peak
1	500	500 \$ 0.47000 \$ 0.47000
2	-	- \$ 0.45900 \$ 0.45900
3	-	- \$ - \$ -
4	-	- \$ - \$ -
5	-	- \$ - \$ -

Strata Annual CCFs	Average Use Per Strata (CCFs)												Annual Total	MDCQ	Count			
	Off Pk				Peak				Off Pk									
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,087			
20	2	1	1	1	0	1	1	1	1	1	1	1	9	-	-	2,260		
48	4	3	3	2	2	2	4	3	3	3	3	3	35	-	-	2,288		
90	6	5	4	4	3	4	5	9	9	7	7	5	69	-	-	2,228		
130	7	6	5	5	5	7	9	18	17	12	12	8	111	-	-	2,241		
166	8	7	6	6	6	8	13	25	25	17	16	10	148	-	-	2,268		
200	9	8	7	7	7	10	16	34	33	22	19	12	184	-	-	2,209		
234	10	9	7	7	8	11	19	43	41	28	22	13	218	-	-	2,268		
267	10	9	7	8	8	11	22	51	50	33	26	15	251	-	-	2,227		
297	10	9	8	8	8	12	25	61	59	38	29	15	283	-	-	2,271		
326	11	9	8	8	9	13	29	69	67	42	31	16	312	-	-	2,213		
354	11	10	8	9	9	14	31	75	73	46	35	18	341	-	-	2,295		
380	12	10	9	9	10	15	34	83	81	50	37	18	368	-	-	2,193		
407	12	10	9	9	10	15	37	89	88	54	41	20	394	-	-	2,276		
433	12	11	9	9	10	16	40	96	94	59	44	21	421	-	-	2,246		
459	12	11	9	10	10	17	42	103	101	63	46	22	447	-	-	2,282		
484	13	11	9	10	11	18	44	109	107	68	50	24	472	-	-	2,225		
507	13	11	10	10	11	19	47	115	113	71	52	24	496	-	-	2,244		
531	14	12	10	10	11	19	49	120	119	76	55	25	519	-	-	2,274		
553	14	12	10	10	11	20	52	125	125	79	58	26	543	-	-	2,190		
576	14	12	10	10	11	21	55	132	130	83	60	27	565	-	-	2,214		
599	14	12	10	10	11	21	57	137	137	86	63	28	588	-	-	2,233		
622	15	12	10	11	12	22	60	143	141	90	66	29	611	-	-	2,302		
644	15	12	10	11	12	23	63	149	146	93	68	30	633	-	-	2,217		
667	16	12	10	11	12	24	66	154	151	96	71	30	656	-	-	2,211		
691	16	12	11	11	12	24	68	160	157	100	75	32	679	-	-	2,335		
715	16	13	11	11	13	26	71	167	163	103	78	33	704	-	-	2,260		
738	17	13	11	11	13	27	74	171	168	108	81	34	727	-	-	2,158		
763	17	13	11	11	13	28	78	179	174	110	83	34	751	-	-	2,296		
788	17	13	11	11	13	29	81	187	180	113	85	35	776	-	-	2,252		
813	17	13	11	12	13	30	85	192	185	117	89	36	801	-	-	2,228		
840	18	13	11	12	14	31	86	197	192	122	93	38	827	-	-	2,255		
868	18	14	12	12	14	33	92	205	196	124	96	38	854	-	-	2,185		
897	19	14	12	12	14	33	94	213	203	130	99	40	883	-	-	2,236		
928	19	14	12	12	15	34	98	219	211	134	103	41	913	-	-	2,311		
961	20	15	12	13	15	36	102	225	218	139	106	43	945	-	-	2,190		
997	20	15	12	13	15	38	106	234	226	144	111	44	979	-	-	2,266		
1,035	21	15	12	13	16	38	110	243	235	150	116	46	1,016	-	-	2,210		
1,079	21	15	13	13	16	41	115	253	244	156	120	48	1,057	-	-	2,262		
1,128	23	16	13	14	17	44	121	266	254	161	126	49	1,103	-	-	2,249		
1,187	23	16	14	14	18	45	128	277	267	170	133	53	1,157	-	-	2,237		
1,257	25	17	14	15	18	49	135	294	282	177	141	55	1,222	-	-	2,243		
1,347	26	18	15	15	19	53	145	312	297	190	150	59	1,300	-	-	2,238		
1,486	28	19	16	17	21	58	158	336	324	205	163	65	1,411	-	-	2,244		
1,739	32	20	17	18	23	65	178	382	371	233	184	75	1,596	-	-	2,242		
4,789	48	29	25	27	35	90	239	514	498	312	252	107	2,175	-	-	2,214		
7,839	185	82	76	80	280	292	618	1,235	1,107	714	584	306	5,559	-	-	24		
10,889	75	56	52	60	109	263	782	1,954	1,949	1,431	1,046	622	8,397	-	-	2		
13,939	837	888	755	866	772	823	1,007	1,766	1,609	1,125	1,147	796	12,391	-	-	1		
16,989	961	887	696	818	847	1,224	1,689	2,814	2,633	1,749	1,549	1,122	16,989	-	-	1		

## Exhibit VIII - Bill Impacts - Proposed Rate Design

### All Residential Customers

Strata Annual CCFs	Block 1 CCFs															
	Off Pk				Peak				Off Pk							
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011				
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
20	2	1	1	1	0	1	1	1	1	1	1	1	-	-		
48	4	3	3	2	2	2	4	3	3	3	3	3	-	-		
16,989	500	500	500	500	500	500	500	500	500	500	500	500	-	-		

Strata Annual CCFs	Block 2 CCFs															
	Off Pk				Peak				Off Pk							
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011				
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
48	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
16,989	461	387	196	318	347	724	1,189	2,314	2,133	1,249	1,049	622	-	-		

Strata Annual CCFs	Average Bill Per Strata At Present Rates												Annual Total	
	Off Pk				Peak				Off Pk					
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011		
-	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 133	
20	\$ 12	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 12	\$ 137	
48	\$ 13	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 13	\$ 13	\$ 12	\$ 13	\$ 12	\$ 149	
90	\$ 14	\$ 13	\$ 13	\$ 13	\$ 13	\$ 13	\$ 13	\$ 15	\$ 15	\$ 14	\$ 15	\$ 14	\$ 165	
130	\$ 14	\$ 14	\$ 13	\$ 13	\$ 14	\$ 14	\$ 15	\$ 19	\$ 19	\$ 17	\$ 16	\$ 15	\$ 185	
166	\$ 15	\$ 14	\$ 14	\$ 14	\$ 14	\$ 15	\$ 17	\$ 23	\$ 23	\$ 19	\$ 19	\$ 16	\$ 202	
200	\$ 15	\$ 15	\$ 14	\$ 14	\$ 14	\$ 16	\$ 19	\$ 27	\$ 26	\$ 22	\$ 20	\$ 17	\$ 219	
234	\$ 16	\$ 15	\$ 14	\$ 15	\$ 15	\$ 16	\$ 20	\$ 31	\$ 30	\$ 24	\$ 21	\$ 17	\$ 235	
267	\$ 16	\$ 15	\$ 15	\$ 15	\$ 15	\$ 16	\$ 21	\$ 35	\$ 35	\$ 26	\$ 23	\$ 18	\$ 250	
297	\$ 16	\$ 15	\$ 15	\$ 15	\$ 15	\$ 17	\$ 23	\$ 40	\$ 39	\$ 29	\$ 24	\$ 18	\$ 266	
326	\$ 16	\$ 15	\$ 15	\$ 15	\$ 15	\$ 17	\$ 25	\$ 44	\$ 43	\$ 31	\$ 26	\$ 19	\$ 279	
354	\$ 16	\$ 16	\$ 15	\$ 15	\$ 15	\$ 18	\$ 26	\$ 46	\$ 46	\$ 33	\$ 27	\$ 19	\$ 293	
380	\$ 17	\$ 16	\$ 15	\$ 15	\$ 15	\$ 18	\$ 27	\$ 50	\$ 49	\$ 34	\$ 28	\$ 20	\$ 305	
407	\$ 17	\$ 16	\$ 15	\$ 15	\$ 15	\$ 18	\$ 28	\$ 53	\$ 52	\$ 36	\$ 30	\$ 20	\$ 318	
433	\$ 17	\$ 16	\$ 15	\$ 15	\$ 16	\$ 19	\$ 30	\$ 56	\$ 55	\$ 39	\$ 32	\$ 21	\$ 330	
459	\$ 17	\$ 16	\$ 15	\$ 15	\$ 16	\$ 19	\$ 31	\$ 59	\$ 59	\$ 41	\$ 33	\$ 21	\$ 343	
484	\$ 17	\$ 16	\$ 15	\$ 15	\$ 16	\$ 19	\$ 32	\$ 62	\$ 61	\$ 43	\$ 34	\$ 22	\$ 354	
507	\$ 17	\$ 16	\$ 16	\$ 16	\$ 16	\$ 20	\$ 33	\$ 65	\$ 64	\$ 44	\$ 36	\$ 22	\$ 366	
531	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 20	\$ 34	\$ 67	\$ 67	\$ 47	\$ 37	\$ 23	\$ 377	
553	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 20	\$ 36	\$ 70	\$ 70	\$ 48	\$ 38	\$ 23	\$ 388	
576	\$ 18	\$ 16	\$ 16	\$ 16	\$ 16	\$ 21	\$ 37	\$ 73	\$ 72	\$ 50	\$ 39	\$ 24	\$ 398	
599	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 21	\$ 38	\$ 76	\$ 75	\$ 52	\$ 41	\$ 24	\$ 409	
622	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 22	\$ 39	\$ 78	\$ 77	\$ 53	\$ 42	\$ 25	\$ 420	
644	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 22	\$ 41	\$ 81	\$ 80	\$ 55	\$ 43	\$ 25	\$ 430	
667	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 23	\$ 42	\$ 84	\$ 82	\$ 56	\$ 45	\$ 25	\$ 441	
691	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 23	\$ 43	\$ 86	\$ 85	\$ 58	\$ 46	\$ 26	\$ 452	
715	\$ 19	\$ 18	\$ 16	\$ 16	\$ 16	\$ 23	\$ 45	\$ 90	\$ 88	\$ 60	\$ 48	\$ 27	\$ 463	
738	\$ 19	\$ 18	\$ 16	\$ 16	\$ 16	\$ 17	\$ 46	\$ 91	\$ 90	\$ 62	\$ 49	\$ 27	\$ 474	
763	\$ 19	\$ 17	\$ 16	\$ 16	\$ 16	\$ 17	\$ 48	\$ 95	\$ 93	\$ 63	\$ 50	\$ 27	\$ 486	
788	\$ 19	\$ 17	\$ 16	\$ 16	\$ 16	\$ 17	\$ 49	\$ 99	\$ 96	\$ 64	\$ 51	\$ 27	\$ 497	
813	\$ 19	\$ 17	\$ 16	\$ 16	\$ 16	\$ 17	\$ 50	\$ 101	\$ 98	\$ 66	\$ 53	\$ 28	\$ 509	
840	\$ 19	\$ 17	\$ 16	\$ 16	\$ 17	\$ 18	\$ 26	\$ 51	\$ 103	\$ 101	\$ 68	\$ 55	\$ 29	\$ 521
868	\$ 20	\$ 18	\$ 16	\$ 16	\$ 17	\$ 18	\$ 26	\$ 54	\$ 107	\$ 103	\$ 70	\$ 56	\$ 29	\$ 534
897	\$ 20	\$ 18	\$ 16	\$ 16	\$ 17	\$ 18	\$ 27	\$ 55	\$ 111	\$ 107	\$ 72	\$ 57	\$ 30	\$ 547
928	\$ 20	\$ 18	\$ 17	\$ 17	\$ 18	\$ 27	\$ 57	\$ 114	\$ 110	\$ 74	\$ 59	\$ 30	\$ 562	
961	\$ 20	\$ 18	\$ 17	\$ 17	\$ 18	\$ 28	\$ 59	\$ 117	\$ 114	\$ 76	\$ 61	\$ 31	\$ 577	
997	\$ 21	\$ 18	\$ 17	\$ 17	\$ 18	\$ 29	\$ 61	\$ 121	\$ 117	\$ 79	\$ 63	\$ 32	\$ 593	
1,035	\$ 21	\$ 18	\$ 17	\$ 17	\$ 18	\$ 29	\$ 63	\$ 125	\$ 122	\$ 82	\$ 65	\$ 33	\$ 610	
1,079	\$ 21	\$ 18	\$ 17	\$ 17	\$ 19	\$ 30	\$ 65	\$ 130	\$ 126	\$ 84	\$ 68	\$ 34	\$ 630	
1,128	\$ 22	\$ 19	\$ 17	\$ 17	\$ 18	\$ 19	\$ 32	\$ 68	\$ 136	\$ 130	\$ 87	\$ 70	\$ 34	\$ 651
1,187	\$ 22	\$ 19	\$ 17	\$ 17	\$ 18	\$ 19	\$ 32	\$ 71	\$ 141	\$ 136	\$ 91	\$ 74	\$ 36	\$ 677
1,257	\$ 23	\$ 19	\$ 18	\$ 18	\$ 20	\$ 34	\$ 74	\$ 149	\$ 143	\$ 94	\$ 77	\$ 37	\$ 707	
1,347	\$ 23	\$ 19	\$ 18	\$ 18	\$ 20	\$ 36	\$ 79	\$ 158	\$ 151	\$ 101	\$ 81	\$ 39	\$ 743	
1,486	\$ 24	\$ 20	\$ 19	\$ 19	\$ 21	\$ 38	\$ 86	\$ 169	\$ 163	\$ 108	\$ 88	\$ 42	\$ 796	
1,739	\$ 26	\$ 21	\$ 19	\$ 19	\$ 22	\$ 42	\$ 95	\$ 190	\$ 185	\$ 121	\$ 97	\$ 46	\$ 883	
4,789	\$ 34	\$ 25	\$ 23	\$ 24	\$ 28	\$ 53	\$ 123	\$ 252	\$ 245	\$ 158	\$ 130	\$ 61	\$ 1,155	
7,839	\$ 98	\$ 50	\$ 47	\$ 49	\$ 143	\$ 148	\$ 300	\$ 583	\$ 525	\$ 344	\$ 285	\$ 155	\$ 2,726	
10,889	\$ 46	\$ 37	\$ 35	\$ 39	\$ 62	\$ 134	\$ 375	\$ 913	\$ 911	\$ 673	\$ 497	\$ 302	\$ 4,027	
13,939	\$ 401	\$ 424	\$ 363	\$ 414	\$ 371	\$ 394	\$ 479	\$ 827	\$ 755	\$ 533	\$ 543	\$ 382	\$ 5,886	
16,989	\$ 458	\$ 424	\$ 336	\$ 392	\$ 405	\$ 578	\$ 792	\$ 1,308	\$ 1,225	\$ 819	\$ 728	\$ 532	\$ 7,997	

## Exhibit VIII - Bill Impacts - Proposed Rate Design

### All Residential Customers

**Richmond Gas Division**  
**Comparative Monthly Billing Under Current And New Rate Structure**

**New Rate Structure (Revenue Neutral Equivalent)**

Cst Chrg	Richmond		RS New		Rate	
	Peak	Off Peak	Peak	Off Peak	\$11.36	\$11.36
Energy Charge	Max CCF	\$/CCF				
Block	Peak	Off Peak	Peak	Off Peak		
1	500	500	\$ 0.48316	\$ 0.48316		
2	-	-	\$ 0.48316	\$ 0.48316		
3	-	-	\$ -	\$ -		
4	-	-	\$ -	\$ -		
5	-	-	\$ -	\$ -		

Strata Annual CCFs	Average Use Per Strata (CCFs)												Annual Total	MDCQ	Count			
	Off Pk				12 Billing Months Ending Jun-11				Off Pk									
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011						
20	2	1	1	1	0	1	1	1	1	1	1	1	9	-	-	4,087		
48	4	3	3	2	2	2	2	4	3	3	3	3	35	-	-	2,260		
90	6	5	4	4	3	4	5	9	9	7	7	5	69	-	-	2,288		
130	7	6	5	5	5	7	9	18	17	12	12	8	111	-	-	2,228		
166	8	7	6	6	6	8	13	25	25	17	16	10	148	-	-	2,241		
200	9	8	7	7	7	10	16	34	33	22	19	12	184	-	-	2,268		
234	10	9	7	7	8	11	19	43	41	28	22	13	218	-	-	2,209		
267	10	9	7	8	8	11	22	51	50	33	26	15	251	-	-	2,268		
297	10	9	8	8	8	12	25	61	59	38	29	15	283	-	-	2,227		
326	11	9	8	8	9	13	29	69	67	42	31	16	312	-	-	2,271		
354	11	10	8	9	9	14	31	75	73	46	35	18	341	-	-	2,295		
380	12	10	9	9	10	15	34	83	81	50	37	18	368	-	-	2,193		
407	12	10	9	9	10	15	37	89	88	54	41	20	394	-	-	2,276		
433	12	11	9	9	10	16	40	96	94	59	44	21	421	-	-	2,246		
459	12	11	9	10	10	17	42	103	101	63	46	22	447	-	-	2,282		
484	13	11	9	10	11	18	44	109	107	68	50	24	472	-	-	2,225		
507	13	11	10	10	11	19	47	115	113	71	52	24	496	-	-	2,244		
531	14	12	10	10	11	19	49	120	119	76	55	25	519	-	-	2,274		
553	14	12	10	10	11	20	52	125	125	79	58	26	543	-	-	2,190		
576	14	12	10	10	11	21	55	132	130	83	60	27	565	-	-	2,214		
599	14	12	10	10	11	21	57	137	137	86	63	28	588	-	-	2,233		
622	15	12	10	11	12	22	60	143	141	90	66	29	611	-	-	2,302		
644	15	12	10	11	12	23	63	149	146	93	68	30	633	-	-	2,217		
667	16	12	10	11	12	24	66	154	151	96	71	30	656	-	-	2,211		
691	16	12	11	11	12	24	68	160	157	100	75	32	679	-	-	2,335		
715	16	13	11	11	13	26	71	167	163	103	78	33	704	-	-	2,260		
738	17	13	11	11	13	27	74	171	168	108	81	34	727	-	-	2,158		
763	17	13	11	11	13	28	78	179	174	110	83	34	751	-	-	2,296		
788	17	13	11	11	13	29	81	187	180	113	85	35	776	-	-	2,252		
813	17	13	11	12	13	30	85	192	185	117	89	36	801	-	-	2,228		
840	18	13	11	12	14	31	86	197	192	122	93	38	827	-	-	2,255		
868	18	14	12	12	14	33	92	205	196	124	96	38	854	-	-	2,185		
897	19	14	12	12	14	33	94	213	203	130	99	40	883	-	-	2,236		
928	19	14	12	12	15	34	98	219	211	134	103	41	913	-	-	2,311		
961	20	15	12	13	15	36	102	225	218	139	106	43	945	-	-	2,190		
997	20	15	12	13	15	38	106	234	226	144	111	44	979	-	-	2,266		
1,035	21	15	12	13	16	38	110	243	235	150	116	46	1,016	-	-	2,210		
1,079	21	15	13	13	16	41	115	253	244	156	120	48	1,057	-	-	2,262		
1,128	23	16	13	14	17	44	121	266	254	161	126	49	1,103	-	-	2,249		
1,187	23	16	14	14	18	45	128	277	267	170	133	53	1,157	-	-	2,237		
1,257	25	17	14	15	18	49	135	294	282	177	141	55	1,222	-	-	2,243		
1,347	26	18	15	15	19	53	145	312	297	190	150	59	1,300	-	-	2,238		
1,486	28	19	16	17	21	58	158	336	324	205	163	65	1,411	-	-	2,244		
1,739	32	20	17	18	23	65	178	382	371	233	184	75	1,596	-	-	2,242		
4,789	48	29	25	27	35	90	239	514	498	312	252	107	2,175	-	-	2,214		
7,839	185	82	76	80	280	292	618	1,235	1,107	714	584	306	5,559	-	-	24		
10,889	75	56	52	60	109	263	782	1,954	1,949	1,431	1,046	622	8,397	-	-	2		
13,939	837	888	755	866	772	823	1,007	1,766	1,609	1,125	1,147	796	12,391	-	-	1		
16,989	961	887	696	818	847	1,224	1,689	2,814	2,633	1,749	1,549	1,122	16,989	-	-	1		

## Exhibit VIII - Bill Impacts - Proposed Rate Design

### All Residential Customers

Strata Annual CCFs	Block 1 CCFs															
	Off Pk				Peak				Off Pk							
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011				
-	-	-	-	-	-	-	-	-	-	-	-	-				
20	2	1	1	1	0	1	1	1	1	1	1	1				
48	4	3	3	2	2	2	2	4	3	3	3	3				
16,989	500	500	500	500	500	500	500	500	500	500	500	500				

Strata Annual CCFs	Block 2 CCFs															
	Off Pk				Peak				Off Pk							
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011				
-	-	-	-	-	-	-	-	-	-	-	-	-				
20	-	-	-	-	-	-	-	-	-	-	-	-				
48	-	-	-	-	-	-	-	-	-	-	-	-				
16,989	461	387	196	318	347	724	1,189	2,314	2,133	1,249	1,049	622				

Strata Annual CCFs	Average Bill Per Strata At Proposed Rates												Annual Total	
	Off Pk				Peak				Off Pk					
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011		
-	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 136	
20	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 141	
48	\$ 13	\$ 13	\$ 13	\$ 13	\$ 12	\$ 12	\$ 13	\$ 13	\$ 13	\$ 13	\$ 13	\$ 13	\$ 153	
90	\$ 14	\$ 14	\$ 14	\$ 13	\$ 13	\$ 13	\$ 13	\$ 14	\$ 16	\$ 16	\$ 15	\$ 15	\$ 170	
130	\$ 15	\$ 14	\$ 14	\$ 14	\$ 14	\$ 14	\$ 15	\$ 16	\$ 20	\$ 20	\$ 17	\$ 17	\$ 190	
166	\$ 15	\$ 15	\$ 15	\$ 14	\$ 14	\$ 14	\$ 15	\$ 18	\$ 24	\$ 23	\$ 20	\$ 19	\$ 208	
200	\$ 16	\$ 15	\$ 15	\$ 15	\$ 15	\$ 15	\$ 16	\$ 19	\$ 28	\$ 27	\$ 22	\$ 21	\$ 225	
234	\$ 16	\$ 16	\$ 15	\$ 15	\$ 15	\$ 15	\$ 17	\$ 21	\$ 32	\$ 31	\$ 25	\$ 22	\$ 242	
267	\$ 16	\$ 16	\$ 15	\$ 15	\$ 15	\$ 15	\$ 17	\$ 22	\$ 36	\$ 36	\$ 27	\$ 24	\$ 258	
297	\$ 16	\$ 16	\$ 15	\$ 15	\$ 15	\$ 15	\$ 17	\$ 24	\$ 41	\$ 40	\$ 30	\$ 25	\$ 273	
326	\$ 16	\$ 16	\$ 15	\$ 15	\$ 15	\$ 16	\$ 18	\$ 25	\$ 45	\$ 44	\$ 32	\$ 26	\$ 287	
354	\$ 17	\$ 16	\$ 15	\$ 16	\$ 16	\$ 16	\$ 18	\$ 26	\$ 48	\$ 47	\$ 34	\$ 28	\$ 301	
380	\$ 17	\$ 17	\$ 16	\$ 16	\$ 16	\$ 16	\$ 19	\$ 28	\$ 52	\$ 51	\$ 35	\$ 29	\$ 314	
407	\$ 17	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 19	\$ 29	\$ 54	\$ 54	\$ 37	\$ 31	\$ 327	
433	\$ 17	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 19	\$ 31	\$ 58	\$ 57	\$ 40	\$ 32	\$ 340	
459	\$ 17	\$ 17	\$ 16	\$ 16	\$ 16	\$ 16	\$ 20	\$ 32	\$ 61	\$ 60	\$ 42	\$ 34	\$ 352	
484	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 16	\$ 20	\$ 33	\$ 64	\$ 63	\$ 44	\$ 35	\$ 364	
507	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 17	\$ 20	\$ 34	\$ 67	\$ 66	\$ 46	\$ 37	\$ 376	
531	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 17	\$ 21	\$ 35	\$ 69	\$ 69	\$ 48	\$ 38	\$ 387	
553	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 17	\$ 21	\$ 37	\$ 72	\$ 72	\$ 50	\$ 39	\$ 398	
576	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 17	\$ 22	\$ 38	\$ 75	\$ 74	\$ 51	\$ 40	\$ 409	
599	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 17	\$ 22	\$ 39	\$ 78	\$ 77	\$ 53	\$ 42	\$ 420	
622	\$ 19	\$ 17	\$ 16	\$ 16	\$ 17	\$ 17	\$ 22	\$ 41	\$ 80	\$ 80	\$ 55	\$ 43	\$ 432	
644	\$ 19	\$ 19	\$ 17	\$ 16	\$ 16	\$ 17	\$ 23	\$ 42	\$ 83	\$ 82	\$ 56	\$ 44	\$ 442	
667	\$ 19	\$ 19	\$ 17	\$ 16	\$ 16	\$ 17	\$ 23	\$ 43	\$ 86	\$ 84	\$ 58	\$ 46	\$ 453	
691	\$ 19	\$ 19	\$ 17	\$ 16	\$ 16	\$ 17	\$ 23	\$ 44	\$ 89	\$ 87	\$ 60	\$ 48	\$ 465	
715	\$ 19	\$ 19	\$ 17	\$ 17	\$ 17	\$ 17	\$ 24	\$ 46	\$ 92	\$ 90	\$ 61	\$ 49	\$ 476	
738	\$ 19	\$ 18	\$ 18	\$ 17	\$ 17	\$ 18	\$ 24	\$ 47	\$ 94	\$ 93	\$ 63	\$ 50	\$ 488	
763	\$ 19	\$ 18	\$ 18	\$ 17	\$ 17	\$ 18	\$ 25	\$ 49	\$ 98	\$ 95	\$ 64	\$ 52	\$ 499	
788	\$ 20	\$ 18	\$ 18	\$ 17	\$ 17	\$ 18	\$ 25	\$ 50	\$ 102	\$ 98	\$ 66	\$ 53	\$ 511	
813	\$ 20	\$ 18	\$ 18	\$ 17	\$ 17	\$ 18	\$ 26	\$ 52	\$ 104	\$ 101	\$ 68	\$ 54	\$ 523	
840	\$ 20	\$ 18	\$ 18	\$ 17	\$ 17	\$ 18	\$ 26	\$ 53	\$ 106	\$ 104	\$ 70	\$ 56	\$ 536	
868	\$ 20	\$ 18	\$ 18	\$ 17	\$ 17	\$ 18	\$ 27	\$ 56	\$ 110	\$ 106	\$ 71	\$ 58	\$ 549	
897	\$ 20	\$ 18	\$ 17	\$ 17	\$ 18	\$ 18	\$ 27	\$ 57	\$ 114	\$ 110	\$ 74	\$ 59	\$ 563	
928	\$ 21	\$ 18	\$ 17	\$ 17	\$ 18	\$ 18	\$ 28	\$ 59	\$ 117	\$ 113	\$ 76	\$ 61	\$ 577	
961	\$ 21	\$ 18	\$ 17	\$ 18	\$ 19	\$ 19	\$ 29	\$ 61	\$ 120	\$ 117	\$ 78	\$ 63	\$ 593	
997	\$ 21	\$ 18	\$ 18	\$ 17	\$ 18	\$ 19	\$ 30	\$ 63	\$ 124	\$ 121	\$ 81	\$ 65	\$ 609	
1,035	\$ 22	\$ 22	\$ 19	\$ 17	\$ 18	\$ 19	\$ 30	\$ 65	\$ 129	\$ 125	\$ 84	\$ 67	\$ 627	
1,079	\$ 22	\$ 22	\$ 19	\$ 18	\$ 18	\$ 19	\$ 31	\$ 67	\$ 134	\$ 129	\$ 87	\$ 70	\$ 647	
1,128	\$ 22	\$ 22	\$ 19	\$ 18	\$ 18	\$ 18	\$ 32	\$ 70	\$ 140	\$ 134	\$ 89	\$ 72	\$ 669	
1,187	\$ 23	\$ 23	\$ 19	\$ 18	\$ 18	\$ 20	\$ 33	\$ 73	\$ 145	\$ 140	\$ 93	\$ 76	\$ 695	
1,257	\$ 23	\$ 20	\$ 18	\$ 19	\$ 20	\$ 20	\$ 35	\$ 76	\$ 153	\$ 148	\$ 97	\$ 79	\$ 727	
1,347	\$ 24	\$ 20	\$ 18	\$ 19	\$ 21	\$ 21	\$ 37	\$ 82	\$ 162	\$ 155	\$ 103	\$ 84	\$ 764	
1,486	\$ 25	\$ 21	\$ 19	\$ 19	\$ 22	\$ 22	\$ 39	\$ 88	\$ 174	\$ 168	\$ 111	\$ 90	\$ 818	
1,739	\$ 27	\$ 21	\$ 20	\$ 20	\$ 22	\$ 22	\$ 43	\$ 97	\$ 196	\$ 190	\$ 124	\$ 100	\$ 908	
4,789	\$ 35	\$ 26	\$ 23	\$ 24	\$ 28	\$ 55	\$ 127	\$ 260	\$ 252	\$ 162	\$ 133	\$ 63	\$ 1,187	
7,839	\$ 101	\$ 51	\$ 48	\$ 50	\$ 147	\$ 152	\$ 310	\$ 608	\$ 546	\$ 356	\$ 294	\$ 159	\$ 2,822	
10,889	\$ 48	\$ 38	\$ 36	\$ 40	\$ 64	\$ 138	\$ 389	\$ 955	\$ 953	\$ 703	\$ 517	\$ 312	\$ 4,193	
13,939	\$ 416	\$ 440	\$ 376	\$ 430	\$ 384	\$ 409	\$ 498	\$ 865	\$ 789	\$ 555	\$ 566	\$ 396	\$ 6,123	
16,989	\$ 476	\$ 440	\$ 348	\$ 407	\$ 421	\$ 603	\$ 827	\$ 1,371	\$ 1,284	\$ 856	\$ 760	\$ 553	\$ 8,345	

Exhibit VIII - Bill Impacts - Proposed Rate Design

**All Residential Customers**

Strata Annual CCFs	Average \$ Change Per Strata (Proposed Less Present)												Annual Total \$ Change	
	Off Pk				Peak				Off Pk					
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011		
-	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 4	
20	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 4	
48	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 4	
90	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 5	
130	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 0	\$ 0	\$ 5	
166	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 0	\$ 6	
200	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 0	\$ 6	
234	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 0	\$ 7	
267	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 7	
297	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 7	
326	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 8	
354	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 8	
380	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 9	
407	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 9	
433	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 1	\$ 9	
459	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 1	\$ 10	
484	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 1	\$ 10	
507	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 1	\$ 10	
531	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 1	\$ 11	
553	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 1	\$ 11	
576	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 1	\$ 11	
599	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 1	\$ 11	
622	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 1	\$ 12	
644	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 2	\$ 1	\$ 12	
667	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 2	\$ 1	\$ 12	
691	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 1	\$ 13	
715	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 3	\$ 2	\$ 2	\$ 1	\$ 13	
738	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 3	\$ 3	\$ 2	\$ 1	\$ 13	
763	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 3	\$ 3	\$ 2	\$ 1	\$ 14	
788	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 3	\$ 3	\$ 2	\$ 1	\$ 14	
813	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 3	\$ 3	\$ 2	\$ 1	\$ 14	
840	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 3	\$ 3	\$ 2	\$ 1	\$ 15	
868	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 3	\$ 2	\$ 2	\$ 15	
897	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 3	\$ 2	\$ 2	\$ 15	
928	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 3	\$ 3	\$ 2	\$ 2	\$ 16	
961	\$ 1	\$ 1	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 3	\$ 3	\$ 2	\$ 2	\$ 16	
997	\$ 1	\$ 1	\$ 1	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 3	\$ 3	\$ 2	\$ 2	\$ 17	
1,035	\$ 1	\$ 1	\$ 1	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 4	\$ 3	\$ 2	\$ 2	\$ 17	
1,079	\$ 1	\$ 1	\$ 1	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 4	\$ 4	\$ 2	\$ 2	\$ 18	
1,128	\$ 1	\$ 1	\$ 1	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 4	\$ 4	\$ 2	\$ 2	\$ 18	
1,187	\$ 1	\$ 1	\$ 1	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 4	\$ 4	\$ 3	\$ 2	\$ 19	
1,257	\$ 1	\$ 1	\$ 1	\$ 0	\$ 1	\$ 1	\$ 1	\$ 2	\$ 4	\$ 4	\$ 3	\$ 2	\$ 20	
1,347	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 2	\$ 4	\$ 4	\$ 3	\$ 2	\$ 21	
1,486	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 2	\$ 5	\$ 5	\$ 3	\$ 2	\$ 22	
1,739	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 3	\$ 5	\$ 5	\$ 3	\$ 3	\$ 25	
4,789	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 3	\$ 7	\$ 7	\$ 4	\$ 4	\$ 32	
7,839	\$ 3	\$ 1	\$ 1	\$ 1	\$ 1	\$ 4	\$ 4	\$ 10	\$ 25	\$ 22	\$ 12	\$ 9	\$ 4	\$ 96
10,889	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 2	\$ 4	\$ 14	\$ 42	\$ 42	\$ 29	\$ 20	\$ 10	\$ 167
13,939	\$ 15	\$ 16	\$ 13	\$ 16	\$ 13	\$ 15	\$ 15	\$ 37	\$ 34	\$ 22	\$ 23	\$ 14	\$ 237	
16,989	\$ 18	\$ 16	\$ 12	\$ 15	\$ 15	\$ 24	\$ 36	\$ 63	\$ 58	\$ 37	\$ 32	\$ 22	\$ 348	

## Exhibit VIII - Bill Impacts - Proposed Rate Design

### All Residential Customers

Strata Annual CCFs	Average % Change Per Strata At Proposed Rates												% of Customers		
	12 Billing Months Ending Jun-11												Annual Total % Change	In Strata	Cumulative
	Off Pk				Peak				Off Pk						
Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011				
-	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	2.2%	2.2%
20	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	4.5%	4.5%
48	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	6.7%	6.7%
90	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	8.9%	8.9%
130	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	11.2%	11.2%
166	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	13.4%	13.4%
200	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	15.6%	15.6%
234	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	17.8%	17.8%
267	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	20.1%	20.1%
297	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	22.2%	22.2%
326	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	24.5%	24.5%
354	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	26.7%	26.7%
380	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	28.9%	28.9%
407	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	31.2%	31.2%
433	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	33.4%	33.4%
459	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	35.6%	35.6%
484	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	37.9%	37.9%
507	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	40.1%	40.1%
531	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	44.5%	44.5%
553	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	46.7%	46.7%
576	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	49.0%	49.0%
599	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	51.1%	51.1%
622	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	53.3%	53.3%
644	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	55.6%	55.6%
667	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	57.9%	57.9%
691	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	60.0%	60.0%
715	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	62.3%	62.3%
738	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	64.5%	64.5%
763	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	66.7%	66.7%
788	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	69.0%	69.0%
813	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	71.1%	71.1%
840	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	73.3%	73.3%
868	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	75.6%	75.6%
897	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	77.8%	77.8%
928	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	80.0%	80.0%
961	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	82.2%	82.2%
997	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	84.5%	84.5%
1,035	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	86.7%	86.7%
1,079	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	88.9%	88.9%
1,128	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	91.1%	91.1%
1,187	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	93.3%	93.3%
1,257	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	95.6%	95.6%
1,347	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	97.8%	97.8%
1,486	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	100.0%	100.0%
1,739	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	0.0%	0.0%
4,789	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	100.0%	100.0%
7,839	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3.5%	0.0%	100.0%	100.0%
10,889	3%	3%	3%	3%	3%	3%	3%	3%	4%	4%	4%	4.1%	0.0%	100.0%	100.0%
13,939	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4.0%	0.0%	100.0%	100.0%
16,989	4%	4%	3%	4%	4%	4%	4%	4%	5%	5%	4%	4.4%	0.0%	100.0%	100.0%

## Exhibit VIII - Bill Impacts - Proposed Rate Design

### All Residential Customers

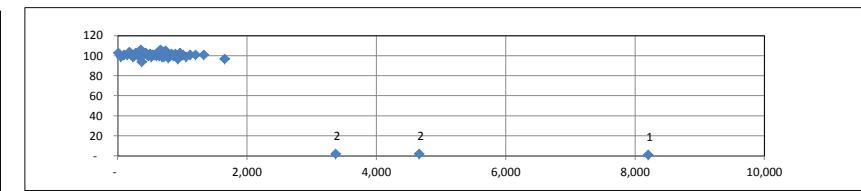
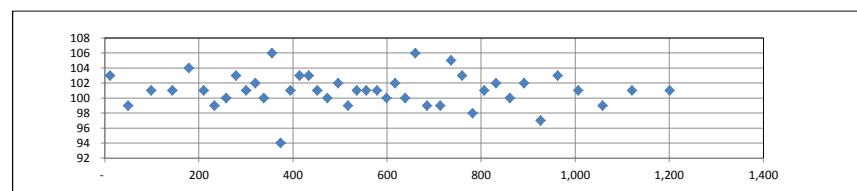
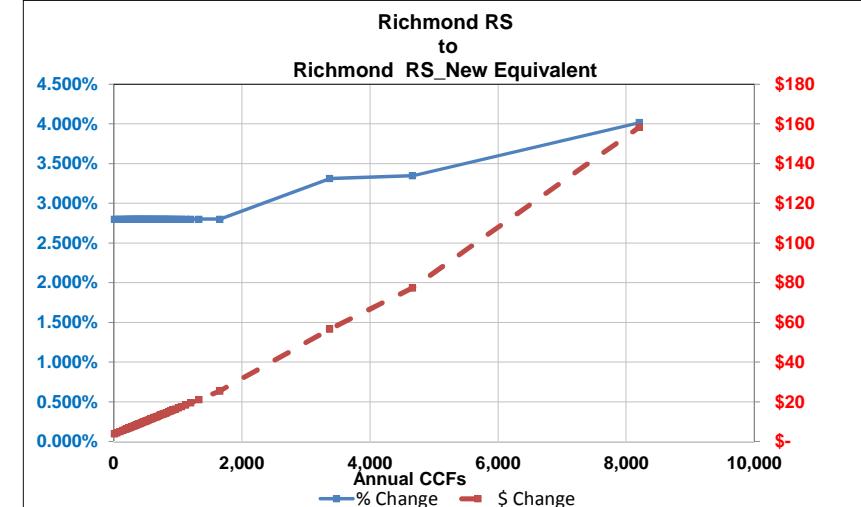
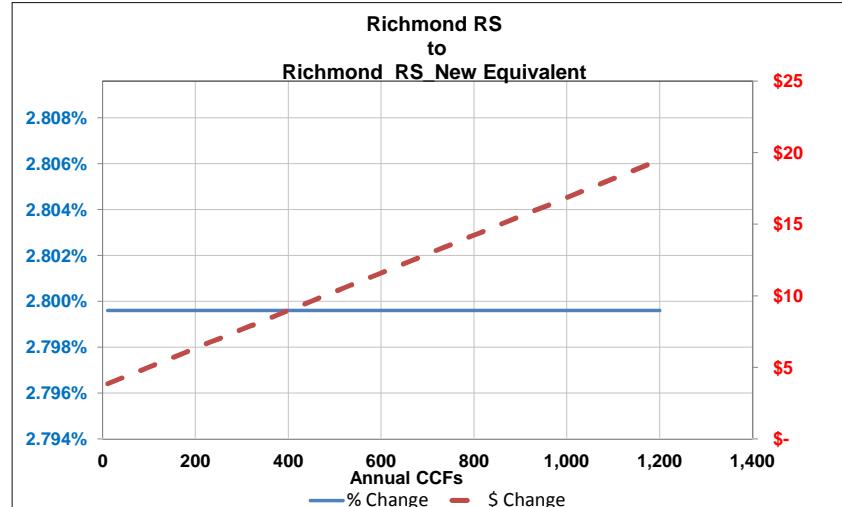
Percentile	Annual				Peak			Off Peak			Cum Bills	
	Avg Use	\$ Change	% Change	Current Bill	New Bill	Avg Use	Current Bill	New Bill	Avg Use	Current Bill	New Bill	
2.2%	9 \$	4	2.8%	\$ 137	\$ 141	4 \$	\$ 68	\$ 70	5 \$	\$ 69	\$ 71	2,260
4.5%	35 \$	4	2.8%	\$ 149	\$ 153	17 \$	\$ 74	\$ 76	18 \$	\$ 75	\$ 77	4,548
6.7%	69 \$	5	2.8%	\$ 165	\$ 170	38 \$	\$ 84	\$ 86	31 \$	\$ 81	\$ 83	6,776
8.9%	111 \$	5	2.8%	\$ 185	\$ 190	68 \$	\$ 98	\$ 101	43 \$	\$ 87	\$ 89	9,017
11.2%	148 \$	6	2.8%	\$ 202	\$ 208	95 \$	\$ 111	\$ 114	53 \$	\$ 91	\$ 94	11,285
13.4%	184 \$	6	2.8%	\$ 219	\$ 225	122 \$	\$ 124	\$ 127	62 \$	\$ 95	\$ 98	13,494
15.6%	218 \$	7	2.8%	\$ 235	\$ 242	150 \$	\$ 137	\$ 140	68 \$	\$ 98	\$ 101	15,762
17.8%	251 \$	7	2.8%	\$ 250	\$ 258	176 \$	\$ 149	\$ 153	75 \$	\$ 101	\$ 104	17,989
20.1%	283 \$	7	2.8%	\$ 266	\$ 273	204 \$	\$ 162	\$ 167	78 \$	\$ 103	\$ 106	20,260
22.2%	312 \$	8	2.8%	\$ 279	\$ 287	229 \$	\$ 174	\$ 179	83 \$	\$ 105	\$ 108	22,473
24.5%	341 \$	8	2.8%	\$ 293	\$ 301	250 \$	\$ 184	\$ 189	91 \$	\$ 109	\$ 112	24,768
26.7%	368 \$	9	2.8%	\$ 305	\$ 314	273 \$	\$ 194	\$ 200	95 \$	\$ 111	\$ 114	26,961
28.9%	394 \$	9	2.8%	\$ 318	\$ 327	293 \$	\$ 204	\$ 210	101 \$	\$ 114	\$ 117	29,237
31.2%	421 \$	9	2.8%	\$ 330	\$ 340	315 \$	\$ 214	\$ 220	106 \$	\$ 116	\$ 119	31,483
33.4%	447 \$	10	2.8%	\$ 343	\$ 352	337 \$	\$ 225	\$ 231	109 \$	\$ 118	\$ 121	33,765
35.6%	472 \$	10	2.8%	\$ 354	\$ 364	356 \$	\$ 234	\$ 240	116 \$	\$ 121	\$ 124	35,990
37.9%	496 \$	10	2.8%	\$ 366	\$ 376	376 \$	\$ 243	\$ 250	120 \$	\$ 123	\$ 126	38,234
40.1%	519 \$	11	2.8%	\$ 377	\$ 387	394 \$	\$ 251	\$ 258	126 \$	\$ 125	\$ 129	40,508
42.3%	543 \$	11	2.8%	\$ 388	\$ 398	412 \$	\$ 260	\$ 267	130 \$	\$ 127	\$ 131	42,698
44.5%	565 \$	11	2.8%	\$ 398	\$ 409	433 \$	\$ 270	\$ 277	132 \$	\$ 128	\$ 132	44,912
46.7%	588 \$	11	2.8%	\$ 409	\$ 420	450 \$	\$ 278	\$ 286	138 \$	\$ 131	\$ 135	47,145
49.0%	611 \$	12	2.8%	\$ 420	\$ 432	468 \$	\$ 286	\$ 294	143 \$	\$ 133	\$ 137	49,447
51.1%	633 \$	12	2.8%	\$ 430	\$ 442	486 \$	\$ 295	\$ 303	147 \$	\$ 135	\$ 139	51,664
53.3%	656 \$	12	2.8%	\$ 441	\$ 453	505 \$	\$ 304	\$ 312	151 \$	\$ 137	\$ 141	53,875
55.6%	679 \$	13	2.8%	\$ 452	\$ 465	523 \$	\$ 312	\$ 321	157 \$	\$ 140	\$ 144	56,210
57.9%	704 \$	13	2.8%	\$ 463	\$ 476	543 \$	\$ 321	\$ 330	161 \$	\$ 142	\$ 146	58,470
60.0%	727 \$	13	2.8%	\$ 474	\$ 488	560 \$	\$ 330	\$ 339	167 \$	\$ 145	\$ 149	60,628
62.3%	751 \$	14	2.8%	\$ 486	\$ 499	582 \$	\$ 340	\$ 349	170 \$	\$ 146	\$ 150	62,924
64.5%	776 \$	14	2.8%	\$ 497	\$ 511	603 \$	\$ 350	\$ 360	173 \$	\$ 148	\$ 152	65,176
66.7%	801 \$	14	2.8%	\$ 509	\$ 523	623 \$	\$ 359	\$ 369	177 \$	\$ 150	\$ 154	67,404
69.0%	827 \$	15	2.8%	\$ 521	\$ 536	642 \$	\$ 368	\$ 378	186 \$	\$ 153	\$ 158	69,659
71.1%	854 \$	15	2.8%	\$ 534	\$ 549	664 \$	\$ 379	\$ 389	190 \$	\$ 155	\$ 160	71,844
73.3%	883 \$	15	2.8%	\$ 547	\$ 563	688 \$	\$ 390	\$ 401	195 \$	\$ 158	\$ 162	74,080
75.6%	913 \$	16	2.8%	\$ 562	\$ 577	711 \$	\$ 401	\$ 412	201 \$	\$ 161	\$ 165	76,391
77.8%	945 \$	16	2.8%	\$ 577	\$ 593	736 \$	\$ 412	\$ 424	209 \$	\$ 164	\$ 169	78,581
80.0%	979 \$	17	2.8%	\$ 593	\$ 609	764 \$	\$ 425	\$ 437	215 \$	\$ 168	\$ 172	80,847
82.2%	1,016 \$	17	2.8%	\$ 610	\$ 627	793 \$	\$ 439	\$ 451	223 \$	\$ 171	\$ 176	83,057
84.5%	1,057 \$	18	2.8%	\$ 630	\$ 647	826 \$	\$ 454	\$ 467	232 \$	\$ 175	\$ 180	85,319
86.7%	1,103 \$	18	2.8%	\$ 651	\$ 669	862 \$	\$ 472	\$ 485	241 \$	\$ 180	\$ 185	87,568
88.9%	1,157 \$	19	2.8%	\$ 677	\$ 695	904 \$	\$ 491	\$ 505	254 \$	\$ 185	\$ 191	89,805
91.1%	1,222 \$	20	2.8%	\$ 707	\$ 727	955 \$	\$ 515	\$ 530	267 \$	\$ 192	\$ 197	92,048
93.3%	1,300 \$	21	2.8%	\$ 743	\$ 764	1,017 \$	\$ 544	\$ 560	283 \$	\$ 199	\$ 205	94,286
95.6%	1,411 \$	22	2.8%	\$ 796	\$ 818	1,103 \$	\$ 585	\$ 601	308 \$	\$ 211	\$ 217	96,530
97.8%	1,596 \$	25	2.8%	\$ 883	\$ 908	1,251 \$	\$ 654	\$ 673	345 \$	\$ 229	\$ 235	98,772
100.0%	2,175 \$	32	2.8%	\$ 1,155	\$ 1,187	1,688 \$	\$ 859	\$ 884	488 \$	\$ 295	\$ 304	100,986
100.0%	5,559 \$	96	3.5%	\$ 2,726	\$ 2,822	4,246 \$	\$ 2,043	\$ 2,120	1,314 \$	\$ 683	\$ 703	101,010
100.0%	8,397 \$	167	4.1%	\$ 4,027	\$ 4,193	6,487 \$	\$ 3,070	\$ 3,202	1,911 \$	\$ 957	\$ 991	101,012
100.0%	12,391 \$	237	4.0%	\$ 5,886	\$ 6,123	7,102 \$	\$ 3,359	\$ 3,500	5,289 \$	\$ 2,527	\$ 2,624	101,013
100.0%	16,989 \$	348	4.4%	\$ 7,997	\$ 8,345	10,956 \$	\$ 5,128	\$ 5,362	6,033 \$	\$ 2,868	\$ 2,983	101,014

Exhibit VIII - Bill Impacts - Proposed Rate Design  
Chesterfield Residential Customers

**Richmond Gas Division Preliminary Rate Analysis - Chesterfield**  
**Comparative Annual Billing Under Current And New Rate Structure**  
**Base Distribution Rates Only**

Current Rate Structure						New Rate Structure					
Richmond RS			Richmond RS_New			Customer Charge			Peak	Off Peak	
Customer Charge		Peak	Off Peak	\$/CCF		Customer Charge		Peak	Off Peak	\$/CCF	
Energy Chrg Block	Max CCF	\$/CCF		Energy Chrg Block	Max CCF	\$/CCF		Peak	Off Peak	\$/CCF	
	Peak	Off Peak			Peak	Off Peak		Peak	Off Peak	\$/CCF	
1	500	500	\$ 0.47000	1	500	500	\$ 0.48316	\$ 0.48316			
2	-	-	\$ 0.45900	2	-	-	\$ 0.48316	\$ 0.48316			
3	-	-	\$ -	3	-	-	\$ -	\$ -			
4	-	-	\$ -	4	-	-	\$ -	\$ -			
5	-	-	\$ -	5	-	-	\$ -	\$ -			

Percentile	Average Annual CCFs	Annual Bill				Cumul. # Customers
		Current Bill	New Bill	\$ Change	% Change	
4%	50	\$ 156	\$ 160	\$ 4	3%	202
7%	99	\$ 179	\$ 184	\$ 5	3%	303
9%	143	\$ 200	\$ 206	\$ 6	3%	404
20%	279	\$ 264	\$ 271	\$ 7	3%	911
29%	355	\$ 300	\$ 308	\$ 8	3%	1,320
40%	452	\$ 345	\$ 355	\$ 10	3%	1,822
49%	535	\$ 384	\$ 395	\$ 11	3%	2,224
60%	639	\$ 433	\$ 445	\$ 12	3%	2,728
69%	736	\$ 478	\$ 492	\$ 13	3%	3,137
80%	861	\$ 537	\$ 552	\$ 15	3%	3,641
89%	1,006	\$ 606	\$ 622	\$ 17	3%	4,044
98%	1,327	\$ 756	\$ 778	\$ 21	3%	4,446
100%	8,204	\$ 3,942	\$ 4,100	\$ 158	4%	4,548



## Exhibit VIII - Bill Impacts - Proposed Rate Design

### Chesterfield Residential Customers

#### Richmond Gas Division Comparative Monthly Billing Under Current And New Rate Structure

##### Current Rate Structure

Cst Chrg	RS		Rate	
	Peak	Off Peak	Peak	Off Peak
			\$11.05	\$11.05
Energy Charge	Max CCF	\$/CCF		
Block	Peak	Off Peak	Peak	Off Peak
1	500	500	\$ 0.47000	\$ 0.47000
2	-	-	\$ 0.45900	\$ 0.45900
3	-	-	\$ -	\$ -
4	-	-	\$ -	\$ -
5	-	-	\$ -	\$ -

Strata Annual CCFs	Average Use Per Strata (CCFs)												Annual Total	MDCQ	Count			
	Off Pk				12 Billing Months Ending Jun-11				Off Pk									
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011						
28	3	2	1	1	1	1	1	1	0	1	1	11	-	-	103			
72	5	4	3	3	3	4	3	5	6	5	7	3	50	-	-	99		
124	5	4	3	4	3	5	9	15	15	14	15	5	99	-	-	101		
163	8	7	5	6	6	9	16	27	23	15	14	7	143	-	-	101		
196	8	7	6	7	6	11	18	39	30	17	19	10	179	-	-	104		
221	6	6	5	6	6	11	25	52	41	23	20	9	210	-	-	101		
244	9	8	6	7	7	12	26	55	43	26	22	10	233	-	-	99		
269	8	8	6	7	7	12	32	68	49	27	23	10	258	-	-	100		
288	7	7	6	7	7	15	34	75	57	31	25	10	279	-	-	103		
309	9	8	6	7	8	14	35	75	66	33	26	12	300	-	-	101		
329	9	8	7	8	8	16	43	85	64	34	28	11	320	-	-	102		
345	11	9	6	8	9	19	40	83	68	39	33	13	338	-	-	100		
363	11	11	8	9	10	19	44	91	70	38	31	13	355	-	-	106		
383	11	10	7	9	9	20	45	99	77	41	33	12	373	-	-	94		
403	11	10	8	11	10	23	52	100	80	44	35	13	394	-	-	101		
423	10	10	8	10	10	21	52	107	88	47	37	14	414	-	-	103		
442	10	9	7	9	10	23	56	115	89	49	40	16	433	-	-	103		
460	12	12	9	10	11	24	61	113	93	53	40	15	452	-	-	101		
485	11	10	8	9	11	30	65	125	95	53	42	14	473	-	-	100		
506	11	11	8	10	11	27	67	130	102	58	46	15	496	-	-	102		
525	14	12	9	11	12	30	70	134	105	58	46	16	517	-	-	99		
544	13	12	9	11	12	30	74	139	110	60	49	16	535	-	-	101		
566	14	13	10	12	13	29	72	140	115	67	51	18	556	-	-	101		
588	13	12	10	12	13	31	80	150	119	67	54	17	578	-	-	101		
608	12	11	8	10	11	34	83	159	126	71	56	17	599	-	-	100		
628	14	13	10	13	14	35	83	156	125	74	59	19	617	-	-	102		
649	14	13	11	12	14	39	89	160	132	74	61	19	639	-	-	100		
671	14	13	11	12	14	38	89	172	136	78	63	20	660	-	-	106		
700	14	13	10	13	15	43	97	176	136	80	66	21	685	-	-	99		
722	15	14	11	13	15	42	99	188	145	82	68	22	713	-	-	99		
748	16	15	11	13	15	44	105	186	147	86	71	24	736	-	-	105		
769	16	15	12	14	17	46	105	195	154	89	73	23	760	-	-	103		
793	15	13	10	13	16	50	114	202	160	93	76	21	782	-	-	98		
816	15	14	11	13	16	54	120	209	162	97	75	22	806	-	-	101		
844	18	16	13	15	19	55	119	211	164	98	79	25	831	-	-	102		
875	17	14	10	13	17	57	124	222	175	104	84	24	861	-	-	100		
907	16	14	12	14	17	56	127	233	183	106	89	24	891	-	-	102		
943	19	17	13	15	19	60	134	238	186	109	89	26	926	-	-	97		
982	18	15	13	15	18	60	136	251	197	119	95	26	963	-	-	103		
1,031	19	18	12	14	20	66	145	259	202	120	101	29	1,006	-	-	101		
1,084	19	17	13	16	21	71	156	271	214	127	104	28	1,058	-	-	99		
1,153	18	16	13	15	21	73	164	286	230	144	111	29	1,121	-	-	101		
1,253	19	15	12	14	21	83	182	310	247	148	120	30	1,201	-	-	101		
1,427	23	18	14	17	24	91	202	338	270	163	131	36	1,327	-	-	101		
2,782	37	23	18	21	34	119	254	413	333	200	159	43	1,653	-	-	97		
4,138	106	108	92	100	125	252	527	944	803	174	119	23	3,371	-	-	2		
5,493	205	153	123	139	323	440	658	1,085	878	278	242	141	4,663	-	-	2		
8,204	110	100	90	110	204	492	1,118	2,098	1,653	975	898	356	8,204	-	-	1		

## Exhibit VIII - Bill Impacts - Proposed Rate Design

### Chesterfield Residential Customers

Strata Annual CCFs	Block 1 CCFs															
	12 Billing Months Ending Jun-11															
	Off Pk				Peak				Off Pk							
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011				
28	3	2	1	1	1	1	1	1	1	0	1	1				
72	5	4	3	3	3	4	3	5	6	5	7	3				
8,204	110	100	90	110	204	492	500	500	500	500	500	356				

Strata Annual CCFs	Block 2 CCFs															
	12 Billing Months Ending Jun-11															
	Off Pk				Peak				Off Pk							
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011				
-	-	-	-	-	-	-	-	-	-	-	-	-				
28	-	-	-	-	-	-	-	-	-	-	-	-				
72	-	-	-	-	-	-	-	-	-	-	-	-				
8,204	-	-	-	-	-	-	618	1,598	1,153	475	398	-				

Strata Annual CCFs	Average Bill Per Strata At Present Rates												Annual Total	
	12 Billing Months Ending Jun-11													
	Off Pk				Peak				Off Pk					
Strata	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011		
-	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 133	
28	\$ 12	\$ 12	\$ 12	\$ 11	\$ 11	\$ 11	\$ 11	\$ 12	\$ 11	\$ 11	\$ 11	\$ 11	\$ 138	
72	\$ 13	\$ 13	\$ 12	\$ 12	\$ 12	\$ 13	\$ 13	\$ 14	\$ 14	\$ 13	\$ 14	\$ 13	\$ 156	
124	\$ 13	\$ 13	\$ 13	\$ 13	\$ 13	\$ 14	\$ 14	\$ 15	\$ 18	\$ 18	\$ 18	\$ 13	\$ 179	
163	\$ 15	\$ 14	\$ 14	\$ 13	\$ 14	\$ 14	\$ 15	\$ 19	\$ 24	\$ 22	\$ 18	\$ 18	\$ 200	
196	\$ 15	\$ 15	\$ 14	\$ 14	\$ 14	\$ 16	\$ 20	\$ 29	\$ 25	\$ 19	\$ 20	\$ 16	\$ 217	
221	\$ 14	\$ 14	\$ 13	\$ 14	\$ 14	\$ 16	\$ 23	\$ 35	\$ 30	\$ 22	\$ 20	\$ 15	\$ 231	
244	\$ 15	\$ 15	\$ 14	\$ 15	\$ 14	\$ 17	\$ 23	\$ 37	\$ 31	\$ 23	\$ 21	\$ 16	\$ 242	
269	\$ 15	\$ 15	\$ 14	\$ 14	\$ 15	\$ 17	\$ 26	\$ 43	\$ 34	\$ 24	\$ 22	\$ 16	\$ 254	
288	\$ 14	\$ 14	\$ 14	\$ 14	\$ 14	\$ 18	\$ 27	\$ 46	\$ 38	\$ 26	\$ 23	\$ 16	\$ 264	
309	\$ 15	\$ 15	\$ 14	\$ 14	\$ 15	\$ 18	\$ 28	\$ 46	\$ 42	\$ 27	\$ 23	\$ 17	\$ 274	
329	\$ 15	\$ 15	\$ 14	\$ 15	\$ 15	\$ 19	\$ 31	\$ 51	\$ 41	\$ 27	\$ 24	\$ 16	\$ 283	
345	\$ 16	\$ 15	\$ 14	\$ 15	\$ 15	\$ 20	\$ 30	\$ 50	\$ 43	\$ 29	\$ 27	\$ 17	\$ 291	
363	\$ 16	\$ 16	\$ 15	\$ 15	\$ 16	\$ 20	\$ 32	\$ 54	\$ 44	\$ 29	\$ 26	\$ 17	\$ 300	
383	\$ 16	\$ 16	\$ 14	\$ 15	\$ 15	\$ 20	\$ 32	\$ 58	\$ 47	\$ 30	\$ 26	\$ 17	\$ 308	
403	\$ 16	\$ 16	\$ 15	\$ 16	\$ 16	\$ 22	\$ 35	\$ 58	\$ 48	\$ 32	\$ 27	\$ 17	\$ 318	
423	\$ 16	\$ 16	\$ 15	\$ 15	\$ 16	\$ 21	\$ 35	\$ 62	\$ 52	\$ 33	\$ 28	\$ 18	\$ 327	
442	\$ 16	\$ 15	\$ 15	\$ 14	\$ 15	\$ 22	\$ 38	\$ 65	\$ 53	\$ 34	\$ 30	\$ 18	\$ 336	
460	\$ 17	\$ 16	\$ 16	\$ 15	\$ 16	\$ 22	\$ 40	\$ 64	\$ 55	\$ 36	\$ 30	\$ 18	\$ 345	
485	\$ 16	\$ 16	\$ 15	\$ 15	\$ 16	\$ 25	\$ 42	\$ 70	\$ 56	\$ 36	\$ 31	\$ 18	\$ 355	
506	\$ 16	\$ 16	\$ 15	\$ 16	\$ 16	\$ 24	\$ 43	\$ 72	\$ 59	\$ 38	\$ 32	\$ 18	\$ 366	
525	\$ 17	\$ 17	\$ 15	\$ 16	\$ 16	\$ 25	\$ 44	\$ 74	\$ 61	\$ 38	\$ 32	\$ 19	\$ 375	
544	\$ 17	\$ 17	\$ 15	\$ 16	\$ 17	\$ 25	\$ 46	\$ 76	\$ 63	\$ 39	\$ 34	\$ 18	\$ 384	
566	\$ 18	\$ 17	\$ 16	\$ 16	\$ 17	\$ 25	\$ 45	\$ 77	\$ 65	\$ 42	\$ 35	\$ 20	\$ 394	
588	\$ 17	\$ 17	\$ 16	\$ 16	\$ 17	\$ 26	\$ 49	\$ 81	\$ 67	\$ 43	\$ 36	\$ 19	\$ 404	
608	\$ 17	\$ 16	\$ 15	\$ 16	\$ 16	\$ 27	\$ 50	\$ 86	\$ 70	\$ 44	\$ 37	\$ 19	\$ 414	
628	\$ 18	\$ 17	\$ 16	\$ 16	\$ 17	\$ 18	\$ 28	\$ 50	\$ 84	\$ 70	\$ 46	\$ 39	\$ 20	\$ 423
649	\$ 18	\$ 17	\$ 16	\$ 17	\$ 17	\$ 29	\$ 53	\$ 86	\$ 73	\$ 46	\$ 40	\$ 20	\$ 433	
671	\$ 18	\$ 17	\$ 16	\$ 17	\$ 18	\$ 29	\$ 53	\$ 92	\$ 75	\$ 48	\$ 41	\$ 20	\$ 443	
700	\$ 18	\$ 17	\$ 16	\$ 17	\$ 18	\$ 31	\$ 57	\$ 94	\$ 75	\$ 49	\$ 42	\$ 21	\$ 455	
722	\$ 18	\$ 18	\$ 16	\$ 16	\$ 17	\$ 31	\$ 57	\$ 99	\$ 79	\$ 50	\$ 43	\$ 21	\$ 466	
748	\$ 19	\$ 19	\$ 18	\$ 16	\$ 17	\$ 32	\$ 60	\$ 99	\$ 80	\$ 52	\$ 45	\$ 22	\$ 478	
769	\$ 19	\$ 18	\$ 18	\$ 17	\$ 18	\$ 33	\$ 60	\$ 103	\$ 83	\$ 53	\$ 45	\$ 22	\$ 490	
793	\$ 18	\$ 18	\$ 16	\$ 16	\$ 17	\$ 34	\$ 64	\$ 106	\$ 86	\$ 55	\$ 47	\$ 21	\$ 500	
816	\$ 18	\$ 17	\$ 16	\$ 17	\$ 19	\$ 36	\$ 67	\$ 109	\$ 87	\$ 56	\$ 46	\$ 22	\$ 512	
844	\$ 20	\$ 19	\$ 19	\$ 17	\$ 18	\$ 20	\$ 37	\$ 67	\$ 110	\$ 88	\$ 57	\$ 48	\$ 23	\$ 523
875	\$ 19	\$ 17	\$ 16	\$ 16	\$ 17	\$ 38	\$ 69	\$ 115	\$ 93	\$ 60	\$ 51	\$ 22	\$ 537	
907	\$ 19	\$ 19	\$ 17	\$ 16	\$ 17	\$ 38	\$ 71	\$ 121	\$ 97	\$ 61	\$ 53	\$ 22	\$ 551	
943	\$ 20	\$ 19	\$ 19	\$ 17	\$ 18	\$ 20	\$ 39	\$ 74	\$ 123	\$ 99	\$ 62	\$ 53	\$ 23	\$ 568
982	\$ 19	\$ 18	\$ 18	\$ 17	\$ 18	\$ 20	\$ 39	\$ 75	\$ 129	\$ 104	\$ 67	\$ 56	\$ 23	\$ 585
1,031	\$ 20	\$ 19	\$ 19	\$ 17	\$ 18	\$ 21	\$ 42	\$ 79	\$ 133	\$ 106	\$ 68	\$ 59	\$ 25	\$ 606
1,084	\$ 20	\$ 19	\$ 17	\$ 19	\$ 21	\$ 44	\$ 84	\$ 138	\$ 112	\$ 71	\$ 60	\$ 24	\$ 630	
1,153	\$ 20	\$ 19	\$ 17	\$ 18	\$ 21	\$ 46	\$ 88	\$ 145	\$ 119	\$ 79	\$ 63	\$ 25	\$ 659	
1,253	\$ 20	\$ 18	\$ 18	\$ 17	\$ 21	\$ 50	\$ 97	\$ 157	\$ 127	\$ 81	\$ 67	\$ 25	\$ 697	
1,427	\$ 22	\$ 20	\$ 18	\$ 19	\$ 23	\$ 54	\$ 106	\$ 170	\$ 138	\$ 88	\$ 73	\$ 28	\$ 756	
2,782	\$ 28	\$ 22	\$ 20	\$ 21	\$ 27	\$ 67	\$ 130	\$ 205	\$ 167	\$ 105	\$ 86	\$ 31	\$ 910	
4,138	\$ 61	\$ 62	\$ 54	\$ 58	\$ 70	\$ 129	\$ 258	\$ 450	\$ 385	\$ 93	\$ 67	\$ 22	\$ 1,708	
5,493	\$ 107	\$ 83	\$ 69	\$ 76	\$ 163	\$ 218	\$ 319	\$ 515	\$ 419	\$ 142	\$ 125	\$ 77	\$ 2,312	
8,204	\$ 63	\$ 58	\$ 53	\$ 63	\$ 107	\$ 242	\$ 530	\$ 980	\$ 775	\$ 464	\$ 429	\$ 178	\$ 3,942	

## Exhibit VIII - Bill Impacts - Proposed Rate Design

### Chesterfield Residential Customers

**Richmond Gas Division**  
**Comparative Monthly Billing Under Current And New Rate Structure**

#### New Rate Structure (Revenue Neutral Equivalent)

Cst_Chrg	RS_New		Rate	
	Peak	Off Peak	Peak	Off Peak
		\$11.36		\$11.36
Energy Charge	Max CCF		\$/CCF	
Block	Peak	Off Peak	Peak	Off Peak
1	500	500	\$ 0.48316	\$ 0.48316
2	-	-	\$ 0.48316	\$ 0.48316
3	-	-	\$ -	\$ -
4	-	-	\$ -	\$ -
5	-	-	\$ -	\$ -

Strata Annual CCFs	Average Use Per Strata (CCFs)												Annual Total	MDCQ	Count
	Off Pk				12 Billing Months Ending Jun-11				Peak						
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011	Peak	Off Pk	Count
28	-	3	2	1	1	1	1	1	1	0	1	1	11	-	182
72	5	4	3	3	3	4	3	5	6	5	7	3	50	-	99
124	5	4	3	4	3	5	9	15	15	14	15	5	99	-	101
163	8	7	5	6	6	9	16	27	23	15	14	7	143	-	101
196	8	7	6	7	6	11	18	39	30	17	19	10	179	-	104
221	6	6	5	6	6	11	25	52	41	23	20	9	210	-	101
244	9	8	6	7	7	12	26	55	43	26	22	10	233	-	99
269	8	8	6	7	7	12	32	68	49	27	23	10	258	-	100
288	7	7	6	7	7	15	34	75	57	31	25	10	279	-	103
309	9	8	6	7	8	14	35	75	66	33	26	12	300	-	101
329	9	8	7	8	8	16	43	85	64	34	28	11	320	-	102
345	11	9	6	8	9	19	40	83	68	39	33	13	338	-	100
363	11	11	8	9	10	19	44	91	70	38	31	13	355	-	106
383	11	10	7	9	9	20	45	99	77	41	33	12	373	-	94
403	11	10	8	11	10	23	52	100	80	44	35	13	394	-	101
423	10	10	8	10	10	21	52	107	88	47	37	14	414	-	103
442	10	9	7	9	10	23	56	115	89	49	40	16	433	-	103
460	12	12	9	10	11	24	61	113	93	53	40	15	452	-	101
485	11	10	8	9	11	30	65	125	95	53	42	14	473	-	100
506	11	11	8	10	11	27	67	130	102	58	46	15	496	-	102
525	14	12	9	11	12	30	70	134	105	58	46	16	517	-	99
544	13	12	9	11	12	30	74	139	110	60	49	16	535	-	101
566	14	13	10	12	13	29	72	140	115	67	51	18	556	-	101
588	13	12	10	12	13	31	80	150	119	67	54	17	578	-	101
608	12	11	8	10	11	34	83	159	126	71	56	17	599	-	100
628	14	13	10	13	14	35	83	156	125	74	59	19	617	-	102
649	14	13	11	12	14	39	89	160	132	74	61	19	639	-	100
671	14	13	11	12	14	38	89	172	136	78	63	20	660	-	106
700	14	13	10	13	15	43	97	176	136	80	66	21	685	-	99
722	15	14	11	13	15	42	99	188	145	82	68	22	713	-	99
748	16	15	11	13	15	44	105	186	147	86	71	24	736	-	105
769	16	15	12	14	17	46	105	195	154	89	73	23	760	-	103
793	15	13	10	13	16	50	114	202	160	93	76	21	782	-	98
816	15	14	11	13	16	54	120	209	162	97	75	22	806	-	101
844	18	16	13	15	19	55	119	211	164	98	79	25	831	-	102
875	17	14	10	13	17	57	124	222	175	104	84	24	861	-	100
907	16	14	12	14	17	56	127	233	183	106	89	24	891	-	102
943	19	17	13	15	19	60	134	238	186	109	89	26	926	-	97
982	18	15	13	15	18	60	136	251	197	119	95	26	963	-	103
1,031	19	18	12	14	20	66	145	259	202	120	101	29	1,006	-	101
1,084	19	17	13	16	21	71	156	271	214	127	104	28	1,058	-	99
1,153	18	16	13	15	21	73	164	286	230	144	111	29	1,121	-	101
1,253	19	15	12	14	21	83	182	310	247	148	120	30	1,201	-	101
1,427	23	18	14	17	24	91	202	338	270	163	131	36	1,327	-	101
2,782	37	23	18	21	34	119	254	413	333	200	159	43	1,653	-	97
4,138	106	108	92	100	125	252	527	944	803	174	119	23	3,371	-	2
5,493	205	153	123	139	323	440	658	1,085	878	278	242	141	4,663	-	2
8,204	110	100	90	110	204	492	1,118	2,098	1,653	975	898	356	8,204	-	1

## Exhibit VIII - Bill Impacts - Proposed Rate Design

### Chesterfield Residential Customers

Strata Annual CCFs	Block 1 CCFs															
	Off Pk				Peak				Off Pk							
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011				
28	3	2	1	1	1	1	1	1	1	0	1	1				
72	5	4	3	3	3	4	3	5	6	5	7	3				
8,204	110	100	90	110	204	492	500	500	500	500	500	356				

Strata Annual CCFs	Block 2 CCFs															
	Off Pk				Peak				Off Pk							
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011				
28	-	-	-	-	-	-	-	-	-	-	-	-				
72	-	-	-	-	-	-	-	-	-	-	-	-				
8,204	-	-	-	-	-	-	-	618	1,598	1,153	475	398				

Strata Annual CCFs	Average Bill Per Strata At Proposed Rates												Annual Total	
	Off Pk				Peak				Off Pk					
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011		
-	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 136	
28	\$ 13	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 142	
72	\$ 14	\$ 13	\$ 13	\$ 13	\$ 13	\$ 13	\$ 13	\$ 14	\$ 14	\$ 14	\$ 15	\$ 13	\$ 160	
124	\$ 14	\$ 13	\$ 13	\$ 13	\$ 13	\$ 13	\$ 14	\$ 16	\$ 19	\$ 19	\$ 18	\$ 19	\$ 184	
163	\$ 15	\$ 15	\$ 14	\$ 14	\$ 14	\$ 16	\$ 19	\$ 24	\$ 22	\$ 18	\$ 18	\$ 15	\$ 206	
196	\$ 15	\$ 15	\$ 14	\$ 15	\$ 15	\$ 16	\$ 20	\$ 30	\$ 26	\$ 20	\$ 20	\$ 16	\$ 223	
221	\$ 14	\$ 14	\$ 14	\$ 14	\$ 14	\$ 17	\$ 23	\$ 36	\$ 31	\$ 23	\$ 21	\$ 16	\$ 238	
244	\$ 15	\$ 15	\$ 14	\$ 15	\$ 15	\$ 15	\$ 17	\$ 24	\$ 38	\$ 32	\$ 24	\$ 22	\$ 249	
269	\$ 15	\$ 15	\$ 14	\$ 15	\$ 15	\$ 15	\$ 17	\$ 27	\$ 44	\$ 35	\$ 24	\$ 23	\$ 261	
288	\$ 15	\$ 15	\$ 14	\$ 15	\$ 15	\$ 15	\$ 18	\$ 28	\$ 47	\$ 39	\$ 26	\$ 23	\$ 271	
309	\$ 16	\$ 15	\$ 14	\$ 15	\$ 15	\$ 15	\$ 18	\$ 28	\$ 48	\$ 43	\$ 27	\$ 24	\$ 281	
329	\$ 16	\$ 15	\$ 15	\$ 15	\$ 15	\$ 15	\$ 19	\$ 32	\$ 52	\$ 42	\$ 28	\$ 25	\$ 291	
345	\$ 16	\$ 16	\$ 14	\$ 15	\$ 15	\$ 16	\$ 21	\$ 31	\$ 51	\$ 44	\$ 30	\$ 27	\$ 300	
363	\$ 17	\$ 16	\$ 15	\$ 16	\$ 16	\$ 16	\$ 20	\$ 33	\$ 55	\$ 45	\$ 30	\$ 26	\$ 308	
383	\$ 17	\$ 16	\$ 15	\$ 16	\$ 16	\$ 16	\$ 21	\$ 33	\$ 59	\$ 49	\$ 31	\$ 27	\$ 317	
403	\$ 16	\$ 16	\$ 15	\$ 16	\$ 16	\$ 16	\$ 22	\$ 36	\$ 59	\$ 50	\$ 33	\$ 28	\$ 327	
423	\$ 16	\$ 16	\$ 15	\$ 16	\$ 16	\$ 16	\$ 22	\$ 36	\$ 63	\$ 54	\$ 34	\$ 29	\$ 336	
442	\$ 16	\$ 16	\$ 16	\$ 15	\$ 16	\$ 16	\$ 22	\$ 39	\$ 67	\$ 54	\$ 35	\$ 30	\$ 346	
460	\$ 17	\$ 17	\$ 16	\$ 16	\$ 16	\$ 17	\$ 23	\$ 41	\$ 66	\$ 56	\$ 37	\$ 31	\$ 355	
485	\$ 17	\$ 16	\$ 15	\$ 16	\$ 16	\$ 16	\$ 26	\$ 43	\$ 72	\$ 57	\$ 37	\$ 32	\$ 365	
506	\$ 17	\$ 17	\$ 15	\$ 16	\$ 16	\$ 16	\$ 24	\$ 44	\$ 74	\$ 61	\$ 39	\$ 33	\$ 376	
525	\$ 18	\$ 17	\$ 16	\$ 17	\$ 17	\$ 17	\$ 26	\$ 45	\$ 76	\$ 62	\$ 39	\$ 33	\$ 386	
544	\$ 18	\$ 17	\$ 16	\$ 17	\$ 17	\$ 17	\$ 26	\$ 47	\$ 79	\$ 64	\$ 40	\$ 35	\$ 395	
566	\$ 18	\$ 18	\$ 16	\$ 16	\$ 17	\$ 18	\$ 26	\$ 46	\$ 79	\$ 67	\$ 44	\$ 36	\$ 405	
588	\$ 18	\$ 17	\$ 16	\$ 16	\$ 17	\$ 18	\$ 27	\$ 50	\$ 84	\$ 69	\$ 44	\$ 37	\$ 416	
608	\$ 17	\$ 17	\$ 15	\$ 16	\$ 16	\$ 17	\$ 28	\$ 52	\$ 88	\$ 72	\$ 46	\$ 39	\$ 426	
628	\$ 18	\$ 18	\$ 16	\$ 16	\$ 17	\$ 18	\$ 28	\$ 51	\$ 87	\$ 72	\$ 47	\$ 40	\$ 434	
649	\$ 18	\$ 18	\$ 17	\$ 17	\$ 17	\$ 18	\$ 30	\$ 54	\$ 88	\$ 75	\$ 47	\$ 41	\$ 445	
671	\$ 18	\$ 18	\$ 16	\$ 16	\$ 17	\$ 18	\$ 30	\$ 54	\$ 94	\$ 77	\$ 49	\$ 42	\$ 455	
700	\$ 18	\$ 18	\$ 16	\$ 18	\$ 18	\$ 18	\$ 32	\$ 58	\$ 96	\$ 77	\$ 50	\$ 43	\$ 467	
722	\$ 19	\$ 18	\$ 18	\$ 17	\$ 18	\$ 19	\$ 31	\$ 59	\$ 102	\$ 81	\$ 51	\$ 44	\$ 481	
748	\$ 19	\$ 19	\$ 19	\$ 17	\$ 18	\$ 19	\$ 33	\$ 62	\$ 101	\$ 83	\$ 53	\$ 46	\$ 492	
769	\$ 19	\$ 19	\$ 19	\$ 17	\$ 18	\$ 19	\$ 34	\$ 62	\$ 106	\$ 86	\$ 54	\$ 47	\$ 503	
793	\$ 19	\$ 18	\$ 16	\$ 17	\$ 17	\$ 19	\$ 35	\$ 66	\$ 109	\$ 89	\$ 56	\$ 48	\$ 514	
816	\$ 19	\$ 18	\$ 16	\$ 17	\$ 17	\$ 19	\$ 37	\$ 69	\$ 112	\$ 90	\$ 58	\$ 48	\$ 526	
844	\$ 20	\$ 19	\$ 17	\$ 19	\$ 19	\$ 21	\$ 38	\$ 69	\$ 113	\$ 91	\$ 58	\$ 50	\$ 538	
875	\$ 20	\$ 18	\$ 16	\$ 16	\$ 18	\$ 19	\$ 39	\$ 71	\$ 119	\$ 96	\$ 61	\$ 52	\$ 552	
907	\$ 19	\$ 18	\$ 18	\$ 17	\$ 18	\$ 20	\$ 39	\$ 73	\$ 124	\$ 100	\$ 63	\$ 54	\$ 567	
943	\$ 21	\$ 19	\$ 19	\$ 18	\$ 19	\$ 20	\$ 41	\$ 76	\$ 126	\$ 101	\$ 64	\$ 54	\$ 584	
982	\$ 20	\$ 19	\$ 19	\$ 17	\$ 18	\$ 20	\$ 40	\$ 77	\$ 133	\$ 106	\$ 69	\$ 57	\$ 602	
1,031	\$ 21	\$ 20	\$ 17	\$ 18	\$ 21	\$ 43	\$ 81	\$ 137	\$ 109	\$ 70	\$ 60	\$ 26	\$ 622	
1,084	\$ 21	\$ 20	\$ 18	\$ 19	\$ 21	\$ 46	\$ 87	\$ 142	\$ 115	\$ 73	\$ 62	\$ 25	\$ 647	
1,153	\$ 20	\$ 19	\$ 18	\$ 19	\$ 22	\$ 47	\$ 90	\$ 150	\$ 122	\$ 81	\$ 65	\$ 25	\$ 678	
1,253	\$ 21	\$ 19	\$ 17	\$ 18	\$ 21	\$ 51	\$ 99	\$ 161	\$ 131	\$ 83	\$ 69	\$ 26	\$ 716	
1,427	\$ 22	\$ 20	\$ 18	\$ 19	\$ 23	\$ 55	\$ 109	\$ 174	\$ 142	\$ 90	\$ 75	\$ 29	\$ 778	
2,782	\$ 29	\$ 22	\$ 20	\$ 22	\$ 28	\$ 69	\$ 134	\$ 211	\$ 172	\$ 108	\$ 88	\$ 32	\$ 935	
4,138	\$ 62	\$ 64	\$ 56	\$ 59	\$ 72	\$ 133	\$ 266	\$ 467	\$ 399	\$ 95	\$ 69	\$ 22	\$ 1,765	
5,493	\$ 110	\$ 85	\$ 71	\$ 79	\$ 167	\$ 224	\$ 329	\$ 536	\$ 435	\$ 146	\$ 128	\$ 79	\$ 2,389	
8,204	\$ 65	\$ 60	\$ 55	\$ 65	\$ 110	\$ 249	\$ 552	\$ 1,025	\$ 810	\$ 482	\$ 445	\$ 183	\$ 4,100	

Exhibit VIII - Bill Impacts - Proposed Rate Design

## Chesterfield Residential Customers

Strata Annual CCFs	Average \$ Change Per Strata (Proposed Less Present)												Annual Total \$ Change	
	Off Pk				12 Billing Months Ending Jun-11				Peak					
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011		
-	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 4	
28	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 4	
72	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 4	
124	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 5	
163	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 0	
196	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 6	
221	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 6	
244	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 7	
269	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 7	
288	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 0	
309	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 8	
329	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 8	
345	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 8	
363	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 1	\$ 1	\$ 8	
383	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 1	\$ 1	\$ 9	
403	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 1	\$ 1	\$ 9	
423	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 1	\$ 1	\$ 9	
442	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 1	\$ 1	\$ 9	
460	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 10	
485	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 0	
506	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 10	
525	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 11	
544	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 11	
566	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 11	
588	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 11	
608	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 12	
628	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 12	
649	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 12	
671	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 3	\$ 2	\$ 1	\$ 12	
700	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 3	\$ 2	\$ 1	\$ 13	
722	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 3	\$ 2	\$ 1	\$ 13	
748	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 3	\$ 2	\$ 1	\$ 13	
769	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 3	\$ 2	\$ 1	\$ 14	
793	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 3	\$ 2	\$ 1	\$ 14	
816	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 3	\$ 2	\$ 1	\$ 14	
844	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 3	\$ 2	\$ 1	\$ 15	
875	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 3	\$ 2	\$ 1	\$ 15	
907	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 3	\$ 3	\$ 2	\$ 1	
943	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 3	\$ 3	\$ 2	\$ 16	
982	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 4	\$ 3	\$ 2	\$ 16	
1,031	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 4	\$ 3	\$ 2	\$ 17	
1,084	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 4	\$ 3	\$ 2	\$ 18	
1,153	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 4	\$ 3	\$ 2	\$ 18	
1,253	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 3	\$ 4	\$ 2	\$ 20	
1,427	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 3	\$ 5	\$ 4	\$ 21	
2,782	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 2	\$ 4	\$ 6	\$ 5	\$ 3	\$ 25	
4,138	\$ 2	\$ 2	\$ 2	\$ 2	\$ 2	\$ 2	\$ 2	\$ 4	\$ 8	\$ 18	\$ 14	\$ 2	\$ 57	
5,493	\$ 3	\$ 2	\$ 2	\$ 2	\$ 2	\$ 5	\$ 6	\$ 11	\$ 21	\$ 16	\$ 4	\$ 3	\$ 77	
8,204	\$ 2	\$ 2	\$ 1	\$ 2	\$ 3	\$ 7	\$ 22	\$ 45	\$ 35	\$ 18	\$ 17	\$ 5	\$ 158	

## Exhibit VIII - Bill Impacts - Proposed Rate Design

### Chesterfield Residential Customers

Strata Annual CCFs	Average % Change Per Strata At Proposed Rates												% of Customers		
	Off Pk				Peak				Off Pk				In Strata	Cumulative	
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011			
	12 Billing Months Ending Jun-11												Annual Total % Change		
28	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	2.3%
72	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	4.4%
124	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	6.7%
163	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	8.9%
196	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	11.2%
221	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	13.4%
244	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	15.6%
269	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	17.8%
288	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	20.0%
309	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	22.3%
329	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	24.5%
345	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	26.7%
363	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	29.0%
383	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.1%	31.1%
403	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	33.3%
423	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	35.6%
442	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	37.8%
460	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	40.1%
485	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	42.3%
506	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	44.5%
525	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	46.7%
544	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	48.9%
566	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	51.1%
588	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	53.3%
608	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	55.5%
628	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	57.8%
649	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	60.0%
671	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	62.3%
700	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	64.5%
722	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	66.7%
748	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	69.0%
769	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	71.2%
793	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	73.4%
816	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	75.6%
844	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	77.9%
875	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	80.1%
907	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	82.3%
943	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.1%	84.4%
982	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	86.7%
1,031	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	88.9%
1,084	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	91.1%
1,153	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	93.3%
1,253	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	95.5%
1,427	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	97.8%
2,782	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.1%	99.9%
4,138	3%	3%	3%	3%	3%	3%	3%	3%	4%	4%	3%	3%	3.3%	0.0%	99.9%
5,493	3%	3%	3%	3%	3%	3%	3%	3%	4%	4%	3%	3%	3.3%	0.0%	100.0%
8,204	3%	3%	3%	3%	3%	3%	3%	4%	5%	4%	4%	4%	4.0%	0.0%	100.0%

## Exhibit VIII - Bill Impacts - Proposed Rate Design

### Chesterfield Residential Customers

FORMATTED FOR CHART Percentile	Annual					Peak			Off Peak			Cum Bills
	Avg Use	\$ Change	% Change	Current Bill	New Bill	Avg Use	Current Bill	New Bill	Avg Use	Current Bill	New Bill	
2.3%	11 \$	4	2.8%	\$ 138	\$ 142	4 \$	68 \$	70	7 \$	70 \$	72	103
4.4%	50 \$	4	2.8%	\$ 156	\$ 160	25 \$	78 \$	80	25 \$	78 \$	80	202
6.7%	99 \$	5	2.8%	\$ 179	\$ 184	62 \$	96 \$	98	36 \$	83 \$	86	303
8.9%	143 \$	6	2.8%	\$ 200	\$ 206	96 \$	111 \$	114	48 \$	89 \$	91	404
11.2%	179 \$	6	2.8%	\$ 217	\$ 223	121 \$	123 \$	127	58 \$	93 \$	96	508
13.4%	210 \$	6	2.8%	\$ 231	\$ 238	157 \$	140 \$	144	53 \$	91 \$	94	609
15.6%	233 \$	7	2.8%	\$ 242	\$ 249	170 \$	146 \$	150	63 \$	96 \$	99	708
17.8%	258 \$	7	2.8%	\$ 254	\$ 261	195 \$	158 \$	163	62 \$	96 \$	98	808
20.0%	279 \$	7	2.8%	\$ 264	\$ 271	218 \$	169 \$	174	61 \$	95 \$	97	911
22.3%	300 \$	8	2.8%	\$ 274	\$ 281	231 \$	175 \$	180	69 \$	99 \$	102	1,012
24.5%	320 \$	8	2.8%	\$ 283	\$ 291	249 \$	183 \$	189	70 \$	99 \$	102	1,114
26.7%	338 \$	8	2.8%	\$ 291	\$ 300	258 \$	188 \$	193	80 \$	104 \$	107	1,214
29.0%	355 \$	8	2.8%	\$ 300	\$ 308	271 \$	194 \$	199	84 \$	106 \$	109	1,320
31.1%	373 \$	9	2.8%	\$ 308	\$ 317	292 \$	204 \$	209	81 \$	104 \$	107	1,414
33.3%	394 \$	9	2.8%	\$ 318	\$ 327	308 \$	211 \$	217	86 \$	107 \$	110	1,515
35.6%	414 \$	9	2.8%	\$ 327	\$ 336	326 \$	219 \$	225	88 \$	108 \$	111	1,618
37.8%	433 \$	9	2.8%	\$ 336	\$ 346	344 \$	228 \$	234	90 \$	109 \$	112	1,721
40.1%	452 \$	10	2.8%	\$ 345	\$ 355	354 \$	233 \$	239	98 \$	112 \$	115	1,822
42.3%	473 \$	10	2.8%	\$ 355	\$ 365	378 \$	244 \$	251	95 \$	111 \$	114	1,922
44.5%	496 \$	10	2.8%	\$ 366	\$ 376	395 \$	252 \$	259	101 \$	114 \$	117	2,024
46.7%	517 \$	11	2.8%	\$ 375	\$ 386	409 \$	259 \$	266	107 \$	117 \$	120	2,123
48.9%	535 \$	11	2.8%	\$ 384	\$ 395	426 \$	266 \$	274	109 \$	118 \$	121	2,224
51.1%	556 \$	11	2.8%	\$ 394	\$ 405	437 \$	272 \$	279	119 \$	122 \$	126	2,325
53.3%	578 \$	11	2.8%	\$ 404	\$ 416	461 \$	283 \$	291	118 \$	122 \$	125	2,426
55.5%	599 \$	12	2.8%	\$ 414	\$ 426	484 \$	294 \$	302	115 \$	120 \$	124	2,526
57.7%	617 \$	12	2.8%	\$ 423	\$ 434	488 \$	296 \$	304	129 \$	127 \$	131	2,628
60.0%	639 \$	12	2.8%	\$ 433	\$ 445	507 \$	305 \$	313	132 \$	128 \$	132	2,728
62.3%	660 \$	12	2.8%	\$ 443	\$ 455	527 \$	314 \$	323	133 \$	129 \$	133	2,834
64.5%	685 \$	13	2.8%	\$ 455	\$ 467	546 \$	323 \$	332	139 \$	131 \$	135	2,933
66.7%	713 \$	13	2.8%	\$ 468	\$ 481	570 \$	334 \$	344	143 \$	133 \$	137	3,032
69.0%	736 \$	13	2.8%	\$ 478	\$ 492	585 \$	341 \$	351	151 \$	137 \$	141	3,137
71.2%	760 \$	14	2.8%	\$ 490	\$ 503	606 \$	351 \$	361	154 \$	138 \$	142	3,240
73.4%	782 \$	14	2.8%	\$ 500	\$ 514	634 \$	364 \$	375	148 \$	136 \$	140	3,338
75.6%	806 \$	14	2.8%	\$ 512	\$ 526	657 \$	375 \$	386	149 \$	136 \$	140	3,439
77.9%	831 \$	15	2.8%	\$ 523	\$ 538	665 \$	379 \$	390	166 \$	144 \$	148	3,541
80.1%	861 \$	15	2.8%	\$ 537	\$ 552	698 \$	394 \$	405	163 \$	143 \$	147	3,641
82.3%	891 \$	15	2.8%	\$ 551	\$ 567	723 \$	406 \$	418	168 \$	145 \$	149	3,743
84.4%	926 \$	16	2.8%	\$ 568	\$ 584	746 \$	417 \$	429	180 \$	151 \$	155	3,840
86.7%	963 \$	16	2.8%	\$ 585	\$ 602	782 \$	434 \$	446	181 \$	151 \$	155	3,943
88.9%	1,006 \$	17	2.8%	\$ 606	\$ 622	813 \$	448 \$	461	193 \$	157 \$	162	4,044
91.1%	1,058 \$	18	2.8%	\$ 630	\$ 647	860 \$	471 \$	484	198 \$	159 \$	164	4,143
93.3%	1,121 \$	18	2.8%	\$ 659	\$ 678	918 \$	498 \$	512	203 \$	162 \$	166	4,244
95.5%	1,201 \$	20	2.8%	\$ 697	\$ 716	991 \$	532 \$	547	209 \$	165 \$	169	4,345
97.8%	1,327 \$	21	2.8%	\$ 756	\$ 778	1,088 \$	578 \$	594	240 \$	179 \$	184	4,446
99.9%	1,653 \$	25	2.8%	\$ 910	\$ 935	1,353 \$	702 \$	722	301 \$	208 \$	213	4,543
99.9%	3,371 \$	57	3.3%	\$ 1,708	\$ 1,765	2,825 \$	1,385 \$	1,433	547 \$	323 \$	332	4,545
100.0%	4,663 \$	77	3.3%	\$ 2,312	\$ 2,389	3,661 \$	1,775 \$	1,837	1,002 \$	537 \$	552	4,547
100.0%	8,204 \$	158	4.0%	\$ 3,942	\$ 4,100	6,540 \$	3,098 \$	3,228	1,664 \$	844 \$	872	4,548

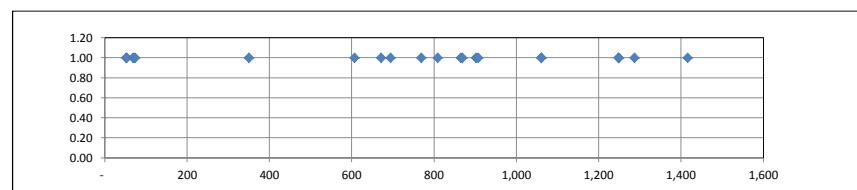
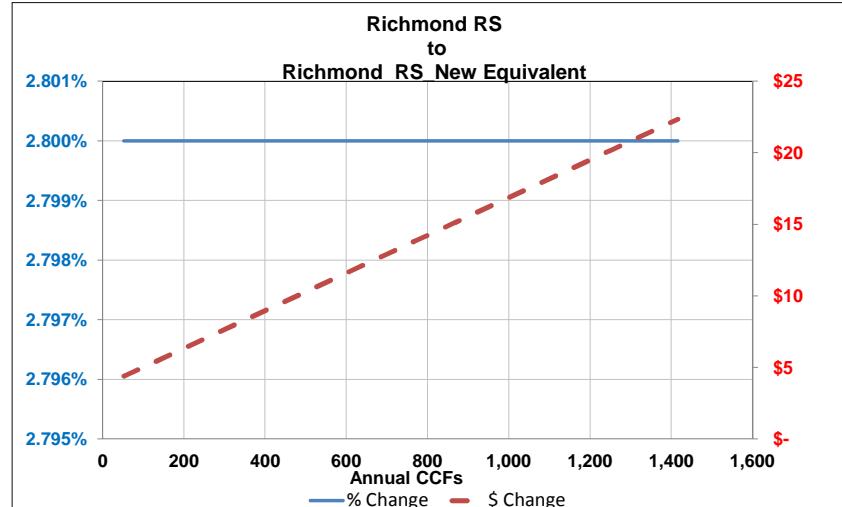
## Exhibit VIII - Bill Impacts - Proposed Rate Design

### Hanover Residential Customers

**Richmond Gas Division Preliminary Rate Analysis - Hanover**  
**Comparative Annual Billing Under Current And New Rate Structure**  
**Base Distribution Rates Only**

Current Rate Structure				New Rate Structure			
Richmond RS				Richmond RS_New			
		Peak	Off Peak			Peak	Off Peak
Customer Charge		\$11.05	\$11.05	Customer Charge		\$11.36	\$11.36
Energy Chrg	Max CCF	\$/CCF		Energy Chrg	Max CCF	\$/CCF	
Block	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak	Peak
1	500	500	\$ 0.47000	\$ 0.47000	1	500	\$ 0.48316
2	-	-	\$ 0.45900	\$ 0.45900	2	-	\$ 0.48316
3	-	-	\$ -	\$ -	3	-	\$ -
4	-	-	\$ -	\$ -	4	-	\$ -
5	-	-	\$ -	\$ -	5	-	\$ -

Percentile	Average Annual CCFs	Annual Bill				Cumul. # Customers
		Current Bill	New Bill	\$ Change	% Change	
5%	52	\$ 157	\$ 161	\$ 4	3%	1
10%	53	\$ 158	\$ 162	\$ 4	3%	2
20%	73	\$ 167	\$ 172	\$ 5	3%	4
30%	607	\$ 418	\$ 430	\$ 12	3%	6
40%	694	\$ 459	\$ 472	\$ 13	3%	8
50%	809	\$ 513	\$ 527	\$ 14	3%	10
60%	869	\$ 541	\$ 556	\$ 15	3%	12
65%	902	\$ 557	\$ 572	\$ 16	3%	13
75%	1,060	\$ 631	\$ 648	\$ 18	3%	15
85%	1,248	\$ 719	\$ 739	\$ 20	3%	17
90%	1,249	\$ 720	\$ 740	\$ 20	3%	18
95%	1,287	\$ 737	\$ 758	\$ 21	3%	19
100%	1,416	\$ 798	\$ 820	\$ 22	3%	20



## Exhibit VIII - Bill Impacts - Proposed Rate Design

### Hanover Residential Customers

**Richmond Gas Division**  
**Comparative Monthly Billing Under Current And New Rate Structure**

#### Current Rate Structure

Richmond	RS	Rate
Cst_Chrg		Peak \$11.05 Off Peak \$11.05
Energy Charge Block	Max CCF	\$/CCF
	Peak Off Peak	Peak Off Peak
1	500 500	\$ 0.47000 \$ 0.47000
2	- -	\$ 0.45900 \$ 0.45900
3	- -	\$ - \$ -
4	- -	\$ - \$ -
5	- -	\$ - \$ -

Strata Annual CCFs	Average Use Per Strata (CCFs)												Annual Total	MDCQ	Count			
	Off Pk				12 Billing Months Ending Jun-11				Off Pk									
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011						
-	-	-	-	-	-	-	6	7	16	15	7	-	-	52	-			
-	1	-	-	-	-	-	2	3	4	25	2	3	2	53	-			
-	2	2	3	2	3	2	3	4	25	2	3	2	69	-	1			
-	5	7	5	6	6	5	6	6	5	6	6	6	69	-	1			
-	-	-	-	-	-	-	-	-	30	23	4	10	6	73	-			
-	-	-	-	-	-	-	35	115	91	50	44	15	15	350	-			
-	11	10	9	9	8	20	79	144	107	92	80	38	38	607	-			
-	4	-	-	-	-	12	87	176	150	122	88	32	32	671	-			
-	4	-	-	-	-	21	98	186	142	120	92	31	31	694	-			
-	5	-	-	-	-	31	103	209	161	127	98	35	35	769	-			
-	15	15	13	13	13	16	95	237	179	117	69	27	27	809	-			
-	-	-	-	-	-	-	70	269	222	159	111	34	34	865	-			
-	16	10	6	7	7	33	100	217	167	147	111	48	48	869	-			
-	6	-	-	-	-	25	112	261	205	152	108	33	33	902	-			
-	17	10	8	17	10	34	104	240	188	135	98	46	46	907	-			
-	12	-	-	-	-	53	147	299	203	165	135	46	46	1,060	-			
-	14	-	-	-	-	38	127	282	215	178	148	59	59	1,061	-			
-	21	16	16	14	12	22	140	311	241	208	172	75	75	1,248	-			
-	3	-	-	-	-	29	154	369	283	210	149	52	52	1,249	-			
-	23	3	3	3	6	82	183	306	235	203	165	75	75	1,287	-			
-	-	-	-	-	-	41	185	398	310	236	182	64	64	1,416	-			

Exhibit VIII - Bill Impacts - Proposed Rate Design

### Hanover Residential Customers

Strata Annual CCFs	Block 1 CCFs												
	12 Billing Months Ending Jun-11												
	Off Pk			Peak				Off Pk					
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011	
-	-	-	-	-	-	-	-	-	-	-	-	-	
-	1	-	-	-	-	-	6	7	16	15	7	-	
-	2	2	3	2	3	2	3	4	25	2	3	2	
-	5	7	5	6	6	5	6	6	5	6	6	6	
-	-	-	-	-	-	-	-	30	23	4	10	6	
-	-	-	-	-	-	-	35	115	91	50	44	15	
-	11	10	9	9	8	20	79	144	107	92	80	38	
-	4	-	-	-	-	12	87	176	150	122	88	32	
-	4	-	-	-	-	21	98	186	142	120	92	31	
-	5	-	-	-	-	31	103	209	161	127	98	35	
-	15	15	13	13	13	16	95	237	179	117	69	27	
-	-	-	-	-	-	70	269	222	159	111	34		
-	16	10	6	7	7	33	100	217	167	147	111	46	
-	6	-	-	-	-	25	112	261	205	152	108	33	
-	17	10	8	17	10	34	104	240	188	135	98	46	
-	12	-	-	-	-	53	147	299	203	165	135	46	
-	14	-	-	-	-	38	127	282	215	178	148	59	
-	21	16	16	14	12	22	140	311	241	208	172	75	
-	3	-	-	-	-	29	154	369	283	210	149	52	
-	23	3	3	3	6	82	183	306	235	203	165	75	
-	-	-	-	-	41	185	398	310	236	182	64		

Strata Annual CCFs	Average Bill Per Strata At Present Rates												Annual Total	
	12 Billing Months Ending Jun-11													
	Off Pk			Peak				Off Pk						
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011		
-	\$ 11 \$	11 \$	11 \$	11 \$	11 \$	11 \$	11 \$	11 \$	11 \$	11 \$	11 \$	11 \$	\$ 133	
-	\$ 12 \$	11 \$	11 \$	11 \$	11 \$	14 \$	14 \$	19 \$	18 \$	14 \$	11 \$	11 \$	\$ 157	
-	\$ 12 \$	12 \$	12 \$	12 \$	12 \$	12 \$	12 \$	13 \$	23 \$	12 \$	12 \$	12 \$	\$ 158	
-	\$ 13 \$	14 \$	13 \$	14 \$	14 \$	13 \$	14 \$	14 \$	13 \$	14 \$	14 \$	14 \$	\$ 165	
-	\$ 11 \$	11 \$	11 \$	11 \$	11 \$	11 \$	11 \$	25 \$	22 \$	13 \$	16 \$	14 \$	\$ 167	
-	\$ 11 \$	11 \$	11 \$	11 \$	11 \$	11 \$	11 \$	28 \$	65 \$	54 \$	35 \$	32 \$	\$ 297	
-	\$ 16 \$	16 \$	15 \$	15 \$	15 \$	20 \$	48 \$	79 \$	61 \$	54 \$	49 \$	29 \$	\$ 418	
-	\$ 13 \$	11 \$	11 \$	11 \$	11 \$	11 \$	17 \$	52 \$	94 \$	82 \$	68 \$	52 \$	\$ 448	
-	\$ 13 \$	11 \$	11 \$	11 \$	11 \$	11 \$	21 \$	57 \$	98 \$	78 \$	67 \$	54 \$	\$ 459	
-	\$ 13 \$	11 \$	11 \$	11 \$	11 \$	26 \$	59 \$	109 \$	87 \$	71 \$	57 \$	28 \$	\$ 494	
-	\$ 18 \$	18 \$	17 \$	17 \$	17 \$	19 \$	56 \$	122 \$	95 \$	66 \$	43 \$	24 \$	\$ 513	
-	\$ 11 \$	11 \$	11 \$	11 \$	11 \$	11 \$	44 \$	137 \$	115 \$	86 \$	63 \$	27 \$	\$ 539	
-	\$ 19 \$	16 \$	14 \$	14 \$	14 \$	27 \$	58 \$	113 \$	90 \$	80 \$	63 \$	34 \$	\$ 541	
-	\$ 14 \$	11 \$	11 \$	11 \$	11 \$	23 \$	64 \$	134 \$	107 \$	82 \$	62 \$	27 \$	\$ 557	
-	\$ 19 \$	16 \$	15 \$	19 \$	16 \$	27 \$	60 \$	124 \$	99 \$	75 \$	57 \$	33 \$	\$ 559	
-	\$ 17 \$	11 \$	11 \$	11 \$	11 \$	36 \$	80 \$	152 \$	106 \$	89 \$	75 \$	33 \$	\$ 631	
-	\$ 18 \$	11 \$	11 \$	11 \$	11 \$	29 \$	71 \$	144 \$	112 \$	95 \$	81 \$	39 \$	\$ 631	
-	\$ 21 \$	19 \$	19 \$	18 \$	17 \$	21 \$	77 \$	157 \$	124 \$	109 \$	92 \$	46 \$	\$ 719	
-	\$ 12 \$	11 \$	11 \$	11 \$	11 \$	25 \$	83 \$	184 \$	144 \$	110 \$	81 \$	35 \$	\$ 720	
-	\$ 22 \$	12 \$	12 \$	12 \$	12 \$	14 \$	50 \$	97 \$	155 \$	122 \$	106 \$	89 \$	\$ 737	
-	\$ 11 \$	11 \$	11 \$	11 \$	11 \$	30 \$	98 \$	198 \$	157 \$	122 \$	97 \$	41 \$	\$ 798	

## Exhibit VIII - Bill Impacts - Proposed Rate Design

### Hanover Residential Customers

**Richmond Gas Division**  
**Comparative Monthly Billing Under Current And New Rate Structure**

#### New Rate Structure (Revenue Neutral Equivalent)

Richmond	RS_New	Rate
Cst_Chrg	Peak Off Peak	
	\$11.36	\$11.36
Energy Charge Block	Max CCF	\$/CCF
Peak	Off Peak	Peak Off Peak
1	500	\$ 0.48316 \$ 0.48316
2	-	\$ 0.48316 \$ 0.48316
3	-	\$ - \$ -
4	-	\$ - \$ -
5	-	\$ - \$ -

Strata Annual CCFs	Average Use Per Strata (CCFs)												Annual Total	MDCQ	Count			
	12 Billing Months Ending Jun-11				Peak				Off Pk									
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011						
-	-	-	-	-	-	-	6	7	16	15	7	-	-	52	-	-		
-	2	2	3	2	3	2	3	4	25	2	3	2	53	-	-	1		
-	5	7	5	6	6	5	6	6	5	6	6	6	69	-	-	1		
-	-	-	-	-	-	-	-	30	23	4	10	6	73	-	-	1		
-	-	-	-	-	-	-	35	115	91	50	44	15	350	-	-	1		
-	11	10	9	9	8	20	79	144	107	92	80	38	607	-	-	1		
-	4	-	-	-	-	12	87	176	150	122	88	32	671	-	-	1		
-	4	-	-	-	-	21	98	186	142	120	92	31	694	-	-	1		
-	5	-	-	-	-	31	103	209	161	127	98	35	769	-	-	1		
-	15	15	13	13	13	16	95	237	179	117	69	27	809	-	-	1		
-	-	-	-	-	-	-	70	269	222	159	111	34	865	-	-	1		
-	16	10	6	7	7	33	100	217	167	147	111	48	869	-	-	1		
-	6	-	-	-	-	25	112	261	205	152	108	33	902	-	-	1		
-	17	10	8	17	10	34	104	240	188	135	98	46	907	-	-	1		
-	12	-	-	-	-	53	147	299	203	165	135	46	1,060	-	-	1		
-	14	-	-	-	-	38	127	282	215	178	148	59	1,061	-	-	1		
-	21	16	16	14	12	22	140	311	241	208	172	75	1,248	-	-	1		
-	3	-	-	-	-	29	154	369	283	210	149	52	1,249	-	-	1		
-	23	3	3	3	6	82	183	306	235	203	165	75	1,287	-	-	1		
-	-	-	-	-	-	41	185	398	310	236	182	64	1,416	-	-	1		

## Exhibit VIII - Bill Impacts - Proposed Rate Design

### Hanover Residential Customers

Strata Annual CCFs	Block 1 CCFs															
	Off Pk				Peak				Off Pk							
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011				
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	1	-	-	-	-	6	7	16	15	7	-	-	-		
-	-	2	2	3	2	3	2	3	4	25	2	3	2	-		
-	-	5	7	5	6	6	5	6	6	5	6	6	6	-		
-	-	-	-	-	-	-	-	30	23	4	10	10	6	-		
-	-	-	-	-	-	-	35	115	91	50	44	44	15	-		
-	-	11	10	9	9	8	20	79	144	107	92	80	38	-		
-	-	4	-	-	-	-	12	87	176	150	122	88	32	-		
-	-	4	-	-	-	-	21	98	186	142	120	92	31	-		
-	-	5	-	-	-	-	31	103	209	161	127	98	35	-		
-	-	15	15	13	13	13	16	95	237	179	117	69	27	-		
-	-	16	10	6	7	7	70	269	222	159	111	34	-	-		
-	-	6	-	-	-	-	33	100	217	167	147	111	48	-		
-	-	17	10	8	17	10	34	104	240	188	135	98	46	-		
-	-	12	-	-	-	-	53	147	299	203	165	135	46	-		
-	-	14	-	-	-	-	38	127	282	215	178	148	59	-		
-	-	21	16	16	14	12	22	140	311	241	208	172	75	-		
-	-	3	-	-	-	-	29	154	369	283	210	149	52	-		
-	-	23	3	3	3	6	82	183	306	235	203	165	75	-		
-	-	-	-	-	-	-	41	185	398	310	236	182	64	-		

Strata Annual CCFs	Average Bill Per Strata At Proposed Rates												Annual Total	
	Off Pk				Peak				Off Pk					
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011		
-	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 136	
-	\$ 12	\$ 12	\$ 11	\$ 11	\$ 11	\$ 11	\$ 14	\$ 15	\$ 19	\$ 19	\$ 15	\$ 11	\$ 161	
-	\$ 12	\$ 12	\$ 13	\$ 12	\$ 13	\$ 13	\$ 12	\$ 13	\$ 13	\$ 23	\$ 12	\$ 13	\$ 162	
-	\$ 14	\$ 15	\$ 14	\$ 14	\$ 14	\$ 14	\$ 14	\$ 14	\$ 14	\$ 14	\$ 14	\$ 14	\$ 170	
-	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 26	\$ 22	\$ 13	\$ 16	\$ 172	
-	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 28	\$ 67	\$ 55	\$ 36	\$ 33	\$ 305	
-	\$ 17	\$ 16	\$ 16	\$ 16	\$ 16	\$ 15	\$ 21	\$ 50	\$ 81	\$ 63	\$ 56	\$ 50	\$ 430	
-	\$ 13	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 17	\$ 53	\$ 96	\$ 84	\$ 70	\$ 54	\$ 461	
-	\$ 13	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 22	\$ 59	\$ 101	\$ 80	\$ 69	\$ 56	\$ 472	
-	\$ 14	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 26	\$ 61	\$ 112	\$ 89	\$ 73	\$ 59	\$ 508	
-	\$ 19	\$ 19	\$ 18	\$ 18	\$ 18	\$ 18	\$ 19	\$ 57	\$ 126	\$ 98	\$ 68	\$ 45	\$ 527	
-	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 45	\$ 141	\$ 119	\$ 88	\$ 65	\$ 554	
-	\$ 19	\$ 16	\$ 14	\$ 15	\$ 15	\$ 15	\$ 27	\$ 60	\$ 116	\$ 92	\$ 82	\$ 65	\$ 556	
-	\$ 14	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 23	\$ 65	\$ 137	\$ 110	\$ 85	\$ 64	\$ 572	
-	\$ 20	\$ 16	\$ 15	\$ 20	\$ 16	\$ 16	\$ 28	\$ 62	\$ 127	\$ 102	\$ 77	\$ 59	\$ 575	
-	\$ 17	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 37	\$ 82	\$ 156	\$ 109	\$ 91	\$ 77	\$ 648	
-	\$ 18	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 30	\$ 73	\$ 148	\$ 115	\$ 97	\$ 83	\$ 649	
-	\$ 22	\$ 19	\$ 19	\$ 18	\$ 17	\$ 17	\$ 22	\$ 79	\$ 162	\$ 128	\$ 112	\$ 94	\$ 739	
-	\$ 13	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 25	\$ 86	\$ 190	\$ 148	\$ 113	\$ 83	\$ 740	
-	\$ 22	\$ 13	\$ 13	\$ 13	\$ 13	\$ 14	\$ 51	\$ 100	\$ 159	\$ 125	\$ 109	\$ 91	\$ 758	
-	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 31	\$ 101	\$ 204	\$ 161	\$ 125	\$ 99	\$ 820	

Exhibit VIII - Bill Impacts - Proposed Rate Design

### Hanover Residential Customers

Strata Annual CCFs	Average \$ Change Per Strata (Proposed Less Present)												Annual Total \$ Change	
	Off Pk				Peak				Off Pk					
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011		
	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	
- \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	0 \$	0 \$	0 \$	0 \$	
- \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	0 \$	0 \$	0 \$	0 \$	
- \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	
- \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	
- \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	0 \$	0 \$	0 \$	
- \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	0 \$	0 \$	0 \$	
- \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	2 \$	2 \$	1 \$	1 \$	1 \$	
- \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	2 \$	2 \$	1 \$	1 \$	1 \$	
- \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	2 \$	2 \$	1 \$	1 \$	1 \$	
- \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	3 \$	2 \$	2 \$	1 \$	1 \$	
- \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	2 \$	3 \$	2 \$	2 \$	1 \$	
- \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	2 \$	3 \$	2 \$	2 \$	1 \$	
- \$	1 \$	1 \$	0 \$	0 \$	0 \$	0 \$	1 \$	2 \$	3 \$	3 \$	2 \$	1 \$	1 \$	
- \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	4 \$	3 \$	2 \$	2 \$	1 \$	
- \$	1 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	2 \$	3 \$	3 \$	2 \$	2 \$	1 \$	
- \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	2 \$	4 \$	3 \$	2 \$	2 \$	1 \$	
- \$	1 \$	0 \$	0 \$	0 \$	1 \$	0 \$	1 \$	2 \$	3 \$	3 \$	2 \$	2 \$	1 \$	
- \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	2 \$	4 \$	3 \$	2 \$	1 \$	
- \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	2 \$	4 \$	3 \$	2 \$	1 \$	
- \$	1 \$	1 \$	1 \$	0 \$	0 \$	0 \$	1 \$	2 \$	4 \$	3 \$	3 \$	3 \$	1 \$	
- \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	2 \$	5 \$	4 \$	3 \$	2 \$	1 \$	
- \$	1 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	3 \$	4 \$	3 \$	3 \$	2 \$	1 \$	
- \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	3 \$	6 \$	4 \$	4 \$	3 \$	1 \$	

Exhibit VIII - Bill Impacts - Proposed Rate Design

### Hanover Residential Customers

Strata Annual CCFs	Average % Change Per Strata At Proposed Rates												% of Customers					
	12 Billing Months Ending Jun-11												Annual Total % Change	In Strata	Cumulative			
	Off Pk				Peak				Off Pk									
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011						
-	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	5.0%	5.0%			
-	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	5.0%	10.0%			
-	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	5.0%	15.0%			
-	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	5.0%	20.0%			
-	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	5.0%	25.0%			
-	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	5.0%	30.0%			
-	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	5.0%	35.0%			
-	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	5.0%	40.0%			
-	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	5.0%	45.0%			
-	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	5.0%	50.0%			
-	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	5.0%	55.0%			
-	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	5.0%	60.0%			
-	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	5.0%	65.0%			
-	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	5.0%	70.0%			
-	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	5.0%	75.0%			
-	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	5.0%	80.0%			
-	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	5.0%	85.0%			
-	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	5.0%	90.0%			
-	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	5.0%	95.0%			
-	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	5.0%	100.0%			

Exhibit VIII - Bill Impacts - Proposed Rate Design

### Hanover Residential Customers

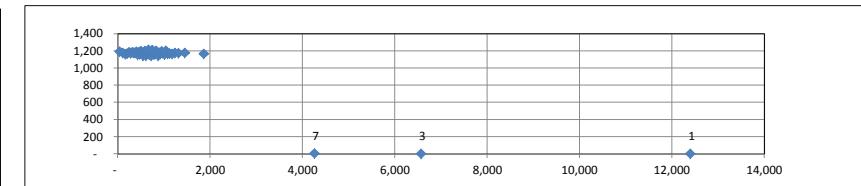
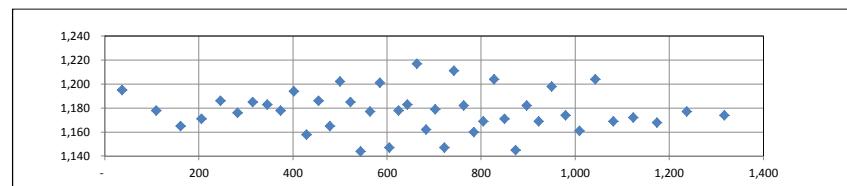
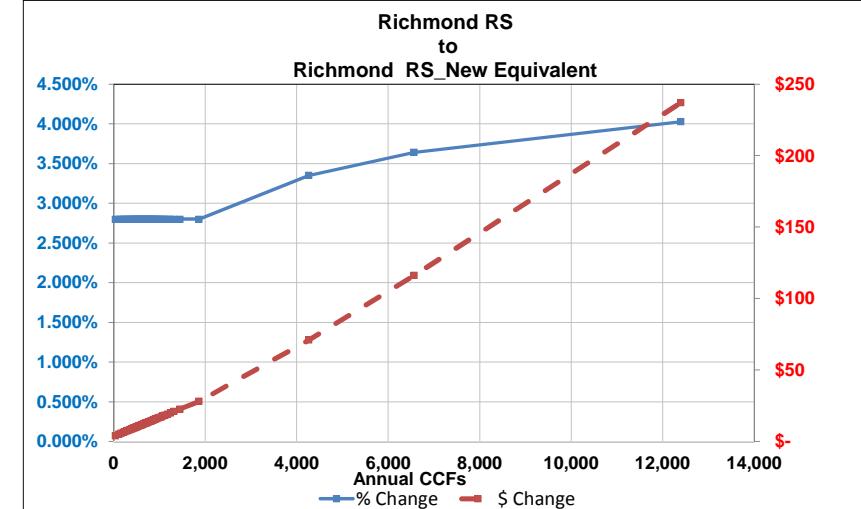
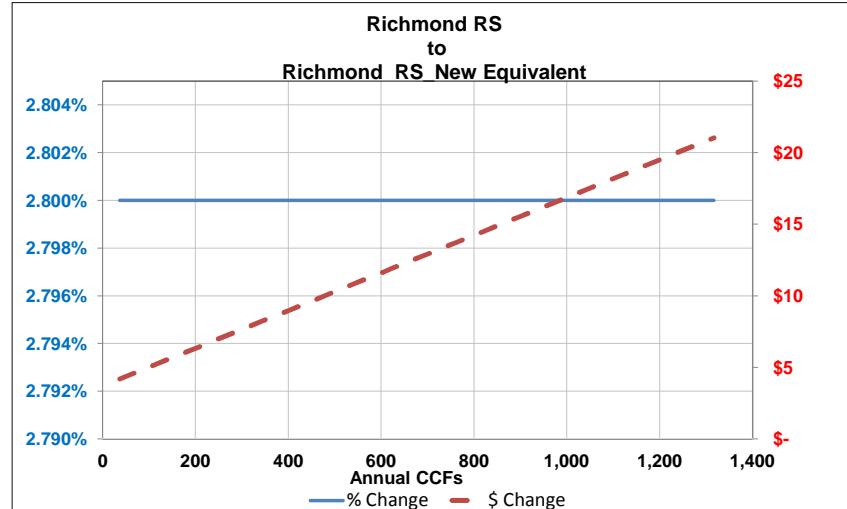
Percentile	Annual					Peak			Off Peak			Cum Bills
	Avg Use	\$ Change	% Change	Current Bill	New Bill	Avg Use	Current Bill	New Bill	Avg Use	Current Bill	New Bill	
5.0%	52 \$	4	2.8%	\$ 157	\$ 161	51 \$	\$ 90	\$ 93	1 \$	\$ 67	\$ 69	1
10.0%	53 \$	4	2.8%	\$ 158	\$ 162	39 \$	\$ 85	\$ 87	14 \$	\$ 73	\$ 75	2
15.0%	69 \$	5	2.8%	\$ 165	\$ 170	34 \$	\$ 82	\$ 85	35 \$	\$ 83	\$ 85	3
20.0%	73 \$	5	2.8%	\$ 167	\$ 172	57 \$	\$ 93	\$ 96	16 \$	\$ 74	\$ 76	4
25.0%	350 \$	8	2.8%	\$ 297	\$ 305	291 \$	\$ 203	\$ 209	59 \$	\$ 94	\$ 97	5
30.0%	607 \$	12	2.8%	\$ 418	\$ 430	450 \$	\$ 278	\$ 286	157 \$	\$ 140	\$ 144	6
35.0%	671 \$	13	2.8%	\$ 448	\$ 461	547 \$	\$ 323	\$ 332	124 \$	\$ 125	\$ 128	7
40.0%	694 \$	13	2.8%	\$ 459	\$ 472	567 \$	\$ 333	\$ 342	127 \$	\$ 126	\$ 130	8
45.0%	769 \$	14	2.8%	\$ 494	\$ 508	631 \$	\$ 363	\$ 373	138 \$	\$ 131	\$ 135	9
50.0%	809 \$	14	2.8%	\$ 513	\$ 527	657 \$	\$ 375	\$ 386	152 \$	\$ 138	\$ 142	10
55.0%	865 \$	15	2.8%	\$ 539	\$ 554	720 \$	\$ 405	\$ 416	145 \$	\$ 134	\$ 138	11
60.0%	869 \$	15	2.8%	\$ 541	\$ 556	671 \$	\$ 382	\$ 392	198 \$	\$ 159	\$ 164	12
65.0%	902 \$	16	2.8%	\$ 557	\$ 572	755 \$	\$ 421	\$ 433	147 \$	\$ 135	\$ 139	13
70.0%	907 \$	16	2.8%	\$ 559	\$ 575	711 \$	\$ 400	\$ 412	196 \$	\$ 158	\$ 163	14
75.0%	1,060 \$	18	2.8%	\$ 631	\$ 648	867 \$	\$ 474	\$ 487	193 \$	\$ 157	\$ 161	15
80.0%	1,061 \$	18	2.8%	\$ 631	\$ 649	840 \$	\$ 461	\$ 474	221 \$	\$ 170	\$ 175	16
85.0%	1,248 \$	20	2.8%	\$ 719	\$ 739	934 \$	\$ 505	\$ 519	314 \$	\$ 214	\$ 220	17
90.0%	1,249 \$	20	2.8%	\$ 720	\$ 740	1,045 \$	\$ 557	\$ 573	204 \$	\$ 162	\$ 167	18
95.0%	1,287 \$	21	2.8%	\$ 737	\$ 758	1,015 \$	\$ 543	\$ 559	272 \$	\$ 194	\$ 200	19
100.0%	1,416 \$	22	2.8%	\$ 798	\$ 820	1,170 \$	\$ 616	\$ 633	246 \$	\$ 182	\$ 187	20

Exhibit VIII - Bill Impacts - Proposed Rate Design  
Henrico Residential Customers

**Richmond Gas Division Preliminary Rate Analysis - Henrico**  
**Comparative Annual Billing Under Current And New Rate Structure**  
**Base Distribution Rates Only**

Current Rate Structure						New Rate Structure					
Richmond RS			Richmond RS_New			Customer Charge			Peak Off Peak		
									\$11.05	\$11.36	\$11.36
Customer Charge	Peak	Off Peak	Energy Chrg	Max CCF	\$/CCF	Customer Charge	Peak	Off Peak	Peak	Off Peak	Peak
	Peak	Off Peak	Block	Peak	Off Peak		Peak	Off Peak	500	500	500
1	500	500	1	\$ 0.47000	\$ 0.47000		\$ 0.48316	\$ 0.48316	-	-	-
2	-	-	2	\$ 0.45900	\$ 0.45900		\$ 0.48316	\$ 0.48316	-	-	-
3	-	-	3	-	-		-	-	\$ -	\$ -	\$ -
4	-	-	4	\$ -	\$ -		-	-	\$ -	\$ -	\$ -
5	-	-	5	\$ -	\$ -		-	-	\$ -	\$ -	\$ -

Percentile	Average Annual CCFs	Annual Bill				Cumul. # Customers
		Current Bill	New Bill	\$ Change	% Change	
4%	109	\$ 184	\$ 189	\$ 5	3%	2,373
7%	161	\$ 208	\$ 214	\$ 6	3%	3,538
9%	206	\$ 229	\$ 236	\$ 6	3%	4,709
20%	374	\$ 308	\$ 317	\$ 9	3%	10,617
29%	478	\$ 357	\$ 367	\$ 10	3%	15,320
40%	585	\$ 407	\$ 419	\$ 11	3%	21,229
49%	663	\$ 444	\$ 457	\$ 12	3%	25,954
60%	763	\$ 491	\$ 505	\$ 14	3%	31,835
69%	850	\$ 532	\$ 547	\$ 15	3%	36,539
80%	979	\$ 593	\$ 609	\$ 17	3%	42,407
89%	1,123	\$ 661	\$ 679	\$ 18	3%	47,113
98%	1,448	\$ 813	\$ 836	\$ 23	3%	51,809
100%	\$ 133	\$ 136	\$ 4	3%		52,986



## Exhibit VIII - Bill Impacts - Proposed Rate Design

### Henrico Residential Customers

**Richmond Gas Division**  
**Comparative Monthly Billing Under Current And New Rate Structure**

**Current Rate Structure**

Cst Chrg	RS		Rate	
	Peak	Off Peak	Peak	Off Peak
			\$11.05	\$11.05
Energy Charge	Max CCF	\$/CCF		
Block	Peak	Off Peak	Peak	Off Peak
1	500	500	\$ 0.47000	\$ 0.47000
2	-	-	\$ 0.45900	\$ 0.45900
3	-	-	\$ -	\$ -
4	-	-	\$ -	\$ -
5	-	-	\$ -	\$ -

Strata Annual CCFs	Average Use Per Strata (CCFs)												Annual Total	MDCQ	Count			
	Off Pk				Peak				Off Pk									
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011						
77	4	2	2	2	1	2	2	5	5	4	4	3	37	-	1,414			
137	6	5	4	4	4	5	9	20	20	13	12	7	109	-	1,195			
183	8	6	5	5	6	8	14	31	30	20	18	10	161	-	1,178			
227	9	8	6	7	7	9	17	40	40	27	22	13	206	-	1,165			
264	10	9	7	7	8	10	21	50	50	34	27	15	246	-	1,171			
297	11	9	8	8	8	12	24	60	59	39	29	16	282	-	1,186			
330	11	10	8	9	9	12	27	68	68	43	32	17	314	-	1,185			
359	11	10	9	9	9	13	30	75	76	49	36	18	345	-	1,183			
387	12	11	9	9	10	14	32	81	83	52	39	20	374	-	1,178			
415	13	11	10	10	10	14	36	89	90	57	43	21	402	-	1,194			
441	13	11	9	10	10	15	38	94	98	62	45	23	429	-	1,158			
466	13	11	10	10	10	16	40	102	104	66	48	23	454	-	1,186			
489	14	12	10	10	11	17	43	107	109	69	51	25	478	-	1,165			
510	14	12	10	10	11	17	45	113	116	74	53	25	500	-	1,202			
533	15	13	11	11	12	18	48	116	118	77	57	27	522	-	1,185			
553	15	12	10	11	11	18	49	121	127	82	59	28	544	-	1,144			
574	15	12	11	11	11	19	52	128	131	85	61	28	564	-	1,177			
595	15	13	11	11	12	20	54	132	136	88	64	29	585	-	1,201			
614	16	13	11	11	12	21	56	138	140	91	66	31	605	-	1,147			
633	16	12	11	11	12	21	60	143	145	94	69	31	624	-	1,178			
652	17	13	11	11	13	22	62	147	148	97	72	32	643	-	1,183			
673	17	13	11	11	13	23	64	153	153	99	74	33	663	-	1,217			
692	16	13	11	11	13	23	68	158	158	102	76	33	683	-	1,162			
712	17	13	11	12	13	25	70	164	162	105	78	34	702	-	1,179			
731	17	13	11	12	13	26	73	166	166	108	81	34	722	-	1,147			
752	18	14	11	12	13	26	75	173	171	111	84	36	742	-	1,211			
773	18	14	11	12	14	28	79	178	175	113	86	36	763	-	1,182			
794	18	14	12	12	14	28	82	186	180	115	88	36	784	-	1,160			
815	19	14	12	12	14	29	84	189	186	119	92	37	805	-	1,169			
838	19	14	12	13	15	30	85	193	191	122	95	39	827	-	1,204			
861	19	15	12	12	14	31	90	200	195	125	97	39	850	-	1,171			
884	20	15	12	13	15	31	93	206	199	129	99	40	873	-	1,145			
909	20	15	12	13	15	32	96	211	207	134	102	41	897	-	1,182			
935	20	15	13	13	16	34	99	218	212	135	105	41	922	-	1,169			
964	21	15	13	13	16	34	102	223	218	141	109	44	950	-	1,198			
994	22	16	13	13	16	36	106	231	224	145	113	44	979	-	1,174			
1,024	22	16	13	14	16	37	110	238	232	149	116	46	1,009	-	1,161			
1,061	23	17	14	14	17	39	114	246	239	153	119	48	1,043	-	1,204			
1,100	24	17	14	15	18	42	122	256	244	157	124	47	1,081	-	1,169			
1,147	25	18	14	15	18	43	125	266	254	164	131	51	1,123	-	1,172			
1,204	25	19	15	16	19	46	132	278	266	170	137	52	1,174	-	1,168			
1,272	27	19	15	16	20	49	141	293	281	179	144	54	1,237	-	1,177			
1,368	28	20	16	17	22	54	153	313	295	189	154	57	1,317	-	1,174			
1,555	32	22	17	19	24	62	172	341	324	204	168	61	1,448	-	1,177			
3,722	45	29	23	26	37	88	228	437	409	251	211	77	1,862	-	1,167			
5,889	67	55	43	71	153	247	472	1,002	968	564	399	218	4,261	-	7			
8,057	382	83	55	62	239	743	966	1,705	881	585	496	368	6,564	-	3			
12,391	837	888	755	866	772	823	1,007	1,766	1,609	1,125	1,147	796	12,391	-	1			

## Exhibit VIII - Bill Impacts - Proposed Rate Design

### Henrico Residential Customers

Strata Annual CCFs	Block 1 CCFs																	
	12 Billing Months Ending Jun-11																	
	Off Pk				Peak				Off Pk									
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011						
77	-	4	2	2	2	1	2	2	5	5	4	4	3					
137	-	6	5	4	4	4	5	9	20	20	13	12	7					
12,391	500	500	500	500	500	500	500	500	500	500	500	500	500					

Strata Annual CCFs	Block 2 CCFs																	
	12 Billing Months Ending Jun-11																	
	Off Pk				Peak				Off Pk									
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011						
77	-	-	-	-	-	-	-	-	-	-	-	-	-					
137	-	-	-	-	-	-	-	-	-	-	-	-	-					
12,391	337	388	255	366	272	323	507	1,266	1,109	625	647	296						

Strata Annual CCFs	Average Bill Per Strata At Present Rates																	
	12 Billing Months Ending Jun-11																	
	Off Pk				Peak				Off Pk									
Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011	Annual Total						
-	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 133					
77	\$ 13	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 14	\$ 14	\$ 13	\$ 13	\$ 13	\$ 150					
137	\$ 14	\$ 13	\$ 13	\$ 13	\$ 13	\$ 13	\$ 15	\$ 21	\$ 20	\$ 17	\$ 17	\$ 17	\$ 184					
183	\$ 15	\$ 14	\$ 13	\$ 14	\$ 14	\$ 15	\$ 18	\$ 26	\$ 25	\$ 21	\$ 19	\$ 16	\$ 208					
227	\$ 15	\$ 15	\$ 14	\$ 14	\$ 14	\$ 15	\$ 19	\$ 30	\$ 30	\$ 24	\$ 21	\$ 17	\$ 229					
264	\$ 16	\$ 15	\$ 14	\$ 15	\$ 15	\$ 16	\$ 21	\$ 34	\$ 34	\$ 27	\$ 24	\$ 18	\$ 248					
297	\$ 16	\$ 15	\$ 15	\$ 15	\$ 15	\$ 16	\$ 23	\$ 39	\$ 39	\$ 29	\$ 25	\$ 18	\$ 265					
330	\$ 16	\$ 16	\$ 15	\$ 15	\$ 15	\$ 17	\$ 24	\$ 43	\$ 43	\$ 31	\$ 26	\$ 19	\$ 280					
359	\$ 16	\$ 16	\$ 15	\$ 15	\$ 15	\$ 17	\$ 25	\$ 47	\$ 47	\$ 34	\$ 28	\$ 20	\$ 295					
387	\$ 17	\$ 16	\$ 15	\$ 15	\$ 16	\$ 17	\$ 26	\$ 49	\$ 50	\$ 36	\$ 30	\$ 20	\$ 308					
415	\$ 17	\$ 16	\$ 16	\$ 16	\$ 16	\$ 18	\$ 28	\$ 53	\$ 53	\$ 38	\$ 31	\$ 21	\$ 322					
441	\$ 17	\$ 16	\$ 15	\$ 16	\$ 16	\$ 18	\$ 29	\$ 55	\$ 57	\$ 40	\$ 32	\$ 22	\$ 334					
466	\$ 17	\$ 16	\$ 16	\$ 16	\$ 16	\$ 19	\$ 30	\$ 59	\$ 60	\$ 42	\$ 34	\$ 22	\$ 346					
489	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 19	\$ 31	\$ 61	\$ 62	\$ 44	\$ 35	\$ 23	\$ 357					
510	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 19	\$ 32	\$ 64	\$ 66	\$ 46	\$ 36	\$ 23	\$ 368					
533	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 20	\$ 33	\$ 66	\$ 67	\$ 47	\$ 38	\$ 24	\$ 378					
553	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 20	\$ 34	\$ 68	\$ 71	\$ 49	\$ 39	\$ 24	\$ 388					
574	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 20	\$ 35	\$ 71	\$ 72	\$ 51	\$ 40	\$ 24	\$ 398					
595	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 20	\$ 37	\$ 73	\$ 75	\$ 52	\$ 41	\$ 25	\$ 407					
614	\$ 18	\$ 17	\$ 16	\$ 16	\$ 17	\$ 21	\$ 37	\$ 76	\$ 77	\$ 54	\$ 42	\$ 25	\$ 417					
633	\$ 18	\$ 17	\$ 16	\$ 16	\$ 17	\$ 21	\$ 39	\$ 78	\$ 79	\$ 55	\$ 44	\$ 26	\$ 426					
652	\$ 19	\$ 17	\$ 16	\$ 16	\$ 17	\$ 21	\$ 40	\$ 80	\$ 81	\$ 56	\$ 45	\$ 26	\$ 435					
673	\$ 19	\$ 17	\$ 16	\$ 16	\$ 17	\$ 22	\$ 41	\$ 83	\$ 83	\$ 57	\$ 46	\$ 26	\$ 444					
692	\$ 19	\$ 17	\$ 16	\$ 16	\$ 17	\$ 22	\$ 43	\$ 85	\$ 85	\$ 59	\$ 47	\$ 27	\$ 454					
712	\$ 19	\$ 17	\$ 16	\$ 16	\$ 17	\$ 23	\$ 44	\$ 88	\$ 87	\$ 60	\$ 48	\$ 27	\$ 463					
731	\$ 19	\$ 17	\$ 16	\$ 16	\$ 17	\$ 23	\$ 45	\$ 89	\$ 89	\$ 62	\$ 49	\$ 27	\$ 472					
752	\$ 19	\$ 18	\$ 16	\$ 16	\$ 17	\$ 23	\$ 46	\$ 92	\$ 91	\$ 63	\$ 51	\$ 28	\$ 481					
773	\$ 20	\$ 18	\$ 16	\$ 17	\$ 17	\$ 24	\$ 48	\$ 95	\$ 93	\$ 64	\$ 52	\$ 28	\$ 491					
794	\$ 20	\$ 18	\$ 16	\$ 17	\$ 18	\$ 24	\$ 49	\$ 98	\$ 96	\$ 65	\$ 52	\$ 28	\$ 501					
815	\$ 20	\$ 18	\$ 16	\$ 17	\$ 18	\$ 24	\$ 50	\$ 100	\$ 99	\$ 67	\$ 54	\$ 28	\$ 511					
838	\$ 20	\$ 18	\$ 17	\$ 17	\$ 18	\$ 25	\$ 51	\$ 102	\$ 101	\$ 69	\$ 55	\$ 29	\$ 521					
861	\$ 20	\$ 18	\$ 17	\$ 17	\$ 18	\$ 26	\$ 53	\$ 105	\$ 103	\$ 70	\$ 57	\$ 29	\$ 532					
884	\$ 20	\$ 18	\$ 17	\$ 17	\$ 18	\$ 26	\$ 55	\$ 108	\$ 105	\$ 72	\$ 58	\$ 30	\$ 543					
909	\$ 20	\$ 18	\$ 17	\$ 17	\$ 18	\$ 26	\$ 56	\$ 110	\$ 108	\$ 74	\$ 59	\$ 30	\$ 554					
935	\$ 21	\$ 18	\$ 17	\$ 17	\$ 18	\$ 27	\$ 58	\$ 114	\$ 111	\$ 75	\$ 60	\$ 30	\$ 566					
964	\$ 21	\$ 18	\$ 17	\$ 17	\$ 18	\$ 27	\$ 59	\$ 116	\$ 113	\$ 78	\$ 62	\$ 32	\$ 579					
994	\$ 21	\$ 18	\$ 17	\$ 17	\$ 19	\$ 28	\$ 61	\$ 120	\$ 116	\$ 79	\$ 64	\$ 32	\$ 593					
1,024	\$ 21	\$ 18	\$ 17	\$ 17	\$ 19	\$ 29	\$ 63	\$ 123	\$ 120	\$ 81	\$ 66	\$ 33	\$ 607					
1,061	\$ 22	\$ 22	\$ 19	\$ 17	\$ 18	\$ 29	\$ 64	\$ 127	\$ 123	\$ 83	\$ 67	\$ 34	\$ 623					
1,100	\$ 22	\$ 22	\$ 19	\$ 18	\$ 18	\$ 30	\$ 68	\$ 132	\$ 126	\$ 85	\$ 70	\$ 33	\$ 641					
1,147	\$ 23	\$ 19	\$ 18	\$ 18	\$ 20	\$ 31	\$ 70	\$ 136	\$ 130	\$ 88	\$ 73	\$ 35	\$ 661					
1,204	\$ 23	\$ 20	\$ 18	\$ 19	\$ 20	\$ 33	\$ 73	\$ 142	\$ 136	\$ 91	\$ 75	\$ 35	\$ 684					
1,272	\$ 24	\$ 20	\$ 18	\$ 19	\$ 20	\$ 34	\$ 77	\$ 149	\$ 143	\$ 95	\$ 79	\$ 37	\$ 714					
1,368	\$ 24	\$ 20	\$ 19	\$ 19	\$ 21	\$ 36	\$ 83	\$ 158	\$ 150	\$ 100	\$ 83	\$ 38	\$ 751					
1,555	\$ 26	\$ 21	\$ 19	\$ 20	\$ 23	\$ 40	\$ 92	\$ 171	\$ 163	\$ 107	\$ 90	\$ 40	\$ 813					
3,722	\$ 32	\$ 25	\$ 22	\$ 23	\$ 28	\$ 52	\$ 118	\$ 217	\$ 203	\$ 129	\$ 110	\$ 47	\$ 1,008					
5,889	\$ 43	\$ 37	\$ 31	\$ 45	\$ 83	\$ 127	\$ 233	\$ 476	\$ 461	\$ 276	\$ 199	\$ 113	\$ 2,124					
8,057	\$ 190	\$ 50	\$ 37	\$ 40	\$ 123	\$ 358	\$ 460	\$ 799	\$ 421	\$ 285	\$ 244	\$ 184	\$ 3,192					
12,391	\$ 401	\$ 424	\$ 363	\$ 414	\$ 371	\$ 394	\$ 479	\$ 827	\$ 755	\$ 533	\$ 543	\$ 382	\$ 5,886					

## **Exhibit VIII - Bill Impacts - Proposed Rate Design**

## **Henrico Residential Customers**

## **Richmond Gas Division Comparative Monthly Billing Under Current And New Rate Structure**

### New Rate Structure (Revenue Neutral Equivalent)

Richmond		RS_New	Rate	
			Peak	Off Peak
Cst_Chrg			\$11.36	\$11.36
Energy Charge		Max CCF	\$/CCF	
	Block	Peak	Peak	Off Peak
1		500	\$ 0.48316	\$ 0.48316
2		-	\$ 0.48316	\$ 0.48316
3		-	-	\$ -
4		-	\$ -	\$ -
5		-	\$ -	\$ -

Strata Annual CCFs	Average Use Per Strata (CCFs)													Annual Total	MDCQ	Count			
	12 Billing Months Ending Jun-11																		
	Off Pk				Peak					Off Pk									
Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011		Peak	Off Pk					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,414			
77	4	2	2	2	1	2	5	5	4	4	3	37	-	-	-	1,191			
137	6	5	4	4	4	5	9	20	20	13	12	7	109	-	-	1,171			
183	8	6	5	5	6	8	14	31	30	20	18	10	161	-	-	1,163			
227	9	8	6	7	7	9	17	40	40	27	22	13	206	-	-	1,171			
264	10	9	7	7	8	10	21	50	50	34	27	15	246	-	-	1,180			
297	11	9	8	8	8	12	24	60	59	39	29	16	282	-	-	1,171			
330	11	10	8	9	9	12	27	68	68	43	32	17	314	-	-	1,181			
359	11	10	9	9	9	13	30	75	76	49	36	18	345	-	-	1,181			
387	12	11	9	9	10	14	32	81	83	52	39	20	374	-	-	1,171			
415	13	11	10	10	10	14	36	89	90	57	43	21	402	-	-	1,194			
441	13	11	9	10	10	15	38	94	98	62	45	23	429	-	-	1,151			
466	13	11	10	10	10	16	40	102	104	66	48	23	454	-	-	1,181			
489	14	12	10	10	11	17	43	107	109	69	51	25	478	-	-	1,161			
510	14	12	10	10	11	17	45	113	116	74	53	25	500	-	-	1,202			
533	15	13	11	11	12	18	48	116	118	77	57	27	522	-	-	1,181			
553	15	12	10	11	11	18	49	121	127	82	59	28	544	-	-	1,144			
574	15	12	11	11	11	19	52	128	131	85	61	28	564	-	-	1,171			
595	15	13	11	11	12	20	54	132	136	88	64	29	585	-	-	1,201			
614	16	13	11	11	12	21	56	138	140	91	66	31	605	-	-	1,147			
633	16	12	11	11	12	21	60	143	145	94	69	31	624	-	-	1,171			
652	17	13	11	11	13	22	62	147	148	97	72	32	643	-	-	1,181			
673	17	13	11	11	13	23	64	153	153	99	74	33	663	-	-	1,211			
692	16	13	11	11	13	23	68	158	158	102	76	33	683	-	-	1,161			
712	17	13	11	12	13	25	70	164	162	105	78	34	702	-	-	1,171			
731	17	13	11	12	13	26	73	166	166	108	81	34	722	-	-	1,144			
752	18	14	11	12	13	26	75	173	171	111	84	36	742	-	-	1,211			
773	18	14	11	12	14	28	79	178	175	113	86	36	763	-	-	1,181			
794	18	14	12	12	14	28	82	186	180	115	88	36	784	-	-	1,161			
815	19	14	12	12	14	29	84	189	186	119	92	37	805	-	-	1,161			
838	19	14	12	13	15	30	85	193	191	122	95	39	827	-	-	1,201			
861	19	15	12	12	14	31	90	200	195	125	97	39	850	-	-	1,171			
884	20	15	12	13	15	31	93	206	199	129	99	40	873	-	-	1,144			
909	20	15	12	13	15	32	96	211	207	134	102	41	897	-	-	1,181			
935	20	15	13	13	16	34	99	218	212	135	105	41	922	-	-	1,161			
964	21	15	13	13	16	34	102	223	218	141	109	44	950	-	-	1,191			
994	22	16	13	13	16	36	106	231	224	145	113	44	979	-	-	1,171			
1,024	22	16	13	14	16	37	110	238	232	149	116	46	1,009	-	-	1,161			
1,061	23	17	14	14	17	39	114	246	239	153	119	48	1,043	-	-	1,201			
1,100	24	17	14	15	18	42	122	256	244	157	124	47	1,081	-	-	1,161			
1,147	25	18	14	15	18	43	125	266	254	164	131	51	1,123	-	-	1,171			
1,204	25	19	15	16	19	46	132	278	266	170	137	52	1,174	-	-	1,161			
1,272	27	19	15	16	20	49	141	293	281	179	144	54	1,237	-	-	1,171			
1,368	28	20	16	17	22	54	153	313	295	189	154	57	1,317	-	-	1,171			
1,555	32	22	17	19	24	62	172	341	324	204	168	61	1,448	-	-	1,171			
3,722	45	29	23	26	37	88	228	437	409	251	211	77	1,862	-	-	1,161			
5,889	67	55	43	71	153	247	472	1,002	968	564	399	218	4,261	-	-				
8,057	382	83	55	62	239	743	966	1,705	881	585	496	368	6,564	-	-				
12,391	837	888	755	866	772	823	1,007	1,766	1,609	1,125	1,147	796	12,391	-	-				

## Exhibit VIII - Bill Impacts - Proposed Rate Design

### Henrico Residential Customers

Strata Annual CCFs	Block 1 CCFs															
	Off Pk				Peak				Off Pk							
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011				
77	-	4	2	2	2	1	2	2	5	5	4	4	3			
137	-	6	5	4	4	4	5	9	20	20	13	12	7			
12,391	500	500	500	500	500	500	500	500	500	500	500	500	500			

Strata Annual CCFs	Block 2 CCFs															
	Off Pk				Peak				Off Pk							
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011				
77	-	-	-	-	-	-	-	-	-	-	-	-	-			
137	-	-	-	-	-	-	-	-	-	-	-	-	-			
12,391	337	388	255	366	272	323	507	1,266	1,109	625	647	296				

Strata Annual CCFs	Average Bill Per Strata At Proposed Rates												Annual Total	
	Off Pk				Peak				Off Pk					
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011		
-	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 136	
77	\$ 13	\$ 13	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 14	\$ 14	\$ 13	\$ 13	\$ 13	\$ 154	
137	\$ 14	\$ 14	\$ 13	\$ 13	\$ 13	\$ 14	\$ 16	\$ 21	\$ 21	\$ 18	\$ 17	\$ 15	\$ 189	
183	\$ 15	\$ 14	\$ 14	\$ 14	\$ 14	\$ 14	\$ 18	\$ 27	\$ 26	\$ 21	\$ 20	\$ 16	\$ 214	
227	\$ 16	\$ 15	\$ 14	\$ 15	\$ 15	\$ 15	\$ 16	\$ 20	\$ 31	\$ 31	\$ 24	\$ 18	\$ 236	
264	\$ 16	\$ 16	\$ 15	\$ 15	\$ 15	\$ 16	\$ 21	\$ 35	\$ 35	\$ 28	\$ 24	\$ 18	\$ 255	
297	\$ 16	\$ 16	\$ 15	\$ 15	\$ 15	\$ 17	\$ 23	\$ 40	\$ 40	\$ 30	\$ 25	\$ 19	\$ 272	
330	\$ 17	\$ 16	\$ 15	\$ 15	\$ 16	\$ 17	\$ 25	\$ 44	\$ 44	\$ 32	\$ 27	\$ 20	\$ 288	
359	\$ 17	\$ 16	\$ 16	\$ 16	\$ 16	\$ 18	\$ 26	\$ 48	\$ 48	\$ 35	\$ 29	\$ 20	\$ 303	
387	\$ 17	\$ 17	\$ 16	\$ 16	\$ 16	\$ 18	\$ 27	\$ 51	\$ 51	\$ 37	\$ 30	\$ 21	\$ 317	
415	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 18	\$ 29	\$ 54	\$ 55	\$ 39	\$ 32	\$ 21	\$ 331	
441	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 19	\$ 30	\$ 57	\$ 59	\$ 41	\$ 33	\$ 22	\$ 343	
466	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 19	\$ 31	\$ 61	\$ 61	\$ 43	\$ 35	\$ 23	\$ 356	
489	\$ 18	\$ 17	\$ 16	\$ 16	\$ 17	\$ 19	\$ 32	\$ 63	\$ 64	\$ 45	\$ 36	\$ 24	\$ 367	
510	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 17	\$ 19	\$ 33	\$ 66	\$ 67	\$ 47	\$ 37	\$ 378	
533	\$ 19	\$ 17	\$ 17	\$ 17	\$ 17	\$ 17	\$ 20	\$ 34	\$ 67	\$ 69	\$ 49	\$ 39	\$ 24	\$ 388
553	\$ 19	\$ 17	\$ 16	\$ 16	\$ 16	\$ 17	\$ 20	\$ 35	\$ 70	\$ 73	\$ 51	\$ 40	\$ 25	\$ 399
574	\$ 19	\$ 17	\$ 16	\$ 16	\$ 17	\$ 17	\$ 21	\$ 36	\$ 73	\$ 74	\$ 52	\$ 41	\$ 25	\$ 409
595	\$ 19	\$ 18	\$ 17	\$ 17	\$ 17	\$ 17	\$ 21	\$ 38	\$ 75	\$ 77	\$ 54	\$ 42	\$ 26	\$ 419
614	\$ 19	\$ 17	\$ 17	\$ 17	\$ 17	\$ 17	\$ 21	\$ 38	\$ 78	\$ 79	\$ 55	\$ 43	\$ 26	\$ 429
633	\$ 19	\$ 17	\$ 16	\$ 17	\$ 17	\$ 17	\$ 22	\$ 40	\$ 80	\$ 81	\$ 57	\$ 45	\$ 26	\$ 438
652	\$ 19	\$ 18	\$ 17	\$ 17	\$ 17	\$ 17	\$ 22	\$ 41	\$ 82	\$ 83	\$ 58	\$ 46	\$ 27	\$ 447
673	\$ 19	\$ 18	\$ 17	\$ 17	\$ 17	\$ 18	\$ 23	\$ 42	\$ 85	\$ 85	\$ 59	\$ 47	\$ 27	\$ 457
692	\$ 19	\$ 18	\$ 17	\$ 17	\$ 17	\$ 17	\$ 23	\$ 44	\$ 88	\$ 88	\$ 61	\$ 48	\$ 27	\$ 466
712	\$ 20	\$ 18	\$ 17	\$ 17	\$ 17	\$ 18	\$ 23	\$ 45	\$ 90	\$ 89	\$ 62	\$ 49	\$ 28	\$ 476
731	\$ 20	\$ 18	\$ 17	\$ 17	\$ 17	\$ 18	\$ 24	\$ 47	\$ 92	\$ 92	\$ 63	\$ 51	\$ 28	\$ 485
752	\$ 20	\$ 18	\$ 17	\$ 17	\$ 17	\$ 18	\$ 24	\$ 47	\$ 95	\$ 94	\$ 65	\$ 52	\$ 29	\$ 495
773	\$ 20	\$ 18	\$ 17	\$ 17	\$ 17	\$ 18	\$ 25	\$ 50	\$ 97	\$ 96	\$ 66	\$ 53	\$ 29	\$ 505
794	\$ 20	\$ 18	\$ 17	\$ 17	\$ 17	\$ 18	\$ 25	\$ 51	\$ 101	\$ 98	\$ 67	\$ 54	\$ 29	\$ 515
815	\$ 20	\$ 18	\$ 17	\$ 17	\$ 17	\$ 18	\$ 25	\$ 52	\$ 103	\$ 101	\$ 69	\$ 56	\$ 29	\$ 525
838	\$ 21	\$ 18	\$ 17	\$ 17	\$ 17	\$ 18	\$ 26	\$ 52	\$ 104	\$ 104	\$ 71	\$ 57	\$ 30	\$ 536
861	\$ 21	\$ 18	\$ 17	\$ 17	\$ 17	\$ 18	\$ 26	\$ 55	\$ 108	\$ 105	\$ 72	\$ 58	\$ 30	\$ 547
884	\$ 21	\$ 19	\$ 17	\$ 18	\$ 18	\$ 19	\$ 26	\$ 56	\$ 111	\$ 108	\$ 74	\$ 59	\$ 31	\$ 558
909	\$ 21	\$ 19	\$ 17	\$ 17	\$ 17	\$ 19	\$ 27	\$ 58	\$ 113	\$ 111	\$ 76	\$ 61	\$ 31	\$ 570
935	\$ 21	\$ 19	\$ 17	\$ 18	\$ 18	\$ 19	\$ 28	\$ 59	\$ 117	\$ 114	\$ 77	\$ 62	\$ 31	\$ 582
964	\$ 22	\$ 19	\$ 17	\$ 18	\$ 18	\$ 19	\$ 28	\$ 61	\$ 119	\$ 117	\$ 80	\$ 64	\$ 33	\$ 595
994	\$ 22	\$ 19	\$ 17	\$ 18	\$ 18	\$ 19	\$ 29	\$ 62	\$ 123	\$ 120	\$ 81	\$ 66	\$ 33	\$ 609
1,024	\$ 22	\$ 19	\$ 18	\$ 18	\$ 18	\$ 19	\$ 29	\$ 65	\$ 126	\$ 123	\$ 83	\$ 68	\$ 34	\$ 624
1,061	\$ 22	\$ 20	\$ 18	\$ 18	\$ 18	\$ 20	\$ 30	\$ 66	\$ 130	\$ 127	\$ 85	\$ 69	\$ 35	\$ 640
1,100	\$ 23	\$ 20	\$ 18	\$ 19	\$ 19	\$ 20	\$ 32	\$ 70	\$ 135	\$ 129	\$ 87	\$ 71	\$ 34	\$ 659
1,147	\$ 23	\$ 20	\$ 18	\$ 19	\$ 19	\$ 20	\$ 32	\$ 72	\$ 140	\$ 134	\$ 91	\$ 75	\$ 36	\$ 679
1,204	\$ 24	\$ 20	\$ 18	\$ 19	\$ 19	\$ 21	\$ 34	\$ 75	\$ 146	\$ 140	\$ 93	\$ 78	\$ 36	\$ 704
1,272	\$ 24	\$ 20	\$ 19	\$ 19	\$ 19	\$ 21	\$ 35	\$ 79	\$ 153	\$ 147	\$ 98	\$ 81	\$ 38	\$ 734
1,368	\$ 25	\$ 21	\$ 19	\$ 20	\$ 20	\$ 22	\$ 37	\$ 85	\$ 162	\$ 154	\$ 103	\$ 86	\$ 39	\$ 773
1,555	\$ 27	\$ 22	\$ 20	\$ 21	\$ 21	\$ 23	\$ 41	\$ 95	\$ 176	\$ 168	\$ 110	\$ 93	\$ 41	\$ 836
3,722	\$ 33	\$ 25	\$ 22	\$ 24	\$ 24	\$ 29	\$ 54	\$ 122	\$ 223	\$ 209	\$ 133	\$ 113	\$ 49	\$ 1,036
5,889	\$ 44	\$ 38	\$ 32	\$ 46	\$ 46	\$ 85	\$ 131	\$ 240	\$ 495	\$ 479	\$ 284	\$ 204	\$ 117	\$ 2,195
8,057	\$ 196	\$ 51	\$ 38	\$ 41	\$ 41	\$ 127	\$ 371	\$ 478	\$ 835	\$ 437	\$ 294	\$ 251	\$ 189	\$ 3,308
12,391	\$ 416	\$ 440	\$ 376	\$ 430	\$ 384	\$ 409	\$ 498	\$ 865	\$ 789	\$ 555	\$ 566	\$ 396	\$ 6,123	

Exhibit VIII - Bill Impacts - Proposed Rate Design

## Henrico Residential Customers

Strata Annual CCFs	Average \$ Change Per Strata (Proposed Less Present)												Annual Total \$ Change	
	Off Pk				12 Billing Months Ending Jun-11				Peak					
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011		
-	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 4	
77	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 4	
137	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 0	\$ 0	\$ 5	
183	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 6	
227	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 6	
264	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 7	
297	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 7	
330	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 8	
359	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 8	
387	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 9	
415	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 9	
441	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 9	
466	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 10	
489	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 10	
510	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 10	
533	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 11	
553	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 11	
574	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 11	
595	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 11	
614	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 12	
633	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 12	
652	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 12	
673	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 12	
692	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 13	
712	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 13	
731	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 2	\$ 1	\$ 13	
752	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 3	\$ 3	\$ 1	\$ 13	
773	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 3	\$ 3	\$ 1	\$ 14	
794	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 3	\$ 3	\$ 1	\$ 14	
815	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 3	\$ 3	\$ 2	\$ 14	
838	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 3	\$ 3	\$ 2	\$ 15	
861	\$ 1	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 3	\$ 3	\$ 2	\$ 15	
884	\$ 1	\$ 1	\$ 1	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 3	\$ 3	\$ 2	\$ 15	
909	\$ 1	\$ 1	\$ 1	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 3	\$ 3	\$ 2	\$ 16	
935	\$ 1	\$ 1	\$ 1	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 3	\$ 3	\$ 2	\$ 16	
964	\$ 1	\$ 1	\$ 1	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 3	\$ 3	\$ 2	\$ 16	
994	\$ 1	\$ 1	\$ 1	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 3	\$ 3	\$ 2	\$ 17	
1,024	\$ 1	\$ 1	\$ 1	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 3	\$ 3	\$ 2	\$ 17	
1,061	\$ 1	\$ 1	\$ 1	\$ 0	\$ 0	\$ 0	\$ 1	\$ 1	\$ 2	\$ 4	\$ 3	\$ 2	\$ 17	
1,100	\$ 1	\$ 1	\$ 1	\$ 0	\$ 1	\$ 1	\$ 1	\$ 2	\$ 4	\$ 4	\$ 2	\$ 2	\$ 18	
1,147	\$ 1	\$ 1	\$ 1	\$ 0	\$ 1	\$ 1	\$ 1	\$ 2	\$ 4	\$ 4	\$ 2	\$ 2	\$ 18	
1,204	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 2	\$ 4	\$ 4	\$ 3	\$ 2	\$ 19	
1,272	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 2	\$ 4	\$ 4	\$ 3	\$ 2	\$ 20	
1,368	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 2	\$ 4	\$ 4	\$ 3	\$ 2	\$ 21	
1,555	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 3	\$ 5	\$ 5	\$ 3	\$ 3	\$ 23	
3,722	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 3	\$ 6	\$ 6	\$ 4	\$ 3	\$ 28	
5,889	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 2	\$ 4	\$ 7	\$ 19	\$ 18	\$ 8	\$ 3	\$ 71	
8,057	\$ 5	\$ 1	\$ 1	\$ 1	\$ 1	\$ 3	\$ 13	\$ 18	\$ 36	\$ 16	\$ 9	\$ 7	\$ 116	
12,391	\$ 15	\$ 16	\$ 13	\$ 16	\$ 13	\$ 15	\$ 19	\$ 37	\$ 34	\$ 22	\$ 23	\$ 14	\$ 237	

## Exhibit VIII - Bill Impacts - Proposed Rate Design

### Henrico Residential Customers

Strata Annual CCFs	Average % Change Per Strata At Proposed Rates												% of Customers		
	Off Pk				Peak				Off Pk				Annual Total % Change	In Strata	Cumulative
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011			
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
77	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	2.3%
137	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	4.5%
183	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	6.7%
227	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	8.9%
264	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	11.1%
297	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	13.3%
330	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	15.6%
359	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	17.8%
387	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	20.0%
415	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	22.3%
441	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	24.5%
466	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	26.7%
489	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	28.9%
510	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	31.2%
533	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	33.4%
553	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	35.6%
574	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	37.8%
595	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	40.1%
614	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	42.2%
633	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	44.5%
652	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	46.7%
673	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	49.0%
692	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	51.2%
712	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	53.4%
731	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	55.6%
752	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	57.9%
773	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	60.1%
794	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	62.3%
815	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	64.5%
838	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	66.7%
861	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	69.0%
884	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	71.1%
909	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	73.4%
935	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	75.6%
964	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	77.8%
994	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	80.0%
1,024	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	82.2%
1,061	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	84.5%
1,100	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	86.7%
1,147	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	88.9%
1,204	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	91.1%
1,272	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	93.3%
1,368	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	95.6%
1,555	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	97.8%
3,722	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	100.0%
5,889	3%	3%	3%	3%	3%	3%	3%	3%	4%	4%	3%	3%	3.4%	0.0%	100.0%
8,057	3%	3%	3%	3%	3%	3%	3%	4%	4%	4%	3%	3%	3.6%	0.0%	100.0%
12,391	4%	4%	4%	4%	4%	4%	4%	4%	5%	4%	4%	4%	4.0%	0.0%	100.0%

## Exhibit VIII - Bill Impacts - Proposed Rate Design

### Henrico Residential Customers

FORMATTED FOR CHART Percentile	Annual					Peak			Off Peak			Cum Bills
	Avg Use	\$ Change	% Change	Current Bill	New Bill	Avg Use	Current Bill	New Bill	Avg Use	Current Bill	New Bill	
2.3%	37 \$	4	2.8%	\$ 150	\$ 154	20 \$	\$ 76	\$ 78	17 \$	\$ 74	\$ 76	1,195
4.5%	109 \$	5	2.8%	\$ 184	\$ 189	71 \$	\$ 100	\$ 102	39 \$	\$ 84	\$ 87	2,373
6.7%	161 \$	6	2.8%	\$ 208	\$ 214	109 \$	\$ 118	\$ 121	52 \$	\$ 91	\$ 93	3,538
8.9%	206 \$	6	2.8%	\$ 229	\$ 236	141 \$	\$ 132	\$ 136	65 \$	\$ 97	\$ 100	4,709
11.1%	246 \$	7	2.8%	\$ 248	\$ 255	172 \$	\$ 147	\$ 151	74 \$	\$ 101	\$ 104	5,895
13.3%	282 \$	7	2.8%	\$ 265	\$ 272	202 \$	\$ 161	\$ 166	80 \$	\$ 104	\$ 107	7,071
15.6%	314 \$	8	2.8%	\$ 280	\$ 288	227 \$	\$ 173	\$ 178	87 \$	\$ 107	\$ 110	8,256
17.8%	345 \$	8	2.8%	\$ 295	\$ 303	252 \$	\$ 185	\$ 190	93 \$	\$ 110	\$ 113	9,439
20.0%	374 \$	9	2.8%	\$ 308	\$ 317	272 \$	\$ 194	\$ 200	101 \$	\$ 114	\$ 117	10,617
22.3%	402 \$	9	2.8%	\$ 322	\$ 331	296 \$	\$ 205	\$ 211	106 \$	\$ 116	\$ 120	11,811
24.5%	429 \$	9	2.8%	\$ 334	\$ 343	317 \$	\$ 215	\$ 221	111 \$	\$ 119	\$ 122	12,969
26.7%	454 \$	10	2.8%	\$ 346	\$ 356	339 \$	\$ 226	\$ 232	115 \$	\$ 120	\$ 124	14,155
28.9%	478 \$	10	2.8%	\$ 357	\$ 367	356 \$	\$ 234	\$ 240	122 \$	\$ 124	\$ 127	15,320
31.2%	500 \$	10	2.8%	\$ 368	\$ 378	376 \$	\$ 243	\$ 250	124 \$	\$ 125	\$ 128	16,522
33.4%	522 \$	11	2.8%	\$ 378	\$ 388	389 \$	\$ 249	\$ 256	133 \$	\$ 129	\$ 132	17,707
35.6%	544 \$	11	2.8%	\$ 388	\$ 399	408 \$	\$ 258	\$ 265	136 \$	\$ 130	\$ 134	18,851
37.8%	564 \$	11	2.8%	\$ 398	\$ 409	426 \$	\$ 267	\$ 274	138 \$	\$ 131	\$ 135	20,028
40.1%	585 \$	11	2.8%	\$ 407	\$ 419	441 \$	\$ 274	\$ 281	143 \$	\$ 134	\$ 137	21,229
42.2%	605 \$	12	2.8%	\$ 417	\$ 429	458 \$	\$ 282	\$ 289	147 \$	\$ 135	\$ 139	22,376
44.5%	624 \$	12	2.8%	\$ 426	\$ 438	474 \$	\$ 289	\$ 297	150 \$	\$ 137	\$ 141	23,554
46.7%	643 \$	12	2.8%	\$ 435	\$ 447	488 \$	\$ 296	\$ 304	155 \$	\$ 139	\$ 143	24,737
49.0%	663 \$	12	2.8%	\$ 444	\$ 457	504 \$	\$ 303	\$ 312	159 \$	\$ 141	\$ 145	25,954
51.2%	683 \$	13	2.8%	\$ 454	\$ 466	522 \$	\$ 312	\$ 321	161 \$	\$ 142	\$ 146	27,116
53.4%	702 \$	13	2.8%	\$ 463	\$ 476	538 \$	\$ 319	\$ 328	165 \$	\$ 144	\$ 148	28,295
55.6%	722 \$	13	2.8%	\$ 472	\$ 485	552 \$	\$ 326	\$ 335	169 \$	\$ 146	\$ 150	29,442
57.8%	742 \$	13	2.8%	\$ 481	\$ 495	568 \$	\$ 333	\$ 343	174 \$	\$ 148	\$ 152	30,653
60.1%	763 \$	14	2.8%	\$ 491	\$ 505	586 \$	\$ 342	\$ 351	177 \$	\$ 150	\$ 154	31,835
62.3%	784 \$	14	2.8%	\$ 501	\$ 515	604 \$	\$ 350	\$ 360	180 \$	\$ 151	\$ 155	32,995
64.5%	805 \$	14	2.8%	\$ 511	\$ 525	621 \$	\$ 358	\$ 368	184 \$	\$ 153	\$ 157	34,164
66.7%	827 \$	15	2.8%	\$ 521	\$ 536	636 \$	\$ 365	\$ 375	191 \$	\$ 156	\$ 161	35,368
69.0%	850 \$	15	2.8%	\$ 532	\$ 547	656 \$	\$ 374	\$ 385	194 \$	\$ 158	\$ 162	36,539
71.1%	873 \$	15	2.8%	\$ 543	\$ 558	673 \$	\$ 383	\$ 393	200 \$	\$ 160	\$ 165	37,684
73.4%	897 \$	16	2.8%	\$ 554	\$ 570	694 \$	\$ 393	\$ 404	202 \$	\$ 161	\$ 166	38,866
75.6%	922 \$	16	2.8%	\$ 566	\$ 582	714 \$	\$ 402	\$ 413	208 \$	\$ 164	\$ 169	40,035
77.8%	950 \$	16	2.8%	\$ 579	\$ 595	734 \$	\$ 411	\$ 423	216 \$	\$ 168	\$ 172	41,233
80.0%	979 \$	17	2.8%	\$ 593	\$ 609	758 \$	\$ 422	\$ 434	221 \$	\$ 170	\$ 175	42,407
82.2%	1,009 \$	17	2.8%	\$ 607	\$ 624	782 \$	\$ 434	\$ 446	226 \$	\$ 173	\$ 178	43,568
84.5%	1,043 \$	17	2.8%	\$ 623	\$ 640	808 \$	\$ 446	\$ 458	235 \$	\$ 177	\$ 182	44,772
86.7%	1,081 \$	18	2.8%	\$ 641	\$ 659	839 \$	\$ 461	\$ 474	242 \$	\$ 180	\$ 185	45,941
88.9%	1,123 \$	18	2.8%	\$ 661	\$ 679	870 \$	\$ 475	\$ 489	253 \$	\$ 185	\$ 191	47,113
91.1%	1,174 \$	19	2.8%	\$ 684	\$ 704	911 \$	\$ 494	\$ 508	263 \$	\$ 190	\$ 195	48,281
93.3%	1,237 \$	20	2.8%	\$ 714	\$ 734	962 \$	\$ 518	\$ 533	275 \$	\$ 196	\$ 201	49,458
95.6%	1,317 \$	21	2.8%	\$ 751	\$ 773	1,025 \$	\$ 548	\$ 563	292 \$	\$ 203	\$ 209	50,632
97.8%	1,448 \$	23	2.8%	\$ 813	\$ 836	1,128 \$	\$ 597	\$ 613	320 \$	\$ 217	\$ 223	51,809
100.0%	1,862 \$	28	2.8%	\$ 1,008	\$ 1,036	1,450 \$	\$ 748	\$ 769	412 \$	\$ 260	\$ 267	52,976
100.0%	4,261 \$	71	3.4%	\$ 2,124	\$ 2,195	3,407 \$	\$ 1,656	\$ 1,714	853 \$	\$ 467	\$ 480	52,983
100.0%	6,564 \$	116	3.6%	\$ 3,192	\$ 3,308	5,119 \$	\$ 2,446	\$ 2,541	1,445 \$	\$ 746	\$ 766	52,986
100.0%	12,391 \$	237	4.0%	\$ 5,886	\$ 6,123	7,102 \$	\$ 3,359	\$ 3,500	5,289 \$	\$ 2,527	\$ 2,624	52,987

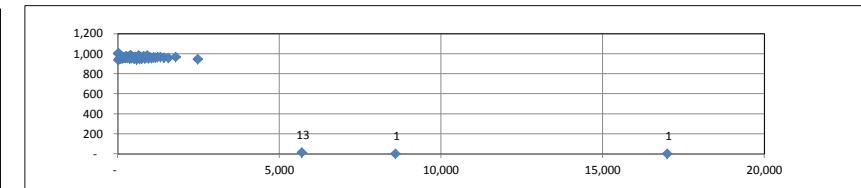
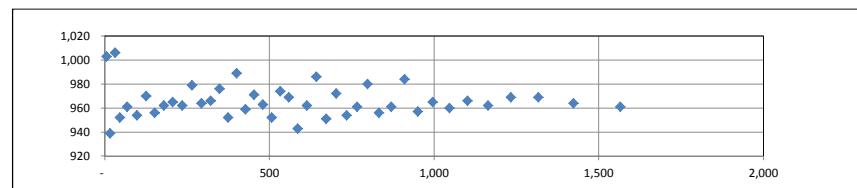
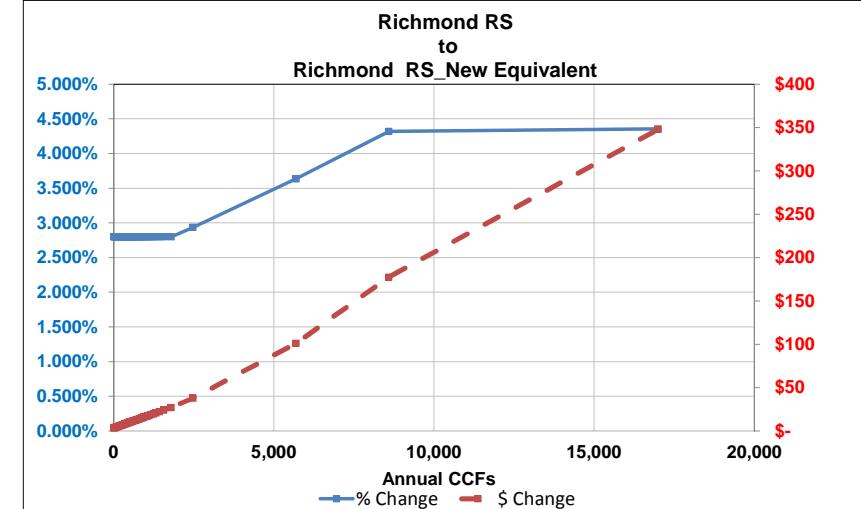
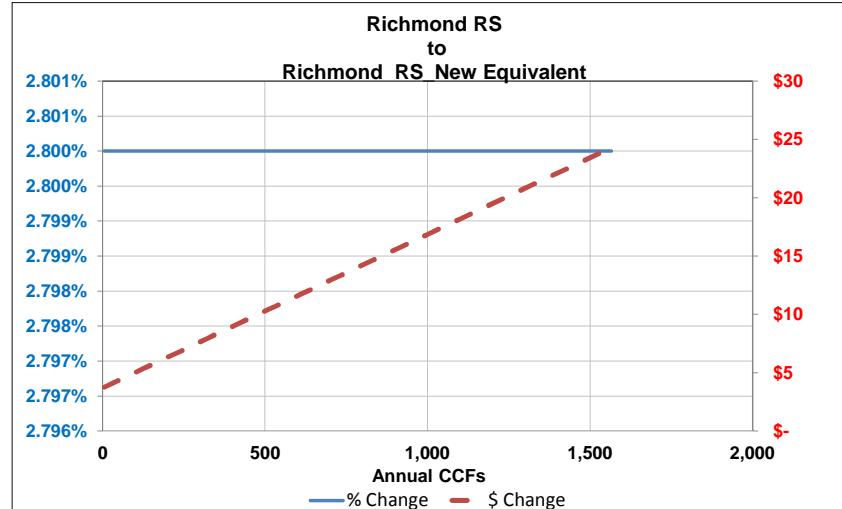
Exhibit VIII - Bill Impacts - Proposed Rate Design

## Richmond Residential Customers

**Richmond Gas Division Preliminary Rate Analysis - Richmond**  
**Comparative Annual Billing Under Current And New Rate Structure**  
**Base Distribution Rates Only**

Current Rate Structure				New Rate Structure			
Richmond RS		Richmond RS_New		Customer Charge		Peak \$11.36 Off Peak \$11.36	
		Peak \$11.05	Off Peak \$11.05			Peak \$0.48316	Off Peak \$0.48316
Customer Charge				Energy Chrg	Max CCF	\$/CCF	
Block	Max CCF	Peak	Off Peak	Block	Max CCF	\$/CCF	
1	500	500	\$ 0.47000	1	500	\$ 0.48316	
2	-	-	\$ 0.45900	2	-	\$ 0.48316	
3	-	-	\$ 0.45900	3	-	\$ 0.48316	
4	-	-	\$ -	4	-	\$ -	
5	-	-	\$ -	5	-	\$ -	

Percentile	Average Annual CCFs	Annual Bill				Cumul. # Customers
		Current Bill	New Bill	\$ Change	% Change	
4%	16	\$ 140	\$ 144	\$ 4	3%	1,942
7%	31	\$ 147	\$ 152	\$ 4	3%	2,948
9%	45	\$ 154	\$ 158	\$ 4	3%	3,900
20%	179	\$ 217	\$ 223	\$ 6	3%	8,703
29%	293	\$ 271	\$ 278	\$ 8	3%	12,573
40%	427	\$ 333	\$ 342	\$ 9	3%	17,415
49%	533	\$ 383	\$ 394	\$ 11	3%	21,275
60%	672	\$ 448	\$ 461	\$ 13	3%	26,086
69%	797	\$ 507	\$ 522	\$ 14	3%	29,953
80%	996	\$ 601	\$ 618	\$ 17	3%	34,776
89%	1,233	\$ 712	\$ 732	\$ 20	3%	38,633
98%	1,792	\$ 975	\$ 1,002	\$ 27	3%	42,497
100%	16,989	\$ 7,997	\$ 8,345	\$ 348	4%	43,459



## Exhibit VIII - Bill Impacts - Proposed Rate Design

### Richmond Residential Customers

**Richmond Gas Division**  
**Comparative Monthly Billing Under Current And New Rate Structure**

**Current Rate Structure**

Cst_Chrg	RS		Rate	
	Peak	Off Peak	Peak	Off Peak
			\$11.05	\$11.05
Energy Charge	Max CCF	\$/CCF		
Block	Peak	Off Peak	Peak	Off Peak
1	500	500	\$ 0.47000	\$ 0.47000
2	-	-	\$ 0.45900	\$ 0.45900
3	-	-	\$ -	\$ -
4	-	-	\$ -	\$ -
5	-	-	\$ -	\$ -

Strata Annual CCFs	Average Use Per Strata (CCFs)												Annual Total	MDCQ	Count			
	Off Pk				Peak				Off Pk									
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011						
9	1	0	0	0	0	0	0	0	0	0	1	5	2,491	-	1,003			
23	2	1	1	1	1	1	1	1	1	1	2	16	-	-	939			
38	4	3	2	2	2	2	3	3	2	3	3	31	-	-	1,006			
54	5	4	4	3	3	3	5	4	4	4	4	45	-	-	952			
82	6	5	4	4	4	5	8	8	6	7	6	68	-	-	961			
111	8	6	6	5	5	7	8	13	13	10	10	98	-	-	954			
138	9	7	6	6	6	8	10	18	18	13	13	10	125	-	970			
165	9	8	7	6	7	9	13	24	24	17	16	12	151	-	956			
192	10	8	7	7	8	11	15	30	29	21	19	13	179	-	962			
220	10	9	8	8	8	11	18	39	37	25	20	13	206	-	965			
248	10	9	8	8	9	12	21	45	45	29	24	15	234	-	962			
279	10	9	8	8	8	12	24	55	55	35	27	15	265	-	979			
307	10	10	8	9	9	14	26	63	61	38	29	16	293	-	964			
334	11	9	8	9	9	14	30	71	68	43	31	16	321	-	966			
361	11	9	8	9	10	15	33	78	75	47	35	18	348	-	976			
386	11	10	9	9	10	16	36	86	83	50	37	19	374	-	952			
413	11	10	9	9	10	16	37	91	89	55	41	20	400	-	989			
439	12	10	9	9	10	17	42	99	96	59	44	20	427	-	959			
466	11	10	9	9	10	18	42	107	104	64	46	21	453	-	971			
493	12	10	9	9	10	19	47	113	109	70	50	23	480	-	963			
519	12	10	9	9	11	19	49	121	116	73	53	24	507	-	952			
545	12	11	9	10	11	21	52	127	124	77	56	24	533	-	974			
572	13	11	10	10	11	22	57	135	128	80	57	25	559	-	969			
599	12	10	9	9	11	22	59	142	138	85	62	27	586	-	943			
627	14	11	9	10	11	23	63	148	143	89	64	27	614	-	962			
657	14	11	9	10	11	25	67	156	150	92	68	29	642	-	986			
686	14	11	10	10	12	25	67	162	158	100	72	32	672	-	951			
718	14	11	10	10	11	26	71	172	166	102	77	33	702	-	972			
749	15	12	10	10	11	27	73	178	175	110	80	34	734	-	954			
781	16	12	10	11	12	29	77	188	182	112	83	34	766	-	961			
815	15	11	10	10	12	29	81	197	190	119	87	36	797	-	980			
850	16	12	10	10	12	31	84	205	197	124	92	38	833	-	956			
890	16	12	11	10	13	33	91	214	205	129	96	40	870	-	961			
929	17	12	11	11	13	34	95	222	215	135	102	43	910	-	984			
973	18	13	12	12	14	37	101	231	226	140	104	44	951	-	957			
1,020	18	12	11	11	13	36	102	242	239	151	113	47	996	-	965			
1,073	19	13	12	12	14	40	108	255	250	158	118	49	1,047	-	960			
1,130	20	14	12	12	15	42	114	269	263	164	125	52	1,101	-	966			
1,197	22	14	12	12	15	44	121	282	278	176	132	57	1,164	-	962			
1,271	23	15	13	13	17	47	127	300	291	183	142	60	1,233	-	969			
1,366	23	15	14	14	17	51	138	319	311	199	151	65	1,317	-	969			
1,486	27	17	15	15	19	55	149	341	335	213	164	73	1,423	-	964			
1,654	28	17	15	15	19	57	161	377	376	237	181	81	1,566	-	961			
1,960	34	20	18	18	22	69	189	425	426	269	208	93	1,792	-	970			
4,966	52	32	29	28	39	93	254	586	571	365	293	127	2,470	-	947			
7,972	186	84	86	78	126	221	608	1,216	1,246	812	680	345	5,688	-	13			
10,977	40	11	14	10	13	33	446	1,809	2,245	1,887	1,194	888	8,590	-	1			
16,989	961	887	696	818	847	1,224	1,689	2,814	2,633	1,749	1,549	1,122	16,989	-	1			

## Exhibit VIII - Bill Impacts - Proposed Rate Design

### Richmond Residential Customers

Strata Annual CCFs	Block 1 CCFs																	
	12 Billing Months Ending Jun-11																	
	Off Pk				Peak				Off Pk									
Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011							
9	1	0	0	0	0	0	0	0	0	0	0	1						
23	2	1	1	1	1	1	1	1	1	1	1	2						
16,989	500	500	500	500	500	500	500	500	500	500	500							

Strata Annual CCFs	Block 2 CCFs																	
	12 Billing Months Ending Jun-11																	
	Off Pk				Peak				Off Pk									
Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011							
9	-	-	-	-	-	-	-	-	-	-	-	-						
23	-	-	-	-	-	-	-	-	-	-	-	-						
16,989	461	387	196	318	347	724	1,189	2,314	2,133	1,249	1,049	622						

Strata Annual CCFs	Average Bill Per Strata At Present Rates																	
	12 Billing Months Ending Jun-11																	
	Off Pk				Peak				Off Pk									
Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011		Annual Total					
-	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 133					
9	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 135					
23	\$ 12	\$ 12	\$ 12	\$ 12	\$ 11	\$ 11	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 140					
38	\$ 13	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 147					
54	\$ 13	\$ 13	\$ 13	\$ 13	\$ 12	\$ 13	\$ 13	\$ 13	\$ 13	\$ 13	\$ 13	\$ 13	\$ 154					
82	\$ 14	\$ 14	\$ 13	\$ 13	\$ 13	\$ 13	\$ 13	\$ 15	\$ 15	\$ 14	\$ 14	\$ 14	\$ 165					
111	\$ 15	\$ 14	\$ 14	\$ 13	\$ 14	\$ 14	\$ 15	\$ 17	\$ 17	\$ 16	\$ 16	\$ 15	\$ 178					
138	\$ 15	\$ 14	\$ 14	\$ 14	\$ 14	\$ 15	\$ 16	\$ 20	\$ 20	\$ 17	\$ 17	\$ 16	\$ 192					
165	\$ 15	\$ 15	\$ 14	\$ 14	\$ 14	\$ 15	\$ 17	\$ 22	\$ 22	\$ 19	\$ 19	\$ 16	\$ 204					
192	\$ 16	\$ 15	\$ 14	\$ 14	\$ 15	\$ 16	\$ 18	\$ 25	\$ 25	\$ 21	\$ 20	\$ 17	\$ 217					
220	\$ 16	\$ 15	\$ 15	\$ 15	\$ 15	\$ 16	\$ 20	\$ 30	\$ 29	\$ 23	\$ 20	\$ 17	\$ 230					
248	\$ 16	\$ 15	\$ 15	\$ 15	\$ 15	\$ 17	\$ 21	\$ 32	\$ 32	\$ 25	\$ 22	\$ 18	\$ 243					
279	\$ 16	\$ 15	\$ 15	\$ 15	\$ 15	\$ 17	\$ 22	\$ 37	\$ 37	\$ 28	\$ 24	\$ 18	\$ 257					
307	\$ 16	\$ 16	\$ 15	\$ 15	\$ 15	\$ 17	\$ 23	\$ 41	\$ 40	\$ 29	\$ 25	\$ 18	\$ 271					
334	\$ 16	\$ 15	\$ 15	\$ 15	\$ 15	\$ 18	\$ 25	\$ 45	\$ 43	\$ 31	\$ 26	\$ 19	\$ 283					
361	\$ 16	\$ 15	\$ 15	\$ 15	\$ 16	\$ 18	\$ 27	\$ 48	\$ 47	\$ 33	\$ 27	\$ 20	\$ 296					
386	\$ 16	\$ 16	\$ 15	\$ 15	\$ 16	\$ 18	\$ 28	\$ 52	\$ 50	\$ 35	\$ 28	\$ 20	\$ 309					
413	\$ 16	\$ 16	\$ 16	\$ 15	\$ 16	\$ 19	\$ 29	\$ 54	\$ 53	\$ 37	\$ 31	\$ 21	\$ 321					
439	\$ 17	\$ 16	\$ 16	\$ 15	\$ 15	\$ 19	\$ 31	\$ 58	\$ 56	\$ 39	\$ 32	\$ 21	\$ 333					
466	\$ 16	\$ 16	\$ 15	\$ 15	\$ 16	\$ 19	\$ 31	\$ 61	\$ 60	\$ 41	\$ 33	\$ 21	\$ 346					
493	\$ 17	\$ 16	\$ 15	\$ 15	\$ 15	\$ 20	\$ 33	\$ 64	\$ 62	\$ 44	\$ 35	\$ 22	\$ 358					
519	\$ 17	\$ 16	\$ 15	\$ 15	\$ 15	\$ 20	\$ 34	\$ 68	\$ 65	\$ 45	\$ 36	\$ 22	\$ 371					
545	\$ 17	\$ 16	\$ 16	\$ 16	\$ 16	\$ 21	\$ 35	\$ 71	\$ 69	\$ 47	\$ 37	\$ 23	\$ 383					
572	\$ 17	\$ 16	\$ 16	\$ 16	\$ 16	\$ 21	\$ 38	\$ 74	\$ 71	\$ 49	\$ 38	\$ 23	\$ 395					
599	\$ 17	\$ 16	\$ 15	\$ 15	\$ 16	\$ 21	\$ 39	\$ 78	\$ 76	\$ 51	\$ 40	\$ 24	\$ 408					
627	\$ 18	\$ 16	\$ 15	\$ 15	\$ 16	\$ 22	\$ 40	\$ 81	\$ 78	\$ 53	\$ 41	\$ 24	\$ 421					
657	\$ 17	\$ 16	\$ 15	\$ 15	\$ 16	\$ 23	\$ 42	\$ 85	\$ 82	\$ 54	\$ 43	\$ 25	\$ 434					
686	\$ 18	\$ 16	\$ 16	\$ 16	\$ 17	\$ 23	\$ 43	\$ 87	\$ 85	\$ 58	\$ 45	\$ 26	\$ 448					
718	\$ 18	\$ 16	\$ 16	\$ 16	\$ 16	\$ 23	\$ 44	\$ 92	\$ 89	\$ 59	\$ 47	\$ 26	\$ 463					
749	\$ 18	\$ 16	\$ 16	\$ 16	\$ 16	\$ 24	\$ 45	\$ 95	\$ 93	\$ 63	\$ 48	\$ 27	\$ 478					
781	\$ 19	\$ 17	\$ 16	\$ 16	\$ 16	\$ 25	\$ 47	\$ 99	\$ 96	\$ 64	\$ 50	\$ 27	\$ 492					
815	\$ 18	\$ 16	\$ 16	\$ 16	\$ 17	\$ 25	\$ 49	\$ 103	\$ 100	\$ 67	\$ 52	\$ 28	\$ 507					
850	\$ 18	\$ 17	\$ 16	\$ 16	\$ 17	\$ 26	\$ 51	\$ 108	\$ 104	\$ 70	\$ 54	\$ 29	\$ 524					
890	\$ 19	\$ 17	\$ 16	\$ 16	\$ 17	\$ 27	\$ 54	\$ 112	\$ 107	\$ 72	\$ 56	\$ 30	\$ 541					
929	\$ 19	\$ 17	\$ 16	\$ 16	\$ 17	\$ 27	\$ 56	\$ 116	\$ 112	\$ 75	\$ 59	\$ 31	\$ 560					
973	\$ 19	\$ 17	\$ 17	\$ 17	\$ 17	\$ 28	\$ 58	\$ 120	\$ 117	\$ 77	\$ 60	\$ 32	\$ 579					
1,020	\$ 19	\$ 17	\$ 16	\$ 16	\$ 17	\$ 28	\$ 59	\$ 125	\$ 124	\$ 82	\$ 64	\$ 33	\$ 601					
1,073	\$ 20	\$ 17	\$ 17	\$ 17	\$ 18	\$ 30	\$ 62	\$ 131	\$ 129	\$ 85	\$ 67	\$ 34	\$ 625					
1,130	\$ 20	\$ 17	\$ 17	\$ 17	\$ 18	\$ 31	\$ 65	\$ 137	\$ 135	\$ 88	\$ 70	\$ 36	\$ 650					
1,197	\$ 21	\$ 18	\$ 17	\$ 17	\$ 18	\$ 32	\$ 68	\$ 143	\$ 142	\$ 94	\$ 73	\$ 38	\$ 680					
1,271	\$ 22	\$ 18	\$ 18	\$ 17	\$ 19	\$ 33	\$ 71	\$ 152	\$ 148	\$ 97	\$ 78	\$ 39	\$ 712					
1,366	\$ 22	\$ 18	\$ 18	\$ 18	\$ 19	\$ 35	\$ 76	\$ 161	\$ 157	\$ 104	\$ 82	\$ 42	\$ 751					
1,486	\$ 24	\$ 19	\$ 18	\$ 18	\$ 20	\$ 37	\$ 81	\$ 171	\$ 169	\$ 111	\$ 88	\$ 45	\$ 802					
1,654	\$ 24	\$ 19	\$ 18	\$ 18	\$ 20	\$ 38	\$ 87	\$ 188	\$ 188	\$ 123	\$ 96	\$ 49	\$ 868					
1,960	\$ 27	\$ 21	\$ 20	\$ 19	\$ 21	\$ 43	\$ 100	\$ 211	\$ 211	\$ 137	\$ 109	\$ 55	\$ 975					
4,966	\$ 35	\$ 26	\$ 24	\$ 24	\$ 30	\$ 55	\$ 131	\$ 286	\$ 279	\$ 183	\$ 149	\$ 71	\$ 1,292					
7,972	\$ 98	\$ 50	\$ 52	\$ 48	\$ 70	\$ 115	\$ 296	\$ 575	\$ 588	\$ 389	\$ 329	\$ 173	\$ 2,783					
10,977	\$ 30	\$ 16	\$ 18	\$ 16	\$ 17	\$ 27	\$ 221	\$ 847	\$ 1,047	\$ 883	\$ 565	\$ 424	\$ 4,109					
16,989	\$ 458	\$ 424	\$ 336	\$ 392	\$ 405	\$ 578	\$ 792	\$ 1,308	\$ 1,225	\$ 819	\$ 728	\$ 532	\$ 7,997					

## Exhibit VIII - Bill Impacts - Proposed Rate Design

### Richmond Residential Customers

**Richmond Gas Division**  
**Comparative Monthly Billing Under Current And New Rate Structure**

**New Rate Structure (Revenue Neutral Equivalent)**

Cst_Chrg	Richmond		RS_New		Rate	
	Peak	Off Peak	Peak	Off Peak	\$11.36	\$11.36
Energy Charge Block	Max CCF			\$/CCF		
1	500	500	\$ 0.48316	\$ 0.48316		
2	-	-	\$ 0.48316	\$ 0.48316		
3	-	-	\$ -	\$ -		
4	-	-	\$ -	\$ -		
5	-	-	\$ -	\$ -		

Strata Annual CCFs	Average Use Per Strata (CCFs)												Annual Total	MDCQ	Count	
	Off Pk				12 Billing Months Ending Jun-11				Off Pk							
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011	Peak	Off Pk		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,491	
9	1	0	0	0	0	0	0	0	0	0	0	0	1	5	1,003	
23	2	1	1	1	1	1	1	1	1	1	1	1	2	16	939	
38	4	3	2	2	2	2	2	3	3	2	3	3	3	31	1,006	
54	5	4	4	3	3	3	3	5	4	4	4	4	4	45	952	
82	6	5	4	4	4	4	4	5	8	8	6	7	6	68	961	
111	8	6	6	5	5	7	8	13	13	10	10	8	98	-	954	
138	9	7	6	6	6	8	10	18	18	13	13	10	125	-	970	
165	9	8	7	6	7	9	13	24	24	17	16	12	151	-	956	
192	10	8	7	7	8	11	15	30	29	21	19	13	179	-	962	
220	10	9	8	8	8	11	18	39	37	25	20	13	206	-	965	
248	10	9	8	8	9	12	21	45	45	29	24	15	234	-	962	
279	10	9	8	8	8	12	24	55	55	35	27	15	265	-	979	
307	10	10	8	9	9	14	26	63	61	38	29	16	293	-	964	
334	11	9	8	9	9	14	30	71	68	43	31	16	321	-	966	
361	11	9	8	9	10	15	33	78	75	47	35	18	348	-	976	
386	11	10	9	9	10	16	36	86	83	50	37	19	374	-	952	
413	11	10	9	9	10	16	37	91	89	55	41	20	400	-	989	
439	12	10	9	9	10	17	42	99	96	59	44	20	427	-	959	
466	11	10	9	9	10	18	42	107	104	64	46	21	453	-	971	
493	12	10	9	9	10	19	47	113	109	70	50	23	480	-	963	
519	12	10	9	9	11	19	49	121	116	73	53	24	507	-	952	
545	12	11	9	10	11	21	52	127	124	77	56	24	533	-	974	
572	13	11	10	10	11	22	57	135	128	80	57	25	559	-	969	
599	12	10	9	9	11	22	59	142	138	85	62	27	586	-	943	
627	14	11	9	10	11	23	63	148	143	89	64	27	614	-	962	
657	14	11	9	10	11	25	67	156	150	92	68	29	642	-	986	
686	14	11	10	10	12	25	67	162	158	100	72	32	672	-	951	
718	14	11	10	10	11	26	71	172	166	102	77	33	702	-	972	
749	15	12	10	10	11	27	73	178	175	110	80	34	734	-	954	
781	16	12	10	11	12	29	77	188	182	112	83	34	766	-	961	
815	15	11	10	10	12	29	81	197	190	119	87	36	797	-	980	
850	16	12	10	10	12	31	84	205	197	124	92	38	833	-	956	
890	16	12	11	10	13	33	91	214	205	129	96	40	870	-	961	
929	17	12	11	11	13	34	95	222	215	135	102	43	910	-	984	
973	18	13	12	12	14	37	101	231	226	140	104	44	951	-	957	
1,020	18	12	11	11	13	36	102	242	239	151	113	47	996	-	965	
1,073	19	13	12	12	14	40	108	255	250	158	118	49	1,047	-	960	
1,130	20	14	12	12	15	42	114	269	263	164	125	52	1,101	-	966	
1,197	22	14	12	12	15	44	121	282	278	176	132	57	1,164	-	962	
1,271	23	15	13	13	17	47	127	300	291	183	142	60	1,233	-	969	
1,366	23	15	14	14	17	51	138	319	311	199	151	65	1,317	-	969	
1,486	27	17	15	15	19	55	149	341	335	213	164	73	1,423	-	964	
1,654	28	17	15	15	19	57	161	377	376	237	181	81	1,566	-	961	
1,960	34	20	18	18	22	69	189	425	426	269	208	93	1,792	-	970	
4,966	52	32	29	28	39	93	254	586	571	365	293	127	2,470	-	947	
7,972	186	84	86	78	126	221	608	1,216	1,246	812	680	345	5,688	-	13	
10,977	40	11	14	10	13	33	446	1,809	2,245	1,887	1,194	888	8,590	-	1	
16,989	961	887	696	818	847	1,224	1,689	2,814	2,633	1,749	1,549	1,122	16,989	-	1	

## Exhibit VIII - Bill Impacts - Proposed Rate Design

### Richmond Residential Customers

Strata Annual CCFs	Block 1 CCFs															
	Off Pk				Peak				Off Pk							
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011				
-	-	-	-	-	-	-	-	-	-	-	-	-				
9	1	0	0	0	0	0	0	0	0	0	0	1				
23	2	1	1	1	1	1	1	1	1	1	1	2				
16,989	500	500	500	500	500	500	500	500	500	500	500	500				

Strata Annual CCFs	Block 2 CCFs															
	Off Pk				Peak				Off Pk							
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011				
-	-	-	-	-	-	-	-	-	-	-	-	-				
9	-	-	-	-	-	-	-	-	-	-	-	-				
23	-	-	-	-	-	-	-	-	-	-	-	-				
16,989	461	387	196	318	347	724	1,189	2,314	2,133	1,249	1,049	622				

Strata Annual CCFs	Average Bill Per Strata At Proposed Rates												Annual Total	
	Off Pk				Peak				Off Pk					
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011		
-	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 136	
9	\$ 12	\$ 12	\$ 12	\$ 12	\$ 11	\$ 11	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 139	
23	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 144	
38	\$ 13	\$ 13	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 13	\$ 13	\$ 13	\$ 13	\$ 13	\$ 152	
54	\$ 14	\$ 13	\$ 13	\$ 13	\$ 13	\$ 13	\$ 13	\$ 14	\$ 14	\$ 13	\$ 13	\$ 13	\$ 158	
82	\$ 14	\$ 14	\$ 13	\$ 13	\$ 13	\$ 13	\$ 14	\$ 15	\$ 15	\$ 14	\$ 15	\$ 14	\$ 169	
111	\$ 15	\$ 14	\$ 14	\$ 14	\$ 14	\$ 14	\$ 15	\$ 15	\$ 18	\$ 16	\$ 16	\$ 15	\$ 183	
138	\$ 16	\$ 15	\$ 14	\$ 14	\$ 14	\$ 14	\$ 15	\$ 16	\$ 20	\$ 18	\$ 18	\$ 16	\$ 197	
165	\$ 16	\$ 15	\$ 15	\$ 15	\$ 14	\$ 15	\$ 16	\$ 18	\$ 23	\$ 20	\$ 19	\$ 17	\$ 209	
192	\$ 16	\$ 15	\$ 15	\$ 15	\$ 15	\$ 15	\$ 17	\$ 19	\$ 26	\$ 25	\$ 22	\$ 20	\$ 223	
220	\$ 16	\$ 16	\$ 15	\$ 15	\$ 15	\$ 15	\$ 17	\$ 20	\$ 30	\$ 29	\$ 23	\$ 21	\$ 236	
248	\$ 16	\$ 16	\$ 15	\$ 15	\$ 15	\$ 16	\$ 17	\$ 21	\$ 33	\$ 33	\$ 25	\$ 23	\$ 250	
279	\$ 16	\$ 15	\$ 15	\$ 15	\$ 15	\$ 15	\$ 17	\$ 23	\$ 38	\$ 38	\$ 28	\$ 24	\$ 264	
307	\$ 16	\$ 16	\$ 15	\$ 16	\$ 16	\$ 16	\$ 18	\$ 24	\$ 42	\$ 41	\$ 30	\$ 25	\$ 278	
334	\$ 16	\$ 16	\$ 15	\$ 16	\$ 16	\$ 16	\$ 18	\$ 26	\$ 46	\$ 44	\$ 32	\$ 27	\$ 291	
361	\$ 16	\$ 16	\$ 15	\$ 15	\$ 15	\$ 16	\$ 19	\$ 27	\$ 49	\$ 48	\$ 34	\$ 28	\$ 304	
386	\$ 17	\$ 16	\$ 16	\$ 15	\$ 16	\$ 16	\$ 19	\$ 29	\$ 53	\$ 52	\$ 36	\$ 29	\$ 317	
413	\$ 17	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 19	\$ 29	\$ 55	\$ 54	\$ 38	\$ 31	\$ 329	
439	\$ 17	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 20	\$ 32	\$ 59	\$ 58	\$ 40	\$ 32	\$ 342	
466	\$ 17	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 20	\$ 32	\$ 63	\$ 62	\$ 43	\$ 34	\$ 355	
493	\$ 17	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 20	\$ 34	\$ 66	\$ 64	\$ 45	\$ 36	\$ 368	
519	\$ 17	\$ 16	\$ 16	\$ 16	\$ 16	\$ 17	\$ 21	\$ 35	\$ 70	\$ 67	\$ 46	\$ 37	\$ 381	
545	\$ 17	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 21	\$ 36	\$ 73	\$ 71	\$ 49	\$ 38	\$ 394	
572	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 17	\$ 22	\$ 39	\$ 76	\$ 73	\$ 50	\$ 39	\$ 406	
599	\$ 17	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 22	\$ 40	\$ 80	\$ 78	\$ 53	\$ 41	\$ 419	
627	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 17	\$ 23	\$ 42	\$ 83	\$ 80	\$ 54	\$ 42	\$ 433	
657	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 17	\$ 23	\$ 44	\$ 87	\$ 84	\$ 56	\$ 44	\$ 447	
686	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 17	\$ 23	\$ 44	\$ 89	\$ 88	\$ 60	\$ 46	\$ 461	
718	\$ 18	\$ 17	\$ 16	\$ 16	\$ 16	\$ 17	\$ 24	\$ 45	\$ 94	\$ 92	\$ 61	\$ 49	\$ 476	
749	\$ 19	\$ 17	\$ 16	\$ 16	\$ 16	\$ 17	\$ 24	\$ 47	\$ 97	\$ 96	\$ 64	\$ 50	\$ 491	
781	\$ 19	\$ 19	\$ 17	\$ 16	\$ 16	\$ 17	\$ 25	\$ 49	\$ 102	\$ 99	\$ 65	\$ 51	\$ 506	
815	\$ 19	\$ 19	\$ 17	\$ 16	\$ 16	\$ 17	\$ 25	\$ 51	\$ 106	\$ 103	\$ 69	\$ 53	\$ 522	
850	\$ 19	\$ 19	\$ 17	\$ 16	\$ 16	\$ 17	\$ 26	\$ 52	\$ 111	\$ 107	\$ 71	\$ 56	\$ 539	
890	\$ 19	\$ 19	\$ 17	\$ 16	\$ 16	\$ 17	\$ 27	\$ 55	\$ 115	\$ 110	\$ 74	\$ 58	\$ 557	
929	\$ 20	\$ 17	\$ 17	\$ 17	\$ 17	\$ 18	\$ 28	\$ 57	\$ 119	\$ 115	\$ 77	\$ 61	\$ 576	
973	\$ 20	\$ 20	\$ 18	\$ 17	\$ 17	\$ 18	\$ 29	\$ 60	\$ 123	\$ 120	\$ 79	\$ 62	\$ 596	
1,020	\$ 20	\$ 20	\$ 17	\$ 17	\$ 16	\$ 18	\$ 29	\$ 61	\$ 128	\$ 127	\$ 85	\$ 66	\$ 618	
1,073	\$ 20	\$ 18	\$ 18	\$ 17	\$ 17	\$ 18	\$ 30	\$ 64	\$ 135	\$ 132	\$ 88	\$ 69	\$ 642	
1,130	\$ 21	\$ 18	\$ 18	\$ 17	\$ 17	\$ 18	\$ 31	\$ 67	\$ 141	\$ 138	\$ 91	\$ 72	\$ 668	
1,197	\$ 22	\$ 18	\$ 18	\$ 17	\$ 17	\$ 19	\$ 32	\$ 70	\$ 148	\$ 146	\$ 96	\$ 75	\$ 699	
1,271	\$ 23	\$ 19	\$ 19	\$ 18	\$ 18	\$ 20	\$ 34	\$ 73	\$ 156	\$ 152	\$ 100	\$ 80	\$ 732	
1,366	\$ 23	\$ 19	\$ 18	\$ 18	\$ 20	\$ 36	\$ 78	\$ 166	\$ 161	\$ 107	\$ 84	\$ 43	\$ 772	
1,486	\$ 25	\$ 20	\$ 19	\$ 19	\$ 20	\$ 38	\$ 83	\$ 176	\$ 173	\$ 115	\$ 91	\$ 46	\$ 824	
1,654	\$ 25	\$ 20	\$ 19	\$ 19	\$ 20	\$ 39	\$ 89	\$ 194	\$ 193	\$ 126	\$ 99	\$ 50	\$ 893	
1,960	\$ 28	\$ 21	\$ 20	\$ 20	\$ 20	\$ 22	\$ 45	\$ 103	\$ 217	\$ 217	\$ 141	\$ 112	\$ 56	\$ 1,002
4,966	\$ 36	\$ 27	\$ 25	\$ 25	\$ 30	\$ 57	\$ 134	\$ 295	\$ 287	\$ 188	\$ 153	\$ 73	\$ 1,330	
7,972	\$ 101	\$ 52	\$ 53	\$ 49	\$ 72	\$ 118	\$ 305	\$ 599	\$ 613	\$ 404	\$ 340	\$ 178	\$ 2,885	
10,977	\$ 31	\$ 17	\$ 18	\$ 16	\$ 18	\$ 27	\$ 227	\$ 885	\$ 1,096	\$ 923	\$ 588	\$ 440	\$ 4,287	
16,989	\$ 476	\$ 440	\$ 348	\$ 407	\$ 421	\$ 603	\$ 827	\$ 1,371	\$ 1,284	\$ 856	\$ 760	\$ 553	\$ 8,345	

Exhibit VIII - Bill Impacts - Proposed Rate Design

**Richmond Residential Customers**

Strata Annual CCFs	Average \$ Change Per Strata (Proposed Less Present)												Annual Total \$ Change	
	Off Pk				12 Billing Months Ending Jun-11				Peak					
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011		
-	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	\$ 4	
9	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	\$ 4	
23	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	\$ 4	
38	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	\$ 4	
54	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	\$ 4	
82	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	\$ 5	
111	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	\$ 5	
138	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	0 \$	0 \$	\$ 5	
165	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	1 \$	1 \$	\$ 6	
192	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	1 \$	1 \$	1 \$	\$ 6	
220	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	1 \$	1 \$	1 \$	\$ 6	
248	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	1 \$	1 \$	1 \$	\$ 7	
279	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	1 \$	1 \$	1 \$	\$ 7	
307	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	1 \$	1 \$	1 \$	\$ 8	
334	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	1 \$	1 \$	1 \$	\$ 8	
361	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	1 \$	1 \$	1 \$	\$ 8	
386	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	1 \$	1 \$	1 \$	\$ 9	
413	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	2 \$	1 \$	1 \$	\$ 9	
439	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	2 \$	2 \$	1 \$	\$ 9	
466	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	2 \$	2 \$	1 \$	\$ 10	
493	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	2 \$	2 \$	1 \$	\$ 10	
519	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	2 \$	2 \$	1 \$	\$ 10	
545	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	2 \$	2 \$	1 \$	\$ 11	
572	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	2 \$	2 \$	1 \$	\$ 11	
599	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	2 \$	2 \$	1 \$	\$ 11	
627	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	2 \$	2 \$	1 \$	\$ 12	
657	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	2 \$	2 \$	1 \$	\$ 12	
686	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	2 \$	2 \$	1 \$	\$ 13	
718	\$ 0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	3 \$	2 \$	2 \$	\$ 13	
749	\$ 1 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	3 \$	3 \$	2 \$	\$ 13	
781	\$ 1 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	3 \$	3 \$	2 \$	\$ 14	
815	\$ 1 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	3 \$	3 \$	2 \$	\$ 14	
850	\$ 1 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	3 \$	3 \$	2 \$	\$ 15	
890	\$ 1 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	2 \$	3 \$	2 \$	\$ 15	
929	\$ 1 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	2 \$	3 \$	2 \$	\$ 16	
973	\$ 1 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	2 \$	3 \$	2 \$	\$ 16	
1,020	\$ 1 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	2 \$	3 \$	2 \$	\$ 17	
1,073	\$ 1 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	2 \$	4 \$	4 \$	2 \$	\$ 17	
1,130	\$ 1 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	2 \$	4 \$	2 \$	\$ 18	
1,197	\$ 1 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	2 \$	4 \$	4 \$	3 \$	\$ 19	
1,271	\$ 1 \$	1 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	1 \$	2 \$	4 \$	4 \$	\$ 20	
1,366	\$ 1 \$	1 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	2 \$	5 \$	4 \$	3 \$	\$ 21	
1,486	\$ 1 \$	1 \$	1 \$	0 \$	0 \$	0 \$	0 \$	1 \$	2 \$	5 \$	5 \$	3 \$	\$ 22	
1,654	\$ 1 \$	1 \$	1 \$	1 \$	0 \$	0 \$	0 \$	1 \$	2 \$	5 \$	5 \$	3 \$	\$ 24	
1,960	\$ 1 \$	1 \$	1 \$	1 \$	1 \$	0 \$	0 \$	1 \$	3 \$	6 \$	6 \$	4 \$	\$ 27	
4,966	\$ 1 \$	1 \$	1 \$	1 \$	1 \$	1 \$	0 \$	1 \$	2 \$	4 \$	9 \$	5 \$	\$ 38	
7,972	\$ 3 \$	1 \$	1 \$	1 \$	1 \$	2 \$	3 \$	10 \$	24 \$	25 \$	14 \$	11 \$	\$ 101	
10,977	\$ 1 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	1 \$	6 \$	39 \$	49 \$	40 \$	\$ 178	
16,989	\$ 18 \$	16 \$	12 \$	15 \$	15 \$	24 \$	36 \$	63 \$	58 \$	37 \$	32 \$	22 \$	\$ 348	

## Exhibit VIII - Bill Impacts - Proposed Rate Design

### Richmond Residential Customers

Strata Annual CCFs	Average % Change Per Strata At Proposed Rates												% of Customers					
	12 Billing Months Ending Jun-11												Annual Total % Change	In Strata	Cumulative			
	Off Pk				Peak				Off Pk									
	Jul. 2010	Aug. 2010	Sep. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May. 2011	Jun. 2011						
9	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	2.3%			
23	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	4.5%			
38	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	6.8%			
54	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	9.0%			
82	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	11.2%			
111	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	13.4%			
138	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	15.6%			
165	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	17.8%			
192	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	20.0%			
220	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	22.2%			
248	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	24.5%			
279	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	26.7%			
307	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	28.9%			
334	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	31.2%			
361	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	33.4%			
386	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	35.6%			
413	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	37.9%			
439	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	40.1%			
466	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	42.3%			
493	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	44.5%			
519	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	46.7%			
545	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	49.0%			
572	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	51.2%			
599	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	53.4%			
627	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	55.6%			
657	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	57.8%			
686	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	60.0%			
718	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	62.3%			
749	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	64.5%			
781	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	66.7%			
815	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	68.9%			
850	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	71.1%			
890	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	73.3%			
929	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.3%	75.6%			
973	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	77.8%			
1,020	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	80.0%			
1,073	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	82.2%			
1,130	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	84.5%			
1,197	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	86.7%			
1,271	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	88.9%			
1,366	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	91.1%			
1,486	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	93.3%			
1,654	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	95.6%			
1,960	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.8%	2.2%	97.8%			
4,966	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2.9%	2.2%	100.0%			
7,972	3%	3%	3%	3%	3%	3%	3%	3%	4%	4%	4%	3%	3.6%	0.0%	100.0%			
10,977	3%	3%	3%	3%	3%	3%	3%	3%	5%	5%	4%	4%	4.3%	0.0%	100.0%			
16,989	4%	4%	3%	4%	4%	4%	4%	4%	5%	5%	4%	4%	4.4%	0.0%	100.0%			

## Exhibit VIII - Bill Impacts - Proposed Rate Design

### Richmond Residential Customers

FORMATTED FOR CHART Percentile	Annual					Peak			Off Peak			Cum Bills
	Avg Use	\$ Change	% Change	Current Bill	New Bill	Avg Use	Current Bill	New Bill	Avg Use	Current Bill	New Bill	
2.3%	5	\$ 4	2.8%	\$ 135	\$ 139	2	\$ 67	\$ 69	3	\$ 68	\$ 70	1,003
4.5%	16	\$ 4	2.8%	\$ 140	\$ 144	7	\$ 70	\$ 71	9	\$ 71	\$ 72	1,942
6.8%	31	\$ 4	2.8%	\$ 147	\$ 152	15	\$ 73	\$ 75	17	\$ 74	\$ 76	2,948
9.0%	45	\$ 4	2.8%	\$ 154	\$ 158	22	\$ 77	\$ 79	23	\$ 77	\$ 79	3,900
11.2%	68	\$ 5	2.8%	\$ 165	\$ 169	36	\$ 83	\$ 85	32	\$ 81	\$ 84	4,861
13.4%	98	\$ 5	2.8%	\$ 178	\$ 183	56	\$ 93	\$ 95	42	\$ 86	\$ 88	5,815
15.6%	125	\$ 5	2.8%	\$ 192	\$ 197	74	\$ 101	\$ 104	51	\$ 90	\$ 93	6,785
17.8%	151	\$ 6	2.8%	\$ 204	\$ 209	94	\$ 110	\$ 113	58	\$ 93	\$ 96	7,741
20.0%	179	\$ 6	2.8%	\$ 217	\$ 223	115	\$ 120	\$ 124	65	\$ 97	\$ 99	8,703
22.2%	206	\$ 6	2.8%	\$ 230	\$ 236	140	\$ 132	\$ 136	67	\$ 98	\$ 100	9,668
24.5%	234	\$ 7	2.8%	\$ 243	\$ 250	160	\$ 142	\$ 146	74	\$ 101	\$ 104	10,630
26.7%	265	\$ 7	2.8%	\$ 257	\$ 264	189	\$ 155	\$ 160	76	\$ 102	\$ 105	11,609
28.9%	293	\$ 8	2.8%	\$ 271	\$ 278	212	\$ 166	\$ 171	81	\$ 105	\$ 108	12,573
31.2%	321	\$ 8	2.8%	\$ 283	\$ 291	236	\$ 177	\$ 182	84	\$ 106	\$ 109	13,539
33.4%	348	\$ 8	2.8%	\$ 296	\$ 304	258	\$ 188	\$ 193	90	\$ 109	\$ 112	14,515
35.6%	374	\$ 9	2.8%	\$ 309	\$ 317	281	\$ 198	\$ 204	93	\$ 110	\$ 113	15,467
37.9%	400	\$ 9	2.8%	\$ 321	\$ 329	299	\$ 207	\$ 213	101	\$ 114	\$ 117	16,456
40.1%	427	\$ 9	2.8%	\$ 333	\$ 342	324	\$ 218	\$ 225	103	\$ 115	\$ 118	17,415
42.3%	453	\$ 10	2.8%	\$ 346	\$ 355	346	\$ 229	\$ 235	107	\$ 117	\$ 120	18,386
44.5%	480	\$ 10	2.8%	\$ 358	\$ 366	367	\$ 239	\$ 245	113	\$ 120	\$ 123	19,349
46.7%	507	\$ 10	2.8%	\$ 371	\$ 381	389	\$ 249	\$ 256	118	\$ 122	\$ 125	20,301
49.0%	533	\$ 11	2.8%	\$ 383	\$ 394	411	\$ 259	\$ 267	122	\$ 124	\$ 127	21,275
51.2%	559	\$ 11	2.8%	\$ 395	\$ 406	433	\$ 270	\$ 277	126	\$ 125	\$ 129	22,244
53.4%	586	\$ 11	2.8%	\$ 408	\$ 419	455	\$ 280	\$ 288	130	\$ 128	\$ 131	23,187
55.6%	614	\$ 12	2.8%	\$ 421	\$ 433	478	\$ 291	\$ 299	136	\$ 130	\$ 134	24,149
57.8%	642	\$ 12	2.8%	\$ 434	\$ 447	502	\$ 302	\$ 311	141	\$ 132	\$ 136	25,135
60.0%	672	\$ 13	2.8%	\$ 448	\$ 461	524	\$ 312	\$ 321	148	\$ 136	\$ 140	26,086
62.3%	702	\$ 13	2.8%	\$ 463	\$ 476	547	\$ 324	\$ 333	155	\$ 139	\$ 143	27,058
64.5%	734	\$ 13	2.8%	\$ 478	\$ 491	574	\$ 336	\$ 345	160	\$ 142	\$ 145	28,012
66.7%	766	\$ 14	2.8%	\$ 492	\$ 506	600	\$ 348	\$ 358	166	\$ 144	\$ 148	28,973
68.9%	797	\$ 14	2.8%	\$ 507	\$ 522	628	\$ 361	\$ 372	169	\$ 146	\$ 150	29,953
71.1%	833	\$ 15	2.8%	\$ 524	\$ 539	655	\$ 374	\$ 385	178	\$ 150	\$ 154	30,909
73.3%	870	\$ 15	2.8%	\$ 541	\$ 557	685	\$ 388	\$ 399	185	\$ 153	\$ 157	31,870
75.6%	910	\$ 16	2.8%	\$ 560	\$ 576	715	\$ 402	\$ 414	195	\$ 158	\$ 162	32,854
77.8%	951	\$ 16	2.8%	\$ 579	\$ 596	749	\$ 418	\$ 430	202	\$ 161	\$ 166	33,811
80.0%	996	\$ 17	2.8%	\$ 601	\$ 618	785	\$ 435	\$ 447	211	\$ 166	\$ 170	34,776
82.2%	1,047	\$ 17	2.8%	\$ 625	\$ 642	825	\$ 454	\$ 467	222	\$ 171	\$ 175	35,736
84.5%	1,101	\$ 18	2.8%	\$ 650	\$ 668	867	\$ 474	\$ 487	235	\$ 177	\$ 182	36,702
86.7%	1,164	\$ 19	2.8%	\$ 680	\$ 699	915	\$ 496	\$ 510	249	\$ 183	\$ 188	37,664
88.9%	1,233	\$ 20	2.8%	\$ 712	\$ 732	966	\$ 520	\$ 535	267	\$ 192	\$ 197	38,633
91.1%	1,317	\$ 21	2.8%	\$ 751	\$ 772	1,035	\$ 553	\$ 568	282	\$ 199	\$ 204	39,602
93.3%	1,423	\$ 22	2.8%	\$ 802	\$ 824	1,112	\$ 589	\$ 605	311	\$ 213	\$ 219	40,566
95.6%	1,566	\$ 24	2.8%	\$ 868	\$ 893	1,228	\$ 644	\$ 662	337	\$ 225	\$ 231	41,527
97.8%	1,792	\$ 27	2.8%	\$ 975	\$ 1,002	1,400	\$ 724	\$ 744	392	\$ 251	\$ 258	42,497
100.0%	2,470	\$ 38	2.9%	\$ 1,292	\$ 1,330	1,909	\$ 962	\$ 991	561	\$ 330	\$ 339	43,444
100.0%	5,688	\$ 101	3.6%	\$ 2,783	\$ 2,885	4,230	\$ 2,034	\$ 2,112	1,458	\$ 750	\$ 773	43,457
100.0%	8,590	\$ 178	4.3%	\$ 4,109	\$ 4,287	6,433	\$ 3,041	\$ 3,176	2,157	\$ 1,068	\$ 1,110	43,458
100.0%	16,989	\$ 348	4.4%	\$ 7,997	\$ 8,345	10,956	\$ 5,128	\$ 5,362	6,033	\$ 2,868	\$ 2,983	43,459

## Exhibit IX - Rate Design

**Rate Design**  
**Current Costs**

Proposed Rate Design							
Line No.	Description (A)	Block Break (B)	Block Break %	Billing Determinant (C)	Proposed Rate (D)	Proposed Margin (E)	Customer Charges (F) Volumetric Charges (G)
1	<b><u>Residential - Rate RS</u></b>						
2	Customer Charge			1,185,444 \$	11.36 \$	13,465,933	\$ 13,465,933
3	Distribution Charge						
4	Block 1	500	99.51%	66,670,826 \$	0.4832	32,212,676	\$ 32,212,676
5	Block 2		0.49%	329,174 \$	0.4832	159,044	\$ 159,044
6	Total Usage			67,000,000			
7	Total Margin				\$ 45,837,653	\$ 13,465,933	\$ 32,371,720
8	Target Margin				48,312,304		
9	Over/(Under)				\$ (2,474,652)		
10	<b><u>General Service Small - Rate GS</u></b>						
11	Customer Charge			100,800 \$	13.43 \$	1,353,744	\$ 1,353,744
12	Distribution Charge						
13	Block 1	500	49.08%	15,048,545 \$	0.43700	6,576,214	\$ 6,576,214
14	Block 2		50.92%	15,613,314 \$	0.39300	6,136,032	\$ 6,136,032
15	Total Usage			30,661,859			
16	Total Margin				\$ 14,065,991	\$ 1,353,744	\$ 12,712,247
17	Target Margin				10,622,335		
18	Over/(Under)				\$ 3,443,655		
19	<b><u>General Service Large - Rate CIS</u></b>						
20	Customer Charge			3,696 \$	116.00 \$	428,736	\$ 428,736
21	Distribution Charge						
22	Block 1	-	100.00%	16,224,959 \$	0.25800 \$	4,186,039	\$ 4,186,039
23	Total Usage			16,224,959			
24	Total Margin				\$ 4,614,775	\$ 428,736	\$ 4,186,039
25	Target Margin				1,491,433		
26	Over/(Under)				\$ 3,123,342		

## Exhibit IX - Rate Design

**Rate Design**  
**Current Costs**

Line No.	Description (A)	Proposed Rate Design						Customer Charges (F)	Volumetric Charges (G)
		Block Break (B)	Block Break %	Billing Determinant (C)	Proposed Rate (D)	Proposed Margin (E)			
<b>27 Firm, Non-Residential Large Volume Gas Sales Service - Rate LVS</b>									
28	Customer Charge			528 \$	564.00 \$	297,792	\$	297,792	
29	Transportation Charge								
30	Block 1	15,000	53.96%	7,191,537 \$	0.15700 \$	1,129,071	\$	1,129,071	
31	Block 2	115,000	42.49%	5,663,207 \$	0.08000 \$	453,057	\$	453,057	
32	Block 3		3.55%	472,935 \$	0.05700 \$	26,957	\$	26,957	
33	Total Usage			13,327,679					
34	Total Margin					\$ 1,906,877	\$	297,792	\$ 1,609,085
35	Target Margin					1,304,794			
36	Over/(Under)					\$ 602,083			
<b>37 Large Volume, High Load Factor Firm, Gas Sales Service - Rate LVS 2</b>									
38	Customer Charge			204 \$	564.00 \$	115,056	\$	115,056	
39	Transportation Charge								
40	Block 1	-	100.00%	21,626,102 \$	0.05400	1,167,810	\$	1,167,810	
41	Total Usage			21,626,102					
42	Total Margin					\$ 1,282,866	\$	115,056	\$ 1,167,810
43	Target Margin					1,334,950			
44	Over/(Under)					\$ (52,085)			
<b>45 Municipal Gas Service - Rate MGS</b>									
46	Customer Charge			1,980 \$	-	\$ -	\$	-	
47	Distribution Charge								
48	Block 1	-	100.00%	2,845,492 \$	0.40500 \$	1,152,424	\$	1,152,424	
49	Total Usage			2,845,492					
50	Total Margin					\$ 1,152,424	\$	-	\$ 1,152,424
51	Target Margin					317,826			
52	Over/(Under)					\$ 834,598			

## Exhibit IX - Rate Design

**Rate Design**  
**Current Costs**

Proposed Rate Design							
Line No.	Description (A)	Block Break (B)	Block Break % (C)	Billing Determinant (C)	Proposed Rate (D)	Proposed Margin (E)	Customer Charges (F) Volumetric Charges (G)
53	<b><u>Transportation Service - Rate TS</u></b>						
54	Customer Charge			60 \$	620.00 \$	37,200	\$ 37,200
55	Transportation Charge						
56	Block 1	15,000	7.30%	739,137 \$	0.15700 \$	116,045	\$ 116,045
57	Block 2	115,000	35.09%	3,551,718 \$	0.08000 \$	284,137	\$ 284,137
58	Block 3		57.61%	5,830,922 \$	0.05700 \$	332,363	\$ 332,363
59	Total Usage			10,121,777			
60	Total Margin				\$ 769,745	\$ 37,200	\$ 732,545
61	Target Margin				408,092		
62	Over/(Under)				\$ 361,652		
63	<b><u>Interruptible Gas Sales - Rate FS</u></b>						
64	Minimum Charge			180 \$	402.00 \$	72,360	\$ 72,360
65	Margin	-	100.00%	1,326,964 \$	0.44014 \$	584,047	\$ 584,047
66	Total Usage			1,326,964			
67	Total Margin				\$ 584,047	\$ -	\$ 584,047
68	Target Margin				103,598		
69	Over/(Under)				\$ 480,448		
70	Total Over/(Under)				\$ 6,319,044		
71	Total Fixed Margin					\$ 15,698,461	
72	<u>Total Variable Margin</u>						\$ 54,515,916
73	<u>Total Distribution Margin</u>				\$ 70,214,377		
74	<u>Total Distribution Margin Target</u>				\$ 63,895,333		
75	<u>Difference</u>				\$ 6,319,044		

## Exhibit IX - Rate Design

**Rate Design**  
**Year 3 Costs**

Proposed Rate Design								
Line No.	Description (A)	Block Break (B)	Block Break %	Billing Determinant (C)	Proposed Rate (D)	Proposed Margin (E)	Customer Charges (F)	Volumetric Charges (G)
1	<b><u>Residential - Rate RS</u></b>							
2	Customer Charge			1,185,444 \$	12.00 \$	14,230,582	\$ 14,230,582	
3	Distribution Charge							
4	Block 1	500	99.51%	66,670,826 \$	0.5106	34,041,841	\$ 34,041,841	
5	Block 2		0.49%	329,174 \$	0.5106	168,075	\$ 168,075	
6	Total Usage			67,000,000				
7	Total Margin				\$ 48,440,498		\$ 14,230,582	\$ 34,209,916
8	Target Margin				49,730,618			
9	Over/(Under)				\$ (1,290,120)			
10	<b><u>General Service Small - Rate GS</u></b>							
11	Customer Charge			100,800 \$	13.43 \$	1,353,744	\$ 1,353,744	
12	Distribution Charge							
13	Block 1	500	49.08%	15,048,545 \$	0.43700	6,576,214	\$ 6,576,214	
14	Block 2		50.92%	15,613,314 \$	0.39300	6,136,032	\$ 6,136,032	
15	Total Usage			30,661,859				
16	Total Margin				\$ 14,065,991		\$ 1,353,744	\$ 12,712,247
17	Target Margin				10,987,152			
18	Over/(Under)				\$ 3,078,838			
19	<b><u>General Service Large - Rate CIS</u></b>							
20	Customer Charge			3,696 \$	116.00 \$	428,736	\$ 428,736	
21	Distribution Charge							
22	Block 1	-	100.00%	16,224,959 \$	0.25800	4,186,039	\$ 4,186,039	
23	Total Usage			16,224,959				
24	Total Margin				\$ 4,614,775		\$ 428,736	\$ 4,186,039
25	Target Margin				1,539,200			
26	Over/(Under)				\$ 3,075,575			

## Exhibit IX - Rate Design

**Rate Design**  
**Year 3 Costs**

Proposed Rate Design							
Line No.	Description	Block Break	Block Break %	Billing Determinant	Proposed Rate	Proposed Margin	Customer Charges Volumetric Charges
(A)	(B)	(C)	(D)	(E)	(F)	(G)	
27	<b>Firm, Non-Residential Large Volume Gas Sales Service - Rate LVS</b>						
28	Customer Charge			528 \$	564.00 \$	297,792	\$ 297,792
29	Transportation Charge						
30	Block 1	15,000	53.96%	7,191,537 \$	0.15700 \$	1,129,071	\$ 1,129,071
31	Block 2	115,000	42.49%	5,663,207 \$	0.08000 \$	453,057	\$ 453,057
32	Block 3		3.55%	472,935 \$	0.05700 \$	26,957	\$ 26,957
33	Total Usage			13,327,679			
34	Total Margin				\$ 1,906,877	\$ 297,792	\$ 1,609,085
35	Target Margin				1,351,931		
36	Over/(Under)				\$ 554,946		
37	<b>Large Volume, High Load Factor Firm, Gas Sales Service - Rate LVS 2</b>						
38	Customer Charge			204 \$	564.00 \$	115,056	\$ 115,056
39	Transportation Charge						
40	Block 1	-	100.00%	21,626,102 \$	0.05400	1,167,810	\$ 1,167,810
41	Total Usage			21,626,102			
42	Total Margin				\$ 1,282,866	\$ 115,056	\$ 1,167,810
43	Target Margin				1,383,208		
44	Over/(Under)				\$ (100,342)		
45	<b>Municipal Gas Service - Rate MGS</b>						
46	Customer Charge			1,980 \$	- \$	- \$	\$ -
47	Distribution Charge						
48	Block 1	-	100.00%	2,845,492 \$	0.40500 \$	1,152,424	\$ 1,152,424
49	Total Usage			2,845,492			
50	Total Margin				\$ 1,152,424	\$ -	\$ 1,152,424
51	Target Margin				327,798		
52	Over/(Under)				\$ 824,627		

## Exhibit IX - Rate Design

**Rate Design**  
**Year 3 Costs**

Proposed Rate Design								
Line No.	Description	Block Break	Block Break %	Billing Determinant	Proposed Rate	Proposed Margin	Customer Charges	Volumetric Charges
	(A)	(B)		(C)	(D)	(E)	(F)	(G)
53	<b><u>Transportation Service - Rate TS</u></b>							
54	Customer Charge			60 \$	620.00 \$	37,200	\$	37,200
55	Transportation Charge							
56	Block 1	15,000	7.30%	739,137 \$	0.15700 \$	116,045	\$	116,045
57	Block 2	115,000	35.09%	3,551,718 \$	0.08000 \$	284,137	\$	284,137
58	Block 3		57.61%	5,830,922 \$	0.05700 \$	332,363	\$	332,363
59	Total Usage			10,121,777				
60	Total Margin				\$ 769,745		\$ 37,200	\$ 732,545
61	Target Margin				429,859			
62	Over/(Under)				\$ 339,886			
63	<b><u>Interruptible Gas Sales - Rate FS</u></b>							
64	Minimum Charge			180 \$	402.00 \$	72,360	\$	72,360
65	Margin	-	100.00%	1,326,964 \$	0.44014 \$	584,047	\$	584,047
66	Total Usage			1,326,964				
67	Total Margin				\$ 584,047		\$ -	\$ 584,047
68	Target Margin				107,277			
69	Over/(Under)				\$ 476,770			
70	Total Over/(Under)				\$ 6,960,180			
71	Total Fixed Margin					\$ 16,463,110		
72	Total Variable Margin						\$ 56,354,112	
73	<u>Total Distribution Margin</u>				\$ 72,817,222			
74	<u>Total Distribution Margin Target</u>				\$ 65,857,042			
75	<u>Difference</u>				\$ 6,960,180			

## Exhibit IX - Rate Design

**Rate Design**  
**Year 5 Costs**

Proposed Rate Design								
Line No.	Description (A)	Block Break (B)	Block Break %	Billing Determinant (C)	Proposed Rate (D)	Proposed Margin (E)	Customer Charges (F)	Volumetric Charges (G)
1	<b><u>Residential - Rate RS</u></b>							
2	Customer Charge			1,185,444 \$	12.69 \$	15,038,651	\$ 15,038,651	
3	Distribution Charge							
4	Block 1	500	99.51%	66,670,826 \$	0.5396	35,974,873	\$ 35,974,873	
5	Block 2		0.49%	329,174 \$	0.5396	177,619	\$ 177,619	
6	Total Usage			67,000,000				
7	Total Margin					\$ 51,191,143	\$ 15,038,651	\$ 36,152,492
8	Target Margin					51,235,307		
9	Over/(Under)					\$ (44,164)		
10	<b><u>General Service Small - Rate GS</u></b>							
11	Customer Charge			100,800 \$	13.43 \$	1,353,744	\$ 1,353,744	
12	Distribution Charge							
13	Block 1	500	49.08%	15,048,545 \$	0.43700	6,576,214	\$ 6,576,214	
14	Block 2		50.92%	15,613,314 \$	0.39300	6,136,032	\$ 6,136,032	
15	Total Usage			30,661,859				
16	Total Margin					\$ 14,065,991	\$ 1,353,744	\$ 12,712,247
17	Target Margin					11,374,187		
18	Over/(Under)					\$ 2,691,804		
19	<b><u>General Service Large - Rate CIS</u></b>							
20	Customer Charge			3,696 \$	116.00 \$	428,736	\$ 428,736	
21	Distribution Charge							
22	Block 1	-	100.00%	16,224,959 \$	0.25800 \$	4,186,039	\$ 4,186,039	
23	Total Usage			16,224,959				
24	Total Margin					\$ 4,614,775	\$ 428,736	\$ 4,186,039
25	Target Margin					1,589,876		
26	Over/(Under)					\$ 3,024,900		

## Exhibit IX - Rate Design

**Rate Design**  
**Year 5 Costs**

Proposed Rate Design							
Line No.	Description	Block Break	Block Break %	Billing Determinant	Proposed Rate	Proposed Margin	Customer Charges Volumetric Charges
	(A)	(B)		(C)	(D)	(E)	(F) (G)
27	<b>Firm, Non-Residential Large Volume Gas Sales Service - Rate LVS</b>						
28	Customer Charge			528 \$	564.00 \$	297,792	\$ 297,792
29	Transportation Charge						
30	Block 1	15,000	53.96%	7,191,537 \$	0.15700 \$	1,129,071	\$ 1,129,071
31	Block 2	115,000	42.49%	5,663,207 \$	0.08000 \$	453,057	\$ 453,057
32	Block 3		3.55%	472,935 \$	0.05700 \$	26,957	\$ 26,957
33	Total Usage			13,327,679			
34	Total Margin				\$ 1,906,877	\$ 297,792	\$ 1,609,085
35	Target Margin				1,401,940		
36	Over/(Under)				\$ 504,938		
37	<b>Large Volume, High Load Factor Firm, Gas Sales Service - Rate LVS 2</b>						
38	Customer Charge			204 \$	564.00 \$	115,056	\$ 115,056
39	Transportation Charge						
40	Block 1	-	100.00%	21,626,102 \$	0.05400	1,167,810	\$ 1,167,810
41	Total Usage			21,626,102			
42	Total Margin				\$ 1,282,866	\$ 115,056	\$ 1,167,810
43	Target Margin				1,434,404		
44	Over/(Under)				\$ (151,538)		
45	<b>Municipal Gas Service - Rate MGS</b>						
46	Customer Charge			1,980 \$	- \$	- \$	\$ -
47	Distribution Charge						
48	Block 1	-	100.00%	2,845,492 \$	0.40500 \$	1,152,424	\$ 1,152,424
49	Total Usage			2,845,492			
50	Total Margin				\$ 1,152,424	\$ -	\$ 1,152,424
51	Target Margin				338,377		
52	Over/(Under)				\$ 814,047		

## Exhibit IX - Rate Design

**Rate Design**  
**Year 5 Costs**

Proposed Rate Design								
Line No.	Description (A)	Block Break (B)	Block Break % (C)	Billing Determinant (C)	Proposed Rate (D)	Proposed Margin (E)	Customer Charges (F)	Volumetric Charges (G)
53	<b><u>Transportation Service - Rate TS</u></b>							
54	Customer Charge			60 \$	620.00 \$	37,200	\$ 37,200	
55	Transportation Charge							
56	Block 1	15,000	7.30%	739,137 \$	0.15700 \$	116,045	\$ 116,045	
57	Block 2	115,000	35.09%	3,551,718 \$	0.08000 \$	284,137	\$ 284,137	
58	Block 3		57.61%	5,830,922 \$	0.05700 \$	332,363	\$ 332,363	
59	Total Usage			10,121,777				
60	Total Margin				\$ 769,745		\$ 37,200 \$ 732,545	
61	Target Margin				452,951			
62	Over/(Under)				\$ 316,794			
63	<b><u>Interruptible Gas Sales - Rate FS</u></b>							
64	Minimum Charge			180 \$	402.00 \$	72,360	\$ 72,360	
65	Margin	-	100.00%	1,326,964 \$	0.44014 \$	584,047	\$ 584,047	
66	Total Usage			1,326,964				
67	Total Margin				\$ 584,047		\$ - \$ 584,047	
68	Target Margin				111,179			
69	Over/(Under)				\$ 472,868			
70	Total Over/(Under)				\$ 7,629,648			
71	Total Fixed Margin					\$ 17,271,179		
72	Total Variable Margin						\$ 58,296,688	
73	<u>Total Distribution Margin</u>				\$ 75,567,867			
74	<u>Total Distribution Margin Target</u>				\$ 67,938,220			
75	<u>Difference</u>				\$ 7,629,648			