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**BEFORE  
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application of Vectren )  
Energy Delivery of Ohio, Inc. for Authority )  
To Amend Its Filed Tariffs to Increase the )  
Rates and Charges for Gas Service and )  
Related Matters. )

Case No. 07-1080-GA-AIR

In the Matter of the Application of Vectren )  
Energy Delivery of Ohio, Inc. for Approval )  
Of an Alternative Rate Plan for a Distribution )  
Replacement Rider to Recover the Costs of )  
A Program for the Accelerated Replacement )  
Of Cast Iron Mains and Bare Steel Mains )  
And Service Lines, a Sales Reconciliation )  
Rider to Collect Differences between Actual )  
And Approved Revenues, and Inclusion in )  
Operating Expense of the Costs of Certain )  
System Reliability Programs. )

Case No. 07-1081-GA-ALT

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**REBUTTAL TESTIMONY OF  
H. EDWIN OVERCAST  
ON BEHALF OF  
VECTREN ENERGY DELIVERY OF OHIO, INC.**

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- Management policies, practices, and organization
- Operating income
- Rate base
- Allocations
- Rate of return
- Rates and tariffs
- Other – Rate design

August 29, 2008

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**REBUTTAL TESTIMONY OF H. EDWIN OVERCAST**

1    **Q.    Please state your name and business address.**

2    A.    H. Edwin Overcast

3        P. O. Box 2946

4        McDonough, GA 30253

5    **Q.    What is your position and by who are you employed?**

6    A.    I am a Director of the Enterprise Management Solutions division of Black  
7        & Veatch Corporation.

8    **Q.    Are you the same H. Edwin Overcast who previously filed direct  
9        testimony in this matter?**

10   A.    Yes, I am.

11   **Q.    What is the purpose of your rebuttal testimony in this proceeding?**

12   A.    The purpose of my rebuttal testimony is to respond to certain claims made  
13        by witnesses for the Office of the Ohio Consumers' Counsel (OCC)  
14        relative to the impact of Vectren's proposed rate design on low income  
15        customers and to the relative efficiency of full SFV rates compared to  
16        volumetric block rates for gas distribution service. These issues have  
17        been addressed by Mr. Colton and Mr. Novak for the OCC.

1 **Q. What conclusion do you reach regarding the OCC testimony and**  
2 **recommendations?**

3 **A. I conclude that the OCC rate design recommendations are based on**  
4 **incorrect analyses, faulty economics and fail to satisfy fundamental**  
5 **regulatory principles that form the foundation for sound ratemaking.**

6 **SFV Impact on Low Income Customers**

7 **Q. Have you reviewed the testimony and exhibits of Mr. Novak and Mr.**  
8 **Colton regarding the impact of the proposed rates on low income**  
9 **customers?**

10 **A. Yes. Mr. Novak discusses his recommendation related to low income**  
11 **customers at page 21 of his testimony. Mr. Colton's entire testimony is**  
12 **focused on low income customers and the impact that proposed rates may**  
13 **have on low income customers.**

14 **Q. Does either of the OCC witnesses base their opinions about low**  
15 **income consumption on analytically sound demand models?**

16 **A. No. Mr. Colton, for example, states at several points in his testimony that**  
17 **low income customers place a lower heating demand on the delivery**  
18 **system because they live in smaller houses. As discussed by the Energy**  
19 **Information Administration (EIA) in their summary of the Residential**  
20 **Demand Module of the National Energy Modeling System, the size of the**

1 dwelling represents only one variable of a much larger set of variables  
2 used to forecast residential consumption of energy.<sup>1</sup> As the EIA report  
3 notes, the modeling effort uses four categories of variables to model  
4 energy consumption:

- 5 1. Economic and demographic effects
- 6 2. Structural effects
- 7 3. Technology turnover and advancement effects
- 8 4. Energy market effects.<sup>2</sup>

9 In fact, the size of the dwelling is only one of the structural effects.  
10 Structural effects also include the mix of end-use services. This is a  
11 critical element since gas consumption is driven not only by space heating  
12 but other gas appliances as well. In addition, there are other factors that  
13 relate to the housing stock included in both economic and demographic  
14 effects and technology turnover and advancement effects. These other  
15 factors include dwelling type (single family home, apartment, etc),  
16 occupants per household, appliance stock, and efficiency of the thermal  
17 envelope created by the dwelling's physical structure. As a practical  
18 matter, larger homes built with newer technology use less energy in total  
19 for space heating and water heating (the two largest applications of gas  
20 appliances) than do smaller older homes with less efficient appliances and  
21 a less efficient thermal envelope. It is absolutely incorrect to conclude, as

---

<sup>1</sup> The National Energy Modeling System: An Overview 2003, Report #: DOE/EIA-0581

<sup>2</sup> *Ibid.*

1 Mr. Colton concludes, that living in a smaller home means lower energy  
2 use or a lower heating demand.

3 **Q. Do other independent sources recognize that more than the size of a**  
4 **home impacts usage?**

5 A. Yes. A recent National Regulatory Research Institute (NRRI) report  
6 entitled "A Rate Design to Encourage Energy Efficiency and Reduce  
7 Revenue Requirements" by David M. Boonin states at page 8  
8 "Consumption often depends on demographics other than income, such  
9 as family size; quality of housing stock; owners versus renters and  
10 whether the renter pays the electric bill directly; end uses such as water  
11 heating, cooking, and space heating; appliance efficiency; and age of  
12 householders."

13 **Q. Mr. Colton also concludes that living in a smaller home means low**  
14 **income customers "make less of a contribution to the need for**  
15 **transmission and distribution capacity." Is this correct?**

16 A. No. It is not possible to reach this conclusion based on any information  
17 such as house size for any number of reasons. First, older, smaller  
18 homes, as noted above, are likely to have less efficient appliances and  
19 thermal envelopes. As a result, they are much more likely to have higher  
20 design day load requirements than newer, more efficient dwellings.  
21 Second, as I demonstrate in my testimony and as the Missouri

1 Commission has concluded, it costs the same to provide natural gas  
2 distribution service to residential customers regardless of their usage.  
3 Since the natural gas distribution costs for residential customers are the  
4 same regardless of usage, the Company's proposed rate design is more  
5 cost based than continuing the volumetric rate design proposed by the  
6 OCC. Third, there are other elements than house size that impact  
7 consumption for heating. For example, the age of the occupants impacts  
8 consumption. Older citizens often require more heat to be comfortable in  
9 the winter. Families with younger children typically have more heat  
10 exchanges per day than average because of the number and duration of  
11 time that doors are opened by dwelling occupants. These factors or  
12 usage and demand determining variables encompass much more than  
13 house size and they contribute to differences in household consumption  
14 and demand. Thus, it is unreasonable to rely on a single and simple  
15 variable of house size as the determinant of gas consumption or demand.

16 **Q. Does Mr. Colton's conclusion rely on any of these factors or**  
17 **variables other than house size?**

18 **A. No. Mr. Colton relies on a single asserted relationship between house**  
19 **size and income to build to his conclusion that low income customers cost**  
20 **less to serve. His costing-less-to-serve conclusion is derived from his**  
21 **assumption that natural gas distribution service to low income customers**  
22 **occurs in more densely populated areas. Mr. Colton uses an incorrect**

1 singular reliance on house size as the determinant for consumption and  
2 demand. He then builds on this incorrect analytical foundation by layering  
3 assumptions regarding the relative cost of providing distribution service to  
4 residential customers. His combination of an incorrect foundational  
5 premise (house size determines consumption and demand) with defective  
6 assumptions regarding the significance of this premise produces an  
7 analytical approach that is incapable of reaching a correct conclusion.

8 **Q. Is there some necessary connection between the cost of providing**  
9 **distribution service to residential customers and population density**  
10 **or the annual volumes used by a residential customer?**

11 A. No. Neither of these observations has a necessary relationship to the cost  
12 of providing distribution service to residential customers. I share the  
13 opinion expressed by the Staff that it costs the same to serve small  
14 customers as it does to serve large customers. Simply, as I noted in my  
15 direct testimony at pages 20 to 21, the cost to serve residential customers  
16 is the same regardless of size for over 99% of the class. The reason is  
17 simple, VEDO plans and designs its system to serve design day  
18 requirements. The design day is developed based on the maximum  
19 demand that is likely to be placed on the distribution system. The  
20 minimum main and service lines installed to serve residential customers  
21 will serve the average density for the system adequately up to all but a few  
22 extraordinarily large residential customers. Since the cost of service



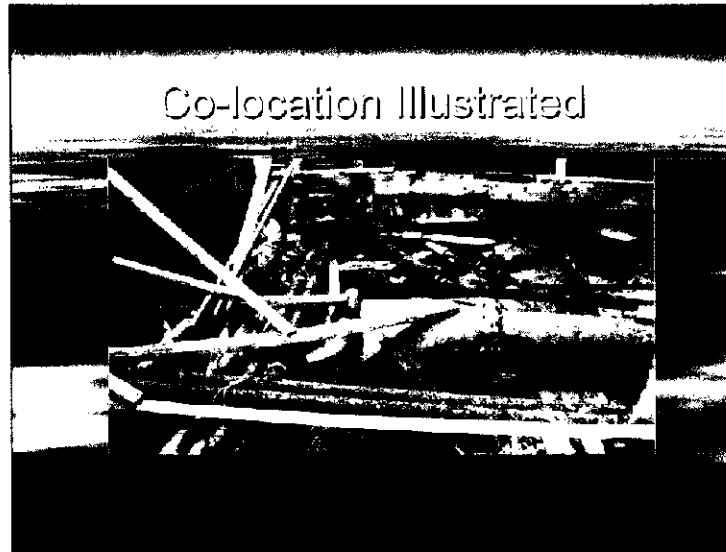
1 analysis and overall revenue requirements are based on the system  
2 average costs, the cost of service analysis includes the impact of  
3 customer density. Further, if VEDO were to begin to segregate customers  
4 by location and density, it is likely that customers in more densely  
5 populated areas would be subject to higher, not lower, prices because of  
6 the higher costs that are associated with providing gas distribution service  
7 in more densely populated areas.

8 **Q. What factors cause the cost of providing gas distribution service to**  
9 **be higher in more densely populated areas?**

10 A. There are several reasons for this conclusion. First, more densely  
11 populated areas tend to be served from facilities that require more  
12 expensive maintenance because of the myriad of facilities (electric  
13 conduit, cable conduit, water lines, unused steam lines and telephone  
14 conduit) that are buried near or co-located with gas main. Figure 1  
15 illustrates this issue for an urban street. In Figure 1, the gas main is the  
16 green coated pipe. Further, the rules and regulations applicable to service  
17 in urban areas typically impose extra costs on the utility for excavation  
18 (often requiring hand digging and removal of all materials) and monitoring  
19 of repairs. It is also common that urban areas have strict requirements  
20 related to backfill and paving and requirements that limit how and when  
21 work can be done to install, maintain, repair and replace distribution  
22 system components. As population density increases, it is typical for the

1 safety-related requirements placed on operators of a natural gas  
2 distribution system to escalate.

3 Figure 1



4  
5 For all these reasons, it is incorrect to assume that as population density  
6 increases there is a decrease in the cost of providing distribution service.  
7 Finally, if gas rates were based on the costs for different geographic areas  
8 of the Company, rural areas that are less densely populated may be the  
9 least costly to serve based on their proximity to the interstate pipelines  
10 that supply natural gas to the distribution system through "city gates" and  
11 the lower installation and maintenance costs associated with distribution  
12 facilities located in rural and undeveloped areas. At my request, the  
13 Company provided the cost of a sample of low density suburban main and  
14 service line project costs and a sample of high density urban main and  
15 service line project costs. These sample data demonstrate that the  
16 average cost of high density urban projects measured in cost per foot of

1 installed pipe is over six times as large as for lower density suburban  
2 projects. Further, the most expensive suburban project is less than 40  
3 percent of the least expensive urban project when measured in cost per  
4 foot. However, utilities base rates on the average cost to serve a class.  
5 For residential customers, the fixed cost of service is the same for meter,  
6 regulator, service line and main because the same network of distribution  
7 facilities adequately serves all customers regardless of size. Based on  
8 these considerations, it is my opinion that both the Staff and the Company  
9 reached the correct conclusion that the distribution costs are the same per  
10 customer for all residential customers regardless of annual gas  
11 consumption.

12 **Q. Does lower than average use per customer on an annual basis mean**  
13 **that the customer will not benefit from lower winter bill impacts if the**  
14 **customer charge fully reflected the fixed cost of providing**  
15 **distribution service?**

16 **A. No. Lower income residential customers who use gas exclusively for**  
17 **space heating typically are more weather sensitive than the typical**  
18 **residential customer. This means that when weather is colder than**  
19 **normal, these customers will have much higher winter bills than the**  
20 **average customer if a volumetric rate design is used to recover the fixed**  
21 **costs of providing service. By instead using a customer charge that fully**  
22 **reflects the fixed costs of providing distribution service, these customers**

1 will have lower total winter bills when they can least afford to make their  
2 payments. This is a customer benefit of SFV even if overall their annual  
3 gas distribution service bill is somewhat higher.

4 **Q. Does the data used by Mr. Colton based on the American Community**  
5 **Survey for the state of Ohio reflect an accurate picture of the VEDO**  
6 **service territory?**

7 A. No. First, any reliance upon information reported by the American  
8 Community Survey to support the conclusion that natural gas  
9 expenditures increase as income increases in VEDO's service area must  
10 include important caveats which Mr. Colton did not mention in his  
11 testimony. The information Mr. Colton includes in his schedule RDC-4  
12 (discussed at page 10 of his testimony) is published by the American  
13 Community Survey. The data for Ohio is part of the information obtained  
14 from responses to 260,000 monthly national questionnaires that include a  
15 question about the cost of "gas"<sup>3</sup> for the dwelling (house, apartment,  
16 mobile home) in the most recent prior month. Based on discussions with  
17 the person responsible for data collection in Ohio, it is our understanding  
18 that the 2006 American Community Survey referenced at page 10 of Mr.  
19 Colton's testimony was sent to roughly 1,500 randomly selected Ohio  
20 addresses monthly. The data is on a statewide basis with no

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<sup>3</sup> Based on questionnaire items 13 and 14, the word "gas", as used by the American Community Survey questionnaire, includes gas "... from underground pipes serving the neighborhood" and gas that is "bottled, tank or LP". The questionnaire does not specifically require respondents to identify the cost of utility-supplied natural gas for their house, apartment or mobile home.

1 differentiation for the VEDO service area. At page 22-23 of the American  
2 Community Survey 2006 Subject Definitions report, it states:

3 ***Utilities***

4 The data on utility costs were obtained from Housing  
5 Questions 14a through 14d in the 2006 American  
6 Community Survey. The questions were asked of occupied  
7 housing units. The questions about electricity and gas  
8 asked for monthly costs, and the questions about water,  
9 sewer, and other fuels (oil, coal wood, kerosene, etc.) asked  
10 for yearly costs. Costs are recorded if paid by or billed to  
11 occupants, a welfare agency, relatives, or friends. Costs  
12 that are paid by landlords, included in rent payment or  
13 included in condominium fees are excluded.

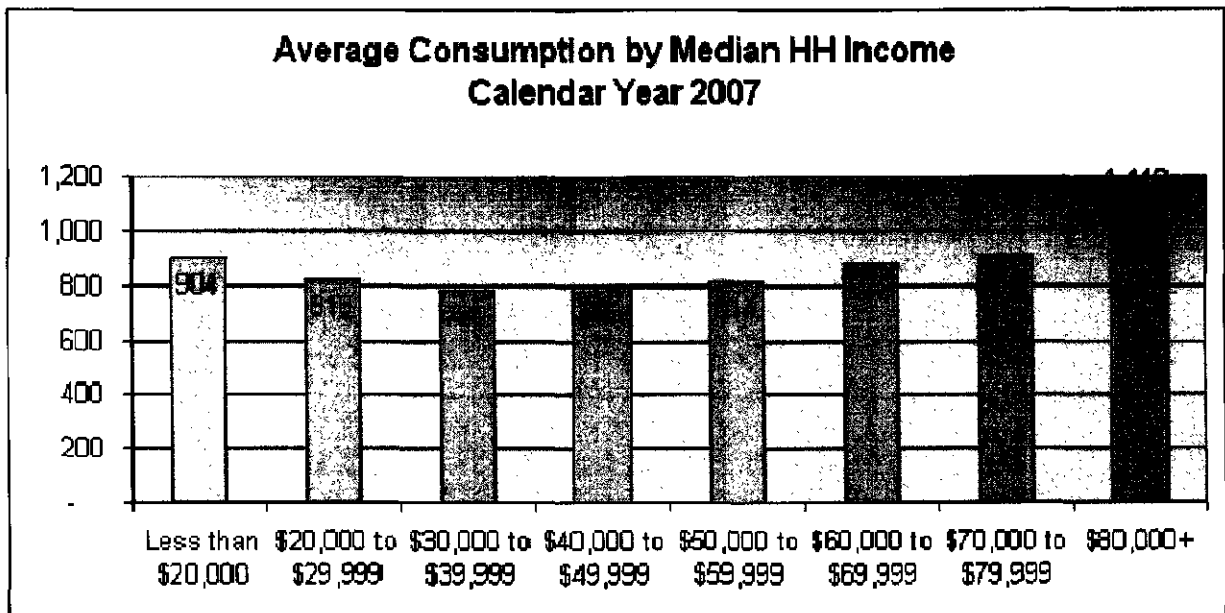
14 ***Limitation of the Data*** – Research has shown that  
15 respondents tended to overstate their expenses for  
16 electricity and gas when compared to utility company  
17 records. There is some evidence that this overstatement is  
18 reduced when yearly costs are asked rather than monthly  
19 costs. Caution should be exercised in using these data for  
20 direct analysis because costs are not reported for certain  
21 kinds of units such as renter-occupied units with all utilities  
22 included in the rent and owner-occupied condominium units  
23 with utilities included in the condominium fee.

1 More importantly, and regardless of the quality of Mr. Colton's conclusions  
2 based on his direct analysis of information available from the American  
3 Community Survey, his conclusion regarding the relationship between  
4 income and residential gas usage is incorrect based on actual data for  
5 VEDO's service area.

6 Figure 2 below has been prepared for the VEDO service area under my  
7 supervision based on actual residential customer bills for the calendar  
8 year 2007 for all customers with twelve months of bills. As Figure 2  
9 shows, the lowest income customers, those under \$20,000 annual  
10 household income, actually consume more gas than all but the two  
11 highest income groups. In addition, these residential customers with  
12 under \$20,000 annual household income also use almost 9 percent above  
13 the actual 2007 average of 830.61 Ccf for the year.

14

Figure 2



15

1 Customers with household incomes under \$30,000 use more gas than all  
2 but the top three groups of customers representing approximately 16.9  
3 percent of the population. Based on this analysis of actual residential  
4 customer bills for VEDO customers and household income data for the  
5 corresponding customer service areas, the data relied upon by Mr. Colton  
6 lead him to an incorrect conclusion regarding the relationship between  
7 income and residential usage in VEDO's service area.

8 **Q. How was this VEDO-specific usage and income data developed?**

9 A. Customer usage data from calendar year 2007 was extracted from  
10 Vectren's billing system. Median household income, as reported by the  
11 U.S. Census at the block group level, was appended to each customer  
12 using Global Positioning System technology. The block group level is the  
13 most finite level at which the U.S. Census publishes income data. A block  
14 group generally contains between 600 and 3,000 people with a target of  
15 1,500 people. Using actual VEDO billing record data and U.S. Census  
16 income data, we were able to demonstrate average gas consumption data  
17 by median household income range.

18 **Q. How does this block group income data compare to the 2007 income**  
19 **measures for poverty?**

20 A. For all families of four persons or less, they are considered to be at or  
21 below the poverty level if their household income is under \$20,650 dollars.

1 Based on the analysis of actual billing information for VEDO's residential  
2 customer and available Census block group income data for VEDO's  
3 service area, it is my opinion that low income customers in VEDO's  
4 service area consume on average more natural gas annually than all but  
5 the highest income residential customers in VEDO's service area. It is  
6 also reasonable to assume that VEDO's residential customers with  
7 incomes near but above the lower income levels will also use more than  
8 the average for their respective group because of the size of the  
9 household (over four persons) and the factors which I have already  
10 discussed. This analysis of actual billing information and block group  
11 Census data which are specific to VEDO's service area and VEDO's  
12 residential customers shows that the conclusion reached by Mr. Colton  
13 that low income customers are low users is demonstrably incorrect.

14 **Q. Does this VEDO service area data support the direct relationship**  
15 **between income and natural gas use which is claimed by Mr. Colton?**

16 **A. No. These data do not show a direct relationship between income and**  
17 **natural gas use. Instead, these data illustrate that explaining residential**  
18 **natural gas use involves a more complex analysis that requires**  
19 **consideration of a number of other variables such as those contained in**  
20 **the EIA model to properly understand the relationship, if any, between**  
21 **income and consumption. Further, this conclusion is also consistent with**



1 the underlying economic assumptions related to estimating natural gas  
2 use.

3 **Q. Was the VEDO service area specific analysis available to you when**  
4 **you prepared your testimony in this proceeding?**

5 A. No. As I explained in my prior testimony, we previously used data for  
6 PIPP customers to evaluate the relationship between income and natural  
7 gas usage. As a result of the specific claims made by Mr. Colton and Mr.  
8 Novak and the assertion by others involved in this case that a full SFV rate  
9 design would be harmful to low income customers, we began to search for  
10 an alternative means of testing these claims and assertions using a more  
11 complete set of data on income and consumption. While we felt confident  
12 that the indications we presented based on the data from PIPP customers  
13 demonstrated that low income residential customers would not be  
14 disadvantaged by a full SFV rate design, we nonetheless set to work to  
15 find an alternative means of testing the effects of a full SFV rate design on  
16 low-income customers. After discussion with colleagues and the  
17 Company, we identified an efficient way to match income and actual  
18 consumption from the Company records. We completed the development  
19 of an alternative method of testing, gathered the data required to apply the  
20 alternative method and completed the analysis in order to prepare  
21 testimony responsive to incorrect conclusions reached using statewide  
22 data. My rebuttal testimony contains the results of this alternative method

1        which uses actual usage information and VEDO service area specific data  
2        that show, contrary to the abovementioned claims and assertions, that  
3        low-income residential customers use more natural gas than all but the top  
4        three groups of customers representing approximately 16.9 percent of the  
5        residential customer population.

6        **Q.    Mr. Colton asserts that the residential class is not homogeneous? Is**  
7        **that assertion correct?**

8        A.    No. Mr. Colton uses only the measure of annual use and house size to  
9        conclude that the class is not homogeneous. In fact, some low income  
10       customers are among the largest users of natural gas as demonstrated by  
11       the PIPP data in Exhibit HEO-2, Schedule 2 of my direct testimony.  
12       Indeed, there is a higher proportion of PIPP customers using over 2500  
13       Ccf annually than for all other residential customers. Nevertheless, the  
14       basis for concluding the class is homogeneous is not tied to usage but to  
15       the cost of the similar utility plant, equipment and facilities used to serve  
16       each customer in the class. Since the class is homogeneous based on  
17       cost causation considerations as demonstrated in my direct testimony and  
18       supported by the Commission Staff testimony (see Mr. Puican's testimony  
19       at page 4 for example), the usage criteria selected by Mr. Colton cannot  
20       be used to support a conclusion that the residential class is not  
21       homogeneous.

1 **Q. Does Mr. Colton's testimony demonstrate that your opinion that low**  
2 **income customers tend to be higher users of natural gas is**  
3 **incorrect?**

4 A. No. As explained in my prior testimony and again here, income data  
5 alone are not a determinant of natural gas usage. The VEDO service area  
6 specific data which I have described in my rebuttal testimony confirm that  
7 income data alone is not a determinant of natural gas usage. In fact, the  
8 *VEDO service area specific data show that low income customers are*  
9 *higher than average annual usage customers.* In addition, it is important  
10 to note that low income customers are also more weather sensitive. If it is  
11 colder than normal, these customers use more gas per heating degree  
12 day (HDD) than do other residential customers. Thus, low income  
13 customers will tend to have greater than average bill volatility as weather  
14 deviates from normal weather. This greater than average bill volatility  
15 condition will escalate as greater amounts of the fixed costs of providing  
16 residential natural gas distribution service are collected volumetrically.

17 **Q. Please discuss Mr. Novak's reasons for opposing a SFV rate design**  
18 **for residential customers.**

19 A. Mr. Novak cites five reasons that he opposes SFV:

- 20 1. Residential customers have not requested the change to a flat  
21 charge.
- 22 2. SFV removes an important rate design tool.

- 1           3.     SFV should be applied to all classes simultaneously.
- 2           4.     SFV rates adversely impact non-PIPP low income customers.
- 3           5.     SFV sends in accurate price signals.

4           These reasons are either wrong or irrelevant as discussed below.

5   **Q.    Does whether or not customers have requested a SFV rate design**  
6   **have anything to do with whether the rate design is appropriate?**

7   **A.    No.    Since customers do not request specific rate designs, such as**  
8   **volumetric blocked rates, either, Mr. Novak's reliance on requests by**  
9   **customers to guide the Commission's choice on the proper design of rates**  
10   **is useless and not relevant.  Customers often do not even know the form**  
11   **of the rate and thus would have no basis for determining if there was a**  
12   **valid reason for adopting SFV.  In addition, rate design is a zero sum**  
13   **game within a rate class.  In other words, the rate design adopted for a**  
14   **particular class contains charges that are established to produce the**  
15   **revenue responsibility of that class.  Customers within a rate class who**  
16   **benefit from a rate form would favor the rate and the ones who did not**  
17   **would oppose the rate.  But regardless of the residential rate design, the**  
18   **residential class remains responsible for providing VEDO with revenue to**  
19   **match the revenue responsibility approved by the Commission.**

20           Moreover, to say that customers oppose a rate design that recovers  
21           distribution-related fixed costs through a monthly customer charge in rates  
22           is also not accurate.  For example, I am advised by counsel that

1 customers of the Ohio electric distribution service cooperatives that are  
 2 exempt from the Commission's ratemaking jurisdiction must be owned by  
 3 and operated for the benefit of customers. Figure 3 below shows the  
 4 residential customer charge component of Ohio electric cooperative  
 5 electric rates.

6 Figure 3

<b>Co-op Name:</b>	<b>Customer Charge \$/month</b>
<u>Adams REC, Inc.</u>	\$29.00
<u>Buckeye REC, Inc.</u>	\$16.00
<u>Butler REC, Inc.</u>	\$33.00
<u>Consolidated Electric Cooperative, Inc.</u>	\$15.25
<u>Darke REC, Inc.</u>	\$14.50
<u>Firelands Electric Cooperative, Inc.</u>	\$18.00
<u>Frontier Power Company</u>	\$12.00
<u>Guernsey-Muskingum Electric Co-op, Inc.</u>	\$8.00
<u>Hancock-Wood Electric Co- op, Inc.</u>	\$10.00
<u>Holmes-Wayne Electric Cooperative, Inc.</u>	\$11.50
<u>Licking Rural Electrification</u>	\$11.00
<u>Lorain-Medina REC, Inc.</u>	\$17.00
<u>Mid-Ohio Energy Cooperative, Inc.</u>	\$16.00
<u>Midwest Electric, Inc.</u>	\$20.00
<u>North Central Electric Co- op, Inc.</u>	\$20.00
<u>North Western Electric Co- op, Inc.</u>	\$26.00
<u>Paulding-Putnam Electric Co-op, Inc.</u>	\$17.00
<u>Pioneer REC, Inc.</u>	\$19.50

<u>South Central Power Co.</u>	\$7.00
<u>Union REC, Inc.</u>	\$12.00
<u>Washington Electric Cooperative, Inc.</u>	\$14.95
<u>Average Customer Charge</u>	<u>\$16.56</u>

1 Since customer related costs for electric distribution service are lower per  
2 customer than for natural gas LDCs, it is reasonable to conclude from the  
3 information in Figure 3 that customers are not opposed to recovering fixed  
4 costs through monthly fixed customer charges. It is worth noting that only  
5 two Ohio cooperatives have residential customer charges below \$10.00  
6 and five have charges \$20.00 or higher. Obviously, customers do not  
7 oppose higher customer charges when they are appropriate for cost  
8 based rates or based on a rate form that recovers fixed costs through the  
9 customer charge component of the rate design.

10 **Q. Please comment on the assertion that SFV removes an important**  
11 **rate design tool.**

12 **A.** The question here is which tool does the best job of establishing rates  
13 based on cost causation principles and aligning the interests of VEDO and  
14 its customers in favor of conservation programs. The volumetric tool  
15 recommended by Mr. Novak causes rates for larger than average volume  
16 users, including the lower income residential customers in VEDO's service  
17 area, to subsidize lower than average volume residential users and  
18 therefore is irrelevant to a consideration of a SFV rate design or a rate

1 design that recovers the fixed cost of providing distribution service through  
2 customer charges.

3 **Q. Please comment on the assertion that SFV should be applied to all**  
4 **classes of customers or none.**

5 A. The Company has proposed that a SFV rate design be eventually applied  
6 to all classes of firm service. This includes the proposal from Mr. Heid to  
7 increase the customer charges for Rates 320/325, 330/345 and 341 in this  
8 case. The form of this rate design may be different for larger customers  
9 since the rate design for these larger customers may involve the use of  
10 variable customer charges based on directly assignable customer costs  
11 and demand charges much the same as the rate design that is used for  
12 larger electric customers. The logic embedded in Mr. Novak's assertion  
13 suggests that it would be inappropriate for larger customers to have a rate  
14 design that includes specific demand charges unless and until separate  
15 demand charges are included in the residential rate design. Including  
16 separate demand charges in the rate design for residential customers  
17 would likely make it more difficult for residential customers to understand  
18 their gas bill and may require introduction of more expensive metering that  
19 is capable of separately recording monthly billing demands. For the  
20 residential customers, moving fully to an SFV rate design can be efficiently  
21 accomplished by including the fixed costs of providing distribution service  
22 in the customer charge, and this approach also makes it easier for a

1 customer to understand and predict gas bills for distribution service.  
2 There is no need to apply SFV rates to all classes at once or to use the  
3 same rate design tool to implement a SFV rate design for each customer  
4 class. Since the principle issues in this case and the primary focus of the  
5 conservation expenditures discussed in this proceeding apply to  
6 residential and small general service customers, it is appropriate to start  
7 with these classes. Also, starting with the residential and small general  
8 service customers has no impact on the revenue responsibility of these  
9 customer groups since that is set as part of the revenue distribution  
10 determination. Mr. Novak is wrong in his conclusion that it is necessary to  
11 apply this rate design to all classes at the same time and in the same way.

12 **Q. Please comment on the concept that SFV adversely impacts non-**  
13 **PIPP low income customers.**

14 **A.** As discussed above, the underlying basis for this conclusion is incorrect  
15 for the customers served by VEDO. Mr. Novak incorrectly assumes that  
16 low usage residential customers are also low income customers. The  
17 VEDO service area specific data prove otherwise.

18 **Q. Please comment on the proposition that SFV sends the wrong price**  
19 **signal.**

20 **A.** Economic theory requires that an appropriate price signal reflect marginal  
21 cost. Using a volumetric gas distribution rate implies that marginal cost for



1 gas delivery increases as gas consumption increases. This is not correct.  
2 The marginal distribution-related cost of an additional Ccf of gas  
3 throughput is zero. The fixed costs of distribution service do not change  
4 with changes in Ccf throughput or consumption. Importantly, the  
5 proposed rate is a distribution rate. In fact, fixed costs do not enter into  
6 the calculation of marginal costs at all. Mr. Novak erred in assuming that  
7 volumetric rates for delivery service represent a marginal cost. A rate  
8 design that recovers fixed costs volumetrically will signal customers to  
9 make inaccurate and inefficient investment decisions because the  
10 volumetric rate design incorrectly signals a customer that a portion of the  
11 fixed costs of providing distribution service can be avoided as a result of  
12 reducing annual usage. An SFV rate design or a rate design that more  
13 completely recovers the fixed costs of distribution service from residential  
14 customers through a monthly customer charge will better signal customers  
15 to make an investment in the optimum level of conservation. Customers  
16 also avoid the discouragement that comes from a volumetric rate design  
17 that comes when the volumetric rates are subsequently increased  
18 because the volumetric rate design results in a mismatch between the  
19 fixed costs of providing service and the revenue available to the utility to  
20 cover such fixed costs.

21 **Q. Based on the VEDO service area specific data for residential**  
22 **customers, what rate design do you believe is most appropriate for**  
23 **VEDO's residential customers?**

1 A. It is my opinion that a SFV rate design or a rate design that permits the  
2 fixed costs of distribution service to be recovered through monthly  
3 customer charges is most appropriate as a general proposition and in the  
4 specific case of VEDO's residential customers. This approach to rate  
5 design clearly does a better job of aligning the interests of the utility and its  
6 customers in favor of rational energy conservation programs. Based on  
7 the rate levels that emerge from the use of this approach to rate design,  
8 the monthly customer charges for residential customers seem to be well  
9 within the range of customer charges that have been selected by Ohio  
10 customers for utilities that are run by and for the benefit of customers.  
11 Finally, the specific data for VEDO's service area show that this approach  
12 to rate design works to benefit low income customers when compared with  
13 the winter heating bills and annual distribution service bills that are tied to  
14 a volumetric rate design. There is no good reason in this case for not  
15 moving fully to a SFV rate design or a rate design that permits the fixed  
16 costs of residential gas distribution service to be recovered through  
17 monthly customer charges.

18 **Q. Does Mr. Novak make other observations regarding SFV that**  
19 **improperly characterize customer desires relative to SFV.**

20 A. Yes. At page 19, Mr. Novak comments that customers would not perceive  
21 any benefit from price certainty associated with SFV. In fact, market  
22 evidence shows that customers often seek price certainty through budget.

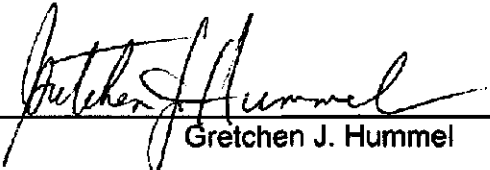
1            billing plans, locking in fixed commodity prices for gas offered by  
2            competitive marketers and, where available, some customers have even  
3            chosen fixed bill plans.

4    **Q.    Does that conclude your rebuttal testimony?**

5    **A.    Yes it does.**

## CERTIFICATE OF SERVICE

I hereby certify that a copy of the *Rebuttal Testimony of H. Edwin Overcast on Behalf of Vectren Energy Delivery of Ohio, Inc.* was served upon the following parties of record this 29th day of August 2008, via electronic transmission, hand-delivery, or ordinary U.S. mail, postage prepaid.

  
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