#### BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke Energy Ohio, Inc. for an Increase in Gas Rates.	) ) )	Case No. 07-589-GA-AIR
In the Matter of the Application of Duke Energy Ohio, Inc. for Approval of an Alternative Rate Plan for its Gas Distribution Service.	) ) )	Case No. 07-590-GA-ALT
In the Matter of the Application of Duke Energy Ohio, Inc. for Approval to Change Accounting Methods.	) )	Case No. 07-591-GA-AAM

#### DIRECT TESTIMONY OF WILSON GONZALEZ

#### ON BEHALF OF THE OFFICE OF THE OHIO CONSUMERS' COUNSEL 10 West Broad Street, Suite 1800 Columbus, Ohio 43215-3485

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January 29, 2008

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#### TABLE OF CONTENTS

		PAGE
I.	INTRODUCTION	1
II.	PURPOSE OF TESTIMONY	3
Ш.	DUKE'S DECOUPLING PROPOSAL	4
IV.	STAFF'S DECOUPLING CONCEPT	5
V.	DECOUPLING AND CONSUMER SAFEGUARDS	12
VI.	STRAIGHT FIXED VARIABLE RATE DESIGN	14
VII.	CONCLUSION	23
CERT	TIFICATE OF SERVICE	

#### EXHIBITS

Exhibit WG-1 Exhibit WG-2 Exhibit WG-3

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#### 1 I. INTRODUCTION

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#### 3 Q1. PLEASE STATE YOUR NAME, ADDRESS AND POSITION.

- *A1.* My name is Wilson Gonzalez. My business address is 10 West Broad Street,
  Suite 1800, Columbus, Ohio, 43215-3485. I am employed by the Office of the
  Ohio Consumers' Counsel ("OCC" or "Consumers' Counsel") as a Senior
  Regulatory Analyst.
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9 Q2. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND

PROFESSIONAL EXPERIENCE?

11 A2. I have a Bachelor of Arts degree in Economics from Yale University and a Master 12 of Arts degree in Economics from the University of Massachusetts at Amherst. I 13 have also completed coursework and passed my comprehensive exams towards a 14 Ph.D. in Economics at the University of Massachusetts at Amherst. I have been 15 employed in the energy industry since 1986, first with the Connecticut Energy 16 Office (Senior Economist, 1986-1992), then Columbia Gas Distribution 17 Companies ("Columbia Gas") (Integrated Resource Planning Coordinator, 1992-18 1996), and American Electric Power (Marketing Profitability Coordinator and 19 Market Research Consultant, 1996-2002). I have been spearheading the Resource 20 Planning activities within OCC since 2004.

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1	Q3.	DESCRIBE YOUR EXPERIENCE DIRECTLY RELATED TO UTILITY
2		DEMAND-SIDE MANAGEMENT ("DSM") PROGRAMS AND RATE
3		DESIGN, COST-BENEFIT ANALYSIS AND PROGRAM MONITORING
4		AND EVALUATION.
5	<i>A3</i> .	I have been involved with many aspects of DSM programs since 1986. While at
6		the Connecticut Energy Office I represented the office in one of the first DSM
7		collaborative processes in the country (Connecticut Department of the Public
8		Utilities Commission Docket No. 87-07-01). There I analyzed the performance
9		and cost-effectiveness of many efficiency programs for Connecticut's electric and
10		gas utilities that led to demonstration projects, policy recommendations, DSM
11		programs (including rate design) and energy efficiency standards. At Columbia
12		Gas, I was responsible for coordinating the Company's Integrated Resource Plan
13		within the corporate planning department and DSM program development
14		activities in the marketing department. I designed and managed residential DSM
15		programs in Maryland and Virginia. At American Electric Power, I conducted
16		numerous cost-benefit analyses of programs being sponsored by AEP's corporate
17		marketing department, including their residential load control water heater
18		program.

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- 20

#### ) Q4. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY BEFORE THE

- 21 PUBLIC UTILITIES COMMISSION OF OHIO?
- A4. Yes. I submitted testimony in the following cases before the Public Utilities
  Commission of Ohio ("Commission" or "PUCO"): Vectren Energy Delivery of

1		Ohio, Case No. 04-571-GA-AIR; Dominion East Ohio, Case No. 05-474-GA-
2		ATA; Vectren Energy Delivery of Ohio, Case No. 05-1444-GA-UNC; Columbus
3		Southern Power Company/Ohio Power Company, Case No. 06-222-EL-SLF; and
4		FirstEnergy Companies, Case No. 07-551-EL-AIR.
5		
6	Q5.	WHAT DOCUMENTS HAVE YOU REVIEWED IN THE PREPARATION OF
7		YOUR TESTIMONY?
8	A5.	I have reviewed the rate design discussion in Volume 1 of the Company's July 18,
9		2007 Application, Motions, Alternative Regulation Schedules and Schedules "A"
10		Through "D," the Direct Testimony of Company witnesses David W. Mohler and
11		Paul G. Smith, and the staff report ("Staff Report") filed on December 20, 2007. I
12		have also reviewed the relevant Company responses to OCC discovery and Staff
13		of the Public Utilities Commission of Ohio ("Staff") data requests pertaining to
14		residential rate design.
15		
16	II.	PURPOSE OF TESTIMONY
17		
18	Q6.	WHAT IS THE PURPOSE OF YOUR TESTIMONY?
19	A6.	My testimony concerns Duke's proposed decoupling mechanism and the Staff's
20		conceptual discussion of decoupling rate designs in its Staff Report. In particular,
21		I am recommending that the Commission reject Duke's decoupling proposal as
22		filed. Duke's proposal is a transition to a Straight-Fixed Variable ("SFV") rate
23		design which is problematic because it sends consumers the wrong price signal

3

1		especially during a time of increasing natural gas prices and tightness in natural
2		gas supply nationwide. The Staff's proposed conceptual modification of Duke's
3		decoupling rate design likewise is flawed and should be rejected. Finally, I will
4		propose consumer safeguards that need to be included when decoupling utility
5		revenues from sales.
6		
7	III.	DUKE'S DECOUPLING PROPOSAL
8		
9	Q7.	WHAT IS DUKE'S PROPOSED DECOUPLING MECHANISM?
10	A7.	Duke's proposed decoupling rider ("Rider SD") would sever the link between the
11		volumes of gas sold and the Company's ability to recover costs. The Duke
12		proposal is a per-customer decoupling mechanism. Through Rider SD, Duke is
13		proposing to recover the differences between actual weather normalized base
14		revenues and adjusted base revenues for all of its sales and transportation
15		customers (except under its interruptible transportation customer rate ("Rate
16		IT")). In addition, Rider SD would also allow Duke to recover lost revenues
17		(revenues it otherwise would not collect) related to reductions in the volumes of
18		gas sold as a result of customers' conservation efforts propelled by gas
19		commodity price increases. Rider SD also considers customer growth as these
20		monthly differences in revenues are multiplied by the difference between the
21		number of customers in a particular month and the number of customers for that
22		same month during the test year in the rate case. The accumulated monthly
23		differences will be divided by projected sales volumes to determine the Rider SD

1		amount. Rider SD will be reconciled for any under or over recovery that will
2		subsequently be collected or returned to customers via Rider SD over the next
3		twelve months. <sup>1</sup> As proposed, Rider SD reduces Duke's declining usage per
4		customer revenue risk while maintaining Duke's weather risk.
5		
6	Q8.	DO YOU BELIEVE THAT DUKE'S DECOUPLING MECHANISM IS A
7		FIRST STEP TOWARDS A STRAIGHT-FIXED VARIABLE RATE DESIGN?
8	A8.	Yes. Duke's revenue decoupling proposal is also combined with a 150 percent
9		increase in the customer charge from \$6 to \$15 dollars per month. This would put
10		Duke in a position to increase its customer charge in subsequent rate cases until
11		all of its fixed costs are recovered through the customer charge. I see this as a
12		significant step towards an SFV rate design.
13		
14	IV.	STAFF'S DECOUPLING CONCEPT
15		
16	Q9.	HOW DOES THE STAFF'S DECOUPLING RATE DESIGN CONCEPT
17		DIFFER FROM DUKE'S PROPOSAL?
18	A9.	One difference is that Staff's proposal significantly increases the customer charge
19		that Duke's customers have been accustomed to paying. The Staff's conceptual
20		proposal would bypass a more gradual step to an SFV rate design and instead
21		expedite the moving of customers to a two prong SFV rate design over a two-year

<sup>&</sup>lt;sup>1</sup> Description contained in Company application, Schedule Alt Reg A pages 9-11 and the Direct Testimony of Company Witness Paul G. Smith, pages 11-15.

1	period. In contrast to the \$15 monthly customer charge proposed by Duke, the
2	Staff has engineered a rate design where customers using less than 50 Ccf
3	(annually) would pay \$10 and \$12 per month in years one and two, and those
4	customers consuming over 50 Ccf (annually) would pay \$20.25 and \$25.33 per
5	month, respectively. As can be seen in the table and graph below, the annual
6	impact of the Company's proposed increases to the customer charge are extreme,
7	even when compared to Ohio's three other major natural gas distribution
8	companies.

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#### Ohio Gas LDC Annual Customer Charge Current Compared to Proposed

LDC	Annual Current	Proposed Customer	Percent Increase	
	Customer Charge	Charge	From Current Charge	
Duke	\$72.00 (\$6.00X12)	\$180.00 (\$15.00X12)	150%	
Vectren* (Average)	\$84.00 (\$7.00X12)	\$160.44 (\$13.37X12)	91%	
Dominion**	\$52.56 (\$4.38X12)	\$68.40 \$5.70X12)	30%	
Columbia	\$78.00 (\$6.50X12)	NA	NA	

13 Notes:

- 14 \*\$10.00 is for summer months (May thru October) and \$16.75 for the winter months
- 15 (November thru April) with \$13.37 as the average.  $[(6 \times 10.00 = 60, 6 \times 16.75 = 60, 6 \times 10.00 = 60, 6 \times 100, 6$
- 16 (100.50)(60 + 100.50 = 160.50, 160.50 / 12 = 13.37)].
- 17 \*\*Increase is only for West Ohio area customers, the \$5.70 remains the same for current
- 18 East Ohio customers.

19

1	Q10.	DO YOU HAVE A SIMILAR TABLE SHOWING THE PROJECTED
2		ANNUAL CUSTOMER SERVICE CHARGE IMPACT OF STAFF'S
3		PROPOSAL?
4	A10.	Yes, as can be seen in the table below, the annual impact of the Staff's proposed
5		increases to the annual customer charge are significant. By year two,
6		approximately 97 percent of Duke's customers would experience a 421 percent
7		increase in their customer service charge.

- 8
- 9

Staff	Annual		Percent	Staff	Percent
Concept	Current	Staff	Increase	Proposed	Increase
	Customer	Proposed	From	Customer	From
	Charge	Customer	Current	Charge	Current
		Charge Year 1	Charge	Year 2	Charge
Staff (Less than 50Ccf)	\$72.00	\$120.00	67%	\$144.00	100%
Staff (More than 50Ccf)	\$72.00	\$243.00	238%	\$303.96	421%

10

11

12

15

### 13 Q11. HOW DOES THE STAFF'S PROPOSED CUSTOMER SERVICE CHARGE 14 DIFFER FROM THE COMPANY'S PROPOSAL ON AN ANNUAL BASIS?

16 All. As can be seen in the graph below, the annual impact of the Staff's proposed

17 increases to the annual customer charge are greater than any existing customer

18 service charge of Ohio's largest LDCs and are more extreme than the Company's

19 proposal.





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## *Q13.* WHAT ARE YOUR COMMENTS ON THE HISTORICAL INFORMATION CONTAINED IN THE GRAPH ABOVE?

A13. Based upon the research contained in Exhibit WG-1, until this case, the Staff has
closely adhered to the theory of gradualism when setting the monthly customer
charge. Between 1982 and the present, Columbia Gas of Ohio's customer charge
has only increased from \$3.55 to \$6.50. Over a comparable time period,
Dominion East Ohio's ("DEO") customer charge has increased from \$4.00 to
\$5.70 (and in its pending rate case, Case No. 07-829-GA-AIR, DEO is again

13 requesting a customer charge of \$5.70). Finally, between 1983 and the present,

1		Dayton Power and Light Company/Vectren Energy Delivery of Ohio, has
2		increased its customer charge from \$4.15 to \$7.00. Therefore, Duke's proposed
3		increase in the monthly customer service charge is extreme when compared to
4		recent Ohio historical trends.
5		
6	<b>Q</b> 14.	ARE THERE OTHER DIFFERENCES BETWEEN THE STAFF'S
7		DECOUPLING RATE DESIGN CONCEPT AND DUKE'S PROPOSAL?
8	A]4.	Yes. In addition to the customer charge discussed above, Duke proposes
9		increasing the volumetric charge to \$0.22796 in year one and again in year two to
10		\$0.24714 from the current rate of \$0.18591, while the Staff goes in the opposite
11		direction, reducing the volumetric charge to \$0.153942 and \$0.099103 in
12		respective years. As a result, by year two, 79 percent of the average base revenue
13		requirement would be fixed and would not vary with usage. <sup>2</sup> Although not part of
14		its recommendation, the Staff's conceptual alternative rate design also
15		contemplates a "seasonal" component where the fixed charge in summer months
16		(8 warm weather months) could be lower than in winter months (4 colder weather
17		months). <sup>3</sup>

18

#### 19 Q15. WHAT ARE YOUR GENERAL CONCERNS WITH DECOUPLING?

A15. The regulatory mechanism of decoupling utility earnings from its sales volume
has been a very contentious issue. Conceptually, what concerns me is that

<sup>&</sup>lt;sup>2</sup> Direct Testimony of OCC Witness Yankel, at 49.

<sup>&</sup>lt;sup>3</sup> Staff Report at 33.

1	decoupling is a form of single issue ratemaking that ignores other rate case
2	components that could impact any decoupling effect. Decoupling is problematic
3	because it replaces the legal "opportunity" for earning a reasonable return with a
4	more guaranteed cost recovery, thus shifting cost recovery risks from
5	shareholders to customers.
6	Decoupling mechanisms are often touted to lessen distribution utility
7	revenue erosion due to increased and volatile commodity charges. They are also
8	said to be imperative to removing utility disincentives against utility-sponsored
9	energy efficiency, <sup>4</sup> and the need to place energy efficiency on an even plane with
10	supply side resources from a resource allocation perspective. Decoupling
11	mechanisms have taken a heightened importance in the energy efficiency
12	community given the scarcity of energy supplies, the increasing cost of electric
13	generation and the threat of global warming. At last count, there are 11 states in
14	which gas decoupling has been approved, and 11 other states in which decoupling
15	cases are pending. <sup>5</sup> Decoupling has been proposed but not adopted in11 states. <sup>6</sup>

<sup>&</sup>lt;sup>4</sup> Staff Report at 31.

<sup>&</sup>lt;sup>5</sup> Frederick Butler in "Revenue Decoupling in the Natural Gas Regulatory Environment-Trend or Transition?" June, 5, 2007.

<sup>&</sup>lt;sup>6</sup> David E. Dismukes, "Regulatory Issues for Consumer Advocates in Rate Design, Incentives and Energy Effficiency," NASUCA Mid-Year Meeting, June 11, 2007, page 5.

1	V.	DECOUPLING AND CONSUMER SAFEGUARDS
2		
3	Q16.	WHAT IS YOUR GENERAL POSITION ON DECOUPLING?
4	A16.	I am supportive of decoupling as a way to encourage rather than discourage
5		energy efficiency investments. A well designed decoupling mechanism must
6		include an aggressive energy efficiency program and contain significant consumer
7		safeguards as discussed above. Without comprehensive energy efficiency and
8		consumer safeguards, a decoupling mechanism is nothing more than an
9		opportunity for a utility to shift risks from shareholders to customers, and
10		therefore should be rejected.
11		
12	<b>Q</b> 17.	WHAT IN PARTICULAR ARE THE CONSUMER SAFEGUARDS YOU
13		STATE ARE NECESSARY?
14	A17.	When considering whether to approve a utility request for decoupling, the
15		following safeguards or principles should be adhered to:
16		1. In exchange for the significant risk reduction in utility revenue
17		collection the Commission must include a significant DSM
18		program that can provide benefits for all customers as the quid pro
19		quo. I define significant as, at a minimum, .75 percent to two
20		percent of verified annual energy reductions as a result of

1		implementing the Company's comprehensive energy efficiency			
2		programs. <sup>7</sup>			
3	2.	Any mechanism adopted should contain consumer protections that			
4		guard against rate shock and utility over-earning. This consumer			
5		protection can take the form of a rate cap on the decoupling			
6		revenues. The rate cap could take the following forms:			
7		a. A dollar cap on decoupled revenues;			
8		b. A cap on the percentage amount that a rider could increase			
9		annually; and			
10		c. Permitting decoupled revenues to be recovered at less than			
11		100 percent as in other jurisdictions. <sup>8</sup>			
12	3.	Another important protection is that the Company should utilize an			
13		appropriate weather normalization methodology for its calculations <sup>9</sup>			
14	4.	The PUCO should make a downward adjustment in the Company's			
15		return on equity ("ROE") as appropriate depending on the level of			
16		the Company's earnings risk that is reduced by the decoupling			
17		mechanism. <sup>10</sup>			
18		Designing a decoupling mechanism based on the above principles should			
19		benefit residential customers with lower and more stable bills, while at the			

<sup>&</sup>lt;sup>7</sup> "Energy Efficiency" means measures or programs that target customer behavior, equipment, or devices to result in a decrease in consumption of electricity and/or natural gas without reducing the quality of energy services.

<sup>&</sup>lt;sup>8</sup> See Vectren of Indiana decoupling mechanism.

<sup>&</sup>lt;sup>9</sup> See the testimony of OCC witness Anthony Yankel in this case for a critique of the Company's weather normalization methodology.

1		same time providing the benefits of more timely revenue recovery and less
2		risk for the Company and its shareholders.
3		
4	VI.	STRAIGHT FIXED VARIABLE RATE DESIGN
5		
6	Q18.	IF YOU GENERALLY SUPPORT DECOUPLING WITH CONSUMER
7		SAFEGUARDS IN CONCEPT, WHY DO YOU OPPOSE THE COMPANY'S
8		MOVE TO A STRAIGHT-FIXED VARIABLE RATE DESIGN?
9	A18.	Although a SFV rate design can be less complex to administer than a sales
10		reconciliation type of decoupling mechanism because it eliminates periodic
11		reconciliations and weather adjustments, <sup>11</sup> an SFV rate design introduces a host of
12		other analytical problems, including:
13		1. The SFV rate design decreases the natural gas price signal: Price is a
14		strong motivation for customers to reduce energy consumption. An SFV
15		rate design gives customers the wrong price signal at a time of increasing
16		marginal costs for natural gas in particular and energy in general. <sup>12</sup> An
17		SFV rate design has the effect of reducing the customer's incentive to use
18		energy more efficiently because the per-unit price of energy the customer
19		sees is reduced. This is demonstrated in Exhibit WG-2 where the

<sup>10</sup> OCC witness Aster Adams will address this issue in his rate of return testimony.

<sup>&</sup>lt;sup>11</sup> Some also view an SFV rate design as adhering more closely to cost causation as they tend to view fixed costs as a function of the number of customers.

<sup>&</sup>lt;sup>12</sup> See Kushler, M., D. York, and P. Witte. 2005, "Examining the Potential for Energy Efficiency to Help Address the Natural Gas Crisis in the Midwest;" Washington, DC: American Council for and Energy Efficiency Economy.

1	distribution cost per Ccf that a customer faces is higher at lower
2	consumption levels than at higher consumption levels. This fact is
3	compounded in year two of the Duke and Staff concepts, because the
4	distribution cost per Ccf is lowered by increased consumption to \$0.25 and
5	\$0.10 respectively, lower than if the customer charge remained at \$6 (or
б	\$0.37). This may lead customers to procure uneconomic loads like gas
7	lighting. Given the tight natural gas market, now is not the time to reduce
8	the variable charge. <sup>13</sup> Although costs may vary with the number of
9	customers in the short run (several years), in the long run costs are driven
10	by demand. Policymakers should be concerned with the long-run <sup>14</sup>
11	consequences of energy production and consumption, and in the long run
12	no cost is "fixed." <sup>15</sup> Costs can be avoided. The General Assembly has
13	adopted a principle for energy efficiency and conservation in R.C.
14	4905.70. The statute states that "The Public Utilities Commission shall
15	initiate programs that will promote and encourage conservation of energy
16	and a reduction in the growth rate of energy consumption, promote

<sup>&</sup>lt;sup>13</sup> This point was made strongly by Ralph Cavanagh, Senior Attorney of the Natural Resources Defense Counsel ("NRDC") in the May, 2006 "Rethinking Natural Gas Utility Rate Design" Conference at the Ohio State University.

<sup>&</sup>lt;sup>14</sup> Rates that reflect long-run marginal costs will promote economically efficient investment decisions in energy efficiency, because the long-run perspective is consistent with the long expected useful lives of most energy efficiency measures, and the potential for energy efficiency to defer costly capital improvements. In developing rates, the goals of short-run and long-run marginal based pricing must be balanced. For a further discussion in this topic see Chapter 5 in "National Action Plan for Energy Efficiency", US EPA/DOE, July 2006.

<sup>&</sup>lt;sup>15</sup> Even in a gas distribution system, fixed costs do vary partly as a function of individual customer demand. The SFV rate used by Atlanta Gas Light, for example, estimates the fixed charge as a function of the maximum daily demand for gas imposed by each premise. American Gas Association, Natural Gas Rate Round-Up: Innovative Rate Designs for Fixed Cost Recovery, June 2006.

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1		economic efficiencies, and take into account long-run incremental costs."
2		An SFV rate design appears to contradict the policy provisions of R.C.
3		4929.02(A)(4) to "encourage innovation and market access for cost-
4		effective supply- and demand-side natural gas services and goods."
5		In a time of increasing marginal costs, long-term economic efficiency
6		depends in part on consumers being rewarded with lower bills when their
7		consumption decreases, and "penalized" with higher bills when their
8		consumption increases. While it is important to provide utilities with
9		incentives to implement energy efficiency programs, it is equally
10		important to provide customers with incentives to do so as well.
11	2.	SFV is regressive on low usage customers (some of which are low
12		income or on fixed incomes) and it will produce significant rate shock:
13		All low usage customers (less than average consumption) will bear a
14		disproportionate increase in their natural gas bills even while they
15		maintain their current usage patterns. This could have an even greater
16		impact on low use or low income customers or elderly customers on fixed
1 <b>7</b>		incomes. An SFV rate design will have intra-class impacts, invariably
18		shifting cost from high usage, high income customers to low usage or low
19		income/fixed income customers. Increasing natural gas bills presents an
20		undue hardship for low usage or low income/fixed income customers and
21		may lead to increasing PIPP arrearages. The SFV rate design is not
22		martiaularly fair since all maidential computers contribute equally to
		particularly fair since all residential consumers contribute equally to

1		who make a greater use of the distribution system should bear a
2		proportionately greater share of its cost. <sup>16</sup> Based on Exhibit WG-2, an
3		estimated 65 percent of Duke's customers will have higher bills and be
4		worse off in year 2 in both Duke's and the Staff's proposal than if the
5		customer charge remained at \$6 and the volumetric charge were
6		increased. <sup>17</sup> More importantly this percentage may increase over time, so
7		even more of Duke's customers are worse off, as more customers
8		participate in low income weatherization programs, Duke's energy
9		efficiency programs, or invest in energy efficiency outside of Duke's
10		funded programs.
11	3.	SFV may cause very low usage customers to drop off of the system:
12		An SFV rate design can result in very low volume users (potentially as
		······································
13		many as 10,500 or three percent of customers in Duke's territory)
13 14		many as 10,500 or three percent of customers in Duke's territory) discontinuing their gas service. <sup>18</sup> For example, those customers who only
13 14 15		many as 10,500 or three percent of customers in Duke's territory) discontinuing their gas service. <sup>18</sup> For example, those customers who only use natural gas for secondary non-heating purposes may opt to switch to
13 14 15 16		many as 10,500 or three percent of customers in Duke's territory) discontinuing their gas service. <sup>18</sup> For example, those customers who only use natural gas for secondary non-heating purposes may opt to switch to other energy sources. This response would then necessitate a further
13 14 15 16 17		many as 10,500 or three percent of customers in Duke's territory) discontinuing their gas service. <sup>18</sup> For example, those customers who only use natural gas for secondary non-heating purposes may opt to switch to other energy sources. This response would then necessitate a further reallocation of the fixed costs they would contribute to remaining

<sup>&</sup>lt;sup>16</sup> Generally, it would cost less to serve a residential customer who lives in a small apartment in an area with high customer density than it would to serve a customer who lives in a neighborhood with a larger home and large frontage in less densely populated areas.

<sup>&</sup>lt;sup>17</sup> Based on average usage in witness exhibit 1 the rate of customers worse off is 77%. However, the breakeven point is in the 850-875 Ccf range and therefore I have assumed a normal distribution for those customers in the 500 to 1,000 Ccf usage and reduced the estimate to 65 percent.

<sup>&</sup>lt;sup>18</sup> See Company response to Staff Data Request 17-075, page one of nine.

1		remaining customers and potentially starting a vicious cycle of ever
2		increasing costs for potentially fewer customers.
3	4.	SFV penalizes those customers who have undertaken energy efficiency
4		investments: Customers who have invested in additional home
5		insulation, purchased more efficient furnaces and water heaters as a
6		rational response to increasing gas costs will see their investment returns
7		diminished and payback periods increased as a result of an SFV rate
8		design. Making a radical rate design shift in midstream is especially
9		unfair for customers who have invested to become more energy efficient
10		as a response to actions urged by State and Federal energy efficiency
11		policies. In this sense, an SFV rate design takes away some of the control
12		customers have over their utility bills.
13	5.	SFV leads to less energy efficiency by lessening consumer incentives
14		for self-initiated efficiency: An SFV rate design lengthens the payback
15		period <sup>19</sup> of customers contemplating energy efficiency investments by
16		reducing the variable portion of the rate. <sup>20</sup> Exhibit WG-3 illustrates this
17		point in the case where a more energy efficient furnace is purchased.
18		Under a six dollar monthly customer service charge the customer payback
19		is 3 years whereas under the Company's plan the payback is increased to 4

<sup>&</sup>lt;sup>19</sup> An SFV rate design reduces the Participant Test Benefit-Cost ratio as defined by the 2002 "CALIFORNIA STANDARD PRACTICE MANUAL: ECONOMIC ANALYSIS OF DEMAND-SIDE PROGRAMS AND PROJECTS". As such, it requires utility sponsored energy efficiency programs to provide higher customer incentives to move customers to invest in energy efficient measures.

<sup>&</sup>lt;sup>20</sup> This point is developed further in V. Jensen, "Aligning Utility Incentives with Investment in Energy Efficiency", ICF, July 2007, and M. Kushler et al.; "Aligning Utility Interests with Energy Efficiency

1	years. The staff's higher conceptual customer charge delays the customer
2	payback to yet another year to 5 years. At a time when Ohio's public
3	policy is recognizing the importance of energy efficiency, an SFV rate
4	design contradicts this very important tenet in public policy as highlighted
5	by both the Energy Security and Climate Stewardship Platform for the
6	Midwest ("MESCSP") <sup>21</sup> and the Executive Order to which Governor
7	Strickland has committed the state. Governor Strickland's Executive
8	Order 2007 – 02S ("Executive Order"), Coordinating Ohio Energy Policy
9	and State Energy Utilization, raised the bar for energy efficiency. <sup>22</sup> The
10	Executive Order sets forth a number of actions that state agencies,
11	commissions, and boards are required to undertake to reduce and improve
12	the energy consumption of the state. The Executive Order clearly states
13	that "it is the responsibility of state government to lead by example in
14	reducing energy consumption in this era of steep energy prices, mounting
15	environmental concerns, and persistent energy security risk." <sup>23</sup> It further
16	states that "by improving energy efficiency and adopting advanced energy
17	utilization technologies, we can make the most of our existing energy
18	resources and also stimulate activity and investment in the energy

Objectives: A review of Recent Efforts at Decoupling and Performance Incentives," ACEEE, October, 2006.

<sup>21</sup> The energy efficiency commitment is as follows: "Meet at least 2 percent of regional annual retail sales of *natural gas* and electricity through energy efficiency improvements by 2015, and continue to achieve an additional 2 percent in efficiency improvements every year thereafter." See <u>http://www.midwesterngovernors.org/resolutions/Platform.pdf</u> (emphasis added).

<sup>23</sup> Id at 2.

.

<sup>&</sup>lt;sup>22</sup> Issued on January 17, 2007.

1		efficiency services sector." <sup>24</sup> The MESCSP recommends that 22% of
2		Ohio's energy needs by 2025 be met with energy efficiency.
3	6.	SFV violates the "gradualism" doctrine of rate design: The 150
4		percent increase being proposed by Duke in the customer charge
5		constitutes a form of rate shock as demonstrated earlier. In fact, two of the
6		principles of gas rates as stated in the Staff Report are to "cause minimal
7		impact (sometimes called 'gradualism') when changed, and provide
8		continuity in pricing structures." <sup>25</sup> A 150 percent increase is neither
9		minimal nor gradual especially when taken in conjunction with the AMRP
10		Rider and other Company rate increase proposals in this case.
11	7.	SFV has a more extreme impact when compared to a revenue
12		reconciling form of decoupling: The Company has not presented any
13		evidence that its move towards the SFV rate design will be well accepted
14		by customers. In fact, the large increase in the customer charge for all
15		customers and the increased bills of low usage customers may be a recipe
16		for customer complaints and protest. <sup>26</sup> A sales reconciling form of

<sup>&</sup>lt;sup>24</sup> Id at 2.

http://64.233.169.104/search?q=cache:d\_0cmbD\_FgkJ:www.nrri.ohio-

state.edu/dspace/bitstream/2068/161/1/Case%2BStudy%2Bof%2BGeorgia%2Bgas%2Bmarket.pdf+costell o+nrri+georgia+natural+gas+restructuring&hl=en&ct=clnk&cd=1&gl=us.

<sup>&</sup>lt;sup>25</sup> Staff Report at 23.

<sup>&</sup>lt;sup>26</sup> See problems experienced by Atlanta Gas Light ("AGL") when it implemented an SFV rate design. When asked "[w]hat were the most difficult decisions that you've had to make?" AGL energy executive Paula Rosput answered, "[w]hen we first implemented the straight fixed variable rate structure last winter and it was causing enormous bill impacts was one of the hardest..." See "Rosput Tells How Atlanta Gas Light Took On Deregulation and Survived," <u>Pipeline & Gas Journal</u>, April Issue 2000. See also Ken Costello's NRRI report;" Retail Competition in the Natural Gas Sector: The Georgia Market" where he states that the turmoil from restructuring "can be compared to the chaos caused by restructuring of the electricity industry in California." One of the reasons for the chaos stated is "a major change in the rate design of distribution service to a straight fixed variable method..."

1		decoupling without an increase to the customer charge is a less extreme
2		approach since it represents a less dramatic shift in customer bills and its
3		impact does not fall disproportionately on low usage low income and fixed
4		income customers. I recommend that the Commission require a more
5		thorough examination of the public acceptance of an SFV rate design and
6		its impact on all customers before it would consider adopting the
7		Company's move in that direction.
8		I would also note that economic efficiency is an important consideration
9		when structuring rates but it is not the only consideration. Fairness, rate
10		stability, revenue stability, ease of administration, non-discrimination and
11		environmental protection are equally significant and need to be reconciled
12		by the Commission. In this regard, an SFV has been rejected by
13		Commissions in six states. <sup>27</sup>
14		
15	Q19.	DO THE STAFF'S CONCEPTUAL MODIFICATIONS TO DUKE'S
16		DECOUPLING MECHANISM PROVIDE SUFFICIENT CORRECTIONS TO
17		THE SFV RATE DESIGN CONCERNS IDENTIFIED EARLIER?
18	A19.	No. The Staff's more extreme formulation of an SFV design exacerbates many of
19		the problems noted above. Staff's two-prong approach has de minimus impact as
20		it provides a relative decrease in the customer charge to only a small fraction of

<sup>&</sup>lt;sup>27</sup> Dismukes at 11. Of the six states where an SFV rate design was rejected, three did allow some increase to the customer service charge. Two states have approved an SFV rate design.

the customer base (less then three percent).<sup>28</sup> If adopted, Duke will have one of
 the highest residential customer charges in the country.<sup>29</sup>
 3

<sup>&</sup>lt;sup>28</sup> See Company response to Staff Data Request 17-075, page one of nine (Exhibit WG-2).

<sup>&</sup>lt;sup>29</sup> Currently, Columbia of Virginia at \$15.76 and NSP-ND at \$15.69 have the highest residential customer service charges in the country. See Exhibit No. S-3 in the Testimony of S.C. Devon in Michigan Case No. U-14893, November 13, 2006.

- 1 VII. CONCLUSION
- 2

# Q20. IF THE COMMISSION WERE TO APPROVE A DECOUPLING MECHANISM FOR DUKE IN THIS PROCEEDING, WHAT DECOUPLING MECHANISM WOULD YOU RECOMMEND?

6 A20. If the Commission were to approve the Company's SFV proposal or the Staff's 7 conceptual and more extreme SFV rate design proposal there will be winners and 8 losers in the residential class. Residential customers who have been hit by 9 unprecedented gas costs and that are struggling to pay their bills and undertaking 10 efforts to reduce their consumption (by weatherization or energy efficiency 11 measures or lowering their comfort level through conservation) will be punished 12 by an SFV rate structure. Moreover, shifting cost recovery to a near 100% fixed 13 charge is not the optimal way to align utility and customer interests when 14 attempting to promote energy efficiency. Therefore, I recommend the 15 Commission reject the Company's and the Staff's formulation of an SFV rate 16 design and instead in the alternative craft a sales reconciling form of rate design 17 with the customer protections that I highlighted earlier in my testimony. 18 Otherwise, the Commission should not adopt a decoupling mechanism in this 19 case.

20

## 21 Q21. WHAT OTHER ISSUES CONCERNING DUKE'S DECOUPLING 22 PROPOSAL WOULD YOU LIKE TO COMMENT ON?

1	A21.	In its DSM proposal in Duke Energy of Ohio Case No. 06-91-EL-UNC, the			
2		Company received approval for Rider DSM in part, to recover the lost distribution			
3		revenues stemming from the Company's DSM programs. <sup>30</sup> If the Commission			
4		approves a decoupling mechanism as part of this case, it will need to eliminate the			
5		lost revenue component of that rider so that Duke does not over-collect.			
6					
7	<i>Q22</i> .	DOES THIS CONCLUDE YOUR TESTIMONY?			
8	A22.	Yes, however, I reserve the right to supplement my testimony to incorporate new			
9		information that may subsequently become available.			

.. \_\_

<sup>&</sup>lt;sup>30</sup> Rider DSM recovers program costs (PC), lost revenues (LR), and a performance incentive (PI), and also contains a balance adjustment (BA) component.

#### Residential Customer Charge Increases for Columbia Gas, Dominion East Ohio, DP&L/Vectren, and CG&E/Duke 1983 – 2007

Case Number	Present Customer Charge (at the time of filing)	Requested Customer Charge Increase	Commission-Approved Customer Charge
<u>94-0987</u>	\$6.50	\$6.50	\$6.50
<u>91-0195</u>	\$6.15	\$7.40	\$6.50
<u>89-0616 to</u> <u>89-0620</u>	\$6.00	\$4.97 to \$9.03 (Seasonal- Regional cases consolidated)	\$6.25
88-716 to 88-0720	\$4.50 - \$5.25	\$4.46 - \$7.54	\$6.00
<u>84-1102</u>	\$4.20 - \$5.46	\$6.40	\$5.10
<u>84-0754</u>	\$4.30 - \$5.04	\$5.20	\$4.50
84-0552	\$5.00	\$6.40	\$5.25
<u>84-0067</u>	\$4.37 - \$5.26	\$5.30	\$4.70
<u>83-1519</u>	\$4.20 - \$5.25	\$6.40	\$5.25
<u>83-1301</u>	\$4.48	\$6.15	\$5.15
<u>83-0822</u>	\$4.05	\$6.15	\$5.25
<u>83-0677</u>	\$4.00	\$5.15	\$4.25
<u>83-0584</u>	\$4.00	\$6.00	\$4.30
<u>83-0545</u>	\$5.30 - \$5.95	\$6.65	\$5.00
<u>83-0392</u>	\$4.06 - \$5.50	\$5.87	\$4.30
<u>83-0233</u>	\$5.04	\$5.00	\$4.45
<u>83-0131</u>	\$4.40	\$5.70	\$5.05
<u>83-0107</u>	\$4.40	\$5.30	\$4.80
82-1311	\$4.25	\$5.45	\$4.65
82-1261	\$4.05	\$5.05	\$4.40
<u>82-1174</u>	\$4.60	\$6.35	\$5.50
<u>82-1152</u>	\$3.84	\$5.30	\$4.60
82-1151	\$3.55	\$5.00	\$4.30

#### **Columbia Gas Cases**

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#### **Dominion/East Ohio Cases**

Case Number	Present Customer Charge (at the time of filing)	Requested Customer Charge Increase	Commission-Approved Customer Charge
<u>07-0829</u>	\$5.70	\$5.70	Pending
07-0829	\$4.38	\$5.70	Pending
<u>93-2006</u>	\$4.28	\$7.80	\$5.70
<u>86-0297</u>	\$4.28	\$4.50	\$4.28
<u>82-0901</u>	\$4.00	\$4.25	\$4.25

#### DP&L/Vectren Cases

Case Number	Present Customer Charge (at the time of filing)	Requested Customer Charge Increase	Commission-Approved Customer Charge
07-1080	\$7.00	\$10.00	Pending
07-1080	\$7.00	\$16.75	Pending
<u>0</u> 7-1080	\$7.00	\$22.00	Pending
<u>04-0571</u>	\$4.00	\$8.00	\$7.00
<u>91-0415</u>	\$4.15	\$5.00	\$4.00
<u>83-0777</u>	]     \$4.15	\$4.15	\$4.15

#### CG&E/Duke Cases

Case Number	Present Customer Charge (at the time of filing)	Requested Customer Charge Increase	Commission-Approved Customer Charge
07-0589	\$6.00	\$15.00	Pending
<u>95-0656</u>	\$5.50	\$10.00	\$5.50
<u>92-1463</u>	\$5.30	\$6.00	\$5.50
90-0390	\$4.00	\$6.00	\$5.30
<u>83-1529</u>	\$3.00	\$10.00	\$4.00

Duke Energy Ohlo			STAFF-DR-1	7-075					+	-+									
Note: Size Categori	ized By Annual CCF									 -			:						;
"PIPP" Mean	s PIPP Accounts					-									-		-+		:
"12 Bills" Me	ans 12 Bills For 2006	accounts exi	ciuded due to	other than 1.	2 bills													+	
<u>Year Two (All Cust</u>	omer Analyst)																	<u></u>	
		RATE									-1					+			
		Adid-non	ddid	Grand Total	\$6 Fixed	· · · · · · · · · · · · · · · · · · ·			Dist. 1	Čuka:	- 	   		isi					75
SIZE	Data	Residential	Residential		Fixed	Variable	Commodity	Total	S per Ccf	fixed Va	uriable Co	mmodity 1	otal	per Ccf Fi	xed Varia	able Co	mmedily T	otal 5	per Ccf
Less than 50	Sum of NUM ACCTS	9,475	23	10,535															
	Average of AVG ANN CCF	6F	21	17	22	\$6.38	\$15.23	<b>5</b> 94	\$4,54	180	\$4.26	\$15.23	\$199	\$10.68	150	\$1.71	\$15.23	\$167	\$8.79
50 to 500	Sum of NUM ACCTS	79,973	1,509	87,601															
	Average of AVG ANN CCF	338	359	353	2	\$130.62	\$312.03	\$515	\$0.57	8	\$87.33	\$312.03	<b>6</b> /9 <b>1</b>	\$0.78	03.96	\$35.02	\$312.03	5851	50.95
500 to 1000	Sum of NUM ACCTS	201,683	4,364	211,073		·													
	Average of AVG ANN CCF	731	748	735	2	\$271.76	\$649.21	2663	\$0.47	8	\$181.71	5649.21	\$1,011	50.49	03.96	572.86	5649 21	\$1,026	10.03
1000 to 1500	Sum of NUM ACCTS	54,280	2,577	59,763		[					• • •								
	Average of AVG ANN CCF	1117	1,213,	1,206	72	\$445.78	\$1,064.93	\$1,583	\$0.43	180	\$298.06	\$1,064.93	\$1,543	50,40	03.96 \$	119.52	\$1,064.93	\$1,488	\$0.35
1500 to 2000	Sum of NUM ACCTS	10,137	978	13,105															
	Average of AVG ANN CCF	1 700	1,703	1,713	2	\$633.26	\$1,512.87	\$2,218	50.41	<u>8</u>	\$423.43	\$1,512.87	\$2,116	\$0.35 3	03.96 \$	169.80	\$1,512.87	\$1,987	50.28
2000 to 2500	Sum of NUM ACCTS	3,715	533	5,473						-					-				
	Average of AVG ANN CCF	2,217	2,203	2,221	72	\$820.84	\$1,960.94	\$2,854	\$0.40	180	\$548.84	\$1.960.94	\$2,690	50.33	03.96 5	220.09	\$1,960.94	\$2,486	\$0.24
2500 to 3000	Sum of NUM ACCTS	1,836	133	3,111											_				
	Average of AVG ANN COF	2,720	2,696	2,719	72	\$1,005.17	\$2,401.28	\$3,478	\$0.40	180	\$672.09	\$2,401.28	\$3,253	\$0.31	03.96	269.51	\$2,401.28	\$2,975	\$0.21
3000 to 3500	Sum of NUM ACCTS	1,001	54	776'1											_	-			
	Average of AVG ANN CCF	3,224	3,243	3,236	72	\$1,196.02	\$2,867.23	\$4,125	約.05	160	\$799.70	\$2,857.23	\$3,837	50.30	03.96	320.68	\$2,867,23	\$3,482	\$0.19
3500 to 4000	Sum of NUM ACCTS	637	12	1,394															ļ
	Average of AVG ANN CCF	3,730	3,771	3,747	22	\$1,385.04	\$3,308.77	\$4,766	\$0.39	<b>18</b> 0	\$926.08	\$3,308.77	\$4,415	50.30 30	03.96 \$	371.36	\$3,308.77	\$3,984	<b>\$0.1</b> 8
4000 to 4500	Sum of NUM ACCTS	430	80	1,126									-						
	Average of AVG ANN CCF	4 245	4,199	4,229	72	\$1,563.02	\$3,733.95	\$5,369	20.32	8	1,045.08	\$3,733.95	\$4,959	50.29 3	03,98	419.08	\$3, 733,95	\$4,457	\$0.17
4500 to 5000	Sum of NUM ACCTS	361	1	919		_							-						
	Average of AVG ANN CCF	4,736	4,640	4,708	22	\$1,740.14	\$4,157.09	\$5,969	\$0.38	180	1,163.51	\$4,157.08	\$5,501	\$0.29 3	03.96 \$	466.57	\$4,157.09	\$4,928	\$0.16
5000 to 5500	Sum of NUM ACCTS	318	31	753						1	-	_		-					-
	Average of AVG ANN CCF	5,230	5,448	5,306	22	\$1,961.31	\$4,685.45	\$6,719	\$0.38	8	1,311.30	\$4.685.45	\$6,177	\$0.28	03.96	525.87	\$4,685.45	\$5,515	<b>\$0.</b> 18
5500 to 6000	Sum of NUM ACCTS	245	3	657	_							_			-				
	Average of AVG ANN CCF	5,747	5,712	5,738	2	\$2,121.03	\$5,007.02	\$7,260	\$0.38	180	418.19	\$5,067.02	\$6,665	\$0.28	03.96 \$	566.69	\$5,067.02	\$5,940	\$0.15
8000 to 8500	Sum of NUM ACCTS	205		585					- 1	-									
	Average of AVG ANN CCF	6,223		6,237	54	\$2,305.17	\$5,506.82	\$7,984	約10\$	180 5	1,641.31	\$6,606.92	\$7,228	\$0.28	03.96	618.07	\$5,506.92	\$6,429	\$0.15
6500 to 7000	Sum of NUM ACCTS	169		487															
	Average of AVG ANN CCF	6,751		6,754	2	\$2,498.30	\$5,963.51	\$8,532	\$0.38	1 <u>80</u>	1,669.11	\$5,963.51	\$7,813	\$0.27	03.96	669.31	\$5,903.51	\$6,937	<b>5</b> 0.14
7000 ta 7500	Sum of NUM ACCTS	119	-	4					-										-
	Average of AVG ANN CCF	7,2241	7,116	7,196	2	\$2,659.82	\$6,354.14	\$9,086	\$0.38	180	1,778,44	\$6,354,14	\$8,313	\$0.27	03.96 \$	713.15	\$6,354,14	1.1E LS	50.14
7500 to 8000	Sum of NUM ACCTS	66		344						-					_				
	Average of AVG ANN CCF	162,731		7.744	72	\$2,862.32	\$6,837.92	\$9,772	\$0.38	180 \$	1,913.84	\$6,837.92	\$8,932	\$0.27 3	03.96 \$	767.45	\$6,837.92	\$7,909	\$0.14

Exhibit WG - 2

\$0.10 \$0.10 \$0.10 \$0.11 \$0.10 \$0.14 \$0.13 \$0.13 \$0.13 \$0.12 \$0.11 1.02 \$8,901 \$9,386 \$9,885 \$13,764 524 027 **5**33,946 \$55,830 \$8,390 \$44.018 \$57,152.27 \$63,871 \$71,563 \$0.25 303.96 \$11,159.44 \$99,429.77 \$110,893 \$0.26 303.96 \$1,356.28 \$12,102.16 \$7,729.10 \$0.25 303.96 \$4,411.14 \$39,302 95 \$8,614.06 \$21,326,87 \$30 247 64 \$0.25 303.96 \$5.603.07 \$49,822.82 **50.25** 303.96 **\$**7,190.72 **\$64,068.75** \$7,270.37 \$8.165.87 \$0.25 303.96 \$2.393.83 **\$0.25** 303.96 **\$3,394.83** \$0.25 303.96 \$8,414.45 \$867.47 \$0.27 303.96 \$916.49 \$0.27 303.96 \$966.79 \$815,99 \$0.27 303.96 \$0.27 303.96 1 **\$**9,485 \$11,205 \$50,483 \$10,631 180 \$3,387 23 \$12,102 16 \$15,669 \$62,181 \$27,479 \$38,894 \$19,922.92 \$64,076 180 \$27,829.08 \$99,429.77 \$127,438 \$7,729 10 \$10,072 180 \$15,996.18 \$57,152.27 \$73,328 180 \$8,465.91 \$30,247.64 \$8,165,87 \$3,614.06 \$21,328.87 \$39,302.95 180 \$17,931.99 \$64,068.75 \$7,270.37 180 \$13,972.76 180 \$2,410.96 180 \$5,959.67 180 \$2,163.27 180 \$11,000.38 180 \$2,034.88 180 \$2,285.52 \$0.37 \$0.38 \$0.38 50.38 \$0.38 50.37 \$0.37 \$0.37 \$0.37 \$0.37 \$0.37 \$0.37 ļ \$30,329 \$42,981 \$17,240 \$95,827 \$90,960 \$8,614.06 \$12,292 72 \$23,923.69 \$57,152.27 \$81,148 \$10,386 \$11,036 \$8,165.87 \$11,656 \$70,892 72 \$41,620,88 \$99,429.77 \$141,123 72 \$12,661,53 \$30,247,64 \$7,270.37 \$7,729.10 \$12,102.16 521 328.87 72 \$20,897.52 \$48,822.92 \$64,068.75 \$39,302,95 72 \$16,452.05 72 \$3,605.81 \$5,065.91 \$8,928.17 72 \$26,818.90 \$3,043.35 72 \$3,418.20 \$3,235,37 2 2 2 2 95 56,538 76 64,726 49 72,558 17 288 8,234 8,245 2,255 9,265 9,755 2,14 9,755 2,14 13,705 24,155 34,256 34,511 34,511 44,511 112,606 136 256,097 404,070 20,587 ł 52 8,752 9,255 9,757 13,389 13,389 13,389 24,012 24,012 24,012 34,188 365,366 16,250 44,239 58,350 70,557 8,224 110,528 To 100 to 80,000 Sum of NUM ACCTS 70,000 to 80,000 Sum of NUM ACCTS Average of AVG ANN CCF 110,000 to 120,000 Sum of NUM ACCTS More than 120,000 Sum of NUM ACCTS Average of AVG ANN CCF Total Sum of NUM ACCTS Total Sum of NUM ACCTS Sum of NUM ACCTS Average of AVG ANN CCF Sum of NUM ACCTS Average of AVG ANN CCF Average of AVG ANN CCF Average of AVG ANIX CCF I Average of AVG ANIX CCF I Sum of NUM ACCTS Average of AVG ANIX CCF Average of AVG ANIX CCF Sum of NUM ACCTS Sum of NUM ACCTS Average of AVG ANN CCF I Sum of NUM ACCTS Average of AVG ANN CCF Sum of NUM ACCTS 0.099103 12.6 25.33 8.83 0.18591 0.36962 0.24714 Average of AVG ANI Sum of NUM ACCTS Year Two Variabiles Var Rege at \$5 Curst Evented Two Variabiles Duke Curst Charge Duke Curst Charge Duke Curst Charge Starf Curst Charge <50 Starf Curst Charge <50 Commodity Rate Existing Var Rate 30,000 to 40,000 40,000 to 50,000 50,000 to 50,000 0,000 to 20,000 20,000 to 30,000 30,000 to 70,000 3500 to 10000 8500 to 9000 0000 IN 8200 8000 to 8500

Exhibit WG - 2

Exhibit WG - 3 Page 1 of 3

Natural Gas Screening Tool-Par	rticipant Co	ost	(Low Custom	er Charge Exam	iple)					
				Fumace/boiler						
Inflation		0		Measure cost	\$ 485			Total Cost	\$ 485	
Real Escalation		0		Measure Life	-	8		Total Benefits	\$ 1,439	
Discount Rate		0.1		Savings/unit	1.	-		Net Benefits	\$ 954	
Starting Year		2008		# of units				B/C Ratio	2.97	
Distribution Charge <sup>*</sup> 3.6	5962			Equipment cost	\$ 485			Simple PB		
Customer Charge \$	9			Overhead		0		Discounted PB		
3							a de la desta d	and data and a state data in and the matching		
and a second				name open der Innersten in der Andere der						
						_				
					Discounted	Anr	iual Net	Cumulative Net	Discounted	Commodity**
Year Price per f	Mcf Units		Mcf Savings	Dollar Savings	Savings	Be	efits	Benefits	PB Test	
2008 \$ 12	53	-	÷	\$ 139	139	67	(346)	\$ (346)	-	\$ 8.83
2009 \$ 12	2.79	-	11	\$ 142	\$ 129	\$	129	\$ (217)	1	\$ 9.09
2010 \$ 13	3.06	-	11	\$ 145	\$ 120	\$	120	(26) \$	1	\$ 9.37
2011] \$ 13	3.4	-	11	\$ 148	\$ 111	<del>сл</del>	111	\$ 14	0	\$ 9.65
2012 \$ 13	3.63	1	11	<b>5</b> 151	\$ 103	\$	103	3 118	0	\$ 9.94
2013 \$ 13	1.93	-	11	\$ 155	\$ \$	<del>6</del> 9	96	\$ 214	0	\$ 10.24
2014 \$ 14	1.24	-	11	\$ 158	\$	<del>69</del>	68	\$ 303	0	\$ 10.54
2015 \$ 14	1.56	-	11	\$ 162	\$	6 <del>9</del>	83	\$ 386	a	\$ 10.86
2016 \$ 14	1.88	1	11	\$ 165	\$ 77	\$	77	\$ 463	0	\$ 11.19
2017 \$ 15	5.22	-	11	\$ 169	\$ 72	6 <del>0</del>	72	\$ 534	0	\$ 11.52
2018 \$ 15	6.56	1	11	\$ 173	\$ 67	6 <del>9</del>	67	\$ 601	0	\$ 11.87
2019 \$ 15	5.92	-	4	\$ 177	\$	<del>63</del>	62	<b>\$</b> 663	0	\$ 12.22
2020 \$ 16	3.29	-	÷	<b>\$</b> 181	ŝ	<del>сэ</del>	<b>2</b> 8	\$ 721	0	\$ 12.59
2021 \$ 16	66	-	1	\$ 185	\$ 24	6A	54	\$ 774	ð	\$ 12.97
2022 \$ 17	1.05	-	1	<b>5</b> 189	\$ 20	÷	20	\$ 824	0	\$ 13.36
2023 \$ 17	.45		£	\$ 194	\$ 46	69) 10	46	\$ 870	0	\$ 13.76
2024 \$ 17	.87	-	1	\$ 198	\$	6 <del>7)</del>	43	\$ 914	0	\$ 14.17
2025 \$ 18	3.29	-	£	\$ 203	\$	6A	40	\$ 954	0	\$ 14.59
2026 \$ 18	9.73	0	Ŧ	• •	ŝ	<del>6</del> 3	•		0	\$ 15.03
2027 \$ 19	0.18	0	•	•	\$	÷	•		0	\$ 15.48
2028 \$ 19	.64	0	•	•	ج	<del>сл</del>	•		0	\$ 15.95
2029 \$ 20	0.12	0	•	\$	\$	\$	•		0	\$ 16.43
2030 \$ 20	.62	0	I	•	\$	↔	ſ		0	\$ 16.92
2031 \$ 21	.12	0	I	\$	\$	\$	•		Q	\$ 17.43
2032									0	
2033									0	
2034						 			0	
2035									0	
2036									0	
						and a mass	and the second se	All the second se	0	
			House at the local states of				100°			
Calculated Per Duke Filing			-							
** Commodity Costs used in Star	Report esc	alated	at three perce	int ennuelly.		_				

Natural Gas Screeni	ng Tool-Parti	cipant Cost	(Duke Propo:	sal Yr 2)					
-				Furnace/boiler					
Inflation				Measure cost	\$ 485		Total Cost	\$ 485	
Real Escalation		0		Measure Life	18		Total Benefits	\$ 1,316	
Discount Rate		0.1		Savings/unit	111		Net Benefits	\$ 831	
Starting Year		2006		# of units	L		B/C Ratio	2.71	
Distribution Charge*	2.4714			Equipment cost	\$ 485		Simple PB		
Customer Charge	\$ 15			Overhead	•		Discounted PB		
					Discounted	Americal Net	Crimitativa Nat	Distant	Commonditute
Year	Price per Mcf	Units	Mcf Savings	Dollar Savings	Savings	Benefits	Benefits	PB Test	
2008	\$ 11.30	-	11	\$ 125	\$ 125	\$ (360	(360)	1	\$ 8.83
2009	\$ 11.57		÷	\$ 128	\$ 117	\$ 117	5 (243)	1	\$ 9.09
2010	\$ 11.84	-	÷	\$ 131	\$ 109	\$ 105	<b>\$</b> (134)	1	\$ 9.37
2011	\$ 12.12	-	11	\$ 135	\$ 101	\$ 101	\$ (33)	1	\$ 9.65
2012	\$ 12.41	-	11	\$ 138	\$ 94	रू ह	<b>\$</b>	0	\$ 9.94
2013	\$ 12.71	-	11	\$ 143	\$	\$ 88	<b>\$</b>	0	\$ 10.24
2014	\$ 13.01	•	11	\$ 144	\$ 82	\$	\$ 230	0	\$ 10.54
2015	\$ 13.33	•	11	\$ 148	\$ 76	\$ 76	\$ 306	0	\$ 10.86
2016	\$ 13.66	-	11	\$ 152	\$ 71	\$ 71	\$ 377	0	\$ 11.19
2017	\$ 13.99	-	11	\$ 155	\$ 66	\$	\$ 443	0	\$ 11.52
2018	\$ 14.34	+	11	\$ 159	<b>6</b> 1	\$ 0	\$ 504	0	\$ 11.87
2019	\$ 14.69	-	Ŧ	<b>\$</b> 163	\$	\$	<b>5</b> 61	0	\$ 12.22
2020	\$ 15.06	-	11	\$ 167	£	8 8	<b>\$</b> 614	0	\$ 12.59
2021	\$ 15.44		1	\$ 171	50 20	\$	- <b>5</b>	0	\$ 12.97
2022	\$ 15.83	-	Ŧ	\$ 176	\$ 46	\$ 46	\$ 710	0	\$ 13.36
2023	\$ 16.23		<b>1</b>	\$ 180	\$ 7	\$	\$ 753	0	\$ 13.76
2024	\$ 16.64	+	Ŧ	\$ 185	\$	\$ 40	- 29K	0	\$ 14.17
2025	\$ 17.07	▼.	Ŧ	\$ 189	\$ 37	\$ 37	831	0	\$ 14.59
2026	\$ 17.50		-	•	•	\$		0	\$ 15.03
2027	\$ 17.95		•	י ج	•	\$		0	\$ 15.48
2028	\$ 18.42		•	•	۰ به	Ь		0	\$ 15.95
2029	\$ 18.90		•	•	•	\$		0	\$ 16.43
2030	\$ 19.39	0		۰ ب	• \$	ъ		0	\$ 16.92
2031	\$ 19.90		•	• •	\$	ь		0	\$ 17.43
2032								0	
2033								0	
2034								0	
2035								0	
2036								0	
2037				\$				0	
Per Duke Filing (usi	ng year two vo	olumetric charge	(6						and the second se
** Commodity Costs I	sed in Staff R	ceport escalated	l at three perce	nt annually.					

Exhibit WG - 3 Page 2 of 3

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Natural Gas Screening Tool-Pa	articipant Co	st (	Staff Propos	al Yr 2) Furnace/boiler							
Inflation		0		Measure cost	<b>69</b>	485		Total Cost	\$ 46	ي. ي	
Real Escalation	•	0		Measure Life		18		Total Benefits	\$ 1.16		
Discount Rate		0.1		Savings/unit		11.1		Net Benefits	\$ 68	9	
Starting Year		2005		# of units		-		B/C Ratio		41	
Distribution Charge* 0.90	9103	[		Equipment cost	ŝ	485		Simple PB		  - 	
Customer Charge \$ 25	5.33			Overhead		0		Discounted PB			
										++-	
										_	
					Discou	hed	Annual Net	Cumulative Net	Discounted	ŭ	ammodity**
Year Price per	Mcf Units		Acf Savings	<b>Dollar Savings</b>	Saving		Benefits	Benefits	PB Test		
2008 \$ 9	.82	-	11	\$ 109	S	109	\$ (376)	\$ (376	(	-	8.83
2009 \$ 10	60.0	-	11	\$ 112	s	102	\$ 102	\$ (274)	(	ۍ ۲	80'6
2010 \$ 10	.36		Ŧ	S 115	s	92	<b>5</b> 6	\$ (179	[	÷	9.37
2011 \$ 10	.64	۳	Ŧ	118	69	68	89	8 (90)		<del>.</del>	9.65
2012 \$ 10	.93	۳-	11	\$ 121	ь	83	83	\$ (8)	(	<del>رم</del> ا ۳	9.94
2013 \$ 11	23	۳-	11	\$ 125	\$	1	*	\$		9 0	10.24
2014 \$ 11	53	-	11	\$ 128	\$	2	\$ 72	\$ 142		6) 0	10.54
2015.\$ 11	<u>.85</u>	-		\$ 132	\$	88	8	\$ 210		9 0	10.86
2016 \$ 12	2.18	-	7	135	\$9	63	<b>\$</b>	\$ 273		9 0	11.19
2017 \$ 12	.51	-	11	\$ 139	\$	28	\$ 28	\$ 332		မာ ဝ	11.52
2018 \$ 12	.86	-		\$ 143	\$	55	<b>\$</b>	\$ 387		8 0	11.87
2019 \$ 13	21	-	11	147	S	રુ	\$ 21	\$ 438		0	12.22
2020 \$ 13	.58	-	11	\$ 151	s	48	48	<b>\$</b> 486		မ ဂ	12.59
2021 \$ 13	3.96	٢	11	\$ 155	69 	45	<b>4</b> 5	531		မ ပ	12.97
2022 \$ 14	35	•	+	\$ 159	<del>6</del> 4	42	<b>\$</b>	\$ 573		୫ ୦	13.36
2023 \$ 14	.75	 ۳	÷-	<b>5</b>	њ	66	<b>3</b> 9	\$ 612		୫ ୦	13.76
2024 \$ 15	.16	 <del></del>	÷	\$ 168	\$	37	\$ 37	\$ 649		မာ ဝ	14.17
2025 \$ 15	.59	-	<del>;</del>	\$ 173	<del>6</del> 9	ğ	\$ 34	\$ 683		\$÷ ○	14.59
2026 \$ 16	6.02	0	*	4	ь	•	•			↔ 0	15.03
2027 \$ 16	.47	o	•	69	69	1	•			€) ()	15.48
2028 \$ 15	-94	•		•	69	•	6			\$ 0	15.95
2029 \$ 17	42	0	•	\$	69	•	•			€# 0	16.43
2030 \$ 17	.91	0	•	*	69		•			8 0	16.92
2031 \$ 18	1.42	0	•		63	•	ч С			\$≎ 0	17.43
2032											
2033		†-								0	
2034									-	0	
2035					 					0	
2036										0	
2037		+-			-		-				
						1911 W	<b>3</b> .000 (1000)				
*Per Staff Report Filing (using y	ear two volun	netric (	sharge)	566664003030271401421310166400	and a state of the second s	Anton Galloutroite (1974)	4. 1997年,ASP 1997年1997年1997年1997年1997年1997年1997年1997	计分子语言 法上产者 法公共的财务人物 医胃外的 网络含化物 网络含化	The second states of the second states of the second states and the second states and the second states and the	ompetitioners	reston in antistation destruction of the
** Commodity Costs used in Stat	If Report esca	alated	at three perce	int annually.						-	

Exhibit WG -3 Page 3 of 3

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#### CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Testimony of Wilson Gonzalez of the Office of the Ohio Consumers' Counsel has been served upon those persons listed below via first class U.S. Mail, prepaid, this 29<sup>th</sup> day of January 2008.

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