

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. 12-1685-GA-AIR
In the Matter of the Application of Duke Energy Ohio, Inc., for Tariff Approval.)))	Case No. 12-1686-GA-ATA
In the Matter of the Application of Duke Energy Ohio, Inc., for Approval of an Alternative Rate Plan for Gas Distribution Service.))))	Case No. 12-1687-GA-ALT
In the Matter of the Application of Duke Energy Ohio, Inc., for Approval to Change Accounting Methods.)))	Case No. 12-1688-GA-AAM

DIRECT TESTIMONY OF
JAMES E. ZIOLKOWSKI
ON BEHALF OF
DUKE ENERGY OHIO, INC.

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_____	Management policies, practices, and organization
_____	Operating income
_____	Rate base
_____	Allocations
_____	Rate of return
_____	Rates and tariffs
<u> X </u>	Other: Cost of Service Study

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I. INTRODUCTION AND PURPOSE

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is James E. Ziolkowski, and my business address is 139 East Fourth
3 Street, Cincinnati, Ohio 45202.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by Duke Energy Business Services LLC (DEBS) as Rates
6 Manager. DEBS provides various administrative and other services to Duke
7 Energy Ohio, Inc., (Duke Energy Ohio or Company) and other affiliated
8 companies of Duke Energy Corporation (Duke Energy).

9 **Q. WILL YOU PLEASE BRIEFLY SUMMARIZE YOUR EDUCATIONAL
10 BACKGROUND AND PROFESSIONAL EXPERIENCE?**

11 A. I received a Bachelor of Science degree in Mechanical Engineering from the U.S.
12 Naval Academy in 1979, and a Master of Business Administration degree from
13 Miami University in 1988. I am also a licensed Professional Engineer in the state
14 of Ohio. I received certification as a Chartered Industrial Gas Consultant in 1994
15 from the Institute of Gas Technology and the American Gas Association. I have
16 attended the EUCI Cost of Service seminar.

17 After graduating from the Naval Academy, I attended the Naval Nuclear
18 Power School and other follow-on schools. I served as a nuclear-trained officer
19 on various ships in the U.S. Navy through 1986. From 1988 through 1990, I
20 worked for Mobil Oil Corporation as a Marine Marketing Representative in the
21 New York City area.

1 I joined The Cincinnati Gas & Electric Company (now Duke Energy Ohio)
2 in 1990 as a Product Applications Engineer, in which capacity I designed and
3 managed some of Duke Energy Ohio's demand side management programs,
4 including Energy Audits and Interruptible Rates. From 1996 until 1998, I was an
5 Account Engineer, and worked with large consumers to resolve various service-
6 related issues, particularly in the areas of billing, metering, and demand
7 management. In 1998, I joined the Rate Department, where I focused on rate
8 design and tariff administration. I was significantly involved with the unbundling
9 and design of Duke Energy Ohio's retail electric rates. I was appointed to my
10 current position in January 2008.

11 **Q. PLEASE SUMMARIZE YOUR RESPONSIBILITIES AS RATES**
12 **MANAGER.**

13 A. As Rates Manager, I am responsible for cost of service studies, tariff, billing, and
14 revenue reporting issues in Ohio and Kentucky. I also prepare filings to modify
15 charges and terms in the retail tariffs of Duke Energy Ohio and Duke Energy
16 Kentucky, Inc. (Duke Energy Kentucky), and develop rates for new services.
17 During rate cases, I help with the design of the new base rates. Additionally, I
18 frequently work with Duke Energy Ohio's and Duke Energy Kentucky's
19 consumer contact and billing personnel to answer rate-related questions and to
20 apply the retail tariffs to specific situations. Occasionally, I meet with customers
21 and Company representatives to explain rates or provide rate training. I also
22 prepare other reports that are required by regulatory authorities.

1 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC**
2 **UTILITIES COMMISSION OF OHIO?**

3 A. Yes. Most recently, I provided testimony in support of Duke Energy Ohio's electric
4 security plan in Case No. 11-3459-EL-SSO, *et al.*, and Duke Energy Ohio's SAW
5 true-up filing in Case No. 12-1857-EL-RDR.

6 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THESE**
7 **PROCEEDINGS?**

8 A. I sponsor the cost of service study, identified as Schedules E-3.2 through E-3.2j.
9 Finally, I explain Duke Energy Ohio's proposal to correct rate disparities among
10 customer classes.

II. **COST OF SERVICE STUDY**

11 **Q. WHAT IS THE PURPOSE OF A COST OF SERVICE STUDY?**

12 A. A cost of service study is an analytical tool used in traditional utility rate design to
13 allocate costs to different classes of customers. When the process of preparing a
14 cost of service study is completed, the resulting class cost of service study can (1)
15 assist in determining the revenue requirement for the services offered by a utility;
16 (2) analyze, at a very detailed level, the costs imposed on the utility's system by
17 different classes of customers; (3) show the total costs the company incurs in
18 serving each retail rate class as well as the rate of return on rate base earned from
19 each class during the test year; and (4) establish cost responsibility that makes it
20 possible to determine just and reasonable rates based on costs.

21 Schedules E-3.2 through E-3.2j of the Company's Application provide the
22 gas cost of service study for the test year.

1 **Q. PLEASE DESCRIBE SCHEDULES E-3.2 THROUGH E-3.2j, THE GAS**
2 **COST OF SERVICE STUDY.**

3 A. The gas cost of service study contained in Schedule E-3.2 through E3.2j are
4 embedded, fully allocated cost of service studies by rate class for the test period
5 ended December 31, 2012, as adjusted. I prepared the cost of service studies
6 using information provided by other Company witnesses on Schedules B-1
7 through B-6, C-1 through C-4, and D-1. The cost of service study functionalizes,
8 classifies, and allocates cost items such as plant investment, operating expenses,
9 and taxes to the various customer classes and calculates the revenue responsibility
10 of each class. Finally, the cost of service study calculates the revenue
11 responsibility of each class required to generate the recommended rate of return.

12 **Q. PLEASE DESCRIBE HOW THE COST OF SERVICE STUDY IS**
13 **ORGANIZED IN SCHEDULE E-3.2 THROUGH SCHEDULE E-3.2j.**

14 A. The schedules provided in the cost of service study are shown in the table below.
15 The detailed calculation and derivation of the allocation factors utilized in the cost
16 of service study are included in the workpapers filed in these proceedings.

<u>Schedule</u>	<u>Page Number</u>	<u>Description</u>
Schedule 1	1	Summary of Results
Schedule 2	2	Gross Plant in Service
Schedule 3	3	Depreciation Reserve
Schedule 4	4	Net Plant
Schedule 5	5	Subtractive Rate Base Adjustments
Schedule 5.1	6	Additive Rate Base Adjustments
Schedule 5.2	7	Working Capital
Schedule 6	8	O&M Expenses
Schedule 6.1	9	O&M Expenses
Schedule 7	10	Depreciation Expense
Schedule 8	11	Taxes Other Than Income Taxes
Schedule 9	12	Income Tax Based on Return
Schedule 10	13	Cost of Service Computation
Schedule 11	14	ROR, Tax Rates & Special Factors
Schedule 12	15	Allocation Factors
Schedule 12.1	16	Allocation Factors
Schedule 12.2	17	Allocation Factors

- 1 **Q. WHAT JURISDICTIONAL CUSTOMER CLASSES WERE USED IN THE**
2 **CLASS COST OF SERVICE STUDY?**
- 3 A. The jurisdictional customer classes are as follows: Residential (Rates RS, RFT,
4 and RSLI), General Service Small (Rates GS and FT), General Service Large
5 (Rates GS and FT), and Interruptible Transportation (Rate IT).

1 **Q. WHAT ARE THE ELEMENTS OF A COST OF SERVICE STUDY?**

2 A. Much like the components of the overall revenue requirement, a cost of service
3 study consists of the following elements, which are allocated to each function,
4 classification, and rate class:

5		Operating and Maintenance Expense
6	+	Depreciation
7	+	Other Taxes
8	+	Federal Income Tax
9	+	Revenue Tax
10	+	Return (Rate Base x ROR)
11	-	Revenue Credits
12	=	Class Revenue Requirement or Cost of service

13 **Q. PLEASE DESCRIBE SCHEDULE E-3.2.**

14 A. Schedule E-3.2 is a functional cost of service study that separates the cost items
15 into the production and distribution functions.

16 **Q. PLEASE DESCRIBE SCHEDULE E-3.2a.**

17 A. Schedule E-3.2a is a classified cost of service study that separates the cost items
18 contained in the production function on Schedule E3.2 between the demand,
19 commodity, and customer classifications. As is evident on the schedule, all of the
20 production function has been classified as commodity.

1 **Q. PLEASE DESCRIBE SCHEDULE E-3.2b.**

2 A. Schedule E-3.2b is an allocated cost of service study that allocates the cost items
3 contained in the production commodity classification from Schedule 3.2a to the
4 various rate groups.

5 **Q. PLEASE DESCRIBE SCHEDULE E-3.2c.**

6 A. Schedule E-3.2c is a classified cost of service study that separates the cost items
7 contained in the distribution function on Schedule E3.2 between the demand,
8 commodity, and customer classifications. As is evident on the schedule, the
9 distribution function has been classified as both demand and customer.

10 **Q. PLEASE DESCRIBE SCHEDULE E-3.2d.**

11 A. Schedule E-3.2d is an allocated cost of service study that allocates the cost items
12 contained in the demand classification from Schedule 3.2c to the various rate
13 groups.

14 **Q. PLEASE DESCRIBE SCHEDULE E-3.2e.**

15 A. Schedule E-3.2e is an allocated cost of service study that allocates the cost items
16 contained in the customer classification from Schedule 3.2c to the various rate
17 groups.

18 **Q. PLEASE DESCRIBE SCHEDULE E-3.2f.**

19 A. Schedule E-3.2f is a total class cost of service study that sums the allocated costs
20 from Schedules E-3.2b, E-3.2d, and E-3.2e by the various rate groups.

1 **Q. PLEASE DESCRIBE SCHEDULE E-3.2g.**

2 A. Schedule E-3.2g is a classified cost of service study for the residential class that
3 shows the allocated costs from Schedules E-3.2b, E-3.2d, and E-3.2e summarized
4 by the demand, commodity, and customer classifications.

5 **Q. PLEASE DESCRIBE SCHEDULE E-3.2h.**

6 A. Schedule E-3.2h is a classified cost of service study for the GS/FT Small class
7 that shows the allocated costs from Schedules E-3.2b, E-3.2d, and E-3.2e
8 summarized by the demand, commodity, and customer classifications.

9 **Q. PLEASE DESCRIBE SCHEDULE E-3.2i.**

10 A. Schedule E-3.2i is a classified cost of service study for the GS/FT Large class that
11 shows the allocated costs from Schedules E-3.2b, E-3.2d, and E-3.2e summarized
12 by the demand, commodity, and customer classifications.

13 **Q. PLEASE DESCRIBE SCHEDULE E-3.2j.**

14 A. Schedule E-3.2j is a classified cost of service study for the Interruptible
15 Transportation class that shows the allocated costs from Schedules E-3.2b, E-
16 3.2d, and E-3.2e, summarized by the demand, commodity, and customer
17 classifications.

18 **Q. WHAT GENERAL METHODOLOGY DID YOU USE FOR THE COST OF**
19 **SERVICE STUDIES AND THE ALLOCATION FACTORS?**

20 A. First, I developed the allocation factors based on customer, commodity, and
21 demand statistics for the test period. Next, I functionalized costs into the specific
22 utility functions, *i.e.*, production and distribution. I then classified the costs as
23 customer-, commodity-, or demand-related, or a combination in some instances.

1 Finally, I made the allocation to rate classes based on the general principles
2 outlined in Chapter 7, *Cost Allocation Studies*, of the AGA book *Gas Rate*
3 *Fundamentals* (4th edition), my utility company experience, and my knowledge of
4 cost of service studies.

5 **Q. HOW DID YOU DERIVE THE CUSTOMER, COMMODITY, AND**
6 **DEMAND ALLOCATION STATISTICS FOR EACH RATE CLASS?**

7 A. The customer, commodity, and demand statistics by rate class were developed by
8 summarizing data contained in Schedule E and in work papers WPE-3.2a through
9 WPE-3.2l of this filing and the load research data contained in WPE-3.2c and
10 described below.

11 **Q. PLEASE DESCRIBE THE METHODOLOGY USED TO ALLOCATE**
12 **PRODUCTION PLANT AND OTHER DEMAND-RELATED ITEMS TO**
13 **THE VARIOUS CLASSES OF CUSTOMERS.**

14 A. The peak and average methodology was used in the allocation of these items. The
15 Company has a gas load research program, which allows it to determine the class
16 coincident peaks utilized in this methodology.

17 **Q. PLEASE DESCRIBE THE PEAK AND AVERAGE DEMAND METHOD**
18 **OF ALLOCATION.**

19 A. This method of demand cost allocation is an alternative method of calculating
20 average and excess demands. This method is sometimes referred to as the "used
21 and unused capacity method." "Used capacity" is the minimum capacity
22 necessary to deliver the total gas used and is numerically equal to average

1 deliveries. "Unused capacity" is simply the difference between average capacity
2 and peak capacity.

3 **Q. DO YOU HAVE AN OPINION REGARDING WHETHER THIS IS A**
4 **REASONABLE ALLOCATION METHOD TO USE?**

5 A. Yes. The peak and average demand method is a reasonable cost allocation
6 method to use because: (1) shifts in the system peak do not greatly affect the
7 allocation, as would happen in the peak day responsibility method; (2) the
8 allocation of unused capacity is similar to the non-coincident demand method,
9 except that it is applied only to the excess of class peak day demands above the
10 average daily demand; and (3) this method gives recognition to load factor.

11 **Q. HOW DID THE COMPANY DEVELOP CLASS PEAK DAY DEMAND**
12 **DATA?**

13 A. Load research data and Mcf sales levels for the twelve months ending December
14 31, 2011, were utilized to determine peak day demand data. This information is
15 included on Pages 1, 2, and 3 of workpaper WPE-3.2c. The following is an
16 example of how the demands were calculated for Rate RS for the month of
17 January 2011:

18 Step 1 - Determine the average daily demand by dividing the monthly non-
19 weather normalized volumes by the number of days in the month.

20
$$5,271,081 \text{ Mcf} \div 31 \text{ days} = 170,035 \text{ Mcf/day}$$

21 Step 2 - Determine the daily non-coincident peak demand by dividing the
22 average daily demand, from Step 1, by the non-coincident peak load
23 factor, which was obtained from load research data.

1 $170,035 \text{ Mcf/day} \div .6889 = 246,821 \text{ Mcf/day}$

2 This process was followed for each rate class for each month to determine each
3 rate class' monthly non-coincident peak day demand. The sum of each rate class'
4 monthly non-coincident peak day demand was the basis for determining Duke
5 Energy Ohio's monthly system peaks and peak month. The non-coincident peak
6 day demands were then used to develop the peak and average demand allocators
7 in the cost of service study.

8 **Q. PLEASE DESCRIBE THE METHODOLOGY USED TO ALLOCATE**
9 **DISTRIBUTION PLANT TO THE VARIOUS CLASSES OF**
10 **CUSTOMERS.**

11 A. Several different allocation factors were used to allocate distribution plant to the
12 customer classes. For example, mains were allocated based on a weighted
13 customer/demand factor while services and regulators were allocated based on
14 weighted number of customers. Large industrial measuring and regulating
15 equipment was allocated to only the Rate GS and Rate FT industrial customers
16 and Rate IT customers based on their Mcf usage. Street lighting equipment was
17 directly assigned to General Service Small customers because that is the only
18 customer class using these facilities.

19 **Q. PLEASE DESCRIBE THE METHODOLOGY USED TO ALLOCATE**
20 **COMMON AND GENERAL PLANT.**

21 A. I functionalized common and general plant based on functional salaries and
22 wages, as contained on pages 354-355 of the FERC Form 2 annual report. I then
23 used firm Mcf sales and various weighted operating and maintenance (O&M)

1 expense ratios to allocate each function to customer classes. The Company also
2 used this method in Case No. 07-589-GA-AIR, *et al.*, which was filed with and
3 approved by this Commission.

4 **Q. PLEASE EXPLAIN HOW YOU ALLOCATED ADMINISTRATIVE AND**
5 **GENERAL EXPENSES.**

6 A. I functionalized Administrative and General (A&G) expenses based on the same
7 functional salaries and wages used for general and common plant. I allocated the
8 expenses to rate classes based on the allocation of direct O&M for that function.
9 For example, A&G expenses functionalized as distribution were allocated to rate
10 classes based on that rate class' allocation of direct distribution O&M.

11 **Q. DID YOU USE ANY OTHER ALLOCATION FACTORS IN THE COST**
12 **OF SERVICE STUDIES?**

13 A. Yes, there are many plant and expense ratios that were developed internally in the
14 cost of service studies. Each cost of service study lists the allocation factor for
15 each item under the column identified as "ALLO."

16 **Q. WHAT DO THE RESULTS OF THE COST OF SERVICE STUDY SHOW?**

17 A. Based on the allocation assumptions made and the rate of return of 8.13 percent
18 requested in these proceedings, the cost of service justifies a gas revenue increase
19 of approximately \$44.6 million for the test period ended December 31, 2012, as
20 adjusted for known and measurable changes. Schedule E-3.2f, page 1 of 14, is a
21 summary of the cost of service study, which supports the proposed deficiency.

1 **Q. HOW WERE THE RESULTS OF YOUR COST OF SERVICE STUDY**
2 **USED IN THESE PROCEEDINGS?**

3 A. The results of the fully allocated cost of service study were supplied to Duke
4 Energy Ohio witness James A. Riddle, who used this data to develop the proposed
5 revenue distribution and rate design for these proceedings.

III. DISTRIBUTION OF PROPOSED REVENUE INCREASE

6 **Q. DID THE COST OF SERVICE STUDY SHOW THAT THE INCREASE**
7 **REQUIRED FOR EACH CUSTOMER CLASS WAS PROPORTIONAL?**

8 A. No. The cost of service study revealed that there are significant differences among
9 the rate classes when comparing the actual return earned by each rate class to the
10 8.13 percent return on rate base being requested in these proceedings. Put another
11 way, developing rates that generate the amount of revenue that equals the
12 allocated revenue requirement for each rate class will mean much greater
13 increases for some rate classes, in terms of percentage increases, than other
14 classes.

15 In order to mitigate the rate shock that may come from eliminating the
16 subsidy/excess (or rate disparities) among the rate classes, the Company is
17 proposing to use a two-step process to distribute the proposed revenue increase.
18 The first step eliminated 15 percent of the subsidy/excess revenues between
19 customer classes based on present revenues. The second step allocated the rate
20 increase to customer classes based on gas original cost depreciated (OCD) rate
21 base.

1 **Q. PLEASE EXPLAIN IN GREATER DETAIL THE FIRST STEP THAT**
2 **ELIMINATES 15 PERCENT OF THE SUBSIDY/EXCESS REVENUES.**

3 A. Again, it is a general tenet of ratemaking that each class should, to the extent
4 practicable, pay the costs of providing service to that class. The elimination of a
5 portion of the subsidy/excess takes into consideration that the Company is not
6 earning the same rate of return on all customer classes. It is unlikely that equal
7 rates of return across all rate classes are achievable; nonetheless, to the extent
8 possible, large variances among the customer classes should be eliminated. A
9 comparison of revenues under present rates and at the retail average rate of return
10 is made and then 15 percent of that amount is added to, or subtracted from, the
11 rate increase to determine the proposed revenues in these proceedings.

12 Admittedly, this proposal lets a subsidy/excess persist, but it will close the
13 gap so that each class is paying rates that more closely reflect its cost of service.

14 **Q. HOW DID THIS RATE DISPARITY ARISE?**

15 A. Rate disparities exist mostly due to the fact that, over the years, rates have not
16 been set based on the cost to serve customers, as determined by a cost of service
17 study. Additionally, Duke Energy Ohio's last general gas rate case, filed in 2007,
18 resulted in a settlement in which the approved rates did not completely correspond
19 with the demonstrated cost of serving each rate class.

20 **Q. WHY DID YOU PROPOSE A 15 PERCENT REDUCTION OF THE**
21 **SUBSIDY/EXCESS REVENUES IN THESE PROCEEDINGS?**

22 A. The present rate of return by class, shown on work paper WPE-3.2l, indicates that
23 there is a significant difference in those returns. In order to ensure that each

1 customer class pays the actual cost to serve that class and to move each class to
2 the average rate of return, 100 percent of the subsidy/excess would need to be
3 eliminated. However, given the wide disparity among rate classes, complete
4 elimination of the subsidy/excess would cause a dramatic swing in rate impacts
5 between and among various rate classes. By proposing to eliminate only 15
6 percent of the subsidy/excess, the Company chooses to invoke the ratemaking
7 principle of gradualism so as to mitigate the volatility of complete subsidy/excess
8 elimination.

IV. CONCLUSION

9 **Q. WERE SCHEDULES E-3.2 THROUGH E-3.2j PREPARED BY YOU OR**
10 **UNDER YOUR DIRECTION AND SUPERVISION?**

11 **A. Yes.**

12 **Q. IS THE INFORMATION CONTAINED IN THOSE SCHEDULES**
13 **ACCURATE TO THE BEST OF YOUR KNOWLEDGE AND BELIEF?**

14 **A. Yes.**

15 **Q DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

16 **A. Yes.**