BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke Energy Ohio, Inc., for an Increase in Electric Distribution Rates.)	Case No. 12-1682-EL-AIR
In the Matter of the Application of Duke Energy Ohio, Inc., for Tariff Approval.)	Case No. 12-1683-EL-ATA
In the Matter of the Application of Duke Energy Ohio, Inc., for Approval to Change Accounting Methods.)	Case No. 12-1684-EL-AAM

DIRECT TESTIMONY OF NEAL TOWNSEND

On Behalf of The Kroger Co.

February 19, 2013

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- 4 Q. Please state your name and business address.
- 5 A. Neal Townsend, 215 South State Street, Suite 200, Salt Lake City, Utah,
- 6 84111.
- 7 Q. By whom are you employed and in what capacity?
- 8 A. I am a Director at Energy Strategies, LLC. Energy Strategies is a private
- 9 consulting firm specializing in economic and policy analysis applicable to energy
- production, transportation, and consumption.
- 11 Q. On whose behalf are you testifying in this proceeding?
- 12 A. My testimony is being sponsored by The Kroger Co. ("Kroger"). Kroger
- is one of the largest grocers in the United States. Kroger has over 65 facilities
- served by Duke Energy Ohio, Inc. ("Duke" or "the Company") that collectively
- consume over 255 million kWh per year. Kroger takes most of its service under
- the DS, DP, and TS rate schedules.
- 17 Q. Please describe your educational background.
- 18 A. I received an MBA from the University of New Mexico in 1996. I also
- earned a B.S. degree in Mechanical Engineering from the University of Texas at
- 20 Austin in 1984.
- 21 Q. Please describe your professional experience and background.
- 22 A. I have provided regulatory and technical support on a variety of energy
- projects at Energy Strategies since I joined the firm in 2001. Prior to my

1		employment at Energy Strategies, I was employed by the Utah Division of Public
2		Utilities as a Rate Analyst from 1998 to 2001. I have also worked in the
3		aerospace, oil, and natural gas industries.
4	Q.	Have you testified previously before this Commission?
5	A.	No. This is my first opportunity to testify before the Public Utilities
6		Commission of Ohio ("Commission").
7	Q.	Have you testified previously before any other state utility regulatory
8		commissions?
9	A.	Yes. I have testified in utility regulatory proceedings before the Arkansas
10		Public Service Commission, the Illinois Commerce Commission, the Indiana
11		Utility Regulatory Commission, the Kentucky Public Service Commission, the
12		Michigan Public Service Commission, the Public Utility Commission of Oregon,
13		the Public Utility Commission of Texas, the Utah Public Service Commission, the
14		Virginia Corporation Commission, and the Public Service Commission of West
15		Virginia. A more detailed description of my qualifications is contained in
16		Attachment A, attached to this testimony.
17		
18	Over	view and Conclusions
19	Q.	What is the purpose of your testimony in this proceeding?
20	A.	My testimony addresses Duke's cost-of-service study and the distribution
21		of any proposed rate increase, or "rate spread." As part of this testimony, I offer
22		recommendations to the Commission in support of a just and reasonable outcome
23		in this proceeding.

- 1 Q. Have you reviewed Duke's Application filed in this proceeding on July 9,
- 2 2012?
- 3 A. Yes, I have.
- 4 Q. Have you reviewed the Staff Report of Investigation ("Staff Report") dated
- 5 **January 4, 2013?**
- 6 A. Yes, I have.

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- 7 Q. What are your primary conclusions and recommendations?
- 8 A. I offer the following conclusions and recommendations:
 - (1) Duke's class cost-of-service study improperly weights the class coincident peak demands in the calculation of Factor K205, which is used to allocate the costs of its primary voltage distribution plant to classes. In an attempt to split cost responsibility between the primary and secondary voltage distribution system, Duke assigns a greater weight to Rate DP's demand than to other classes' demand. This apparently inadvertent error in reasoning assigns Rate DP 15.4 percent of the demand-related costs of the primary system, although the class comprises only 11.8 percent of the average 2011 coincident peak demand. Weighting of class coincident peak demands is wholly unnecessary in the calculation of this factor, and distorts the cost responsibility among classes. I recommend that this improper weighting be eliminated in the calculation of this factor.
 - (2) Duke's cost-of-service study allocates all General and Common Plant functionalized into the distribution plant category on the basis of demand. This is inconsistent with the composition of Duke's distribution plant, which is

comprised of both demand and customer-related costs. I recommend that distribution General and Common Plant be classified into demand and customer components based on the composition of distribution plant.

(3) Duke's cost-of-service study fails to distinguish between Operations and Maintenance ("O&M") expenses related to primary and secondary overhead and underground lines. According to Duke's analysis, 74 percent of its conductor circuit miles are primary voltage and 26 percent are secondary voltage.\(^1\) Appropriately, the Company's cost-of-service study does not allocate rate base associated with secondary conductors to Rate DP (Service at Primary Distribution Voltage). However, Duke fails to make a corresponding distinction for O&M expenses. I recommend that O&M costs for overhead and underground lines be split between primary and secondary voltage using the same proportions as applied to rate base for conductors.

(4) Duke's cost-of-service methodology allocates the cost of certain distribution facilities such as poles and conductors exclusively on the basis of class demand, without considering that the cost of poles and conductors also has a significant customer-related component. The Company's treatment of these costs is inconsistent with the guidelines published in the National Association of Regulatory Utility Commissioners ("NARUC") Electric Utility Cost Allocation Manual, which states that a portion of pole and conductor costs should be classified as customer-related. As a result of Duke's failure to classify a portion of these costs as customer-related, the Company's analysis under-assigns cost

¹ Source: Duke WP E-3.2d, p. 3 of 10.

responsibility based on the number of customers served and over-assigns cost responsibility on the basis of demand, shifting costs unreasonably to the larger customers served on the distribution system. Accordingly, in my analysis, I employed the minimum-size method to identify the customer-related costs associated with poles and conductors (FERC Accounts 364-367). I applied the customer and demand cost proportions resulting from my analysis to the applicable plant and O&M expense accounts.

(5) When I incorporated the above modifications into the cost-of-service study, I determined that the required percentage increases for Rates DS and DP are not significantly different at the Company's requested revenue requirement. Thus, I recommend that Rates DS and DP receive the same percentage increases at Duke's requested revenue requirement. Should a lower revenue requirement be approved by the Commission, the class increase apportionment methodology employed by Staff is acceptable for spreading the approved increase, so long as my recommendation that the percentage increases between Rate DS and DP remain equal is adopted.

Cost-of-Service / Rate Spread

Q. How is Duke proposing to spread its proposed rate increase?

A. The Company is proposing to spread its proposed rate increase of \$86.6 million in the manner shown in Table NT-1 below. The Company's proposed rate increase is based on the results of its as-filed cost-of-service study.

Table NT-1

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Duke Proposed Rate Spread

Rate Schedule	Proposed Increase			
	\$	%		
Residential	46,796,761	23.6%		
Secondary Dist Large DS	24,340,025	23.8%		
Secondary Dist Large EH	180,428	15.0%		
Secondary Dist Small DM	3,183,438	16.7%		
Secondary Dist Small GSFL	137,800	23.9%		
Primary Distribution DP	7,944,434	36.6%		
Transmission	944	0.8%		
Lighting	3,998,144	51.4%		
Total Distribution	86,581,974	24.6%		

If adopted, the Company's proposal would give Duke the highest primary distribution rates of any investor-owned utility in Ohio. Comparable rates for other Ohio utilities are listed in Table NT-2 below.

 $\label{eq:Table NT-2} \textbf{Comparison of Distribution Charges for Primary Service}^2$

Utility/Rate	Customer Charge	Demand Charge	
	\$/mo.	\$/kW-mo.	
DP&L - Primary	95.00	1.8405	
Toledo Edison - GP	150.00	2.1741	
Cleveland Electric Illuminating - GP	150.00	3.1608	
Ohio Edison - GP	150.00	3.1761	
Columbus So. Power - GS-3 (Pri)	126.36	3.4886	
Ohio Power Company - GS-3 (Pri)	104.64	4.1210	
Duke Ohio-DP (Current)	200.00	3.7700	
Duke Ohio-DP (Proposed)	273.21	5.1500	

² Demand Charges for Toledo Edison, Cleveland Electric Illuminating, and Ohio Edison include Delivery Capital Recovery Rider of \$0.4413/kW, \$0.7558/kW, and \$0.9221/kW, respectively. Customer and Demand Charges for Columbus Southern Power and Ohio Power Company include Distribution Investment Rider of 9.60174%.

1		As shown in Table N1-2, Duke s proposed distribution demand charge for
2		primary service (DP) is nearly three times the rate charged by the Dayton Power
3		and Light Company ("DP&L"), more than double the rate charged by Toledo
4		Edison Company, and approximately 25 to 60 percent more than the rates charged
5		by the other companies.
6	Q.	What inferences do you draw from this information?
7	A.	Based on this information, it appears that Duke is either doing an
8		extremely poor job of providing distribution service to primary voltage customers
9		in a cost-effective manner relative to other Ohio utilities, or there is something
10		wrong with the Company's class cost-of-service analysis that is causing an over-
11		allocation of costs to primary service.
12	Q.	Have you reviewed the methodology employed by Duke to analyze
13		distribution cost of service?
14	A.	Yes, I have. The methodology used by the Company to evaluate
15		distribution cost-of-service is described by Duke witness James E. Ziolkowski. ³
16		The Company's cost-of-service analysis is presented generally in Duke Schedule
17		E-3.2.
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³ Direct Testimony of James W. Ziolkowski at 3-10.

Class Coincident Peak Demand Allocation Factors for Primary & Secondary Plant

Q. Please describe how Duke allocates the costs of its primary and secondary
 distribution system to classes.

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A. Duke divides rate base accounts for poles and conductors (FERC Accounts 364-367) into primary and secondary voltage components using the proportions of primary and secondary conductor circuit miles of its distribution system (74 percent primary and 26 percent secondary). This distinction is made in order to allocate the costs of the primary and secondary system to applicable customer classes. The class allocation of primary costs appropriately excludes Rate TS (Service at Transmission Voltage), and the class allocation of secondary costs excludes Rates TS and DP (Service at Primary Distribution Voltage). The allocation factors for primary and secondary distribution plant are based on 2011 average class coincident peak demand. The calculation of these factors can be found in Duke's WP E-3.2a, p. 3 of 6.

Q. Have you identified any problems with Duke's calculation of class coincident peak demand allocation factors?

Yes, I have. In an attempt to split cost responsibility between the primary and secondary voltage distribution system, Duke assigns an arbitrarily greater weight to Rate DP's coincident peak demand than to other classes' coincident peak demand. In the calculation of the primary coincident peak demand allocation factor, K205, Duke reduces the coincident peak demands of each class except for Rate DP by applying a scalar of 74 percent (the proportion of primary conductors on the system). Duke includes the coincident peak demand of Rate

DP at 100 percent. There is no logical or other reasonable basis for "reweighting" class coincident peak demands in this fashion. It serves no purpose in the analysis and only distorts coincident peak demand allocation factors among the classes to the disadvantage of Rate DP. This apparently inadvertent error in reasoning assigns Rate DP 15.4 percent of the costs of the primary system, although the class comprises only 11.8 percent of the average 2011 coincident peak demand.

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In the calculation of the secondary coincident peak demand allocation factor, K206, Duke multiplies the coincident peak demands of each applicable class (which excludes Rates TS and DP) by 26 percent. While logically unnecessary, the 26 percent weighting is applied equally to all secondary classes in calculation of the secondary factor, and thus produces identical results as unweighted coincident peak demands for this factor.

Q. Isn't it necessary to weight the class demands in order to assign costs of the primary and secondary voltage distribution system?

No, not at all. The calculation of the primary coincident peak demand factor should include each applicable class' load at the time of system peak.⁴ Only classes that use the primary distribution system should be included, thus Rate TS is appropriately excluded from the calculation.

The calculation of the secondary coincident peak demand factor should also include each applicable class' load at the time of system peak. Only classes that use the secondary distribution system should be included, thus Rates TS and

⁴ Duke uses 2011 average coincident peak demands (12 CP), which are the average of each class's load during the system's peak each month.

DP are appropriately excluded. The allocation factors should be based on the proportion of system peak demand that each applicable rate class comprises.

No weighting of class demands is necessary, because the total costs of the primary and secondary voltage system have already been determined. The only necessary difference between the calculation of the primary and secondary demand allocation factors is the exclusion of Rate DP in the calculation of the secondary factor. Instead, Duke needlessly applies unequal weighting percentages to class coincident peak demands, resulting in dramatic over-assignment of costs to Rate DP.

Q. What do you recommend regarding the calculation of primary and secondary coincident peak demand allocation factors?

The calculation of these factors in Duke's cost-of-service study should be corrected to include each class' demand without the superfluous and incorrect weighting assigned by Duke in deriving Allocation Factor K205. By correcting this error, the resulting class allocation proportions revert to those of Allocation Factor K201, the class coincident peak demand allocation factor.

18 General and Common Plant

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Q. How does Duke allocate its General and Common Plant to classes?

A. First, Duke splits its General and Common Plant into functions based on percentage of payroll. These functions include Production Plant, Transmission Plant, Distribution Plant, Customer Accounting, and Customer Service & Info.

The General and Common Plant functionalized into the Production and

Transmission Plant categories is excluded from the distribution cost-of-service.

The plant functionalized into the remaining categories: Distribution Plant,

Customer Accounting, and Customer Service & Info is allocated to classes in the

distribution cost-of-service study.

The General and Common Plant functionalized into the Customer Accounting and Customer Service & Info categories is allocated according to Customer Accounting and Customer Service O&M expense ratios, based largely on the number of customers. The General and Common Plant functionalized into the Distribution Plant category is allocated to classes based on class coincident peak demand, Factor K201.

Do you have any comments on Duke's allocation method for General and Common Plant?

Yes, the General and Common Plant functionalized into the Distribution Plant category should be classified into demand and customer components consistent with the composition of distribution plant itself. The Company's cost-of-service study recognizes 12 percent of net distribution as customer-related. I believe that the recognition of a greater proportion of customer-related costs is appropriate. Nonetheless, at a minimum, 12 percent of General and Common Plant should be classified as customer-related, and allocated to classes based on the number of customers.

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Overhead and Underground Lines O&M Expenses

2 Q. How does Duke allocate its O&M expenses for Overhead and Underground

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- A. Duke allocates its O&M expenses for Overhead and Underground Lines

 (FERC Accounts 583, 584, 593, and 594) to classes using Factor K205, the

 primary class coincident peak demand factor.
- Q. What is your assessment of Duke's allocation method for Overhead and
 Underground Lines O&M expenses?
 - First, Duke fails to distinguish between primary and secondary voltage in the allocation of these expenses. Primary voltage conductors comprise 74 percent of Duke's distribution system, and secondary voltage conductors comprise 26 percent. Rate base for conductors is divided into primary and secondary cost categories based on these proportions. Therefore, it is appropriate to make this distinction for associated O&M expenses. However, Duke fails to make a corresponding distinction for O&M expenses. Customers taking service on Rate DP should not be allocated O&M expenses associated with the secondary voltage distribution system.

Second, Duke's use of the flawed Factor K205 compounds the problem of over-allocation of costs to Rate DP. After O&M expenses have been divided into primary and secondary cost categories, demand-related costs should be allocated using coincident peak demand allocation factors calculated according to the guidelines described earlier in my testimony (i.e., using un-weighted class coincident peaks).

Lastly, I recommend that the demand and customer cost proportions resulting from my minimum-size analysis for conductors, described in the following section, be used to classify and allocate the Overhead and Underground Lines O&M expenses based on demand and customer components.

Q. What is the impact of your recommended corrections and adjustments on the rate spread?

I have incorporated the corrections and allocation adjustments discussed above (Factor K205 correction, General and Common Plant allocation, and Overhead and Underground Lines O&M Expense allocation) into Duke's cost-of-service study. The resulting rate spread using Duke's rate spread and subsidy reduction framework is presented in Attachment NT-1, p. 1 of 1. These results are provided for informational purposes, and do not constitute my final rate spread proposal.

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A.

Classification and Allocation of Poles and Conductors

Q. Do you have any comments regarding the Company's allocation method for poles and conductors?

Yes. Duke's cost-of-service methodology allocates the cost for poles and conductors exclusively on the basis of class demand, without considering that the cost of poles and conductors also has a significant customer-related component.⁵ These facilities are installed to deliver service to customer premises. As such, a significant portion of the investment required to provide these facilities is directly

⁵ Direct Testimony of James E. Ziolkowski at 9, ln 9.

related to the number of customers and their geographic dispersion on the utility's system. A well-designed and fair distribution cost-of-service study should take these aspects of cost causation into account. In contrast, the Company's approach ignores the role of the number of customers and their geographic dispersion in influencing system investment requirements. As a result, the Company's analysis under-assigns cost responsibility based on the number of customers served and over-assigns cost responsibility on the basis of demand, shifting costs unreasonably to the larger customers served on the distribution system.

- Q. What FERC accounts are affected by the Company's failure to classify pole and conductor costs as customer-related?
- 11 A. The affected accounts are Account 364 Poles, Towers, and Fixtures,⁶
 12 Account 365 Overhead Conductors and Devices, and Accounts 366 and 367 –
 13 Underground Conduit, Conductors, and Devices.
 - Q. Is the position you are advancing with respect to the classification of a portion of pole and conductor costs as customer-related consistent with the recommended treatment of these costs as presented in the Electric Utility Cost Allocation Manual published by NARUC?
 - A. Yes. The NARUC Cost Allocation Manual is very clear on this subject.

 Regarding the allocation of distribution costs, the manual states: "The customer component of distribution facilities is that portion of costs which varies with the number of customers. Thus the number of poles, conductors, transformers, services, and meters are directly related to the number of customers on the

⁶ Duke Energy Ohio includes Account 3601 (rights of way) with its Account 364 plant in its cost-of-service study, so for purposes of this discussion I will include Account 3601 with Account 364.

utility's system."⁷ The NARUC Manual goes on to describe methodologies for incorporating the influence of customer-related costs in the allocation of costs for these accounts.

What are the consequences of allocating costs for poles and conductors exclusively on the basis of class demand?

Ignoring the customer-related cost component for poles and conductors, and allocating these costs solely on the basis of demand, distorts cost responsibility among customers using the distribution system. Consider, for example, that to serve Duke's nearly 700,000 customers, the Company has had to install poles and distribution lines throughout its service territory sufficient to deliver service to each customer premise. Of these nearly 700,000 customers. only 280 take service under the DP rate schedule. These 280 customers comprise less than 5/100 of 1 percent of the customers on the distribution system – yet the Company's cost-of-service study assigns these customers 15.4 percent of the net plant costs of the primary distribution system poles, towers, fixtures, and conductors. In my opinion, this is an egregious inequity. It is fundamentally unreasonable on its face to maintain that 280 customers are somehow responsible for causing 15 percent of the costs of the primary poles and wires to deliver power over a system that was constructed to reach nearly 700,000 customers. One reason for this gross over-allocation is that Duke allocates the costs of all of the

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⁷ NARUC Electric Utility Cost Allocation Manual at 90 (1992) (emphasis added).

⁸ Duke Schedule E 3.2, p. 18.

⁹ Duke Schedule E 3.2, p. 4. Note that when Factor K205 is calculated correctly (un-weighted class peaks), Rate DP is allocated 11.8 percent of primary distribution plant costs.

poles and conductors on the basis of class group peak demand, ignoring the customer-related cost component of these facilities.

Q. What methodologies are typically used for determining the customer-related portion of poles and conductor costs?

The most commonly-used methods are the minimum-size method and the zero-intercept method. Both methods are described in the NARUC Manual referenced above. In fact, Duke allocates line transformer costs (FERC Account 368) using the minimum-size method. The Staff Report also recognized that a minimum size distribution system is required to serve any one customer. According to the study conducted by Mr. Ziolkowski approximately 21 percent of transformer costs are customer-related. The Company, however, ignores the NARUC Manual guidelines for classifying poles and conductors.

Q. Please explain the minimum-size method you utilized to identify the customer-related cost of poles and conductors.

Using information obtained through discovery, I identified the 2011 average unit cost of the minimum-size pole (Account 364), overhead conductor (Account 365), and underground conductor (Account 367) on Duke's primary and secondary distribution system. Duke's responses to Kroger-POD-03-007, Kroger-POD-05-015 and Kroger-POD-05-016 provided the number of in-service poles and miles of conductor installed in each year beginning in 1910 through 2011.

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¹⁰ Direct Testimony of James E. Ziolkowski at 10-11.

¹¹ Staff Report at 35 (January 4, 2013).

¹² Direct Testimony of James W. Ziolkowski at 11, ln 9.

Using the Handy-Whitman Index for each FERC account, I calculated the minimum-size cost per unit for each year. I then multiplied the minimum-size unit cost by the number of units (number of poles or miles of conductor) installed in each year. These amounts were summed to obtain the total minimum-size cost for each FERC account, which was classified as customer-related. The balance of each FERC account was classified as demand-related.

Q.

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What were the results of your minimum-size analysis for each account?

For primary Poles, Towers, and Fixtures (Account 364), 29.7 percent of the costs were customer-related, and 70.3 percent of the costs were demand-related. For secondary Poles, Towers, and Fixtures (Account 364), 29.6 percent of the costs were customer-related, and 70.4 percent of the costs were demand-related. Duke includes Account 3601 (rights-of-way) with its Account 364 plant in its cost-of-service study, so I applied these same ratios to the balance in Account 3601.

For primary Overhead Conductors and Devices (Account 365), 16.4 percent of the costs were customer-related, and 83.6 percent of the costs were demand-related. For secondary Overhead Conductors and Devices (Account 365), 13.8 percent of the costs were customer-related, and 86.2 percent of the costs were demand-related.

For primary Underground Conductors and Devices (Account 367), 13.1 percent of the costs were customer-related, and 86.9 percent of the costs were demand-related. For secondary Underground Conductors and Devices (Account

367), 6.6 percent of the costs were customer-related, and 93.4 percent of the costs 1 were demand-related. 2 3 Based on NARUC minimum-size method guidelines, Underground 4 Conduit (Account 366) is assigned the same demand and customer cost ratios 5 resulting from the Account 367 analysis. What do you recommend based on the results of your minimum-size analysis 6 Q. 7 for poles and conductors? 8 A. I recommend that the customer and demand cost proportions resulting from my minimum-size analysis be used to classify and allocate the gross plant 9 and depreciation reserve associated with FERC accounts 364-367 in Duke's cost-10 of-service study. Net distribution plant is used to allocate working capital and 11 depreciation expense. 12 13 In addition, the O&M expenses for Overhead and Underground conductors should be classified into demand and customer components based on 14 15 the minimum-size method results for FERC Accounts 365 and 367, respectively. 13 Q. What is the combined impact of all your recommended corrections and 16 17 adjustments on the rate spread? A. I have incorporated each of the corrections and allocation adjustments 18 19 discussed above into Duke's cost-of-service study. The resulting rate spread 20 using Duke's rate spread and subsidy reduction framework is presented in

¹³ Because the FERC Uniform System of Accounts specifies that Account 593, Maintenance of Overhead Lines, shall include expenses incurred for Account 364, Account 365, and Account 369 (Services, classified as customer-related), the customer cost ratio resulting from my minimum-size analysis for FERC Account 365 should be the minimum customer cost proportion applied to Account 593.

Attachment NT-2, p. 1 of 1. These results are provided for informational purposes, and do not constitute my final rate spread proposal.

A.

Rate Spread Recommendation

What recommendations do you make to the Commission based on your review of the Company's cost-of-service study?

Because Duke's cost-of-service study dramatically over-allocates costs to Rate DP, the Company's study results cannot be relied upon to inform the Commission as to the appropriate rate increase for this customer class. By relying on the Company's study, the rate spreads proposed both by Duke and Staff apportion an unreasonable share of the proposed rate increase to Rate DP and would distort the relative pricing relationship of customers taking service on Rates DS and DP.

By correcting the errors in the Company's cost-of-service study and applying the distribution cost-of-service principles in the NARUC Manual, I have determined that the required percentage increases for Rates DS and DP at the Company's requested revenue requirement are not significantly different. Therefore, I recommend that Rates DS and DP receive the same percentage increase at the Company's requested revenue requirement.

I have used Staff's rate spread proposal as the starting point for my rate spread recommendation, which is presented in Attachment NT-3, p. 1 of 3, and is compared to that of Duke and Staff in Table NT-3 below.

Table NT-3

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Comparison of Rate Spread Proposals (at Duke's Requested Revenue Requirement)

	Duke Proposed		Staff Pro	posed	Kroger Proposed		
		% of		% of		% of	
	(\$)	Total	(\$)	Total	(\$)	Total	
Residential	46,796,761	54.05%	46,651,251	53.88%	46,651,251	53.88%	
Secondary Dist. Large	24,340,025	28.11%	24,619,812	28.44%	26,839,761	31.00%	
Secondary Dist. Large EH	180,428	0.21%	294,082	0.34%	294,082	0.34%	
Secondary Dist. Large DM	3,183,438	3.68%	2,982,883	3.45%	2,982,883	3.45%	
Secondary Dist. Large GSFL	137,800	0.16%	138,603	0.16%	138,603	0.16%	
Primary Distribution	7,944,434	9.18%	7,908,804	9.13%	5,688,856	6.57%	
Transmission	944	0.001%	899	0.001%	899	0.001%	
Lighting	3,998,144	4.62%	3,985,639	4.60%	3,985,639	4.60%	
Total Distribution	86,581,974	100%	86,581,973	100%	86,581,974	100%	

Q. Does your rate spread proposal impact rates associated with the residential class relative to Staff's proposal?

No. My rate spread proposal does not alter the distribution of revenue responsibility to residential customers compared to Staff's proposal.

Q. What rate spread do you recommend if the Commission approves a lower revenue requirement than that requested by Duke?

If a lower revenue requirement is approved by the Commission, the class increase apportionment methodology employed by Staff is reasonable for spreading the approved increase so long as my recommendation that the percentage increases between Rate DS and DP remain equal is adopted. My rate spread proposals at Staff's "Upper Bound" revenue increase (\$46.2 million) and at Staff's "Lower Bound" revenue increase (\$37.2 million) are presented in Attachment NT-3, p. 2 and p. 3, respectively.

- 1 Q. Does this conclude your direct testimony?
- 2 A. Yes, it does.

Resume

Neal Townsend Energy Strategies, LLC 215 S. State Street, Suite 200 Salt Lake City, Utah 84111

Work Experience:

Director, Energy Strategies, LLC (2001 – Present)

Rate Analyst, State of Utah, Division of Public Utilities (1997 – 2001)

Other

Systems Engineer, Morton Thiokol, Inc.
Assistant Engineer, Schafer Engineering
Graduate/Research Assistant, University of New Mexico

Education:

University of New Mexico, Masters of Business Administration, 1996

University of Texas, Austin, B.S., Mechanical Engineering, 1984

Publications:

Kevin C. Higgins, Neal Townsend, and Susannah Vale, "Utility-Related Statutory and Regulatory Barriers," Chapter 6 in Coastal Wind: Energy for North Carolina's Future. University of North Carolina, Chapel Hill: 2009.

Regulatory Testimony:

State of Arkansas

<u>Docket #</u> 10-010-U & 10-010-R <u>Title</u>
In the Matter of a
Notice of Inquiry into
Energy Efficiency

Opt-Out Rules
stitution
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Activity

DSM Self Direction

In the Matter of the Institution of a Rulemaking to Adopt Amendments to the Commission's Rules on Conservation & Energy Efficiency to Allow Self-Directed Programs for Large Consumers

State of Illinois

Docket # 10-0467

<u>Title</u>
Commonwealth Edison
Company Proposed General
Increase in Electric Rates

Activity
Rate Spread, Rate Design

State of Indiana

Cause # 44075

<u>Title</u> Petition of Indiana Michigan

Power Company, an Indiana
Corporation, for Authority to
Increase its Rates and Charges
for Electric Utility Service, for
Approval of: Revised Depreciation
Rates; Accounting Relief;
Inclusion in Basic Rates and
Charges of the Costs of Qualified
Pollution Control Property;
Modifications to Rate Adjustment
Mechanisms; and Major Storm
Reserve; and for Approval of
New Schedules of Rates, Rules
and Regulations

Activity

Rate Design, Class Cost of Service

State of Kentucky

	State of Kentucky	
<u>Case #</u> 2009-00548	Title Application of Kentucky Utilities Company for an Adjustment of Base Rates	Activity Rate Spread, Rate Design
2009-00549	Application of Louisville Gas and Electric Company for an Adjustment of its Electric and Gas Base Rates	Rate Spread, Rate Design
	State of Michigan	
<u>Case #</u> U-16794	Title In the Matter of the Application of Consumers Energy Company for Authority to Increase its Rate for the Generation and Distribution of Electricity and for Other Relief	Activity Rate Spread, Revenue Decoupling, Rate Design, Load Aggregation,
U-16472 & U-16489	In the Matter of the Application of the Detroit Edison Company for Authority to Increase its Rates, Amend its Rate Schedules and Rules Governing the Distribution and Supply of Electric Energy, and for Miscellaneous Accounting Authority	Rate Increase Mitigation Proposals, Bonus Tax, Depreciation, Rate Spread, Decoupling, Load Aggregation, Surcharge Proposal, Environmental Cost Recovery, Revenue Tracker
	In the Matter of the Application of the Detroit Edison Company for Approval to Defer Certain Pension and Post-Employment Benefits for Future Amortization and Recovery	
U-16191	In the Matter of the Application of Consumers Energy Company for Authority to Increase its Rate for the Generation and Distribution of	Pension Tracker, Class Cost of Service, Decoupling, Rate Spread, Tariff Language

Electricity and for Other Relief

U-15645

In the Matter of the **Application of Consumers Energy Company for Authority** to Increase its Rate for the Generation and Distribution of Electricity and Other Relief

Class Cost of Service, Rate Spread

State of Oregon

Docket # UE-217

Title

In the Matter of PacifiCorp's Filing of Revised Tariff Schedules for Electric Service in Oregon

Activity

Support of Stipulation

UE-246

In the Matter of PacifiCorp's Filing of Revised Tariff Schedules for Electric Service in Oregon

Rate Design,

Energy Cost Adjustment Mechanism, Support of

Stipulation

State of Texas

Docket # 38951

Title

Application of Entergy Texas, Inc. for Approval of Competitive Generation Service Tariff (Issues Severed from Docket No. 37744)

Activity

Recovery of Stranded Costs

State of Utah

Docket # 11-035-200 Title

In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service

Regulations

Activity

Class Cost of Service, Rate Spread, Rate

Design

09-035-23	In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations	Rate Design, Revenue Decoupling
09-035-T08	In the Matter of Rocky Mountain Power Advice No. 09-08, seeking an Adjustment to the DSM Tariff Rider, Schedule 193	Support of Stipulation
04-035-42	In the Matter of the Application of PacifiCorp For Approval of its Proposed Electric Rate Schedules and Electric Service Regulations	Derivation of Prudence Disallowance
03-035-14	In the Matter of the Application of PacifiCorp For Approval of an IRP Based Avoided Cost Methodology For QF Projects Larger than 1 MW	Derivation of Methodology for Establishing QF Avoided Cost Pricing
02-035-04	In the Matter of the Application of PacifiCorp for an Investigation of Inter-Jurisdictional Issues	Support of Settlement Agreement
99-057-20	In the Matter of the Application of Questar Gas Company for an Increase in Rates and Charges	Revenue Requirement and Class Cost of Service Modeling, Proposed CO ₂ Plant Disallowance Mechanism
99-035-10	In the Matter of the Application of PacifiCorp For Approval of its Proposed Electric Rate Schedules and Electric Service Regulations	Interjurisdictional Cost Allocation and Class Cost of Service Modeling

98-057-12

In the Matter of the Application of Questar Gas Company for Approval of a Natural Gas Processing Agreement

Assessment of Application, Revenue Requirement Modeling

State of Virginia

Case #

PUE-2012-00072

Title

Application of Virginia Electric and Power Company

for Revision of Rate Adjustment Clause: Rider B, Biomass Conversions of the Altavista, Hopewell, and Southampton Power Stations, for the Rate Year Commencing

April 1,2013

PUE-2012-00071

Application of Virginia

Electric and Power Company for Revision of Rate Adjustment Clause: Rider S, Virginia City Hybrid Energy Center, for the Rate Year Commencing

April 1,2013 and April 1, 2014

PUE-2012-00067

Application of Virginia Electric and Power Company for Revision of Rate Adjustment

Clause: Rider W, Warren County Power Station, for the Rate Year

Commencing April 1,2013

Activity

Rate Design

Rate Design

Rate Design

PUE-2011-00042

In the Matter of the Application of Virginia Electric and Power Company for Approval and Certification of the Proposed Warren County Power Station, Electric Generation and Related Transmission Facilities under §§ 56-580 D, 56-265.2 and 56-46.1 of the Code of Virginia and for Approval of a Rate Adjustment Clause, Designated Rider W, under § 56-585.1 A 6

Rate Design

State of West Virginia

<u>Case #</u> 09-1352-E-42T

<u>Title</u>
Monongahela Power Company
and the Potomac Edison
Company, both d/b/a
Allegheny Power

of the Code of Virginia

Rule 42T Tariff Filing to Increase Rates and Charges

Activity

Rate Spread, Rate Design

Rate Spread Results Using Duke's Framework from WP E-3.2g, p. 1 Incorporating Kroger's Correction to Factor K205, General & Common Plant Allocation, and Overhead and Underground Lines O&M Expenses Allocation

Line No.	Rate Class	Distribution Rate Base	Present Distribution Revenues	Increase Including 15% Subsidy Reduction	Resulting Percent Increase
1	Rate RS	\$ 595,427,849	\$ 198,522,719	\$ 48,133,771	24.25%
2	Rate DS	345,536,158	102,395,120	25,021,712	24.44%
3	Rate EH	6,203,748	1,202,853	535,039	44.48%
4	Rate DM	45,877,026	19,058,213	2,931,179	15.38%
5	Rate GSFL	1,929,913	575,543	141,460	24.58%
6	Rate DP	75,539,271	21,703,289	5,811,453	26.78%
7	Rate TS	166,803	122,600	287	0.23%
8	Lighting	 45,992,149	7,772,168	4,007,073	51.56%
9	Total	\$ 1,116,672,917	351,352,505	\$ 86,581,974	24.64%

Rate Spread Results Using Duke's Framework from WP E-3.2g, p. 1 Incorporating All of Kroger's Recommended Corrections and Allocation Adjustments

Line No.	Rate Class	Distribution Rate Base	Present Distribution Revenues	Increase Including 15% Subsidy Reduction	Resulting Percent Increase
1	Rate RS	\$ 639,720,664	\$ 198,522,719	\$ 53,088,892	26.74%
2	Rate DS	309,550,713	102,395,120	20,995,403	20.50%
3	Rate EH	5,705,993	1,202,853	479,326	39.85%
4	Rate DM	48,024,729	19,058,213	3,171,530	16.64%
5	Rate GSFL	1,775,288	575,543	123,994	21.54%
6	Rate DP	65,600,363	21,703,289	4,700,332	21.66%
7	Rate TS	166,803	122,600	287	0.23%
8	Lighting	 46,128,364	7,772,168	4,022,210	51.75%
9	Total	\$ 1,116,672,917	\$ 351,352,505	\$ 86,581,974	24.64%

Kroger Proposed Distribution of Revenue Increase at Duke Ohio's Requested Revenue Increase vs. Most Current Revenue

Duke Energy Ohio Case No. 12-1682-EL-AIR for the Twelve Months Ended December 31, 2012 (Electric Service)

CURRENT VS. PROPOSED ANNUALIZED

Line No.	Rate Code	Class Description	Customer Bills	Sales	Current Revenue Less Fuel Cost Revenue	Proposed Revenue Less Fuel Cost Revenue	Revenue Incr. Less Fuel Cost Rev. (F - E)	% Incr. in Rev. Less Fuel Cost Rev. (G ÷ E)
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
				(kWh)	(\$)	(\$)	(\$)	(%)
\mathbf{F}	Total Residential		7,535,400	7,117,952,670	198,522,719	245,173,970	46,651,251	23.5
	DISTRIBUTI	ION VOLTAGE SERVICE						
2	DS/DS RTP	Sec. Distribution Service	242,355	6,368,170,538	102,395,120	129,234,881	26,839,761	26.2
3	GSFL/SFL-ADPL	Unmetered Small Fixed Load	4,290	30,180,210	575,543	714,146	138,603	24.1
4	EH	Electric Space Heating	6,945	69,443,303	1,202,853	1,496,935	294,082	24.4
5	DM	Sec. Distribution Service - Small	469,412	527,335,773	19,058,213	22,041,096	2,982,883	15.7
6	DP/DP RTP	Prim. Distribution Voltage	4,666	2,331,909,630	21,703,289	27,392,145	5,688,856	26.2
7	Total Distribution		718,668	9,327,039,454	144,935,018	180,879,203	35,944,185	24.8
ñ	Total Transmission		655	3,137,807,912	122,600	123,499	899	0.7
9	Total Lighting		1,299,944	122,892,816	7,772,168	11,757,807	3,985,639	51.3
10	Total Company		9,554,667	19,705,692,852	351,352,505	437,934,479	86,581,974	24.6
		CELLANEOUS REVENUE						
	Interdepartmental		12	4,004,501	275,197	275,197	0	0.0
12 13	Bad Check Charges		0	.0	0	0	0	0.0
14	Late Payment Charg Reconnection Charg		U		0	0	0	0.0
	Rents-Distribution	jes.	Ų		0	0	0	0.0
	Pole Contact Rentals	_	U	0	2,771,052	2,771,052	0	0.0
	Intercompany	3	U A	0	1,563,439	1,563,439	0	0.0
	Special Contracts		24	1 415 050	0	0	0	0.0
	Other Misc.		24 N	1,415,959 0	21,889	21,889	0	0.0
	Total Misc.		36	5,420,460	4,404,693 9,036,270	4,404,693 9,036,270	U	0.0
21	Total Company		9,554,703	19,711,113,312	360,388,775	446,970,749	86,581,974	24.0

Kroger Proposed Distribution of Revenue Increase at Staff's Recommended Upper Bound Revenue Increase vs. Most Current Revenue

Duke Energy Ohio Case No. 12-1682-EL-AIR for the Twelve Months Ended December 31, 2012 (Electric Service)

CURRENT VS. PROPOSED ANNUALIZED

Line No.	Rate Code (A)	Class/ Description (B)	Customer Bills (C)	Sales (D) (kWh)	Current Revenue Less Fuel Cost Revenue (E) (\$)	Proposed Revenue Less Fuel Cost Revenue (F) (\$)	Revenue Incr. Less Fuel Cost Rev. (F - E) (G)	% Incr. in Rev. Less Fuel Cost Rev. (G + E) (H) (%)
UV	T. 1 D. 11 41							(%)
0.5	Total Residential		7,535,400	7,117,952,670	198,522,719	223,397,638	24,874,919	12.5
	DISTRIBUT	ION VOLTAGE SERVICE						
2	DS/DS RTP	Sec. Distribution Service	242,355	6,368,170,538	102,395,120	116,706,352	14,311,232	14.0
3	GSFL/SFL-ADPL	Unmetered Small Fixed Load	4,290	30,180,210	575,543	649,448	73,905	12.8
4	ČH	Electric Space Heating	6,945	69,443,303	1,202,853	1,359,660	156,807	13.0
:5	DM	Sec. Distribution Service - Small	460,412	527,335,773	19,058,213	20,648,716	1,590,503	8.3
6	DP/DP RTP	Prim. Distribution Voltage	4.666	2,331,909,630	21,703,289	24,736,645	3,033,356	14,0
2	Total Distribution	_	718,668	9,327,039,454	144,935,018	164,100,821	19,165,803	13.2
							.,,	
	Total Transmission		655	3,137,807,912	122,600	123,079	479	0.4
9	Total Lighting		1,299,944	122,892,816	7,772,168	9,897,351	2,125,183	27.3
10	Total Company		9,554,667	19,705,692,852	351,352,505	397,518,890	46,166,385	13.1
		CELLANEOUS REVENUE						
11	Interdepartmental		12	4,004,501	275,197	275,197	0	0.0
	Bad Check Charges		0	0	0	0	0	0.0
	Late Payment Charges Reconnection Charges		0	0	0	0	0	0.0
	Rents-Distribution	es	0	9	0	0	0	0.0
	Pole Contact Rentals		0	9	2,771,052	2,771,052	0	0.0
	Intercompany	5	0	. 6	1,563,439	1,563,439	0	0.0
	Special Contracts		0	0	0	0	0	0.0
	Other Misc.		24	1,415,959	21,889	21,889	0	0.0
	Total Misc.		<u>0</u>	0	4,404,693	4,404,693	0_	0.0
20	I OLAI IVIISU,			5,420,460	9,036,270	9,036,270	0	0.0
21	Total Company		9,554,703	19,711,113,312	360,388,775	406,555,160	46,166,385	12.8

Kroger Proposed Distribution of Revenue Increase at Staff's Recommended Lower Bound Revenue Increase vs. Most Current Revenue

Duke Energy Ohio Case No. 12-1682-EL-AIR for the Twelve Months Ended December 31, 2012 (Electric Service)

CURRENT VS. PROPOSED ANNUALIZED

					Current Revenue Less	Proposed Revenue Less	Revenue Incr. Less	% Incr. in Rev. Less
Line	Rate	Class.	Customer		Fuel Cost	Fuel Cost	Fuel Cost Rev.	Fuel Cost Rev.
No.	Code	Description	Bills	Sales	Revenue	Revenue	(F - E)	(G ÷ E)
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
				(kWh)	(\$)	(\$)	(\$)	(%)
1	Total Residential		7,535,400	7,117,952,670	198,522,719	218,549,748	20,027,029	10.1
	DISTRIBUT	ION VOLTAGE SERVICE						
2	DS/DS RTP	Sec. Distribution Service	242,355	6,368,170,538	102,395,120	113,917,226	11,522,106	11.3
3	GSFL/SFL-ADPL	Unmetered Small Fixed Load	4,290	30,180,210	575,543	635,044	59,501	10.3
4	EH	Electric Space Heating	6,945	69,443,303	1,202,853	1,329,100	126,247	10.5
5	DM	Sec. Distribution Service - Small	460,412	527,335,773	19,058,213	20,338,742	1,280,529	6.7
6	DP/DP RTP	Prim, Distribution Voltage	4,666	2,331,909,630	21,703,289	24,145,472	2,442,183	11.3
7	Total Distribution		718,668	9,327,039,454	144,935,018	160,365,585	15,430,567	10.6
*	Total Transmission		655	3,137,807,912	122,600	122,986	386	0.3
9	Total Lighting		1,299,944	122,892,816	7,772,168	9,483,173	1,711,005	22.0
10	Total Company		9,554,667	19,705,692,852	351,352,505	388,521,491	37,168,986	10.6
		CELLANEOUS REVENUE						
11	Interdepartmental		12	4,004,501	275,197	275,197	0	0.0
12	Bad Check Charges		90	0	0	0.	0	0.0
13	Late Payment Char		0	0	0	0	0	0.0
14 15	Reconnection Charg Rents-Distribution	es	93	0	0	0	0	0.0
16	Pole Contact Rental		9	0	2,771,052	2,771,052	0	0.0
17	Intercompany		0	0	1,563,439	1,563,439	0	0.0
18	Special Contracts		0.7	0	0	0	0	0.0
19	Other Mise.		24	1,415,959	21,889	21,889	0	0.0
20	Total Mise.		36	0	4,404,693	4,404,693		0.0
	a west 171136;			5,420,460	9,036,270	9,036,270	0	0.0
21	Total Company		9,554,703	19,711,113,312	360,388,775	397,557,761	37,168,986	10.3

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Case No(s). 12-1682-EL-AIR, 12-1683-EL-ATA, 12-1684-EL-AAM

Summary: Testimony Direct Testimony of Neal Townsend electronically filed by Mrs. Kimberly W. Bojko on behalf of The Kroger Co.