

**OCC EXHIBIT NO. \_\_\_\_\_**

**BEFORE  
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application of Ohio	)	
Edison Company, The Cleveland Electric	)	
Illuminating Company and The Toledo	)	
Edison Company for Authority to Provide	)	Case No. 14-1297-EL-SSO
for a Standard Service Offer Pursuant to	)	
R.C. 4928.143 in the Form of an Electric	)	
Security Plan	)	

**SUPPLEMENTAL TESTIMONY  
OF  
SCOTT J. RUBIN**

**On Behalf of**  
**The Office of the Ohio Consumers' Counsel**  
*10 West Broad Street, Suite 1800*  
*Columbus, Ohio 43215*

**December 30, 2015**

## **LIST OF ATTACHMENTS**

- Attach. SJR-8: Comments of Ohio Energy Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company in Case No. 10-3126-EL-UNC
- Attach. SJR-9: Illustration of Effect of Moving Toward Residential Straight-Fixed Variable Rates Using Current Distribution Rates and Billing Units from 2007 Rate Case
- Attach. SJR-10: Typical Annual Usage (kWh) Based on US Department of Energy Residential Load Profiles
- Attach. SJR-11: Relationship Between Household Income and Electricity Usage and Expenditures
- Attach. SJR-12: Relationship Between Housing Income and Electricity Expenditures in 2014

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On Behalf of the Office of the Ohio Consumers' Counsel  
PUCO Case No. 14-1297-EL-SSO*

1   ***Q1. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.***

2   ***A1.***   My name is Scott J. Rubin. My business address is 333 Oak Lane, Bloomsburg,  
3           PA. I previously submitted direct testimony in this proceeding on behalf of the  
4           Office of the Ohio Consumers' Counsel ("OCC").

5

6   ***Q2. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL TESTIMONY?***

7   ***A2.***   OCC has asked me to review, analyze, and comment upon paragraph V.F. of the  
8           Third Supplemental Stipulation and Recommendation. That paragraph is entitled  
9           "Transition to Decoupled Rates." The paragraph proposes a significant change in  
10          the design of distribution rates for residential customers of Ohio Edison Company  
11          ("OE"), The Cleveland Electric Illuminating Company ("CEI"), and The Toledo  
12          Edison Company ("TE") (collectively "Companies").

13

14   ***Q3. HAVE YOU TESTIFIED PREVIOUSLY CONCERNING DECOUPLING***  
15       ***MECHANISMS AND RESIDENTIAL RATE DESIGN FOR ENERGY***  
16       ***UTILITIES?***

17   ***A3.***   Yes. I have testified concerning residential rate design, including proposed  
18          decoupling mechanisms, in several base rate cases involving natural gas and  
19          electric distribution utilities. Since 2013 these have included cases in Alaska  
20          (Chugach Electric and Municipal Light & Power electric base rate cases),  
21          Connecticut (United Illuminating electric base rate case), District of Columbia

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1 (Potomac Electric base rate case), Illinois (Ameren Illinois electric rate design  
2 case and natural gas base rate case, Commonwealth Edison rate design cases,  
3 Peoples Natural Gas base rate case), Maine (Maine Natural Gas Co. base rate  
4 case), Mississippi (Entergy electric base rate case), Ohio (Duke Energy electric  
5 and natural gas base rate cases), and Pennsylvania (Pike County Light & Power  
6 electric and natural gas base rate cases).

7

8 ***Q4. HAVE YOU PUBLISHED ANY SCHOLARLY PAPERS CONCERNING***  
9 ***RESIDENTIAL RATE DESIGN FOR ENERGY UTILITIES?***

10 ***A4.*** Yes. I recently published a peer-reviewed paper in the November 2015 issue of  
11 *The Electricity Journal* entitled "Moving Toward Demand-Based Residential  
12 Rates." In that paper, I discussed and analyzed several options for designing cost-  
13 based residential rates.

14

15 ***Q5. WHAT IS THE FOCUS OF YOUR TESTIMONY?***

16 ***A5.*** My testimony discusses whether the proposed residential base-rate provision in  
17 the Third Supplemental Stipulation and Recommendation is reasonable and  
18 consistent with Ohio regulatory policy.

19

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1 **Q6. PLEASE SUMMARIZE YOUR CONCLUSIONS AND**  
2 **RECOMMENDATIONS.**

3 **A6.** My conclusions and recommendations are summarized as follows:

- 4 • I conclude that paragraph V.F. of the Third Supplemental  
5 Stipulation and Recommendation (the paragraph entitled  
6 "Transition to Decoupled Rates") is neither reasonable nor  
7 consistent with established regulatory policies in Ohio.
- 8 • I recommend, therefore, that the PUCO should reject  
9 paragraph V.F. of the Third Supplemental Stipulation and  
10 Recommendation.

11  
12 **Q7. WHAT IS YOUR UNDERSTANDING OF PARAGRAPH V.F OF THE**  
13 **THIRD SUPPLEMENTAL STIPULATION?**

14 **A7.** As I understand it, paragraph V.F. of the Third Supplemental Stipulation requires  
15 the Companies to dramatically change the structure of their base distribution rates  
16 for residential customers, beginning January 1, 2019. In the first year (2019),  
17 rates will be restructured to collect 25% of the residential class's distribution  
18 revenues through the customer charge. In 2020 that percentage will be doubled to  
19 50%, and in 2021 the percentage will increase again to 75% of revenues. This  
20 type of rate structure is known as a modified straight-fixed variable ("SFV") rate  
21 design.

1   ***Q8.   IN HER TESTIMONY IN SUPPORT OF THE THIRD SUPPLEMENTAL***  
2       ***STIPULATION, THE COMPANIES' WITNESS, MS. MIKKELSEN,***  
3       ***PURPORTS TO SUMMARIZE THIS PROVISION OF THE THIRD***  
4       ***SUPPLEMENTAL STIPULATION AS FOLLOWS: "BY APRIL 3, 2017,***  
5       ***THE COMPANIES WILL FILE AN APPLICATION FOR TARIFF***  
6       ***APPROVAL (ATA) CASE BEFORE THE COMMISSION TO CONSIDER***  
7       ***THE PROPOSED TRANSITION TO DECOUPLED RATES BY***  
8       ***IMPLEMENTING A STRAIGHT FIXED VARIABLE RATE DESIGN***  
9       ***MECHANISM FOR RESIDENTIAL CUSTOMERS' BASE***  
10      ***DISTRIBUTION RATES. WHEN PROPOSING THE STRAIGHT FIXED***  
11      ***VARIABLE DECOUPLING MECHANISM, THE COMPANIES WILL BE***  
12      ***COGNIZANT OF THE PRINCIPLE OF GRADUALISM AND THE***  
13      ***EFFECT OF DECOUPLING ON VARIOUS USAGE LEVELS."***<sup>1</sup> ***DO YOU***  
14      ***AGREE THAT THIS IS AN ACCURATE SUMMARY OF THE THIRD***  
15      ***SUPPLEMENTAL STIPULATION?***

16   ***A8.***   No. The Third Supplemental Stipulation does not make paragraph V.F.  
17           contingent on a subsequent filing by the Companies and does not state that such a  
18           filing would occur in April 2017. The actual provision of the Third Supplemental

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<sup>1</sup> Fifth Supplemental Testimony of Eileen Mikkelsen, p. 4, lines 23-28.

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1 Stipulation that the PUCO is being asked to approve begins: "The Companies  
2 agree to implement the following straight fixed variable cost recovery mechanism  
3 ...." There is nothing in this provision that states the parties agreed to a rate  
4 revision process; rather the parties to the stipulation agreed to changes in  
5 residential base distribution rates to become effective on January 1, 2019, with  
6 further changes on January 1, 2020, and January 1, 2021.

7  
8 Further, there is nothing in the actual text of the stipulation that suggests the rate  
9 changes might be modified by the Companies to reflect "the principle of  
10 gradualism and the effect of decoupling on various usage levels" as Ms.  
11 Mikkelsen suggests.

12  
13 ***Q9. DID OCC, AS THE REPRESENTATIVE OF RESIDENTIAL***  
14 ***CUSTOMERS' INTERESTS, AGREE TO THIS PROVISION?***

15 ***A9.*** No. OCC is not a party to the Third Supplemental Stipulation.

16  
17 ***Q10. WHAT IS YOUR UNDERSTANDING OF THE CRITERIA THE PUCO***  
18 ***USES TO EVALUATE A PROPOSED STIPULATION?***

19 ***A10.*** I am advised by counsel that among the criteria the PUCO uses to evaluate  
20 proposed stipulations are whether there was serious bargaining among capable,  
21 knowledgeable parties with a diversity of interests; whether the settlement as a

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1 package benefits customers and the public interest, and whether the provisions  
2 violate any important regulatory principle or practice<sup>2</sup>.

3

4 ***Q11. IN YOUR OPINION, AND BASED ON YOUR REVIEW AND ANALYSIS***  
5 ***OF THIS PORTION OF THE THIRD SUPPLEMENTAL STIPULATION,***  
6 ***DOES THE THIRD SUPPLEMENTAL STIPULATION MEET THESE***  
7 ***STANDARDS?***

8 ***A11.*** No. As I describe in detail below, the Third Supplemental Stipulation is not  
9 consistent with established regulatory principles and should be rejected.

10

11 ***Q12. DOES THE PROPOSED STIPULATION OR TESTIMONY IN SUPPORT***  
12 ***EXPLAIN WHY AN SFV TYPE OF RATE DESIGN IS BEING ADOPTED***  
13 ***FOR RESIDENTIAL BASE DISTRIBUTION RATES?***

14 ***A12.*** No.

15

16 ***Q13. DOES THE PROPOSED STIPULATION OR TESTIMONY IN SUPPORT***  
17 ***ANALYZE OR DISCUSS THE EFFECT THIS PROVISION WOULD***  
18 ***HAVE ON THE BILLS OF RESIDENTIAL CUSTOMERS?***

19 ***A13.*** No.

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<sup>2</sup> *Consumers' Counsel*, 64 Ohio St.3d at 126, 592 NE 2<sup>nd</sup> at 1373.



**Q14. TO THE BEST OF YOUR KNOWLEDGE, DID ANY PARTY ADDRESS  
THE STRUCTURE OR DESIGN OF RESIDENTIAL BASE  
DISTRIBUTION RATES ON THE RECORD IN THIS CASE?**

**A14.** No. I reviewed the testimony and discovery responses and to the best of my knowledge no party discussed the structure or design of residential base rates during this case.

**Q15. DID THE PARTIES CONDUCT DISCOVERY, MAKE PROPOSALS,  
CROSS-EXAMINE WITNESSES, OR OTHERWISE DEVELOP A  
RECORD CONCERNING THE APPROPRIATE DESIGN OF  
RESIDENTIAL BASE RATES?**

**A15.** No. The issue was not part of the Companies' filing and was not raised in the voluminous testimony filed by the many other parties to this case. There were more than 30 days of hearings in this case, with a transcript numbering in the thousands of pages. Based on my search of those transcripts, the issue of the design of residential base rates was raised exactly one time, by the Attorney Examiner, and the witness responded that he was not the appropriate person to answer the question. Tr. Vol. IV (Sept. 3, 2015), pp. 718-719.

My review of the transcripts found two other occasions when witnesses discussed the importance of the fact that base rates would not be changed as a result of this

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1 case or throughout the term of the ESP. Specifically, Mr. Fanelli testified for the  
2 Companies as follows: "The companies currently have the lowest delivery rates in  
3 the state, and continuation of those base distribution rates at that low level will  
4 continue to provide rate certainty and stability for customers." Tr. Vol. XX (Sept.  
5 29, 2015), p. 3901. Similarly, Staff witness McCarter agreed with the statement  
6 that a "base rate freeze has been cited as a benefit that provides certainty,  
7 predictability, and stability for customers." Tr. Vol. XXIX (Oct. 15, 2015),  
8 p. 5913.

9  
10 Based on my review, I conclude that no witness suggested that base distribution  
11 rates would be changed as a result of this case, or that this case would somehow  
12 expose residential customers to substantial changes in their base distribution bills.  
13 And yet that is exactly what will happen if this provision of the Third  
14 Supplemental Stipulation is adopted.

15  
16 ***Q16. IN YOUR OPINION, IS IT REASONABLE FOR A PROPOSED***  
17 ***STIPULATION TO "SETTLE" AN ISSUE THAT WAS NOT***  
18 ***ADDRESSED ON THE RECORD IN THE CASE?***

19 ***A16.*** No. In my opinion, based on more than 30 years of experience in cases before  
20 state utility commissions, it is not reasonable for a stipulation to address issues  
21 that are wholly unrelated to the subject matter of the underlying case. This is

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1           particularly true when the issue being "settled" would be adverse to the interests  
2           of one or more of the non-settling parties.

3

4   ***Q17. ARE YOU GENERALLY FAMILIAR WITH REGULATORY POLICY IN***  
5       ***OHIO AS IT RELATES TO THE DESIGN OF RESIDENTIAL BASE***  
6       ***DISTRIBUTION RATES FOR ELECTRIC UTILITIES?***

7   ***A17.*** Yes. I have participated as a rate design expert in base rate cases for electric  
8           utilities in Ohio, and I am aware of various proceedings in which the PUCO has  
9           discussed moving toward an SFV type of rate for electric utilities.

10

11   ***Q18. WHAT IS YOUR UNDERSTANDING OF REGULATORY POLICY IN***  
12       ***OHIO AS IT RELATES TO THE DESIGN OF RESIDENTIAL BASE***  
13       ***DISTRIBUTION RATES FOR ELECTRIC UTILITIES?***

14   ***A18.*** As I understand it, in late 2010, the PUCO instituted a proceeding to review  
15           possible changes in electric distribution rate design in Case No. 10-3126-EL-  
16           UNC. Numerous parties submitted comments in that case, and on August 21,  
17           2013 the PUCO issued its Finding and Order. After reviewing the comments, the  
18           PUCO stated that an SFV type of rate design "could be" appropriate for electric  
19           distribution utilities. August 21, 2013 Finding and Order, ¶ 63.

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1       Importantly, though, the PUCO did not order any immediate changes in rate  
2       design. The PUCO recognized that the design of distribution rates should reflect  
3       the cost of providing service and should allow all parties to submit relevant,  
4       utility-specific evidence. Thus, the PUCO stated: "The Commission agrees that  
5       the appropriate time to implement an SFV rate design is during an electric utility's  
6       rate case." *Id.*, ¶ 64. Consequently, the PUCO encouraged each distribution  
7       utility to include an SFV type of rate design in the utility's next base distribution  
8       rate case. *Id.*

9  
10       In response to requests for rehearing, the PUCO issued a Second Entry on  
11       Rehearing on December 4, 2013. In that Entry, the PUCO first summarized the  
12       ultimate finding it made in the August 21 Order, stating: "The Commission also  
13       found that the appropriate time to implement such a [SFV] design would be on an  
14       individual basis during each electricity utility's rate case." December 4, 2013  
15       Entry, ¶ 2.

16  
17       To address concerns that the PUCO may have prejudged the issue without an  
18       adequate record, the PUCO then made clear that in "distribution rate cases, parties  
19       will have the opportunity to raise any issues relevant to implementing SFV rates."  
20       *Id.* ¶ 6. This was further clarified later in the Entry when the PUCO noted: "As  
21       we stated above, the Commission determined that implementation of SFV rates

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1       should be addressed in each electric utility's next distribution rate case. ... In  
2       these cases, parties will have a full and fair opportunity to present any relevant  
3       testimony concerning implementation of SFV rate design, including, but not  
4       limited to, testimony regarding alternatives to SFV rate design. Accordingly,  
5       relevant, admissible data collected during the pilot programs<sup>3</sup> may be presented  
6       by any party in the distribution rate case in support of its arguments regarding  
7       SFV rate design. Likewise, parties may present relevant, admissible evidence  
8       regarding the price signals sent to consumers by SFV rate design or any other  
9       alternative rate design proposed by such parties." *Id.* ¶ 7.

10  
11       Finally, in the last paragraph of the December 4, 2013 Entry, the PUCO again  
12       made clear that it has "determined that **the most appropriate proceeding for**  
13       **additional opportunities for input would be in each electric utility's next**  
14       **distribution rate case**, where implementation of SFV rate design should be  
15       considered. ... Nothing in the Order precludes any party from commenting on or  
16       presenting evidence regarding a specific rate design that is proposed as part of a  
17       utility's distribution rate case by the utility, Staff or any other party." *Id.* ¶ 8  
18       (emphasis added).

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<sup>3</sup> Two pilot programs were conducted, but neither of those pilots involved any of the FirstEnergy Utilities.

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1   ***Q19. DID THE COMPANIES SUBMIT COMMENTS TO THE PUCO IN CASE***  
2       ***NO. 10-3126-EL-UNC?***

3   ***A19.*** Yes, the Companies filed comments with the PUCO on February 11, 2011. I have  
4       provided a copy of the Companies' comments as Attachment SJR-8.

5  
6   ***Q20. IN THOSE COMMENTS, DID THE COMPANIES TAKE A POSITION***  
7       ***ON MOVING TOWARD SFV RATES?***

8   ***A20.*** Yes, in those comments the Companies generally opposed the use of SFV rates,  
9       and recommended that "any efforts to implement a straight fixed variable  
10       approach for electric utilities not move forward until the electric utility's filing of  
11       its next base distribution rate case." Comments, p. 1.

12  
13   ***Q21. WHY DID THE COMPANIES OPPOSE THE USE OF SFV RATES AT***  
14       ***THAT TIME?***

15   ***A21.*** The Companies state several reasons for opposing the movement toward SFV  
16       rates. I will provide several quotes from the Companies' comments that I believe  
17       accurately summarize the Companies' position at that time:

- 18           •       "The Companies believe that attempting to recover all fixed  
19                   distribution costs through a single customer charge applied  
20                   to all customers, i.e., straight fixed variable ("SFV"),  
21                   ignores the cost causation principle of ratemaking and may

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1                   have the effect of shifting cost recovery from higher-usage  
2                   customers to lower-usage customers." Attachment SJR-8,  
3                   p. 2.

- 4                   •     The Companies stated that the existing rate design for  
5                   residential customers is "a reasonable rate design because  
6                   of the correlation between energy consumption and  
7                   demand; i.e., the energy charge serves as a reasonable  
8                   proxy for the residential customers' distribution demand."  
9                   Id., p. 3.

- 10                  •     If SFV-type rates are adopted, customers "will have less of  
11                  an economic incentive to participate in energy efficiency or  
12                  peak demand reduction programs resulting in an increase in  
13                  the cost of the programs in order to achieve the statutorily  
14                  required savings and reductions." Id., pp. 6-7.

- 15                  •     "A second consequence of a SFV decoupling mechanism is  
16                  the unanticipated harm that could arise from going to a  
17                  design that includes a much higher customer charge. This  
18                  will negatively impact low use customers the most. ... To  
19                  the extent these low use customers are also low income  
20                  customers and these low use customers are already  
21                  participants in the PIPP program, shifting revenue

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1 responsibility will not increase their obligation to pay, but  
2 will simply shift more dollars into the USF rider that all  
3 customers pay. Further, substantially increasing the cost  
4 for low income customers that qualify for PIPP, but that do  
5 not currently participate in the PIPP program may well  
6 drive substantially more customers to join the PIPP  
7 program, thereby increasing the USF Rider even more and  
8 further shifting the burden to other customers." Id., pp. 7-8.

- 9 • "Simply dividing total costs by the number of customers to  
10 result in a fixed monthly charge does not recognize that  
11 higher level users are causing higher than average costs on  
12 the distribution system. ... With the Companies' current  
13 structure, as a customer's demand increases (or usage in the  
14 case of a residential customer) the more distribution costs  
15 are recovered from that customer. This is appropriate since  
16 they are causing the higher costs to be incurred on the  
17 system." Id., p. 9.



1   ***Q22. DO YOU AGREE WITH THE SUBSTANCE OF THE COMPANIES'***  
2       ***COMMENTS THAT YOU SUMMARIZED ABOVE?***

3   ***A22.*** Yes, I agree with each of the statements from the Companies' comments that I  
4       quoted. At that time, the Companies properly recognized that moving toward an  
5       SFV type of rate design would be inconsistent with principles of cost causation,  
6       would have an adverse effect on efforts to improve energy efficiency, and would  
7       require low-use customers (including many low-income customers) to pay  
8       significantly higher rates that would subsidize the usage of high-use customers.

9  
10   ***Q23. PLEASE SUMMARIZE YOUR UNDERSTANDING OF OHIO***  
11       ***REGULATORY POLICY AS IT RELATES TO THE DESIGN OF***  
12       ***RESIDENTIAL BASE DISTRIBUTION RATES.***

13   ***A23.*** From the PUCO statements I cited above, I conclude that regulatory policy in  
14       Ohio is to consider changes to the design of base distribution rates only in a base  
15       rate case. The PUCO has stated that it is important to consider the changes in the  
16       context of a base rate case so that all relevant factors and evidence can be  
17       considered, not the least of which is the ability of a rate design to reflect the  
18       utility's cost of providing service. I also conclude that regulatory policy in Ohio,  
19       as expressed in these orders, is that significant rate design changes should not be  
20       considered without giving all interested parties an opportunity to present relevant  
21       evidence and cross-examine opposing witnesses.

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1   ***Q24. IS THE CURRENT CASE A BASE DISTRIBUTION RATE CASE?***

2   ***A24.*** No.

3

4   ***Q25. IF THE COMPANIES FILE AN ATA CASE TO IMPLEMENT THE***  
5       ***PROVISION OF THE THIRD SUPPLEMENTAL STIPULATION,***  
6       ***WOULD THAT BE A BASE RATE CASE?***

7   ***A25.*** No.

8

9   ***Q26. PRIOR TO THE SUBMISSION OF THE STIPULATION IN THIS CASE,***  
10       ***WAS ANY INFORMATION PRESENTED, EITHER IN DISCOVERY OR***  
11       ***ON THE RECORD, CONCERNING THE COST OF PROVIDING BASE***  
12       ***DISTRIBUTION SERVICE TO RESIDENTIAL CUSTOMERS?***

13   ***A26.*** No. In fact, it has been more than eight years since the Companies have had a  
14       base distribution rate case in which the cost of providing base distribution service  
15       to residential customers was examined.

16

1 **Q27. PRIOR TO THE SUBMISSION OF THE STIPULATION IN THIS CASE,**  
2 **WAS ANY INFORMATION PRESENTED, EITHER IN DISCOVERY OR**  
3 **ON THE RECORD, CONCERNING THE IMPACT ON THE BILLS OF**  
4 **DIFFERENT TYPES OF RESIDENTIAL CUSTOMERS FROM**  
5 **DIFFERENT TYPES OF RATE DESIGNS?**

6 **A27.** No.

7  
8 **Q28. HAVE THE COMPANIES PROVIDED ANY INFORMATION WITH THE**  
9 **THIRD SUPPLEMENTAL STIPULATION THAT ADDRESSES**  
10 **RESIDENTIAL BILL IMPACTS FROM THE CHANGES IN**  
11 **RESIDENTIAL BASE DISTRIBUTION RATES THAT ARE CONTAINED**  
12 **IN PARAGRAPH V.F.?**

13 **A28.** No. In discovery, the Companies provided sample bill impacts on residential  
14 customers from the provisions in the Third Supplemental Stipulation,<sup>4</sup> but those  
15 calculations did not include the effects of moving toward SFV rates under  
16 paragraph V.F. of the Third Supplemental Stipulation. My understanding is that  
17 the Companies may file some bill impact information in its decoupling plan filing  
18 in April 2016 (see paragraph V.D.2.a. of the Third Supplemental Stipulation).

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<sup>4</sup> Companies' response to OCC Set 17 INT-012.

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1 Any such information, however, would be filed after the PUCO rules on the  
2 stipulation.

3

4 ***Q29. PRIOR TO THE SUBMISSION OF THE STIPULATION IN THIS CASE,***  
5 ***WAS ANY INFORMATION PRESENTED, EITHER IN DISCOVERY OR***  
6 ***ON THE RECORD, CONCERNING ALTERNATIVES TO SFV RATE***  
7 ***DESIGN?***

8 ***A29.*** No.

9

10 ***Q30. PRIOR TO THE SUBMISSION OF THE STIPULATION IN THIS CASE,***  
11 ***WAS ANY INFORMATION PRESENTED, EITHER IN DISCOVERY OR***  
12 ***ON THE RECORD, CONCERNING DATA COLLECTED DURING***  
13 ***ELECTRIC UTILITY DECOUPLING PILOT PROGRAMS?***

14 ***A30.*** No.

15

16 ***Q31. PRIOR TO THE SUBMISSION OF THE STIPULATION IN THIS CASE,***  
17 ***WAS ANY INFORMATION PRESENTED, EITHER IN DISCOVERY OR***  
18 ***ON THE RECORD, CONCERNING THE PRICE SIGNALS SENT TO***  
19 ***CONSUMERS BY SFV RATE DESIGN AND ALTERNATIVE RATE***  
20 ***DESIGNS?***

21 ***A31.*** No.

1   ***Q32. IN YOUR EXPERT OPINION, AND BASED ON ALL OF THE FACTORS***  
2           ***YOU JUST SUMMARIZED, IS PARAGRAPH V.F. OF THE THIRD***  
3           ***SUPPLEMENTAL STIPULATION CONSISTENT WITH OHIO***  
4           ***REGULATORY POLICY?***

5   ***A32.*** No, paragraph V.F. of the Third Supplemental Stipulation is not consistent with  
6           Ohio regulatory policy. That policy expressly provides that significant rate design  
7           changes, particularly a movement toward SFV rates, should be made only in a  
8           base distribution rate case and only after all interested parties have been given a  
9           "full and fair opportunity to present any relevant testimony" including testimony  
10          concerning alternatives to SFV rate design. This is not a base distribution rate  
11          case and the issue of the design of residential base rates was not raised in this case  
12          at all until paragraph V.F. appeared out of nowhere in the Third Supplemental  
13          Stipulation.

14  
15          Nor does Ms. Mikkelsen's suggestion that the Companies would file an ATA  
16          "case" by April 3, 2017 cure the defect. Such a filing is not a base distribution  
17          rate case filing. It does not require a cost of service study. It does not ensure a  
18          full and fair opportunity to present any relevant testimony. Adopting such a  
19          significant change in rate design without developing a full record is not consistent  
20          with the stated policy of this PUCO.

1   ***Q33. YOU CALLED THE MOVEMENT TOWARD SFV RATES IN***  
2           ***PARAGRAPH V.F. A "SIGNIFICANT CHANGE IN RATE DESIGN."***  
3           ***WHY DO YOU BELIEVE THIS WOULD BE A SIGNIFICANT CHANGE?***

4   ***A33.*** First, I have worked on base rate cases for other utilities where rates were  
5           redesigned (or proposed to be redesigned) using an SFV approach. In my  
6           experience, moving toward SFV rates significantly increases the bills of lower-  
7           use customers and can significantly decrease the bills of higher-use customers.

8  
9           OCC and ELPC sought discovery from the Companies to determine if the  
10          Companies had calculated the impact of their SFV proposal on residential  
11          customers. The Companies indicated that they had not.<sup>5</sup>

12  
13          Second, in the limited time available (and given the very limited information  
14          available), I have tried to estimate the effect that paragraph V.F. might have on  
15          the bills of the Companies' residential customers. The provision would not take  
16          effect until 2019, and would be based on adjusted billing units from the 12  
17          months ending September 30, 2018, so I obviously cannot calculate the actual  
18          rates that would go into effect. I have, however, estimated the magnitude of the

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<sup>5</sup> Companies' response to ELPC Set 7 INT-011(b).

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1 rate changes using actual billing units from the Companies' last base distribution  
2 rate case (07-551-EL-AIR) and currently effective distribution rates (excluding  
3 any credits or riders). I present the results of these calculations on Attachment  
4 SJR-9.

5

6 The attachment has three tables, one for each distribution company. For each  
7 Company, I show the current distribution rates and estimate what those rates  
8 would be using the same billing units and revenues if Paragraph V.F. were  
9 implemented. I then show the impact of applying these rate changes to different  
10 types of residential customers. Specifically, I show the effect on a low-use  
11 customer (4,400 kWh per year), a moderate use customer (9,050 kWh per year),  
12 and a high-use customer (14,000 kWh per year).

13

14 ***Q34. HOW DID YOU DETERMINE THAT THOSE USAGE LEVELS ARE***  
15 ***REPRESENTATIVE OF THE COMPANIES' RESIDENTIAL***  
16 ***CUSTOMERS?***

17 ***A34.*** The U.S. Department of Energy has developed standard residential load curves  
18 for several hundred locations throughout the United States. For each location,  
19 three load profiles are developed: Base, Low, and High. The load profiles  
20 represent different types of housing units (primarily based on differences in the  
21 square footage of the home and type of heating and cooling used). I used these

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1 load profiles for one location in each of the Companies' service areas: the  
2 Akron/Canton profile for OE, the Cleveland Airport profile for CEI, and the  
3 Toledo profile for TE. In each instance, the annual consumption was very close  
4 for the three companies as I show on Attachment SJR-10. For instance, the Base  
5 profiles have annual consumption of 9,035 kWh for OE, 9,105 kWh for CEI, and  
6 9,046 kWh for TE. Thus, I selected 9,050 kWh per year as representative of a  
7 typical user in each service area. I show the comparable figures for the Low and  
8 High load profiles on Attachment SJR-10.

9  
10 ***Q35. PLEASE SUMMARIZE THE RESULTS OF YOUR ANALYSIS.***

11 ***A35.*** On Attachment SJR-9, my analysis shows that the rate design changes in  
12 Paragraph V.F. would result in substantial changes in base distribution rates --  
13 significantly increasing the distribution bills of low-use customers, while giving  
14 sizeable bill reductions to high-use customers.

15  
16 For example, for Ohio Edison a customer using 4,400 kWh per year currently  
17 pays approximately \$188 per year in distribution charges. Under the proposed  
18 stipulation, in 2021 a customer using the same amount of electricity would pay  
19 about \$320 per year -- approximately a 70% increase in the distribution bill.



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1 The results are similar for Cleveland Electric and Toledo Edison. For Cleveland  
2 Electric, a low-use customer currently pays about \$178 per year; that would  
3 increase to approximately \$263 per year in 2021 -- approximately a 48% increase.  
4 Similarly for Toledo Edison, the low-use customer's bill would increase from  
5 approximately \$205 per year today to about \$328 per year in 2021, an increase of  
6 60%.

7

8 In contrast, high-use customers would receive substantial bill reductions. As I  
9 show on the attachment, high-use customers would receive distribution bill  
10 decreases ranging between 18% (OE) and 25% (CEI).

11

12 In my opinion, and based on my years of experience with utility rate-setting, bill  
13 changes of this magnitude are very significant for customers. Such changes  
14 normally would not be considered without the presentation of alternative rate  
15 design proposals, specific analyses of customer impacts, analyses of the effects on  
16 low-income customers, and of course several months for discovery and hearings.

17

18 ***Q36. YOU MENTIONED THE NEED TO ANALYZE THE EFFECTS ON LOW-***  
19 ***INCOME CUSTOMERS. WHY IS THAT NECESSARY?***

20 ***A36.*** As the PUCO well knows, it is important to ensure that essential services like  
21 electricity are affordable to low-income customers. This is important not only as

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1 a matter of fairness, but to avoid significant public health and safety concerns.

2 For these reasons, Ohio has been a national leader in the development of  
3 programs to help keep energy affordable to low-income consumers.

4

5 A significant change in rate design, such as moving toward SFV rates, can have a  
6 very dramatic impact on low-income customers. On Attachment SJR-11, I show  
7 national data from two surveys: the Consumer Expenditure Survey ("CES") and  
8 the Residential Energy Consumption Survey ("RECS"). These national data  
9 indicate a strong relationship between income level and the amount paid for  
10 electricity (from the CES) and the amount of electricity used (from the RECS).

11

12 Specifically, Table 1 of the attachment shows expenditure data for 2014 by  
13 income decile (that is, all households have been divided into 10 groups of equal  
14 size based on household income). The spending data show an almost perfect  
15 relationship between income level and spending for electricity. I illustrate this  
16 graphically on Attachment SJR-12. I have plotted the CES data on a graph and  
17 show that there is a very strong relationship between the natural logarithm of  
18 household income and annual spending on electricity. This relationship suggests  
19 that, for example, when a family with \$20,000 of income receives an increase in  
20 income of \$10,000 (increasing its income by 50%), its spending on electricity will  
21 be affected much more than the same \$10,000 increase received by a household

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1 with income of \$150,000. That is, at some point income is no longer constraining  
2 the use of electricity. Higher income might allow a household to purchase more  
3 electricity-consuming devices, but the relative impact on electricity spending will  
4 taper off at higher income levels. As I show on the graph, the R-squared (or  
5 goodness of fit) representing the relationship between income and electricity  
6 spending is in excess of 94%, which indicates a very strong statistical relationship  
7 between income level and electricity spending.

8  
9 The RECS data show a similar relationship, though without the fine gradations in  
10 income levels contained in the CES. Table 2 on Attachment SJR-11 shows that  
11 low-income households (income less than \$20,000 in 2009) used about one-half  
12 as much electricity as high-income households (income more than \$120,000 in  
13 2009).

14  
15 ***Q37. WHY ARE THESE DATA IMPORTANT IN EVALUATING A***  
16 ***MOVEMENT TOWARD SFV RATES SUCH AS THAT PROPOSED IN***  
17 ***THE THIRD SUPPLEMENTAL STIPULATION?***

18 ***A37.*** As I discussed above, moving toward SFV rates will dramatically increase the  
19 bills of lower-use customers while reducing the bills of high-use customers. The  
20 national data on the relationship between income and electricity consumption  
21 suggest that low-income households are likely to use less electricity than the

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1 average consumer, and much less electricity than high-income consumers. If this  
2 same relationship is true in the Companies' service territories, then it would be  
3 reasonable to conclude that moving toward SFV rates would result in large  
4 increases in the distribution bills of many low-income customers. This was one of  
5 the concerns the Companies themselves raised in the comments opposing the  
6 implementation of SFV rates.<sup>6</sup>

7  
8 ***Q38. DO YOU KNOW IF, IN FACT, THE SAME RELATIONSHIP IS TRUE***  
9 ***AMONG THE COMPANIES' LOW-INCOME CUSTOMERS?***

10 ***A38.*** I do not know because the issue was never raised during the many months when  
11 discovery was conducted in this case.

12  
13 Evaluating the specific impact on low-income consumers is a very important  
14 aspect of analyzing a significant rate design change and developing alternative  
15 proposals. None of that occurred in this case, which provides a further reason to  
16 reject paragraph V.F. of the Third Supplemental Stipulation. Such significant rate  
17 design changes should be considered only in the context of a base rate case  
18 precisely for this reason. Again I agree with the Companies' previously filed

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<sup>6</sup> Attachment SJR-8, pp. 7-8.

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1            comments where they stated that the move to SFV should only occur within the  
2            context of a base distribution rate case.<sup>7</sup>

3

4    ***Q39. ARE THERE OTHER REASONS TO QUESTION THE***  
5            ***REASONABLENESS OF A RATE DESIGN USING SFV RATES?***

6    ***A39.*** Yes. I already discussed the magnitude of the rate changes that would result and  
7            the potential effect of moving toward SFV rates on lower-income customers.

8            There are at least two other reasons to question the reasonableness of SFV-type  
9            rates for residential electricity consumers: (1) SFV rates may not be consistent  
10           with principles of cost causation; and (2) SFV rates can improperly change the  
11           evaluation of energy efficiency measures (that is, it would make efficiency  
12           measures appear to be uneconomical when, in fact, they may be very economical  
13           both for the consumer and the utility). I believe the Companies would be in  
14           agreement with me, according to their previously filed comments discussed  
15           earlier.<sup>8</sup>

16

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<sup>7</sup> Attachment SJR-8, p. 1.

<sup>8</sup> Attachment SJR-8, pp. 6-7 and 9.

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**Q40. WHY DO YOU SAY THAT SFV RATES MAY NOT BE CONSISTENT  
WITH PRINCIPLES OF COST CAUSATION?**

**A40.** I have analyzed the relationship between proposed SFV-type rates and the cost of service in other jurisdictions. Essentially all base distribution costs are either customer-related or demand-related. In my analyses using the cost-of-service studies for other electric utilities, I have generally found that between 60% and 80% of the residential distribution cost of service is demand-related, with the remainder being customer-related. The following table summarizes the portion of the residential revenue requirement (unless otherwise noted) that is demand-related. The information in the table comes from electric base rate cases in which I participated in the past few years (data for test years between 2012 and 2014).

<b>Electric Utility</b>	<b>% Demand-Related</b>	<b>Notes</b>
Ameren Illinois	71.9%	
Commonwealth Edison (IL)	60.8%	Single-family non-heating class
Duke Energy Ohio	71.7%	
Entergy Mississippi	61.0%	Total company
Municipal Light & Power (AK)	80.8%	Total company
Potomac Electric Power (DC)	67.0%	
United Illuminating (CT)	76.0%	Total company O&M (rate base approx. 94% demand-related)

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1 I would note that these results are consistent with a published study of residential  
2 rate design options that included actual data for a utility where 67.8% of  
3 distribution costs were demand-related.<sup>9</sup>

4

5 In a cost-of-service study, demand-related costs are allocated among customer  
6 classes based on some measure (or combination of measures) of each class's  
7 contribution to peak demands. That is, the more by which customers within a  
8 class contribute to peak demands, the higher the class's share of allocated  
9 demand-related costs. Because of this, it is not reasonable to collect demand-  
10 related costs as an equal amount from each customer. Customers with high  
11 demands are causing the residential class to be allocated more demand-related  
12 costs and, therefore, should pay more of those costs. This is fair and it gives  
13 customers a monetary incentive to use energy efficiently.

14

15 Where a customer class does not have demand meters and demand rates, the  
16 fairest way to collect demand-related costs is through some type of energy-related  
17 charge. As I recently illustrated in a paper, in order to enhance the fairness of the  
18 rate design vis-à-vis the collection of demand-related costs, it might be reasonable

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<sup>9</sup> Larry Blank and Doug Gegax, Residential Winners and Losers behind the Energy versus Customer Charge Debate, *The Electricity Journal*, 27:4:31-39 (May 2014).

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1 to implement energy rates that vary by season.<sup>10</sup> Where the customer (or fixed)  
2 charge is more than the amount of customer-related costs, however, the rates  
3 collect more than the cost of service from lower-use customers and collect less  
4 than cost from higher-use customers.

5

6 Obviously, there are no cost-of-service studies for the Companies in this case and  
7 it does not appear that the Companies would file one as part of its 90-day  
8 decoupling plan filing under paragraph V.D.2.a. or as part of the ATA case to  
9 which Ms. Mikkelsen referred in her testimony. That is yet another reason why  
10 any significant change in rate design should be considered only in a base rate case  
11 where such studies are available and can be reviewed.

12

13 If my recent experience with other electric utilities is reasonably representative of  
14 what a cost study for the Companies would find, then it is highly likely that no  
15 more than 40% of the residential class's cost of service would be customer-related  
16 (and at least 60% would be demand-related). This means that it would be  
17 unreasonable and inconsistent with principles of cost causation for more than 40%  
18 of the residential class's revenues to be collected through customer (or fixed)  
19 charges. Yet that is precisely what paragraph V.F. of the Third Supplemental

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<sup>10</sup> Scott J. Rubin, Moving Toward Demand-Based Residential Rates, *The Electricity Journal* 28:9:63-71 (Nov. 2015).



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1 Stipulation does. It would implement residential customer charges equal to 50%  
2 of total class revenues in 2020 and increase that percentage to 75% of total class  
3 revenues in 2021, without any showing that such percentages are reflective of the  
4 Companies' cost of providing service to residential customers.

5

6 ***Q41. YOU ALSO TESTIFIED THAT SFV-TYPE RATES MAY NOT BE***  
7 ***CONSISTENT WITH ENERGY EFFICIENCY. WHY IS THAT?***

8 ***A41.*** As I just discussed, a majority of distribution system costs are related to some  
9 measure of customer demand. If customers can control their energy consumption  
10 (including peaks in their energy usage), they can lower the customer class's  
11 responsibility for system costs. Ultimately, as facilities are replaced, replacement  
12 costs will be lower than they would be if customers are not managing the  
13 efficiency of their energy usage. That is, it is important for customers to be given  
14 an appropriate price signal concerning the long-term costs of their energy-  
15 consumption decisions.

16

17 This is the reason that some regulators and policy analysts are moving away from  
18 advocating SFV-type pricing. For example, after years of encouraging utilities to  
19 move toward SFV-type rates, the Illinois Commerce Commission has recognized  
20 that it had gone too far. In several recent cases, that commission has started  
21 rolling back customer charges, moving fixed charges closer to customer-related

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1 costs. In an order entered for a natural gas utility earlier this month, the Illinois  
2 Commission ruled: "The Commission also finds that, because high fixed customer  
3 charges remove the price signal from increased gas usage, the appropriate  
4 direction for this rate design split to move is for less costs to be recovered through  
5 fixed rates. The record indicates that lowering the customer charge would also  
6 move rates toward cost based rates, which the [Illinois] Commission generally  
7 supports."<sup>11</sup> See also that commission's ruling in a recent electric distribution rate  
8 design case, where it ordered the utility to reduce customer charges to cost-based  
9 levels, holding, "it is not reasonable or consistent with public policy to structure  
10 rates so that the poor, the frugal and the energy efficient are required to subsidize  
11 those who are not, when a more equitable method of allocation exists. A more  
12 reasonable policy allocates the same aggregate costs so that individual customer  
13 costs are reasonably proportionate to the demands that their use places on the  
14 system."<sup>12</sup>

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<sup>11</sup> *Ameren Illinois Co.*, Ill. Commerce Comm'n Docket No. 15-042, Order entered Dec. 9, 2015, p. 115.

<sup>12</sup> *Commonwealth Edison Co.*, Ill. Commerce Comm'n, Docket No. 13-0387, Order entered Dec. 18, 2013, p. 75.

1   ***Q42. AFTER CONSIDERING ALL OF THIS INFORMATION, IN YOUR***  
2           ***OPINION DOES THE THIRD SUPPLEMENTAL STIPULATION***  
3           ***PROVIDE A BENEFIT TO THE COMPANIES' RESIDENTIAL***  
4           ***CUSTOMERS?***

5   ***A42.*** No. The bill impact information provided by the Companies shows that  
6           residential bills might change by 2% to 3% as a result of the non-base-rate  
7           provisions of the Third Supplemental Stipulation.<sup>13</sup> My analysis shows that this  
8           comparatively small change would be dwarfed by paragraph V.F., which could  
9           result in bill impacts as high as 70% on the distribution bills of lower-use  
10          customers. Adopting paragraph V.F. would result in the Third Supplemental  
11          Stipulation creating a significant detriment to many thousands of the Companies'  
12          residential customers.

13  
14   ***Q43. AFTER CONSIDERING ALL OF THIS INFORMATION, IN YOUR***  
15           ***OPINION IS THE THIRD SUPPLEMENTAL STIPULATION***  
16           ***CONSISTENT WITH THE PUBLIC INTEREST?***

17   ***A43.*** No. When I consider all relevant factors, including principles of cost causation  
18          and the likely impacts on low-income customers, I conclude that the Third  
19          Supplemental Stipulation is not consistent with the public interest.

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<sup>13</sup> Companies' response to OCC Set 17 INT-012.

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1    ***Q44.  WHAT DO YOU CONCLUDE?***

2    ***A44.***   I conclude that it is neither reasonable, nor consistent with well-established  
3           regulatory principles, nor consistent with specific directives of the PUCO to adopt  
4           a significant change in the design of base distribution rates in this case.  As the  
5           PUCO previously ordered, any such change should be considered only in a base  
6           rate case and only after all interested parties have been given an opportunity to  
7           fully participate in the development of an evidentiary record.  Section V.F. of the  
8           Third Supplemental Stipulation, therefore, should not be approved.

9

10   ***Q45.  DOES THIS CONCLUDE YOUR SUPPLEMENTAL TESTIMONY?***

11   ***A45.***   Yes, it does.  However I reserve the right to incorporate new information that may  
12           subsequently become available.

### **CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing Supplemental Testimony of Scott J. Rubin was served via electronic service upon the parties this 30th day of December 2015.

/s/ Larry Sauer

Larry Sauer  
Assistant Consumers' Counsel

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## BEFORE

## THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of Aligning Electric )  
 Distribution Utility Rate Structure With )  
 Ohio's Public Policies to Promote )  
 Competition, Energy Efficiency, and )  
 Distributed Generation )

Case No. 10-3126-EL-UNC

PUCO

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COMMENTS OF OHIO EDISON COMPANY, THE CLEVELAND ELECTRIC  
ILLUMINATING COMPANY AND THE TOLEDO EDISON COMPANY

Come now Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company ("Companies"), by counsel, and respectfully submit their comments in response to the Public Utilities Commission of Ohio ("Commission") Entry, dated December 29, 2010, which required that comments be submitted by February 11, 2011.

The Companies appreciate the opportunity to provide comments to the Commission as it begins its consideration of whether modifications to distribution rate structures for regulated electric utilities in Ohio would better align utility performance with Ohio's desired public policy outcomes; and if so, what modifications should be adopted. The Companies understand that this proceeding is just the first step in the process and that further proceedings and opportunities for input will be provided before the PUCO makes any specific decision to move forward with decoupling.<sup>1</sup> The Companies also recommend that any efforts to implement a straight fixed variable approach for electric utilities not move forward until the electric utility's filing of its next base distribution rate case. The Companies believe that the current distribution rate structure in Ohio, which provides for the recovery of lost distribution revenues, is best aligned

<sup>1</sup> Simply because an issue or comment is not specifically raised regarding a particular item does not constitute a waiver of the Companies' ability to raise the issue at a later date. The Companies reserve the right to modify their comments and to address any and all issues raised with regard to the implementation of decoupling.

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with Ohio's public policy desires and customer interests. To adopt any unproven modifications in the hopes of better alignment may result in unintended consequences contrary to sound public policy and may well create an unnecessary administrative burden associated with frequent rate proceedings. Absent a showing that the current distribution rate structure is contrary to Ohio public policy, the Companies believe it is premature to consider modifications. The Companies comments are structured with general comments immediately set forth below and responses to the questions posed in their Entry following the general comments.

## **I. General Comments**

In its Entry, the Commission identified at least three separate forms that it has characterized as potentially falling under the "decoupling" banner, including a straight fixed variable approach, periodic rate modifications, and lost revenue recovery. The Entry then goes to suggest that combinations of these three may also be considered by the Commission. The Companies believe that attempting to recover all fixed distribution costs through a single customer charge applied to all customers, i.e., straight fixed variable ("SFV"), ignores the cost causation principle of ratemaking and may have the effect of shifting cost recovery from higher-usage customers to lower-usage customers. As described in the Entry, both the SFV design and the Decoupling adjustment design would fix distribution revenues while ignoring changing distribution system costs. The Companies believe that the traditional distribution base rate cases together with lost distribution revenue recovery for energy efficiency related reductions in sales is an appropriate middle ground between a SFV/rate modification approach and traditional rate cases with kWh distribution charges, and best supports the public policy desires of Ohio. This approach, coupled with distribution rates designed based on a customer's demand, significantly



reduces the throughput incentive, keeps intact the cost causation principle and simultaneously maintains customer incentives to support energy efficiency efforts.

Recognizing this, during the Companies' last distribution rate case the Companies altered the distribution rate design to incorporate charges based on billing demands and customer charges wherever possible. *See* Case No. 07-551-EL-AIR. The Companies' nonresidential distribution rates, General Service-Secondary (Rate GS), General Service-Primary (Rate GP), General Service Sub-Transmission (Rate GSU) and General Service-Transmission (Rate GT) now contain only demand-related charges and a customer charge.

The only distribution rate that is not structured based upon a demand charge is the residential tariff simply because the installed metering does not capture the billing determinants necessary to charge based on demand. The cost to install the metering necessary to measure demand for the residential rate schedule is prohibitive. Instead of a demand based rate, residential customers' distribution rate consists of a fixed component, or service charge, and a kWh energy charge. For residential customers, this is a reasonable rate design because of the correlation between energy consumption and demand, i.e., the energy charge serves as a reasonable proxy for the residential customers' distribution demand. Based upon the support of most parties to the Companies' distribution case, the Commission approved the rate design in its Order in that case. With those changes in place, the Companies then sought and were granted recovery of lost revenues for energy efficiency and peak demand reduction programs through the Commission's adoption of the Stipulation in the Companies' first and second ESP proceedings, Case Nos. 08-935-EL-SSO and 10-388-EL-SSO respectively. The Companies believe this structure addresses the concerns expressed in the Entry regarding the "throughput incentive",

fundamentally preserves the existing distribution rate design and supports energy efficiency and peak demand reduction efforts.

**A. Distribution Tariff Design and Changing Cost to Serve**

Distribution rates resulting from a distribution base rate case represent a snap shot in time of what customers should be charged for distribution service based upon the evidence that was presented during the proceeding. The many variables that make up the cost of providing distribution service begin to change even before an order is issued in a case. For example, rate base changes, operation and maintenance costs change, sales volumes change, customer counts change, weather changes, the economy changes and end-use saturation rates change. Given those changes, while rates may remain reasonable, they will never universally reflect precise cost recovery over the period the rates are in effect. The historic balance that has been struck, and remains in place today, is that if the rates do not provide sufficient revenues to provide adequate service and a reasonable return, then an electric utility may file a request with the Commission to increase rates. Conversely, the Commission tests utility earnings on an annual basis to determine if the current rates are providing a significantly excessive return, and if so, has mechanisms at its disposal to address the situation.

Both the SFV and the Decoupling Adjustment approaches discussed in the Entry address only one of the components that make up the rates of an electric utility, i.e., revenue. The premise appears to be that an electric utility should not be permitted to collect more than its authorized revenue and that these approaches would be applied to ensure that they did not. But authorized revenue is not the determinant or driving force behind setting rates. As recognized in the Entry, the definition of decoupling for gas companies is a mechanism “that provides recovery of fixed costs of service and a fair and reasonable rate of return, irrespective of system

throughput or volumetric sales.” Entry at 3. Consistent with this definition, an electric utility is permitted to recover its prudently incurred costs together with an opportunity to earn a fair and reasonable return on its investment. Thus, it is the combination of costs plus a return that are the critical components of utility rate setting. The authorized revenue is simply the end result of a mathematical formula, and forms the basis for the development of the rates to be charged to customers.

By providing an adjustment mechanism to ensure that only the “authorized” revenue amount from a previous rate case is permitted to be collected, changes in costs necessary to provide safe reliable service to customers are ignored. If either SFV or the Decoupling Adjustment were implemented in an increasing cost environment, then the logical outcome of resetting revenue collected to the amount needed to recover an historic and no longer accurate level of costs would be almost continuous base distribution rate cases being filed. This sort of regulatory churn is costly both in terms of economic and human resources, and is unnecessary. Rate cases should only be filed when the electric utility’s rates do not permit it to earn a reasonable return. SFV or a Decoupling Adjustment should not be used to carve out one element of the ratemaking formula to the detriment of customers, the Commission, the Companies, and other interested stakeholders.

The Companies, and presumably the other electric utilities in the state, are in a rising cost environment - the cost of constructing and maintaining the distribution system continues to rise. For instance, in the past seven years the Companies have witnessed the following cost increases in the basic material it uses:

- Line Transformers 177%
- Underground cable 82%
- Overhead wire 129%
- Power transformers 109%

- Conduit 41%
- Line Trucks 51%
- Treated wood poles 35%

The risk faced by the Companies would also increase as the result of the implementation of either the SFV or Decoupling Adjustment approach to decoupling. Effectively having a rate case every year, or possibly even more often, could increase the regulatory risk and uncertainty for investors and will also substantially increase rate case expense, the cost of prosecuting rate cases, on the part of the Companies, interested stakeholders, and the Commission itself. And it is not needed. Under the current structure, Companies file rate cases only when needed to adjust rates to permit them the opportunity to earn a reasonable return – which provides a level of stability to the rates and an amount of certainty for customers and the Companies.

#### **B. Other Expected Impacts of SFV**

One impact on customers of a decoupling mechanism would be price signals that undermine that value of conservation and peak demand reduction for customers, which may cause customer confusion and conflict with the state policy initiative of increasing energy efficiency and reducing peak demands. Further, the Rider USF charge, which is the Rider that recovers PIPP program arrearages, may well increase as the shift to SFV causes both the level of arrearages from current PIPP customers to rise as well as the number of PIPP customers to rise.

First, with a shift to SFV, the kWh or kW charge for distribution service will be reduced or eliminated. A byproduct of this change in distribution system rate design will be to reduce the savings that customers experience either through energy efficiency and/or peak demand reduction efforts. Customers will have less of an economic incentive to participate in

energy efficiency or peak demand reduction programs resulting in an increase in the cost of the programs in order to achieve the statutorily required savings and reductions. This comes about because the customer is expecting that as they conserve energy or reduce their peak demand there will be a reduction in their distribution bill. If this doesn't happen, the economic incentive to reduce usage is reduced. By changing the price signals, the SFV rate design promotes the opposite outcome of the policy intent set forth in SB221 by reducing the benefit to customers who take the necessary steps to conserve energy. Such an approach seems antithetical to the requirements of R.C. 4928.64 and R.C. 4928.66. If the SFV approach with a revenue adjustment were implemented, customers will have to be given greater incentives to participate in order to achieve the Energy Efficiency and Peak Demand Reductions required by statute. This will cause higher amounts to be recovered through Rider DSE, which are paid for by all customers. Diminishing the value of energy efficiency and peak demand reduction for customers may also be seen as inconsistent with R.C. 4928.02, particularly divisions (D) and (M) that encourage the use of demand side management and energy efficiency programs.

A second consequence of a SFV decoupling mechanism is the unanticipated harm that could arise from going to a design that includes a much higher customer charge. This will negatively impact low use customers the most. The shifting of cost recovery may also be seen as inconsistent with R.C. 4928.02(L), which is the policy statement to protect at-risk populations. To the extent these low use customers are also low income customers and these low use customers are already participants in the PIPP program, shifting revenue responsibility will not increase their obligation to pay, but will simply shift more dollars into the USF rider that all customers pay. Further, substantially increasing the cost for low income customers that qualify for PIPP, but that do not currently participate in the PIPP program may well drive substantially

more customers to join the PIPP program, thereby increasing the USF Rider even more and further shifting the burden to other customers.

### **C. Companies' Approach**

As noted above, the Companies acknowledge the Commission's concern with the recovery distribution system costs through purely kWh charges. The Companies in their last distribution rate case, in large part, converted kWh or usage based charges into kW or demand based charges for the non-residential schedules. This approach addresses the basic "throughput incentive" concern expressed by the Commission in the Entry.

The Companies have also recognized the special circumstance arising from the requirement to achieve energy efficiency and peak demand reduction benchmarks set out in SB221. The Companies view this as an isolated circumstance that should be addressed through the recovery of lost revenues without specifically impacting overall distribution rate design. The Companies believe the Commission should provide a mechanism where the recovery of costs associated with energy efficiency and conservation programs, including lost distribution revenues, can be approved in a timely manner so that customers may take advantage of new opportunities to conserve energy.

The existing distribution rate design is based on decades of cost of service studies and related distribution rate design both of which are based on well-established rate making principles that have been tested in countless proceedings. Nothing has changed to alter the underlying basis for that body of work or the resultant rate design. To toss out what we have without any showing that it is improper or counter to public policy is inappropriate. For example, with regard to cost causation and recovery of distribution system costs from those

customers causing the cost, the SFV approach suffers from many limitations. Principally, the costs are not being recovered from the cost causers. Without metering to measure the demand of residential customers, the precise cost of the distribution system cannot be allocated on a pure cost basis. Simply dividing total fixed costs by the number of customers to result in a fixed monthly charge does not recognize that higher level users are causing higher than average costs on the distribution system. Adopting the SFV approach may simply flip the presumed existing higher-use customer subsidy of lower-use customers to just the opposite, i.e., lower-use customers subsidizing higher-use customers. With the Companies' current structure, as a customer's demand increases (or usage in the case of a residential customer) the more distribution costs are recovered from that customer. This is appropriate since they are causing the higher costs to be incurred on the system.

The Companies further believe before any modification to the existing rate design is considered, much less implemented by the Commission, customer attitudes must be tested to determine the receptivity to modifications to rate design. Experience demonstrates that customers are sensitive to changes in the billing for their electricity consumption. Even rate design changes that are revenue neutral within a class can create a customer reaction that overwhelms any positive intent of the change.

In conclusion, if current distribution rate design is changed such that reducing consumption or demand no longer provides any savings to customers, then the simple message to customers of: "If you use less, you can save money on your bill" will be lost for distribution related charges.

## II. Responses to Questions Posed in the Entry

*1. Are there fundamental operational distinctions between natural gas & electric utilities that must be considered in determining whether and how to eliminate or mitigate the throughput incentive in electric distribution rates?*

There are attributes unique to the electric distribution businesses that influence distribution rate design that should be considered when considering modifications to the distribution rate design.

a. The electric distribution system is designed to accommodate individual customer and class peak demands that are driven by instantaneous loads. The utility has to install and maintain sufficient distribution capacity to meet customers' peak demands even as these load centers shift and migrate with customers.

b. To the extent that customers' individual demands continue to grow, additional plant capacity is needed regardless of the changes, if any, in the number of customers on the system

c. Unlike natural gas, consumption of electricity and the number of electric utility customers continue to grow driving the need for investment in the distribution system. For the period 2002 – 2009 average residential electric consumption grew 1%. This growth has occurred even during a period of recession. During this same time period, average residential natural gas consumption fell by 12%. Decoupling may make sense in a declining sales industry, like natural gas, but it is wholly inappropriate in the electric industry where sales and costs are increasing.

d. Although kWh usage or throughput may not directly cause the costs that drive capital investment in the distribution system for the residential class, a correlation between kW demand and kWh usage has been exhibited. Simply put, customers who use more electricity have higher demand for electricity and require more distribution infrastructure to serve.

e. Increasing mandates and policy support for distributed generation, net metering, new reliability standards, smart grid, and renewable resources create new operational challenges on the distribution system that must be addressed and will likely give rise to the need for additional distribution investment. These requirements are unrelated to the costs of the existing distribution system, the volume of kWh sales or the number of customers on the system. But these new requirements must be recognized in any distribution rate design going forward.

*2. Are there factual or policy considerations that suggest electric distribution rate design should be constructed differently from natural gas?*

Yes. First, electricity usage on average for residential customers is trending upward whereas residential natural gas usage is trending downward. Second, electric utilities have statutorily mandated energy efficiency and peak demand reduction benchmarks. Third, gas companies do not have a state policy consideration to protect at risk populations. Fourth, the electric utilities are required to meet Commission mandated minimum reliability standards. Fifth, annual gas usage patterns vary significantly from that of electricity usage. As a result of the foregoing, the Companies favor a distribution rate design that:



- a. Recognizes electric distribution rate design should be based on its unique operational attributes. Costs are caused by building the system to meet individual customers' and class peak demand
- b. Includes tariffs designed to spur efficiency from a utility and customer perspective.
- c. Fully compensates utility participation in approved energy efficiency and peak demand reduction programs through timely recovery of ongoing costs on a standalone basis, including fair return on invested capital, and recovery of lost revenues.
- d. Enables utility customers to effectively use the utility service while understanding the drivers of their costs to use the service

3. *If the Commission adopts a decoupling rate design, which design should it use: SFV, decoupling adjustment, lost revenue recovery adjustment, or a combination?*

The Commission should continue with distribution rate design that is based on a customer's peak demand where practicable and based on kWh usage otherwise, coupled with a lost distribution revenue recovery mechanism. The lost revenue recovery adjustment meets the goals of SB221 by encouraging the utility to support energy efficiency and peak demand reduction while allowing for investment where necessary to continue providing adequate service in an environment of usage, demand, and customer growth.

Moving to a SFV design where customers are charged a fixed charge for distribution and a variable charge for generation diminishes the customer incentive needed to spur distribution efficiency and demand reductions from a customer perspective. It will result in a shifting of costs from higher-usage customers to lower-usage customers, without assurance that the new distribution rate design more properly assigns costs to cost causers. Again, this quick fix to a problem that no one has demonstrated exists throws out decades worth of studies designed to identify the distribution cost causers. Additionally, the SFV rate design makes adjustments only to revenue levels while ignoring an electric utility's ability to recover its prudently incurred costs, particularly increasing costs associated with materials cost increases and an opportunity to earn a reasonable return on investment.

- 4. *If the Commission adopts a decoupling rate design in electric distribution rates:*
  - a. *Should it only be applied to residential classes? What other classes?*

As one element of an overall rate design, lost distribution revenue should be recovered from all customer classes other than GT.

- b. *How often should the Commission require a utility to update?*

The current framework, which allows utilities to determine when they need to seek a change to distribution rates, is appropriate and provides balance and stability to customers and the electric utility while also providing appropriate flexibility. In addition, the Companies believe that the current method of collecting lost distribution revenues through the Company's Rider DSE, Demand Side Management and Energy Efficiency Rider, is the most appropriate.

The Commission has the opportunity to review the lost revenue recovery at least semi-annually when the rider updates are submitted for review and approval.

*c. Should rate of return be adjusted to reflect reduced risk?*

No, a utility's rate of return is a function of a myriad of issues and adjusting the rate of return because a lost revenue recovery mechanism exists smacks of single issue rate making and overlooks the fact that investing in energy efficiency and peak demand reduction measures along with distributed generation and renewable resources actually increases the risks associated with operating a distribution utility. Further, if the SFV design is implemented as described in the Entry, then the risk of the electric utility would actually increase. Fixing revenues does not equate to fixing earnings. As previously stated distribution expenses rise between rate cases so fixing revenue may actually increase the variability of earnings. This business risk is what drives a company's cost of capital because investors must bear it. Fixing revenues may actually increase the business risk for the utility and therefore investors' required return. In many cases where rate of returns have been modified in other states, they have been adjusted on an arbitrary basis based on the perception of lower risk rather than an actual study of the business risk.

*5. If the Commission adopts some element of a decoupling rate design:*

*a. Should adjustments be made on total revenue, per customer revenue or some other basis?*

A lost revenue recovery approach would not require separate adjustments to total revenue or per customer revenue. Other decoupling rate designs would need to be adjusted for inflation, weather, economic growth, growth in numbers of customers and growth in peak demand because many of these actually increase distribution costs for the company.

*b. Should adjustments be normalized for weather?*

See the response to (a).

*c. Should the Commission adopt any special features to shield consumers from volatile adjustments (e.g. caps, collars, bands?)*

No, such special features should not be needed if the Commission implements a rate structure that avoids the occurrence of the necessity for "volatile adjustments." If the Commission fails to do so, then it should adopt mitigation features and the Company should be allowed to defer adjustments with full carrying charges including cost of equity.

*6. If the Commission determines that a decoupling rate design should be implemented to eliminate or mitigate the throughput incentive in electric distribution rates:*

*a. When should this change occur (i.e. in what types of actions before the Commission should this change be implemented?)*

The Commission should strive to support rate design that is based on cost causation. As stated above, the Commission should not consider a SFV rate design for residential customers until costs can be properly assigned. When the information is available to support an allocation of fixed costs to customers is when the Commission should consider such action. Also, the timing of any efforts to change rate design needs to respect the many important aspects of current ESPs approved by the Commission and to not disturb the careful balance struck in those plans by changing distribution rate design prior to their expiration. The Companies recommend that any efforts to implement a straight fixed variable approach for electric utilities not move forward until the electric utility's filing of its next base distribution rate case.

*b. Should it be phased in?*

To the extent that any rate design causes shifts the allocation of costs from one set of customers to another, particularly when the rates are designed without regard to cost causation and result in significant increases in costs to certain customers and significant decreases in costs to other customers, the rates should be phased in.

*c. Over what period of time?*

It would depend how much customers are harmed and this would vary by operating company and the rate design chosen. For example on average across the Companies' service territories, under a fixed charge scenario a customer who uses an average of 400 kWh per month would see their bills for distribution go from \$21/month to roughly \$27/month or \$252/year to \$325/year. Smaller customers such as these would experience large percentage increases if rates were not phased in.

*7. In order to review the various decoupling rate designs, the Commission will need necessary data such as that included in Appendix B. Is the data contained in Appendix B:*

- a. Burdensome*
- b. Appropriate*
- c. Comprehensive*
- d. Proprietary*

In order to provide the types of information described in Appendix B, the Companies would need to conduct special studies which would be time-consuming and burdensome. The information described on Appendix B is not comprehensive however. The appendix is looking at one year's worth of information – the Companies believe that there should be the option to look at more than one year. The year 2010, for example, was impacted by both the economy and the extreme summer weather, which if viewed in isolation could lead to inaccurate conclusions.

In addition, using average bills and figuring out how many bills are above and below those levels ignores the types of customers being impacted. In making any decision on a rate design methodology that would re-allocate recovery of costs among types of residential customers, more information needs to be considered than is being requested in Appendix B. In addition, the consideration of what customers or customer groups are causing the distribution costs needs to be part of any discussion of changing rate designs. The Commission should put

off discussions about changing rate design until more information is available regarding individual contributions toward peak demand by different types of residential customers.

While the nature of the information described below, to a large degree, would not necessarily be considered proprietary at the preliminary juncture, the Companies reserve all of their rights to protect the confidentiality of any information that may be subsequently required to be produced.

### **III. Conclusion**

The Companies appreciate the opportunity to provide comments related to the Commission's consideration of the issue of decoupling, and urge the Commission to move with great caution when considering modifications to the existing distribution rate design. We look forward to providing additional input should the occasion present itself in the future.

DATED: February 11, 2011

Respectfully submitted,

/s/ James W. Burk

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AND THE TOLEDO EDISON COMPANY

**Illustration of Effect of Moving Toward Residential Straight-Fixed Variable Rates  
Using Current Distribution Rates and Billing Units from 2007 Rate Case**

**Table 1: Ohio Edison**

	Units (a)	Rate	Revenues
<b>Current Rates (b)</b>			
Bills	11,133,543	\$ 4.000000	\$ 44,534,172
kWh	9,431,867,033	\$ 0.031898	300,857,695
Total			\$ 345,391,867
<b>25% SFV rates</b>			
Customer charge	11,133,543	\$ 7.760000	\$ 86,396,294
kWh charge	9,431,867,033	\$ 0.027460	258,999,069
			\$ 345,395,362
<b>50% SFV rates</b>			
Customer charge	11,133,543	\$ 15.510000	\$ 172,681,252
kWh charge	9,431,867,033	\$ 0.018311	172,706,917
			\$ 345,388,169
<b>75% SFV rates</b>			
Customer charge	11,133,543	\$ 23.270000	\$ 259,077,546
kWh charge	9,431,867,033	\$ 0.009151	86,311,015
			\$ 345,388,561

**Customer Impact**

Usage Profile (c)	kWh / year	Current	25% SFV	50% SFV	75% SFV	% change 75% vs. Current
Low use	4,400	\$ 188.35	\$ 213.94	\$ 266.69	\$ 319.50	70%
Moderate use	9,050	\$ 336.68	\$ 341.63	\$ 351.83	\$ 362.06	8%
High use	14,000	\$ 494.57	\$ 477.56	\$ 442.47	\$ 407.35	-18%

**Notes:**

- (a) Units are 2007 actual from Update filing dated 5/30/2008 in Case 07-551-EL-AIR
- (b) Current rates are from tariff accessed on 12/8/2015, excluding all riders and credits
- (c) Usage profiles developed on Attachment SJR-10

**Illustration of Effect of Moving Toward Residential Straight-Fixed Variable Rates  
Using Current Distribution Rates and Billing Units from 2007 Rate Case**

**Table 2: Cleveland Electric Illuminating**

	Units (a)	Rate	Revenues
<b>Current Rates (b)</b>			
Bills	8,043,223	\$ 4.000000	\$ 32,172,892
kWh	5,700,446,077	\$ 0.029510	168,220,164
Total			\$ 200,393,056
<b>25% SFV rates</b>			
Customer charge	8,043,223	\$ 6.230000	\$ 50,109,279
kWh charge	5,700,446,077	\$ 0.026364	150,286,560
			\$ 200,395,840
<b>50% SFV rates</b>			
Customer charge	8,043,223	\$ 12.460000	\$ 100,218,559
kWh charge	5,700,446,077	\$ 0.017573	100,173,939
			\$ 200,392,497
<b>75% SFV rates</b>			
Customer charge	8,043,223	\$ 18.690000	\$ 150,327,838
kWh charge	5,700,446,077	\$ 0.008783	50,067,018
			\$ 200,394,856

**Customer Impact**

Usage Profile (c)	kWh / year	Current	25% SFV	50% SFV	75% SFV	% change 75% vs. Current
Low use	4,400	\$ 177.84	\$ 190.76	\$ 226.84	\$ 262.93	48%
Moderate use	9,050	\$ 315.07	\$ 313.35	\$ 308.56	\$ 303.77	-4%
High use	14,000	\$ 461.14	\$ 443.86	\$ 395.54	\$ 347.24	-25%

**Notes:**

- (a) Units are 2007 actual from Update filing dated 5/30/2008 in Case 07-551-EL-AIR
- (b) Current rates are from tariff accessed on 12/8/2015, excluding all riders and credits
- (c) Usage profiles developed on Attachment SJR-10

**Illustration of Effect of Moving Toward Residential Straight-Fixed Variable Rates  
Using Current Distribution Rates and Billing Units from 2007 Rate Case**

**Table 3: Toledo Edison**

	Units (a)	Rate	Revenues
<b>Current Rates (b)</b>			
Bills	3,321,271	\$ 4.000000	\$ 13,285,084
kWh	2,563,279,153	\$ 0.035595	91,239,921
Total			\$ 104,525,005
<b>25% SFV rates</b>			
Customer charge	3,321,271	\$ 7.870000	\$ 26,138,403
kWh charge	2,563,279,153	\$ 0.030581	78,387,640
			\$ 104,526,043
<b>50% SFV rates</b>			
Customer charge	3,321,271	\$ 15.740000	\$ 52,276,806
kWh charge	2,563,279,153	\$ 0.020383	52,247,319
			\$ 104,524,125
<b>75% SFV rates</b>			
Customer charge	3,321,271	\$ 23.600000	\$ 78,381,996
kWh charge	2,563,279,153	\$ 0.010199	26,142,884
			\$ 104,524,880

**Customer Impact**

Usage Profile (c)	kWh / year	Current	25% SFV	50% SFV	75% SFV	% change 75% vs. Current
Low use	4,400	\$ 204.62	\$ 229.00	\$ 278.57	\$ 328.08	60%
Moderate use	9,050	\$ 370.13	\$ 371.20	\$ 373.35	\$ 375.50	1%
High use	14,000	\$ 546.33	\$ 522.57	\$ 474.24	\$ 425.99	-22%

**Notes:**

- (a) Units are 2007 actual from Update filing dated 5/30/2008 in Case 07-551-EL-AIR
- (b) Current rates are from tariff accessed on 12/8/2015, excluding all riders and credits
- (c) Usage profiles developed on Attachment SJR-10

**Typical Annual Usage (kWh) Based on US Department of Energy Residential Load Profiles**

	<u>Ohio Edison</u>	<u>Cleveland Electric</u>	<u>Toledo Edison</u>	<u>Typical</u>
Location	Akron/Canton	Cleveland Airport	Toledo	
Low	4,397	4,437	4,392	4,400
Base	9,035	9,105	9,046	9,050
High	13,955	14,231	14,006	14,000

Source:

U.S. Department of Energy, Office of Energy Efficiency & Renewable Energy, Commercial and Residential Hourly Load Profiles for all TMY3 Locations in the United States,

<http://en.openei.org/datasets/dataset/commercial-and-residential-hourly-load-profiles-for-all-tmy3-locations-in-the-united-states>



### Relationship Between Household Income and Electricity Usage and Expenditures

**Table 1: Relationship Between Household Income and Electricity Expenditures in 2014**

Income Decile	Average Pre-Tax Income	Average Electricity Expenditure
≤ \$11,164	\$ 5,675	\$ 1,019
\$11,165 to \$18,361	\$ 14,973	\$ 1,113
\$18,362 to \$26,783	\$ 22,757	\$ 1,268
\$26,784 to \$35,681	\$ 31,277	\$ 1,387
\$35,682 to \$46,614	\$ 41,177	\$ 1,440
\$46,615 to \$59,548	\$ 52,924	\$ 1,526
\$59,549 to \$75,976	\$ 67,239	\$ 1,559
\$75,977 to \$99,622	\$ 86,878	\$ 1,664
\$99,623 to \$140,195	\$ 116,404	\$ 1,749
≥ \$140,196	\$ 229,771	\$ 2,116

Source:

U.S. Bureau of Labor Statistics, Consumer Expenditure Survey 2014  
(Sept. 2015), Table 1110, <http://www.bls.gov/cex/home.htm>

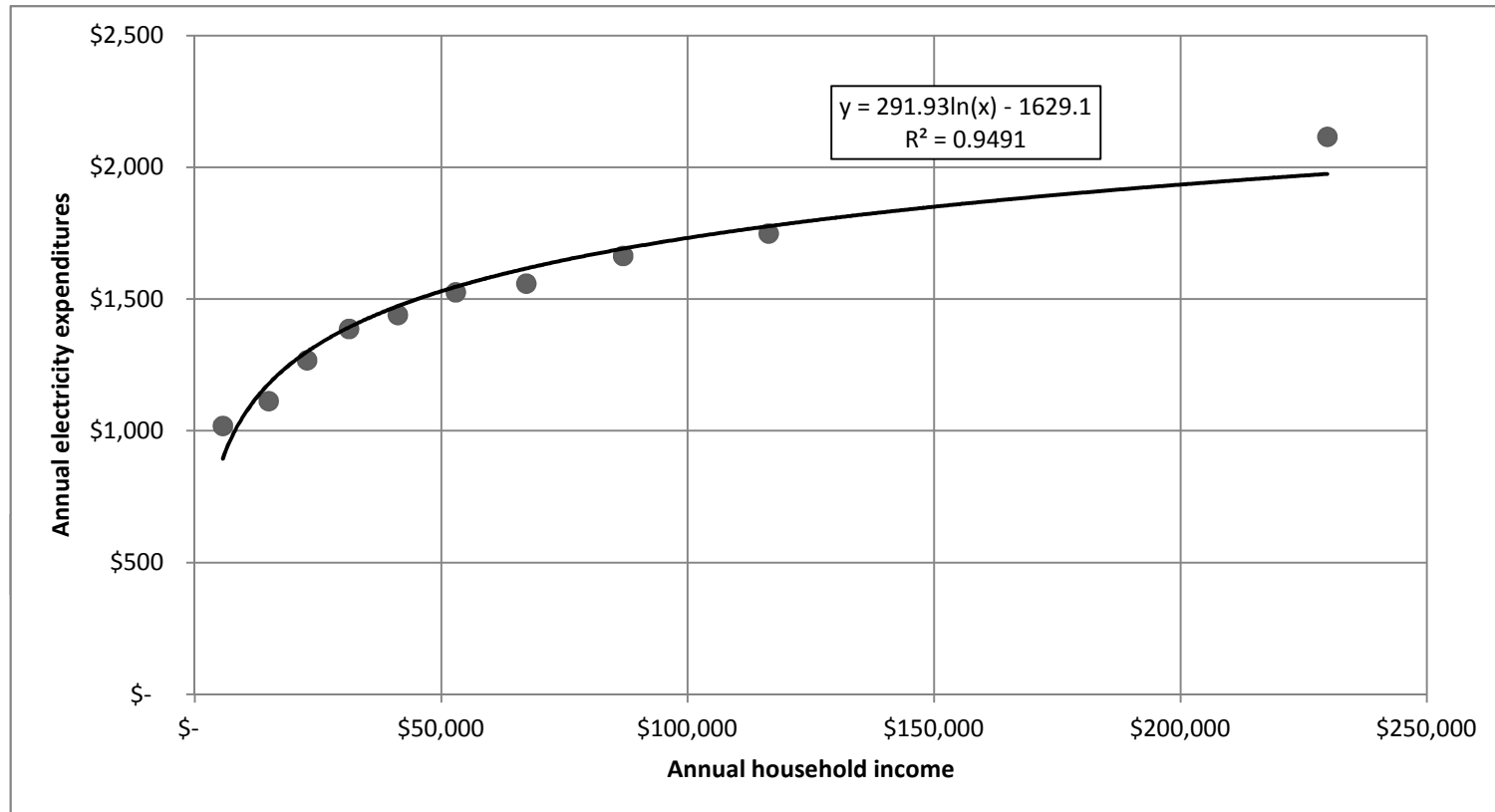
**Table 2: Relationship Between Household Income and Electricity Consumption in 2009**

Income Range	Average Electricity Usage (kWh)
Less than \$20,000	8,600
\$20,000 to \$39,999	9,009
\$40,000 to \$59,000	10,340
\$60,000 to \$79,999	10,982
\$80,000 to \$99,999	13,285
\$100,000 to \$119,999	12,941
\$120,000 or More	16,439

Source:

U.S. Energy Information Administration, Office of Energy Consumption and Efficiency  
Statistics, Forms EIA-457 A and C-G of the 2009 Residential Energy Consumption Survey  
(Jan. 2013), Table CE2.3, <http://www.eia.gov/consumption/residential/data/2009/>

**Relationship Between Household Income and Electricity Expenditures in 2014**



Source: U.S. Bureau of Labor Statistics, Consumer Expenditure Survey 2014 (Sept. 2015), Table 1110,  
<http://www.bls.gov/cex/home.htm>

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Summary: Testimony Supplemental Testimony of Scott J. Rubin on Behalf of the Office of the Ohio Consumers' Counsel electronically filed by Ms. Deb J. Bingham on behalf of Sauer, Larry S.