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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)	Case No. 10-176-EL-ATA
Edison Company for Approval of a New)	
Rider and Revision of an Existing Rider.)	

DIRECT TESTIMONY of ANTHONY J. YANKEL

On Behalf Of The Office Of The Ohio Consumers' Counsel 10 West Broad Street, 18th Floor Columbus, Ohio 43215-3485 (614) 466-8574

January 10, 2011

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I. INTRODUCTION

2

1

- 3 Q1. PLEASE STATE YOUR NAME, ADDRESS, AND EMPLOYMENT.
- 4 A1. I am Anthony J. Yankel. I am President of Yankel and Associates, Inc. My address is
 29814 Lake Road, Bay Village, Ohio, 44140.

6

7

- Q2. WOULD YOU BRIEFLY DESCRIBE YOUR EDUCATIONAL BACKGROUND AND
- 8 PROFESSIONAL EXPERIENCE?

9 A2. I received a Bachelor of Science Degree in Electrical Engineering from Carnegie Institute 10 of Technology in 1969 and a Master of Science Degree in Chemical Engineering from 11 the University of Idaho in 1972. From 1969 through 1972, I was employed by the Air 12 Correction Division of Universal Oil Products as a product design engineer. My chief 13 responsibilities were in the areas of design, start-up, and repair of new and existing product lines for coal-fired power plants. From 1973 through 1977, I was employed by 14 15 the Bureau of Air Quality for the Idaho Department of Health & Welfare, Division of 16 Environment. As Chief Engineer of the Bureau, my responsibilities covered a wide range 17 of investigative functions. From 1978 through June 1979, I was employed as the Director of the Idaho Electrical Consumers Office. In that capacity, I was responsible for all 18 19 organizational and technical aspects of advocating a variety of positions before various 20 governmental bodies that represented the interests of the consumers in the State of Idaho. 21 From July 1979 through October 1980, I was a partner in the firm of Yankel, Eddy, and 22 Associates. Since that time, I have been in business for myself. I am a registered 23 Professional Engineer in Ohio. I have presented testimony before the Federal Energy

1		Regulatory Commission ("FERC"), as well as the State Public Utility Commissions of
2		Idaho, Montana, Ohio, Pennsylvania, Utah, and West Virginia.
3		
4	Q3.	ON WHOSE BEHALF ARE YOU TESTIFYING?
5	A3.	I am testifying on behalf of the Ohio Consumers' Counsel ("OCC").
6		
7	Q4.	WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?
8	A4.	The purpose of my testimony is to address the rate differentials within the
9		Residential class that were historically in effect for Ohio Edison ("OE"),
10		Cleveland Electric Illuminating Company ("CEI"), and Toledo Edison ("TE")
11		(collectively "FirstEnergy" or "FE"). I will recommend rate differentials going
12		forward as well as a mechanism for recovering any revenue shortfall associated
13		with establishing these differentials on a going-forward basis.
14		
15	П.	SUMMARY AND RECOMMENDATIONS
16		
17	Q5.	PLEASE SUMMARIZE YOUR TESTIMONY.
18	A5.	My testimony begins with a discussion of the history of all-electric rates for each
19		of FE's operating companies. I do not go through a complete history, but only go
20		back approximately 20 years to demonstrate that these rates were independently
21		established by non-affiliated utilities and that the rate differential between the
22		standard residential rates and the all-electric residential rates were justified on the
23		basis of cost causation. I trace these rate differentials through various points in

1 time, up to December 31, 2008—just prior to the consolidation of the various 2 Residential rate schedules into a single schedule for the residential class of each 3 FE operating company. 4 5 My testimony next addresses what took place in 2009 and 2010 with respect to 6 the consolidation of those rate schedules, the development of riders to mitigate the 7 impact of the rate consolidation, the public outcry, and finally the establishment 8 of a Residential Generation Credit ("RGC") rider designed to further mitigate the 9 impact of the rate changes that were made. Given that the Commission expects this RGC rider to be in effect, at a minimum, until May 31, 2011, it is the 10 11 purpose of my testimony to make recommendations as to how this or a similar 12 RGC rider and/or rate reconstruction should be put into effect on a going-forward 13 basis. 14 15 *Q6*. WHAT ARE YOUR RECOMMENDATIONS REGARDING AN RGC RIDER 16 GOING FORWARD? 17 *A6.* I propose, going forward, that a relationship be established between the residential 18 standard rates and the credits given to all-electric customers that returns the all-19 electric customers rates back to a similar proportional credit to which they 20 received in the past. A fixed credit per unit of usage can only reflect a specific 21 relationship at a specific point in time. The concept of recognizing a relationship

¹ 4/15/10 Second Entry on Rehearing at 2, Case No. 10-176-EL-ATA.

1 means that the credits may change such that they maintain their relative impact on 2 a going-forward basis as overall rates change. 3 4 In order to accomplish this, I propose that a relationship be established where the 5 all-electric credits for each of the operating companies generally result in allб electric bills that are 65% of the standard residential bill. Based upon the fact that 7 there are two riders/credits already in place for these customers that amount to approximately 3.6 cents per kWh for all usage greater than 500 kWh,² and given 8 9 the fact that the projected Standard rates for the Residential customers is less than they generally were in early 2010, (when the RGC was established), I propose 10 . 11 that the initial RGCs to be established for September 2011 be as follows: 12 OE 1.268 cents per kWh 13 CEI 1.312 cents per kWh 14 TE 1.456 cents per kWh 15 These RGC credits would be applied to all winter usage above 1,000 kWh. 16 In order to insure that the RGC truly reflects a relationship, as opposed to simply 17 a fixed rate, a mechanism to adjust the rates over time must also be established. I 18 propose that a band be developed to adjust the RGC up or down, depending upon 19 rate changes, such that in the future the 65% relationship between all-electric bills

² See Residential Distribution Credit (RDC) and Non-Standard Generation Credit Provision – Res, EDR (a), Attachment 1 to 9/24/10 Staff Investigation and Report, Case No. 10-176-EL-ATA.

³ See Current All-Electric Bill and Standard Residential (RS) Bill, Attachment 2 to 9/24/10 Staff Investigation and Report, Case No. 10-176-EL-ATA.

1		and Standard bills is maintained. The band I propose is +/- 5% or the range of
2		60—70% of the standard rate.
3		
4		I further recommend that the new RGC rider be self-funding such that the funding
5		mechanism is contained in the same rider where the credits are established. I
6		recommend that the funding for the rider be obtained from all other "non-all-
7		electric" customers on a flat cents per kWh basis as this most fairly represents the
8		cost of service reductions that are associated with the usage pattern of the all-
. 9.		electric customers.
10		
11	m.	HISTORY OF DIFFERENTIAL RATES
12		
13	Q 7.	HAS THERE BEEN A HISTORY OF RATE DIFFERENTIALS WITHIN
14		THE RESIDENTIAL CUSTOMER CLASS ASSOCIATED WITH
15		DIFFERENT END-USES OF THE VARIOUS CUSTOMERS?
16	A7.	Yes, there have been different rate schedules for different end-use Residential
17		customers of OE, CEI, and TE that have been in effect for decades. ⁴ For purposes
18		of this testimony, I will only address the last approximately 15 to 20 years where
19		these rate differentials/schedules have been in effect.

⁴ See 9/24/10 Staff Investigation and Report at 1, Case No. 10-176-EL-ATA. "Various residential allelectric rates were implemented and revised over the years in the service territories of First Energy, beginning in January 1974."

1	<i>Q8</i> .	WHY DO YOU GO BACK APPROXIMATELY 15 TO 20 YEARS IN YOUR
2		REVIEW OF THE DIFFERENT RATE DESIGNS AND RATE
3		STRUCTURES FOR THE RESIDENTIAL CLASS?
4	A8.	For a full understanding of the rates and rate schedules that are the focus of this
5		case, it is important to understand that each of the schedules for each of the
6		FirstEnergy operating companies (i.e. OE, CEI, and TE) had their own beginning
7		and therefore their own basis for being established. It is inappropriate to view the
8		32 schedules that were consolidated in early 2009 as a group of schedules from a
9		single company that had no basis for existence. These residential rate schedules
10		were developed independently by three unaffiliated utilities on the basis of cost
11		causation considerations.
12		
13		There have been two mergers during this timeframe. First, CEI and TE combined
14		to form Centerior, and then Centerior and OE merged to form FirstEnergy. After
15		both of these mergers, each of the operating companies (OE, CEI, and TE)
16		generally maintained their independent identity and rate structures. During these
17		years, FE also underwent generation deregulation, but once again, each of the
18		operating companies maintained its independent identity and rate structure.

OE Historical Rate Relationships

1

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14

15

2		
3	<i>Q9</i> .	WHAT WERE OHIO EDISON'S RESIDENTIAL RATE SCHEDULES LIKE
4		20 YEARS AGO?
5	A9.	As a result of Case No. 91-816-EL-ATA, OE put base rates into effect March 27,
6		1992. ⁵ There are a number of different rates and provisions that complicate the
7		type of high-level review that I am providing. For simplicity sake, I will only
8		address the Ohio Edison Residential Standard Rate (Schedule 10) and the
9		Residential Space Heating Rate (Schedule 11).
10		
11		Table 1 below lists the base rates that were put into effect in the early 1990's with
12		respect to OE's standard and space heating Residential customers:6

Table 1

1992 OE Standard Rate	<u>Winter</u>	<u>Summer</u>	
Customer Charge	\$4.05	\$4.05	
first 500 kWh	\$0.09778	\$0.09899	
over 500 kWh	\$0.09778	\$0.10808	
1992 OE Space Heating	<u>Winter</u>	Summer	
Customer Charge	\$4.05	\$4.05	
first 900 kWh	\$0.10000	\$0.10525	
over 900 kWh	\$0.02500	\$0.10808	
There are several matters of interest with respect to the difference in these OE			
rates. First, the winter space heating en	ergy charge (for v	what may be considered	

⁵ For example the Second Revised Sheet No. 10 for Standard Residential Service and Third Revised Sheet No. 11 for Residential Space Heating Service in Exhibit AJY-1.

⁶ See Exhibit AJY-1.

space heating usage i.e., usage greater than 900 kWh per month) is essentially 7.3 cents per kWh lower or 25% of the energy charge for the Standard Residential customer. Second, there are two rate blocks for each rate schedule, but the sizes of the rate blocks are different for each. The first rate block for standard service ends at 500 kWh and ends at 900 kWh for space heating customers. Third, the bills resulting from these rates for space heating customers are slightly higher than those for Standard customers in the summer.

Although the rate differentials in Table 1 are easy to spot, for purposes of trying to get an overall understanding of the general relationships that existed for the various residential rate schedules for the three FirstEnergy operating companies, this information is still too detailed for ease of comparisons. Therefore, since this case primarily deals with space heating customers that use large amounts of energy during the winter, I have chosen to use 3,500 kWh of monthly consumption as a basis of comparison between rate schedules among the FE operating companies. Table 2 below uses the rates from Table 1 above to calculate bills for OE Residential customers using 3,500 kWh per month.

⁷ The calculation includes the base rates from Table 1 plus an EFC rate of \$0.013567 per kWh and a PIPP rate of \$0.0010461 per kWh that were used in the Ohio Edison Summary Schedule UNB 3 at page 2 of 200 in Case No. 99-1212-EL-ETP. Because the EFC rates changed every 3 months and because I will later address these same base rates and revenues as reflected in Case No. 99-1212-EL-ETP, I chose to use the same EFC and PIPP as in the 1999 analysis so that I am limiting this discussion to only the difference in base rates and not complicating it with other changes.

1 Table 2 2 1992 OE Billing @ 3,500 kWh Winter Summer Standard \$397.43 \$428.93 Space Heating \$210.20 \$430.93 Space Heating Bill as Percentage of Standard Bill 100% 53% 3 4 I have presented the difference in the billing between the Standard rate and the 5 Space Heating rate as simple percentages. At 3,500 kWh the space heating winter 6 bill for OE was 53% of the bill charged to standard customers. By contrast, a 7 summer bill for these same customers was only \$2 higher for Space Heating 8 customers. 9 10 WERE THESE OE RATES SIMPLY PROMOTIONAL IN DESIGN? 010. 11 A10. No. As we normally refer to "promotional" rates they are ones that are generally 12 designed to increase and/or maintain usage, while being recognized as being 13 below cost causation. Good examples of promotional rates are those being 14 offered for other purposes such as economic development or in order to retain load in the face of competitive alternatives. Unlike "economic development 15 16 rates" or "competitive response rates" that at the time were generally recognized 17 as being promotional, the Space Heating rate offered by OE contained strict limits 18 and additionally stood on its own cost causation basis. 19 20 For example, under strict limits in the tariffs that existed in the early 1990's, an 21 All-Electric customer was not simply a customer that used a great deal of energy

1		during the winter, but one "where electricity is the primary source of space
2		heating, and where at least ninety-five percent of the electrical consumption is
3		within the residence."8 Even more limiting is that this rate schedule was not
4		applicable when: "space conditioning by means of a heat pump utilized in
5		conjunction with a fossil fuel furnace" was employed. The rate schedule was
6		designed for specific customers with specific usage patterns, not for promotional
7		reasons or competitive response reasons.
8		
9	Q11.	IN THE PAST, HAS OHIO EDISON OFFERED JUSTIFICATIONS FOR ITS
10		LOWER RESIDENTIAL RATES IN THE WINTER?
11	. A11.	Yes, it has. In Case No. 89-1001-EL-AIR, then Rate Manager William M. Moore
12		of Ohio Edison offered the following on pages 6 and 7 of his direct testimony:
13		Q. Please explain the general rationale supporting design of the
14		proposed residential rates.
15		A. First and foremost, the proposed rates are designed to
16		reflect (and recover) costs incurred in providing reliable
17		electrical service to our customers. In this regard, the customer
18		charges were increased to a level better reflecting the Company's
19		experienced customer related costs. In addition, our proposed
20		residential rates contain several new features. We are proposing a
21		seasonal rate feature for residential service. During the past three

⁸ See Exhibit AJY-1 page 3 under "Availability."

⁹ Ohio Edison's third Revised Sheet No 11, effective June 1, 1993, in the Availability section.

1 years we have had dominant summer peak demands and our most 2 recent load forecasts project a summer peaking company. This 3 situation, due in part to increasing residential air conditioning 4 saturation, is a departure from the past and creates a different cost 5 pattern for the Company, which we feel should be 6 communicated to these customers in the form of seasonal rates. By 7 having a higher rate in the four month summer, growth in the 8 summer peak will tend to be moderated. The proposed seasonal 9 feature can be viewed as a demand-side measure, since through 10 rate design we are attempting to influence our customers' 11 consumption patterns. A second rationale for the seasonal feature 12 is that the lower winter rate will help us maintain and hopefully 13 increase our share of the highly competitive residential space 14 heating market. (Emphasis added) 15 16 IS IT LESS EXPENSIVE TO SERVE SPACE HEATING CUSTOMERS 17 THAN IT IS A STANDARD RESIDENTIAL CUSTOMER? 18 Yes. Generally speaking, it is less costly (per kWh) to serve a Residential space A12. 19 heating customer than it is to serve a standard Residential customer. There are 20 certain costs that are generally fixed for all Residential customers such as 21 metering, billing, and wires. The more units of consumption that these costs can 22 be spread over, the lower the rate that needs to be charged. Likewise there is 23 some reduction in cost per unit sold of the costs of the distribution system.

1		Another important factor is the time of day when space heating customers take
2		their service. Although the non-heating usage of a Space Heating Residential
3		customer may be similar to that of a standard Residential customer, the fact is that
4		much of the space heating load (which is the most significant contribution to a
5		space heating customer's usage) will occur at times that are not during the system
6		peak (i.e., the space heating occurs when generation costs are low). Thus, fixed
7		costs of meter, poles, and wires will be generally recovered over more units of
8		usage by these customers, i.e., at a lower rate per kWh. Likewise, by using more
9	.,	energy at the times when energy costs are lower, the energy costs will be, on
10		average, lower for these customers as well.
11		
12	Q13.	IN THE PAST, HAS OHIO EDISON OFFERED JUSTIFICATION FOR
13		THE TAILBLOCK RATE IT HAD IN PLACE FOR WINTER USAGE OF
14		RESIDENTIAL SPACE HEATING CUSTOMERS?
15	A13.	Yes, it has. In Case No. 89-1001-EL-AIR, Mr. Moore made the following
16		statement on page 12 of his direct testimony regarding Ohio Edison's proposal to
17		set the first block of the winter Space Heating rate at 9.892 cents per kWh and the
18		tailblock rate at 2.500 cents per kWh:
19		Q. How has the Company's Optional Heating Rate, Rate 11,
20		been modified?
21		A. The customer charge is tied to the customer charge in
22		proposed Rate 10 for consistency. In addition, the first energy
23		block (first 900 KWH) pricing was established so that the price

1		charged under Rate 11 is tied	to Rate 17 at t	hat usage level for
2		summer and winter bills. Thi	s affords prop	er tracking between
3		both large use rates (Rate 11	and Rate 17) a	nd Rate 10. Pricing of
4		the "balance of Kwh block"	was left unch	anged for winter
5		pricing due to costs not sup	porting an inc	rease. The summer
6		price was set to match propos	sed Rate 17, ag	ain to provide
7		consistent pricing for summer	r pricing on the	e two large use rates.
8		(Emphasis added)		
9				
10	Q14.	HAS OHIO EDISON MORE RECE	ENTLY PRES	ENTED DATA THAT
11		DEMONSTRATES THE COST OF	SERVING IT	S SPACE HEATING
12		CUSTOMERS IS LESS THAN THE	AT FOR ITS	STANDARD RESIDENTIAL
13		CUSTOMERS?		
14	A14.	Yes. Exhibit AJY-2 page 1 provides	a copy of the	results of the bundled cost of
15		service study from Case No. 99-1212	2-EL-ETP for	Ohio Edison. 10 This showed
16		that at the then existing rates (Table	1) and usage at	the time, that the following
17		rates of return were being achieved:		
		Total Company	(Retail)	11.14%
18		rotar company	, ,	
18 19		Standard Residential	(Sch. 10)	11.70%

¹⁶ The data in Exhibit AJY-2 was provided in response to OCC Interrogatory 2-25 (revised).

Although the rate of return for Space Heating rate (Schedule 11) was calculated to be below the system average, this does not mean that the rate was promotional or significantly deviated from cost of service.

In order to understand this better, I will present an example that demonstrates that a change in the tailblock rate could increase this rate of return up to the system average—and still leave a major differential between the Space Heating winter tailblock rate and the Standard rate. An increase in the winter tail block for space hearing of only \$0.05679 per kWh would have brought the rate of return for this schedule up to the system average of 11.14%. Given that the actual tailblock rate was set at \$0.025000 per kWh, the required increase to the tailblock rate would have resulted in a tailblock rate of \$0.08179 per kWh, compared to the \$0.097780 per kWh that was being charged to Standard rate customers for usage in the 900 kWh and above range. Even with this adjustment that would bring Space Hearing up to the system average return in Case No. 89-1001-EL-AIR, there would still have been a large difference in the bills for these customers as demonstrated at the 3,500 kWh usage level shown in Table 3:

¹¹ From Exhibit AJY-2 page 1, with an assigned rate base to Schedule 11 of \$39,777,243, the return has to be increased by \$2,296,460 in order to obtain a rate of return of 11.14%. Applying an income tax multiplier of 1.6 results in a need to increase the revenue by \$3,674,336. In order to assign all of this increase to the winter usage, over 900 kWh usage, divide by 64,701 MWH (taken from the revenue summary supplied for Ohio Edison on Schedule UNB-3.1, page 20 of 200 in Case No. 99-1212-EL-ETP) results in an increase in the tailblock rate of \$0.05679 per kWh.

1 Table 3 2 1999 OE Billing @ 3,500 kWh 3 (If Space Heating adjusted to System Return) Winter Summer Standard \$397.43 \$428.93 Space Heating \$357.85 \$430.93 Space Heating Bill as Percentage of Standard Bill 90% 100% 4 5 As can be seen from the above table, fine-tuning the winter tailblock rate to bring 6 this rate schedule up to the system average rate of return still results in lower bills 7 for the Space Heating customer. 8 9 WOULD CHANGES IN THE COST OF SERVING DIFFERENT 10 CUSTOMER GROUPS BE EXPECTED TO CHANGE WITH 11 DEREGULATION OF THE GENERATION FUNCTION? 12 A15. No. Virtually nothing on the customer usage front has changed simply because 13 Ohio moved from rate of return regulation to deregulation of the generation 14 function—the costs of serving specific load patterns do not change with the type 15 of regulation/oversight used. Customers usage patterns would generally be 16 expected to remain the same and thus, the basis for incurring fixed (meters and 17 wires) as well as variable (fuel) costs would stay the same. If a customer uses 18 substantial amounts of energy during off-peak times, then that energy (and thus 19 load) would tend to be cheaper to serve than for a customer who used more 20 energy on-peak and did not have a large off-peak load. 21

1	Q16.	WHAT WAS THE GENERAL RELATIONSHIP BETWEEN OHIO
2		EDISON'S STANDARD RESIDENTIAL RATE (SCHEDULE 10) AND
3		SPACE HEATING RATE (SCHEDULE 11) BEFORE THE NON-
4		STANDARD RATES WERE REMOVED IN EARLY 2009?
5	A16.	At the end of 2008, (after almost 10 years of generation deregulation and a host
6		of additional charges and riders being added) the relationship between the
7		standard Residential Rate and the Space Heating rate remained largely intact. On
8		a total bill basis, for 3,500 kWh of winter usage, the following bill relationship
9		existed:12
0		Standard Rate \$431.85
İ		Space Heating \$245.89
12		Percentage 57%
3		
4	Q17.	COMPARED TO TABLE 2, DOES THE FACT THAT THE PERCENTAGE
15		RELATION WENT FROM 53% UP TO 57% IN TEN YEARS INDICATE
6		ANYTHING ABOUT A CHANGE IN THE RELATIONSHIP BETWEEN
17		THE COST OF SERVING THE STANDARD RESIDENTIAL CUSTOMERS
8		AND THE SPACE HEATING CUSTOMERS?
9	A17.	No. The last cost of service study provided by OE was in 1999 and it was based
20		upon the same general assumptions/data regarding load/demand levels as was the
21		cost of serve study used in 1989. The slight decrease in the rate differential (i.e.

¹² FE discovery responses used to develop Exhibit AJY-3 were designated as confidential by FirstEnergy. However, on January 6, 2011, FE counsel agreed that the information used to develop Exhibit AJY-3 need not be treated as confidential. Exhibit AJY-3, page 1, lists the bills for winter usage between 250 and 10,000 kWh for Ohio Edison's Standard and Space Heating Residential customers.

1		slightly increasing the percentage	from 53% up to 5	7% that is paid by the Space
2		Heating customers) merely signal	s that the Compan	y has not kept an exact
3	relationship, but it also signals that even with generation deregulation, the			
4		Company has not deviated far fro	m the previous rel	ationship.
5				
6	<u>CEI I</u>	listorical Rate Relationships		
7				
8	Q18.	WHAT WERE CLEVELAND E	LECTRIC ILLUN	MINATING'S
9		RESIDENTIAL RATE SCHED	ULES LIKE 15 Y	EARS AGO?
10	A18.	As a result of Case No. 95-300-El	L-AIR, CEI put ra	tes into effect April 18, 1996.
11		As with OE, I will only address th	ne Residential Star	ndard Rate (Res Z) and the
12	•	Residential All-Electric Rate (Res	s H) at this time.	
13		Table 4 below lists the base rates	that were put into	effect in the mid-1990s with
14		respect to CEI's Standard and all-	electric Residenti	al customers: 13
		<u>Tab</u>	<u>le 4</u>	
		1996 CEI Standard Rate	<u>Winter</u>	<u>Summer</u>
		Customer Charge	\$4.75	\$4.75
		first 500 kWh	\$0.09829	50.11969
		next 500 kWh	\$0.09214	\$0.11354
		excess kWh	\$0.04480	\$0.11354
		CUCCOS KAAII	φυ.υ- 	A-101-10-10-10-10-10-10-10-10-10-10-10-10
•		1996 CEI All-Electric	<u>Winter</u>	<u>Summer</u>

Customer Charge

first 500 kWh

next 100 kWh

next 400 kWh excess kWh

\$4.75

\$0.09829

\$0.06729

0.05929

0.02852

\$4.75

\$0.11969

\$0.08969 \$0.08969

\$0.08969

¹³ See Exhibit AJY-4.

	There are several things of interest with respect to the difference in these CEI
	rates. First, the winter space heating energy charge (for what may have been
	considered space heating usage i.e., usage greater than 500 kWh per month) is
	certainly lower than for the standard Residential customer, but not significantly
	lower. The rates for usage between 500 and 1,000 kWh are lower by 2.5 cents to
	3.3 cents per kWh. However, usage over 1,000 kWh is only priced 1.6 cents per
	kWh lower for All-Electric customers than Standard customers. It should be
	noted that there is a significant price differential for both CEI's Standard and All-
	Electric customers that occurs for all usage greater than 1,000 kWh. The
	Standard Residential rate drops 5.3 cents per kWh from the initial block rate for
ž .	all usage above 1,000 kWh and the drop from this initial block rate is 7 cents per
	kWh for All-Electric users.
	Second, even though this rate is considered CEI's major space and water heating
	rate, in terms of number of customers, there is far more discounting that occurs
	during the summer months. In fact, after the first 500 kWh of usage, the CEI All-
	Electric customers are receiving a 3 cent per kWh discount in summer rates.
	Unlike the rate differentials for OE in Table 1, the rate differentials for CEI in
	Table 4 are more complex. To get an overall understanding of the general
	relationship that existed among the CEI rate schedules, I once again looked at the

1		bills at a specific usage level—3,500 kWh. Table 5 below uses the CEI rates	
2		from Table 4 above to calculate bills for Residential customers using 3,500 kW	h
3		per month. 14	
4 5		<u>Table 5</u> 1996 CEI Billing @ 3,500 kWh	
		<u>Winter</u> <u>Summer</u>	
		Standard \$262.67 \$455.92	
		Space Heating \$206.34 \$384.37	
6		Space Heating as Percentage of Standard Bill 79% 84%	
_			
7		I have presented the difference in the billing between the Standard rate and the	
8	.*	All-Electric rate as a percentage. At 3,500 kWh the All-Electric (Res H) winter	r
9		bill for CEI was 79% of the bill charged to Standard customers. This is not as	
10		large of a rate differential as demonstrated in the OE rates. The summer bill for	r
11		these same CEI customers was 84% of the bill for the standard service (Res Z)	
12		customers.	
13		i	
14	Q19.	WAS THIS CEI RATE PROMOTIONAL?	
15	A19.	No. Just as with OE, when we normally refer to "promotional" rates they are	
16		ones that are generally designed to increase and/or maintain usage, while being	ı
17		recognized as being below cost causation. Unlike "economic development rate	s"
18		or "competitive response rates" that at the time were generally recognized as	

¹⁴ The calculation includes the base rates from Table 4 plus an EFC rate of \$0.013918 per kWh and a PIPP rate of \$0.000568 per kWh that were used in the CEI Summary Schedule UNB 3 at page 2 of 312 in Case No. 99-1212-EL-ETP. Because the EFC rates changed every 3 months and because I will later address these same base rates and revenues as reflected in Case No. 99-1212-EL-ETP, I chose to use the same EFC and PIPP as in the 1999 analysis so that I am limiting this discussion to only the difference in base rates and not complicating it with other changes.

1		being promotional, the All-Electric rate offered by CEI contained strict limits and
2		additionally stood on its own cost of service basis.
3		
4		Additionally, CEI's All-Electric schedule not only had strong restrictions on the
5		applicability of who was eligible for this rate schedule, but the limitations
6		included detailed insulation and construction standards. These standards were
7		designed to reduce, not prompt consumption.
8		
9	Q20.	HAS CLEVELAND ELECTRIC ILLUMINATING EVER PRESENTED
10		DATA THAT DEMONSTRATES THAT THE COST OF SERVING ITS
11		SPACE HEATING CUSTOMERS IS LESS THAN FOR ITS STANDARD
12		RESIDENTIAL CUSTOMERS?
13	A20.	Yes. Exhibit AJY-2 pages 2-4 provide a copy of the results of the bundled cost of
14		service study from Case No. 99-1212-EL-ETP for CEI. 15 This showed that at the
15		then existing base rates (Table 4) and usage at the time, that the following rates of
16		return were being achieved:
17		Total Company (Jurisdict) 9.09%
18		Standard Residential (Res-Z) 7.26%
19		All-Electric (Res-H) 11.44%
20		Even with the additional differential provided to the summer rates, the rate of
21		return for the All-Electric rate (Res H) was above cost of service. A decrease in

¹⁵ In response to OCC Interrogatory 2-25 (revised) FirstEnergy provided a copy of the results of the bundled cost of service study.

1 the winter tail block of \$0.015114 per kWh would have brought the rate of return for this all-electric schedule down to the system average of 9.09%. Given the 2 3 fact that the winter tailblock rate was set at \$0.02852 per kWh, the required 4 decrease to the tailblock rate would have brought it down to \$0.013383 per kWh, 5 compared to the \$0.04480 per kWh that was being charged to Standard rate customers for usage in the 1,000 kWh and above range. Even with such an 6 7 adjustment to bring the all-electric schedule down to the system average return, 8 there would have been an even larger difference in the bills for these customers as 9. demonstrated at the 3,500 kWh usage level shown in Table 6: 10 Table.6 1999 CEI Billing @ 3,500 kWh 11 12 (If Space Heating adjusted to System Return) Winter Summer Standard \$262.67 \$455.92 \$172.88 \$384.37 Space Heating Space Heating as Percentage of Standard Bill 66% 84% 13 14 As can be seen from the above, fine-tuning the tailblock rate to bring this

Schedule down to the system average rate of return would have had a significant impact upon the bill for the space heating customer. Essentially, the rate differential between the standard rate and the space heating rate was quite large because the relative difference in the cost of serving these different customers is quite large.

¹⁶ From Exhibit AJY-2 page 2, with an assigned rate base to Schedule RES-H of \$101,038,000 the return has to be decreased by \$2,378,000 in order to obtain a rate of return of 9.09%. Applying an income tax multiplier of 1.6 results in a need to decrease the revenue by \$3,805,000. In order to assign all of this decrease to the winter usage, over 1,000 kWh, divide by 251,365 MWH (from Schedule UNB-3.1 page 29 of 312 in Case No. 99-1212-EL-ETP) results in an increase in the tailblock rate of \$0.015137 per kWh.

1	Q21.	WHAT WAS THE GENERAL RELATIONSHIP BETWEEN CLEVELAND
2		ELECTRIC ILLUMINATING'S STANDARD RESIDENTIAL RATE (RES-Z)
3		AND SPACE HEATING RATE (RES-H) BEFORE THE NON-STANDARD
4		RATES WERE REMOVED IN EARLY 2009?
5	A21.	At the end of 2008, (after almost 10 years of deregulation and a host of additional
6		charges and riders being added) the rates had generally increased, but the
7		relationship between the standard Residential Rate and the All-Electric rate was
8		pretty much intact. On a total bill basis, for 3,500 kWh of winter usage, the
9		following bill relationship existed: 17
10		Standard Rate \$284.71
11		All-Electric \$228.00
12		Percentage 80%
13		
14	Q22.	COMPARED WITH TABLE 5, DOES THE FACT THAT THE
15		PERCENTAGE RELATION WENT FROM 79% UP TO 80% IN TEN YEARS
16		INDICATE ANYTHING ABOUT A CHANGE IN THE RELATIONSHIP
17		BETWEEN THE COST OF SERVING THE STANDARD RESIDENTIAL
18		CUSTOMERS AND THE SPACE HEATING CUSTOMERS?
19	A22.	No. As with OE, the last cost of service study presented by the CEI was in 1999
20		and it was based upon the same general assumptions regarding load/demand
21		levels as was the cost of serve study used in the mid 1990's. The very slight

¹⁷ Exhibit AJY-3 page 2 lists the bills for winter usage between 250 and 10,000 kWh for CEI's Standard and All-Electric Residential customers.

decrease in the rate differential (very slightly increasing the percentage up to 80%
that is paid by the All-Electric customers) merely signals that CEI has not kept an
exact relationship, but it also signals that even with generation deregulation, the
Company has not deviated far from the previous relationship.

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TE Historical Rate Relationships

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8 Q23. WHAT WERE TOLEDO EDISONS' RESIDENTIAL RATE SCHEDULES

LIKE 15 YEARS AGO?

A23. As a result of Case No. 95-299-EL-AIR, TE put base rates into effect April 18,

1996. As with OE and CEI, I will only address the Residential Standard Rate (R01) and the Residential Space Heating Rate (R-07) at this time.

Table 7 below lists the rates that were put into effect in the mid-1990's with

respect to TE's Standard and Space Heating Residential customers: 18

	<u>Table 7</u>	
1996 TE Standard Rate	<u>Winter</u>	<u>Summer</u>
Customer Charge	\$4.75	\$4.75
first 1000 kWh	\$0.1014	\$0.1126
excess kWh	\$0.0788	\$0.0998
4000000		
1996 TE Space Heating	<u>Winter</u>	<u>Summer</u>
1996 TE Space Heating Customer Charge	<u>Winter</u> \$4.75	<u>Summer</u> \$4.75
•		
Customer Charge	\$4.75	\$4.75
Customer Charge first 500 kWh	\$4.75 \$0.1014	\$4.75 \$0.1126

¹⁸ See Exhibit AJY-5

First, the winter space heating energy charge (for what would be considered space heating usage i.e., usage greater than 900 kWh per month) is 4.0 cents per kWh lower or 49% of the energy charge for the Standard Residential customer at a similar usage level. Second, there are two rate blocks for the Standard rate schedule, but three rate blocks for the Space Heating schedule that start the rate differentials at 500 kWh. Third, the rates for space heating customers are slightly lower for the middle block (501 to 900 kWh) than those for standard customers in the summer, thus, giving the Space Heating customers a slight rate benefit in the summer months as well.

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As with the OE and CEI rates, to get a better overall understanding of the general relationship between rate schedules that existed, I once again propose looking at the bills at one usage level. Table 8 below uses the TE rates from Table 7 above to calculate bills for Residential customers using 3,500 kWh per month: ¹⁹

15 16

	<u>I abie 8</u>	
1996 TE B	illing @ 3,500	0 kWh
	<u>Winter</u>	<u>Summer</u>
Standard	\$353.12	\$416.82
Space Heating	\$240.26	\$406.58
Space Heating Bill as a		
Percentage of Standard Bill	68%	98%
Space Heating Bill as a	·	,

¹⁹ The calculation includes the base rates from Table 7 plus an EFC rate of \$0.013717 per kWh and a PIPP rate of \$0.000561 per kWh that were used in the Toledo Edison Summary Schedule UNB 3 at page 2 of 406 in Case No. 99-1212-EL-ETP. Because the EFC rates changed every 3 months and because I will later address these same base rates and revenues as reflected in Case No. 99-1212-EL-ETP, I chose to use the same EFC and PIPP as in the 1999 analysis so that I am limiting this discussion to only the difference in base rates and not complicating it with other changes.

I have presented the difference in the billing between the Standard rate and the Space Heating rate as percentages. At 3,500 kWh the Space Heating winter bill for TE was 68% of the bill charged to Standard customers. This is not as large of a rate differential as demonstrated in the OE rates (but larger than CEI), but the summer bill for these same TE customers was slightly lower than for Standard service (R-01) customers at 98%.

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024. WAS THIS TE RATE PROMOTIONAL?

9 No. Just as with OE and CEI, a promotional rate is generally one that is A24.10 recognized as being below cost causation, and is being offered for other purposes such as economic development or in order to retain load in the face of competitive 11 alternatives. Unlike "economic development rates" or "competitive response 12 13 rates" that at the time were generally recognized as being promotional, the space 14 heating rate offered by TE contained strict restrictions and additionally stood on 15 its own based upon cost of service. The restrictions included language that 16 required "participation in a positive load control program involving the installation of load controls on electric water heating and central air conditioning 17 should the Company so request."²⁰ 18

²⁰ See Exhibit AJY-5, page 4, Terms and Conditions #4.

1	<i>Q25</i> .	HAS TOLEDO EDISON EVER PRESENTED DATA THAT
2		DEMONSTRATES THE COST OF SERVING ITS SPACE HEATING
3		CUSTOMERS IS LESS THAN FOR ITS STANDARD RESIDENTIAL
4		CUSTOMERS?
5	A25.	Yes. In response to OCC Interrogatory 2-25 (revised) FirstEnergy provided a
6		copy of the results of the bundled cost of service study from Case No. 99-1212-
7		EL-ETP for Toledo Edison. ²¹ This showed that at the then existing rates (Table
8		7) and usage at the time, the following rates of return were being achieved:
9		Total Company (Jurisdict) 9.26%
0		Standard Residential (R-01) 6.54%
11 :		All-Electric (R-07) 11:93%
12		
13		Thus, even with the rate differential provided in the TE All-Electric rate R-07, the
14		rate of return for this rate schedule was calculated by the Company to be well
15		over the average rate of return for the jurisdiction. A decrease in the winter tail
16		block of \$0.02948 per kWh would have brought the rate of return for this
17		schedule down to the system average of 9.26%. ²² Given the fact that the TE
18		Standard tailblock rate was set at \$0.0788 per kWh, the required tailblock to bring
19		the All-Electric rates in line with the average return for all rate schedules would

²¹ See Exhibit AJY-2 pages 5-7.

²² From Exhibit AJY-2 page 5 with an assigned rate base to Schedule R-07 of \$100,559,000, the return has to be decreased by \$2,685,000 in order to obtain a rate of return of 9.26%. Increasing this by 1.6 as the income multiplier results in a need to decrease the revenue by \$4,300,000. In order to assign all of this decrease to the winter, over 900 kWh usage, divide by 145,854 MWH taken from the revenue summary supplied by Toledo Edison on Schedule UNB-3.1, page 65 of 406 in Case No. 99-1212-EL-ETP) results in an decrease in the tailblock rate of \$0.02948 per kWh.

1		have been \$0.04932 per kWh. If adjusted for this increased differential, the	
2		difference in the bills between the TE Standard rate and the All-Electric rate at	the
3		3,500 kWh usage level would be as shown in Table 9:	
4		Table 9	
5		1999 TE Billing @ 3,500 kWh	
6		(If Space Heating adjusted to System Return)	
		<u>Winter</u> <u>Summer</u>	
		Standard \$353.12 \$416.82	
		Space Heating \$163.62 \$406.58	
		Space Heating Bill as	
7		Percentage of Standard Bill 46% 98%	
8		As can be seen from the above, fine-tuning the tailblock rate to bring this	
9		Schedule down to the system average rate of return has a significant impact up	on
10		the bill for the space heating customer. Essentially, the rate differential between	en
11		the standard rate and the space heating rate should be quite large because the	
12		relative difference in the cost of serving these different customers is quite larg	e.
13			
14	Q26.	WHAT WAS THE GENERAL RELATIONSHIP BETWEEN TOLEDO	
15		EDISON'S STANDARD RESIDENTIAL RATE AND SPACE HEATING	
16		RATE BEFORE THE NON-STANDARD RATES WERE REMOVED IN	
17		EARLY 2009?	
18	A26.	At the end of 2008, (after almost 10 years of generation deregulation and a ho	st
19		of additional charges and riders being added) the relationship between the	
20		Standard Residential Rate and the Space Heating rate was pretty much intact	

1		compared to where it once was. For	r 3,500 kWh of winter usage, the following
2		bill relationship existed: 23	
3		Standard Rate	e \$382.46
4		Space Heatin	g \$267.36
5		Percentage	70%
6			
7	Q27.	DOES THE FACT THAT THE PR	ERCENTAGE RELATION WENT FROM
8		68% TO 70% IN TEN YEARS IN	DICATE ANYTHING ABOUT A CHANGE
9		IN THE RELATIONSHIP BETW	EEN THE COST OF SERVING THE
10		STANDARD RESIDENTIAL CUS	STOMERS AND THE SPACE HEATING
11		CUSTOMERS?	
12	A27.	No. As with OE and CEI, the last o	ost of service study conducted by the TE was
13		in 1999 and it was based upon the s	ame general assumptions regarding
14		load/demand levels as was the cost	of serve study used in the mid 1990's. The
15		very slight decrease in the rate diffe	rential (very slightly increasing the percentag
16		from 68% up to 70% that is paid by	the Space Heating customers) merely signals
17		that the TE has not kept an exact rel	lationship, but it also signals that even with
18		deregulation, the Company has not	deviated far from the previous relationship.
19		These rates of return for OE, CEI as	nd TE illustrate that the All-Electric rates have
20		consistently produced a positive ret	urn, and in the case of CEI and TE have
21		produced rates of return above the s	system average. Only in the case of OE was
22		the rate of return below the system	average. Taken as a whole, this demonstrates

²³ See Exhibit AJY-3, page 3.

I		that the discounted rates provided to All-Electric customers were appropriate and
2		within the zone of reasonableness.
3		
4	IV.	RATE IMPACTS OF RECENT EVENTS
5		
6	<u>2009</u> :	and Riders RDC, EDR, and RGC
7		
8	Q28.	WHAT HAPPENED DURING 2009 IN REGARDS TO THE
9	·	FIRSTENERGY'S RESIDENTIAL STANDARD AND NON-STANDARD
0	•	RATES?
11	A28.	The Staff Investigation and Report provides in its background section a good
12		summary of what happened in 2009 and 2010. In January 2009 the Commission
13 -		approved FirstEnergy's proposal to consolidate 32 different Residential
14		distribution rate schedules across its operating companies. As part of the
15		Commission's Opinion and Order, it generally ²⁴ approved a 1.7 cent per kWh
16		Residential Distribution Credit ("RDC") on winter usage greater than 500 kWh
17		for Residential customers that were receiving lower winter rates in the past from
18		each of the operating companies.
19		
20		In March 2009 the Commission approved FirstEnergy's Electric Security Plan
21		("ESP") and once again consolidated Residential generation rates into one rate

 $^{^{24}}$ OE customers were given 1.77 cents, CEI customers were given 1.70 cents, and TE customers were given 1.76 cents.

schedule per operating company, and generally approved a generation credit of 1.9 cents per kWh on winter usage greater than 500 kW for space heating customers in order to mitigate the impact of the rate consolidation. Later I will refer to this credit as the "EDR" credit. These two credits provide a rate discount of approximately 3.6 cents per kWh for what were once non-Standard Residential customers during the winter months.

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Q29. WHAT HAPPENED DURING THE 2009/2010 WINTER HEATING

SEASON?

The 2009/2010 heating season was the first time that the full impact of changes to 10 A29. non-Standard residential rates from both the recent distribution rate case and the 11 12 ESP were felt. Many All-Electric customers encountered significant increases in 13 their bills, even with the discounts provided by the two existing credits (i.e. RDC and EDR) that totaled approximately 3.6 cents per kWh.²⁵ In March and April 14 15 2010, the Commission approved rate relief for certain specified customers 16 through additional generation credits of 4.2 cents per kWh on all usage for CEI 17 All-Electric customers, 3.9 cents per kWh for OE All-Electric customers on usage 18 greater than 1,250 kWh, and 1.8 cents per kWh on all kWh greater than 2,000 kWh for all TE All-Electric customers (excluding apartments).²⁶ These additional 19 20 Residential Generation Credits are referred to as "RGC." It is my understanding 21 that these additional discounts are temporary since the Commission expects the

²⁵ See Staff Investigation and Report, Attachment 1.

²⁶ Ibid.

1		rate rener from the RGC to remain in effect, at minimum, through the 2010/2011
2		winter heating season (i.e. September 1, 2010 through May 31, 2011). ²⁷ The
3		general purpose of this case is to develop appropriate long-term rates for All-
4		Electric customers of FirstEnergy. ²⁸
5		
6	<i>Q30</i> .	WHAT DID THESE ADDITIONAL RGC DISCOUNTS ACCOMPLISH THAT
7		WERE APPROVED IN MARCH 2010?
8	A30.	According to the Staff Investigation and Report at page 2:
9		"Accordingly, the Commission directed FirstEnergy to file tariffs for the
10	. •	all-electric residential subscribers that would provide bill impacts
11	1.5	commensurate with FirstEnergy's December 31, 2008, charges for those
12		customers."
13		
14		Thus, the resulting RGC discounts were designed to keep bills at December 31,
15		2008 levels, and not necessarily keep, or reestablish, any prior rate relationships
16		that existed between the All-Electric and the Standard service customers' rates
17		and bills. The important distinction here is that there were some changes made to
18		the Standard rates since December 31, 2008 and that these RGC discounts would
19		have effectively eliminated the impact of such rate changes for the All-Electric
20		customer.

 $^{^{\}rm 27}$ 4/15/10 Second Entry on Rehearing at 2, Case No. 10-176-EL-ATA.

²⁸ See generally the Commission March 3, 2010 Order.

1	<i>Q31</i> .	WHY WERE THE VALUES OF THE RGC AND THE USAGE OVER
2		WHICH THE CREDITS APPLIED SO DIFFERENT BETWEEN THE
3		FIRSTENERGY OPERATING COMPANIES?
4	A31.	Given that the intent of the RGC was to result in bills similar to those rendered on
5		December 31, 2008, the credits had to be designed to reflect the fact that the All-
6		Electric rate schedules for each operating company were initially quite different,
7		plus the fact that there were various levels of rate increases and decreases that
8		occurred for each of the FE operating companies. Thus, the results ranged from
9		CEI All-Electric customers getting a RGC credit of 4.2 cents for all kWh
10		consumed, down to TE All-Electric customers getting an RGC on only 1.8 cents
~ 11		for all kWh above 2,000 kWh. Ohio Edison All-Electric customers got an RGC
12		that was in between. Looking through the results of these different RGCs on a
13		bill rendered basis, use of these RGC's generally resulted in bills that did come
14		out close to the bills that were being rendered for the same usage level as occurred
15		on December 31, 2008 for all non-Standard Residential bills.
16		
17	Q32.	HOW DO YOU RECOMMEND THAT THE COMMISSION ESTABLISH
18		CREDITS ON A LONG-TERM BASIS?
19	<i>A32</i> .	After this heating season, on a going-forward basis, I recommend the Commission
20		design the RGC such that the amount of the credit is not fixed, but instead varies
21		in order to preserve a relative relationship between All-Electric customers and
22		Standard Residential customers' rates and bills. I recommend this option and
23		propose an RGC rate mechanism (rider) that generally reflects the relative

relationship between All-Electric and Standard service as it existed in the past and on December 31, 2008. I also propose a "band" that insures the relationship continues in the future, no matter what happens to the overall rates.

Q33. WHY IS A BAND NECESSARY?

A33. Historically, rates were developed in order to meet a utility's revenue requirement and in order to reflect the differences in cost causation between rate schedules.

FE and its operating companies have not conducted a new cost of service study during the last 15 to 20 years. Without being able to assess the relative relationship between the costs incurred by various customer groups and the rates that they pay, it is impossible to say if the historic relationships have changed. By assessing what the historic rate relationships were, and then establishing a band around those relationships, it is possible to establish an RGC that is somewhat sensitive to the overall costs of providing service. If rates generally increase, the band would allow the RGC to increase such that the same approximate percentage differences exist between the Standard and the All-Electric rates. By the same token, if rates generally decrease, the band would allow the RGC to be reduced as well so that the reduction remains reasonable and does not fall outside of the relationship that previously existed.

1 V. RECOMMENDATIONS GOING FORWARD 2 3 034. WHAT WERE THE RELATIVE RELATIONSHIPS THAT EXISTED FOR 4 EACH OF THE FE OPERATING COMPANIES IN THE PAST BETWEEN 5 STANDARD AND NON-STANDARD RESIDNTIAL RATES AND BILLS? 6 A34. As pointed out above, for the 3,500 kWh usage level, for the rates that were in 7 effect during the mid-1990s, the bills for the All-Electric customers as a 8 percentage of Standard bills were as follows: 9 Ohio Edison .53% 10^{-1} 79% CEI · 11 Toledo Edison 68% 12 13 As pointed out above, for the 3,500 kWh usage level, for the rates that were last in 14 effect on December 31, 2008, the bills for the All-Electric customers as a percentage of the Standard bills were as follows:²⁹ 15 16 Ohio Edison 57% 17 CEL 80% 18 Toledo Edison 70% 19 20 For the sake of simplicity, I propose that there be a uniform target adopted for all 21 three operating companies, such that the relationship between Standard service 22 and All-Electric service be the same across all three operating companies. I

²⁹ See Exhibit AJY-3.

propose that the relationship be set such that the total bill for All-Electric customers (at the 3,500 kWh usage level) be set at 65% of the bill for a similarly situated Standard customer. This would be in keeping with the long recognized 4 fact that All-Electric customers tend to be less expensive to serve than Standard service customers. An annual review would be made for each of the operating 6 companies and a determination would be made of the present relationship 7 between the Standard rate and the All-Electric rate at a usage level of 3,500 kWh. *035*. HOW WOULD THIS 65 PERCENT TARGET BE GENERALLY APPLIED AND REVIEWED ON A GOING-FORWARD BASIS? A35. In order to provide an example, I will used the projected bill data supplied in the Staff Investigation and Report for Standard service rates (and thus bills) to be in

11 12 effect beginning September 1, 2011.30 For Ohio Edison, the Staff projects a 13 14 Standard winter service bill for 3,500 kWh to equate to \$405.14. A target of 65% 15 of the standard rate would place the Ohio Edison All-Electric bill at \$263.34, or \$141.80 less than the standard bill.³¹ The RDC and the EDR Riders that would 16 17 still be in effect amount to 3.67 cents per kWh for all usage greater than 500 kWh. At 3,500 kWh, this equates to a total credit of \$110.10.32 This would bring this 18 bill down to \$295.04³³ or 73% of the bill for Standard service at the same usage 19 20 level—leaving an additional \$31.70 credit to be obtained.

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³⁰ Staff Investigation & Report Attachments 2(a), (b) and (c), "Standard Residential (RS) Bill" column.

 $^{^{31}}$ \$405.14 * 65% = \$263.34.

 $^{^{32}}$ \$0.0367 * 3,000 = \$110.10.

 $^{^{33}}$ \$405.14 - \$110.10 = \$295.04.

In order to be brought down to the 65% level, there would need to be some further

credit applied through the RGC. In order to have a little more consistency

between operating companies, I propose that all RGC credits start at a usage level

of 1,000 kWh. With the RGC starting at 1,000 kWh, the OE credit would need to

be set at 1.268 cents per kWh in order to meet the target differential of 65% for

OE.³⁴

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8 Q36. HOW WOULD THIS TARGET WORK FOR INITIALLY SETTING THE RGC

FOR CEI?

10 The Staff Investigation and Report for CEI projects that the winter bills starting A36. 11 September 2011 for CEI for usage at 3,500 kWh would be \$402.27—very similar to OE. A target of 65% of the standard rate would place the CEI All-Electric bill 12 at \$261.48, or \$140.79 less than the standard bill. The RDC and the EDR for 13 14 CEI are slightly lower than for OE and are collectively set at 3.6 cents per kWh for all usage above 500 kWh. This equates to a credit of \$108.00.36 This credit 15 16 only gets the bill down to 73% of the Standard rate and leave an additional credit 17 of \$32.79 to be obtained. The RGC needs to be set at 1.312 cents per kWh for all usage above 1,000 kWh in order to obtain the 65% target.³⁷ 18

 $^{^{34}}$ \$31.70 / (3,500 – 1,000) = 1.268 cents.

 $^{^{35}}$ \$402.27 * 65% = \$261.48.

 $^{^{36}}$ \$0.036 * 3,000 = \$108.00.

 $^{^{37}}$ \$32.79 / (3,500 – 1,000) = 1.312 cents.

1	Q 37.	HOW WOULD THIS TARGET WORK FOR INITIALLY SETTING THE RGC
2		FOR TOLEDO EDISON?
3	A37.	The Staff Investigation and Report for TE projects that the winter bills starting
4		September 2011 for TE for usage at 3,500 kWh would be \$417.74—close, but
5		higher than for OE and CEI. A target of 65% of the standard rate would place the
6		Toledo Edison All-Electric bill at \$271.53, or \$146.21 less than the standard
7		bill. ³⁸ The RDC and the EDR for TE are set at 3.66 cents per kWh for all usage
8		above 500 kWh. This equates to a credit of \$109.80.39 This credit only gets the
9		bill down to 74% of the Standard rate and leaving an additional credit of \$36.41 to
10		be obtained. The RGC needs to be set at 1.456 cents per kWh for all usage above
11		1,000 kWh in order to obtain the 65% target. 40
12		
13	Q38.	HOW WOULD THE BAND THAT YOU ARE PROPOSING TO KEEP THE
14		RELATIONSHIP BETWEEN ALL-ELECTRIC AND STANDARD BILLS
15		WITHIN THE HISTORIC FRAMEWORK BE APPLIED?
16	A38.	I propose that once the initial RGC's are established, that they not be changed
17		unless the relationship between the All-Electric bills and the Standard bills at a
18		usage level of 3,500 kWh gets outside of a band around the 65% target of more
19		than +/- 5%, i.e., the band would go from 60% to 70%. This test would only be
20		done at the 3,500 kWh usage level, but the findings would be applied to the RGC
21		that is applied to each customer of a given FE distribution company. If the

 $^{^{38}}$ \$417.74 * 65% = \$271.53.

 $^{^{39}}$ \$0.0366 * 3.000 = \$109.80.

 $^{^{40}}$ \$36.41 / (3,500 - 1,000) = 1.456 cents.

1		relationship for any of the operating companies went outside of this range, then
2		the RGC for that operating company would be reset such that the 65% target is
3		once again met. Given the nature of these rates and present relationships, I do not
4		envision that there will often be a need to reset the RGCs. However, the band
5		operates as an effective mechanism to signal when, and to what degree, changes
6		need to be made if there are large changes in rates over time.
7		
8	Q39.	CAN YOU GIVE AN EXAMPLE OF WHAT LEVEL OF CHANGE WOULD
9		BE REQUIRED BEFORE IT WOULD BE NECESSARY TO TRIGGER A
10	20	NEED TO READJUST AN RGC?
11	A39.	I will use the OE bill for 3,500 kWh of usage from the Staff Report as an
12		example. It would take an increase of \$68 to the proposed OE Standard and the
13		All-Electric bill before the relationship between the Standard bill and the All-
14		Electric bill went to 70%they would both increase by \$68 such that the Standard
15		bill would be \$473.14 and the All-Electric bill would have increased by \$68 from
16		\$263.34 to \$331.34. This is an increase in the All-Electric bill of 26%. In other
17		words, there would need to be a relatively significant increase in the All-Electric
18		rates before there is a change in the RGC. However, the band insures that the
19		cumulative effect of rate changes over the years does not minimize the
20		relationship that should be in place between All-Electric and Standard service
21		customers.

Other Issues

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21

22

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3 *040.* ON A GOING-FORWARD BASIS, HOW SHOULD THE OPERATING 4 COMPANIES RECOVER THE LEVEL OF THE CREDIT BEING 5 OFFERED TO THE ALL-ELECTRIC CUSTOMERS? 6 A40. Historically, there was not a specific credit given to All-Electric customers. The 7 recognition of the costs differences between Residential All-Electric customers 8 and the rest of the utility customers was done through the rate designs that were 9 developed to collect the appropriate amount of revenues from the Residential All-10 Electric customers and at the same time to insure that the utility recovered its 11 . revenue requirement. In the absence of these historical procedures, the 12 Commission has relied upon riders. 13 14 I recommend that a recovery rider be established on an on-going basis following 15 the Commission's Order for each operating company along the lines that I have 16 proposed above for the RGC. I further recommend that that recovery rider 17 contain its own funding mechanism, such that it sets on an annual basis the level 18 of RGC credits to be given, and the amount of revenue to be collected for each of 19 the customers on other rate schedules in order to fund the credits. Any over- or 20 under-recovery in one year should be carried over to the next year. Eventually,

after the next ESP expires in 2014 and in the next distribution rate case, the

Commission could consider folding the differential into permanent rates and

1		retain the rider for the purpose of any adjustments needed to stay within the
2		bandwidth.
3		
4	Q41.	WHAT MECHANISM SHOULD BE USED TO RECOVER THESE
5		CREDITS?
6	A41.	I recommend that these riders be funded by an equal cents per kWh charge from
7		all other customers in each of the FE operating companies. Given the fact that the
8		Company is obtaining a single average price per kWh from its generation/energy
. 9.		suppliers, and given the fact that All-Electric customers should generally benefit
10.		the system with high usage during times of low hourly energy costs, it is only
11:	11/4	appropriate that all customers that are benefiting from the usage patterns of the
12		All-Electric customers should equally pay for the credit given to these customers.
13		
14	Q42.	YOUR TESTIMONY ADDRESSES ALL-ELECTRIC CUSTOMERS. HAVE
15		YOU MADE A DISTINCTION REGARDING WHICH CUSTOMERS ON
16		WHICH RATE SCHEDULES SHOULD RECEIVE THIS RGC CREDIT IN
17		THE FUTURE?
18	A42.	No, not specifically. For the sake of simplicity, I have directed my testimony and
19		analysis at what are referred to as All-Electric customers. Like the Commission
20		and its Staff, I am using this phraseology to reflect all non-standard Residential
21		customers per the Commission's April 15, 2010 Second Entry on Rehearing. My
22		above recommendations regarding the RGC do not include Water Heating

1		customers. I am attempting to treat other all non-standard customers within each
2		of the operating companies.
3		
4	Q43.	DOES THIS CONCLUDE YOUR TESTIMONY?
5	A43.	Yes, however, I reserve the right to incorporate new information that may
6		subsequently become available.
•		
	* * * * * * * * * * * * * * * * * * *	Name of the Company o
4	-	the state of the s

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Direct Testimony of Anthony J.

Yankel was served on the persons identified below via U.S. Mail, postage prepaid, this

10th day of January 2011.

Assistant Consumers' Counsel

SERVICE LIST

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Attorney for Ohio Edison Company, Cleveland Electric Illuminating Company and the Toledo Edison Company Exhibit AJY - 1

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Effective: March 27, 1992

Page 38 of 268 P.U.C.O. No. 10 Second Revised Sheet No. 10 Capcoling First Revised Sheet No. 10

RESIDENTIAL SERVICE

Standard Rate

Ayzilability

Available for residential service to installations served through one meter for each family unit in a residence or apartment where monthly usage is generally less than 1,000 kWh.

When service is used through the same meter for both residential and commercial purposes the applicable general service rate schedule shall apply.

This rate schedule is not available for service to a commercial, institutional or industrial establishment.

Accounts representing commonly-used facilities within condominiums which were being billed under the Company's residential service tariff as of April 17, 1990 shall continue to be served under the Company's residential service tariff.

Service:

Alternating current, 60 Hz, single phase, nominal voltage 120/240 or 120/208 as available.

The Company designs and operates its electric system to provide service voltages within the limits specified in American National Standard Voltage Ratings for Electric Power Systems and Equipment (60 Hz) C 84.1-1982.

t <u>e:</u> ,		•
The monthly charges per customer shall be:	Winter Summe	ŗ
Customer Charge:	\$ 4.05 \$ 4.05	
Energy Charge:	.	
First 500 kWh, per kWh Over 500 kWh, per kWh	9.778¢ 9.899¢ 9.778¢ 10,808¢	
Customer charge		
Minimum Charge: Customer charge		
ial Provisious:		
Where a customer has installed electric water heating equi- capacity and the necessary wiring and devices that will pe- water heating equipment during peak load hours, the applica- as follows:	amit the Company to control the operation	of the
The customer charge shall be \$7.05 and any kWh usage be priced at 2.50¢ per kWh.	ge between 350 kWh and 700 kWh per mon	h shall
licable Riders:		
Rates and charges specified above shall be modified in according in the order shown.	rdance with provisions of the following appl	icable
PIP Adjustment Sheet No. 5	<u>4</u>	

Sheet No. 40

Fuel Adjustment

Ohio Edison Company Akron, Ohio

P.U.C.O. No. 10

Second Revised Sheet No. 10
Casceling First Revised Sheet No. 10

Terms of Payment:

If the bill payment is not received by the Company offices two days prior to the next scheduled meter reading date, an additional amount equal to 1.5% shall be charged on any unpaid balance existing after this date. This provision is not applicable to (1) unpaid account balances existing on the effective date of tariffs approved pursuant to the order in Case 83-1130-EL-AIR, or (2) unpaid account balances of customers enrolled on income payment plans pursuant to 4901:1-18-04. Ohio Administrative Code. The terms of payment for bills rendered to government accounts shall be in accordance with Sheet No. 55, Late Payment Charges for Government Accounts.

Multi-Family Dwellings:

Where two or more families, with separate cooking facilities, occupy a residential dwelling, the wiring shall be arranged so that the service to each family can be metered and billed separately. If the wiring is not so arranged and two or more families are served through one meter, the energy blocks as determined on a single family basis shall be multiplied by the number of families served.

Apartment and Multi-Family Building

Under the Special Provisions Section, a fifty gallon water heater minimum tank capacity shall apply to separately metered living units in apartment or multi-family buildings of four or more units.

Seasonal or Temporary Discontinuance of Service:

Where service has been discontinued at customer's request because of seasonal occupancy of the premises or where service has been discontinued because the customer's occupancy is to be temporarily discontinued, the minimum charge as above provided shall not be applicable during such discontinuance of service, but in their thereof the appropriate reconnection charge on Sheet No. 53, Miscellaneous Charges, will apply when service is reestablished.

Rules and Regulations:

The Company's Standard Rules and Regulations shall apply to the installation and use of electric service. Motors and equipment served under this rate schedule must have electrical characteristics so as not to interfere with service supplied to other customers of the Company.

Contract:

Customers selecting this rate schedule will be billed for service hereunder for a minimum period of one year unless: 1) service is no longer required by the customer at the same address at any time during the remainder of the one-year period; or 2) at the customer's request when the customer adds or removes load and the company projects that the customer's load characteristics for the next twelve months can be served more economically under an alternative tariff for which the customer qualifies.

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P.U.C.O. No. 10

Third Revised Sheet No. 11 Canceling Second Revised Sheet No. 11

Page 3 of 5

RESIDENTIAL SERVICE

Space Heating Rate

Availability:

Available for residential service supplied through one meter where electricity is the primary source of space heating, and where at least ninety-five percent of the electrical consumption is within the residence.

Space conditioning by means of a heat pump utilized in conjunction with a fossil fuel furnace is not eligible for service under this rate unless sub-metered (see "Heat Pump Provisional).

When service is used through the same meter for both residential and commercial purposes the applicable general service rate schedule shall apply.

This rate schedule is not available for service to a commercial, institutional or industrial establishment.

Service:

Alternating current, 60 Hz, single phase, nominal voltage 120/240 or 120/208 as available.

The Company designs and operates its electric system to provide service voltages within the Limits specified in American National Standard Voltage Ratings for Electric Power Systems and Equipment (60 Hz) C 84:1-1989 and as amended.

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u	-	-
10	41	

The monthly charges per customer shall be-

the superior of the second sec	Winter	Summer
Service Charge	\$ 4.05	\$ 4.05
Energy Charge:		
First 900 kWh, per kWh	10.000¢	10,525
Balance of kWh, per kWh	2,500€	10.808€
•		

Minimum Charge:

Service charge

Seasonal periods:

Winter Rates shall be applicable for the eight consecutive billing periods of October through May. Summer Rates shall apply in all other billing periods.

Controlled Water Heating Provision:

Where a customer has installed qualifying electric water heating equipment which uses resistance elements to generate all water heating for the home, and the necessary wiring and devices that will permit the Company to control the operation of the water heating equipment during peak load hours, the application of the rates specified above shall be modified as follows:

The customer charge shall be \$7.05 and any kWh usage between 550 kWh and 900 kWh ner month shall be priced at 2.50¢ per kWh.

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Ohio Edison Company Akton, Ohio

P.U.C.O. No. 10

Third Revised Sheet No. 11 Canceling Second Revised Sheet No. 11

To qualify for this provision, electric water heating equipment must meet or exceed the following tank capacities:

50 gallons - Separately metered living units in apartment or multi-family building of four or more units.

80 gallons - All other applications.

Integrated Water Heating Provision:

Where a customer utilizes electricity to generate all heating for the home, having electric space conditioning equipment approved by the Company that provides a portion of the water heating, the customer shall receive a credit of \$15,00 per month per such service. The credit shall not exceed the energy charge set forth in the "Rate" section above.

Heat Pump Provision:

All electrical usage by outdoor air-to-air heat pump devices utilized in conjunction with non-electric space heating shall be sub-metered. The Customer shall install necessary wiring to permit the Company to sub-meter this equipment. No other load may be connected to this service. Multiple sub-meters may be utilized, at the Company's option.

Usage measured by the sub-meter(s) shall be subtracted from usage measured by the total energy meter, the resultant is referred to hereafter as "general purpose usage."

The rates specified under the section "Rate" in this schedule shall be replaced by the following monthly charges per customer:

The service charge shall be \$4.05, plus \$1.50 per sub-meter.
The minimum charge shall be the service charge.

The following rates shall apply to sub-metered usage:

The energy charge during Winter billing periods shall be 2.5 cents per kWh. During Summer billing periods the energy charge shall be 10.808 cents per kWh.

The following rates shall apply to general purpose usage:

The energy charge during Winter billing periods shall be 10,000 cents per kWh. During Summer billing periods the energy charge shall be 10,525 cents per kWh.

The "Controlled Water Heating Provision", if applicable, shall apply to general purpose usage and the service charge shall be modified to be \$7.05, plus \$1.50 per sub-meter.

All other terms and provisions specified in this rate schedule shall apply.

Applicable Riders:

Rates and charges specified above shall be modified in accordance with provisions of the following applicable Riders in the order shown:

PIP Adjustment	Sheet No. 54
Fuel Adjustment	Sheet No. 40

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Third Revised Sheet No. 12 Canceling Second Revised Sheet No. 11

P.U.C.O. No. 10

Terms of Payment:

Akron, Ohio

If the bill payment is not received by the Company offices two days prior to the next scheduled meter reading date, an additional amount equal to 1.5% shall be charged on any unpaid balance existing after this date. This provision is not applicable to (1) unpaid account balances existing on the effective date of tariffs approved pursuant to the order in case 83-1130-EL-AIR, or (2) unpaid account balances of customers enrolled on income payment plans pursuant to 4901:1-18-04, Ohio Administrative Code.

Multi-Family Dwellings:

Where two or more families, with separate cooking facilities, occupy a residential dwelling, the wiring shall be arranged so that the service to each family can be metered and billed separately. If the wiring is not so arranged and two or more families are served through one meter, the energy blocks as determined on a single family basis shall be multiplied by the number of families served.

Seasonal or Temporary Discontinuance of Service:

Where service has been discontinued at the enstomer's request because of seasonal occupancy of the premises or where service has been discontinued because the customer's occupancy is to be temporarily discontinued, the minimum charge as above provided shall not be applicable during such discontinuance of service, but in lieu thereof the appropriate reconnection charge on Sheet No. 53, Miscellaneous Charges, will apply when service is reestablished.

Rules and Regulations:

The Company's Standard Rules and Regulations shall apply to the installation and use of electric service.

Motors and equipment served under this rate schedule must have electrical characteristics so as not to interfere with service supplied to other customers of the Company.

Contract:

Customers selecting this rate schedule wilt be billed for service hereunder for a minimum period of one year unless: 1) service is no Longer required by the customer at the same address at any time during the remainder of the one-year period; or 2) at the customer's request when the customer adds or removes Load and the company projects that the customer's load characteristics for the next twelve months can be served more economically under an alternative tariff for which the customer qualifies.

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Exhibit AJY - 2

DEVELOPMENT OF RATE BASE:	RATE_10	RATE_17	RATE_11	RATE_12	RATE_12 RATE_18 HATE_19 RATE_21	RATE_19	RATE_21	RATE_23	SPECIAL CONTRACTS	절	JURISDICT	LTG	RETAIL
Total Plant in Service - Drighal Cost Total Plant - Depreciation Reserve Total Other Plant	1,082,703,517 1,004,867,141 63,827,384 (303,543,301) (270,087,810) (14,886,069)	1,004,667,141 63,927,364 (270,087,910) (14,986,069)	_	6,207,549 7,431,767 (1,631,989) (1,980,139)	6,207,549 7,431,767 8,412,811 (1,631,69) (1,880,138) (1,601,189)	5,412,811 (1,501,198)	8,412,811 1,688,084,578 1,077,872,881 } (1,601,198) (383,489,481) (344,884,288)	1,677,672,481 (244,694,288)	386,169,834 (86,405,630)	1,804,299	1,884,299 5,194,081,841 75,123,501 5,289,205,182 (430,382) (1,307,480,108,(21,882,998) (1,328,873,407)	75,123,501	5,289,205,182 1,328,873,162)
TOTAL RATE BASE ADDITIONS TOTAL RATE BASE DEDUCTIONS TOTAL RATE BASE	55,424,016 (44,808,094) 780,276,138	59,846,783 (38,248,730) 754,966,283	2,976,880 (2,139,732) 39,777,243	378,169 (239,008) 4.883,020	438,215 (284,712) 8,605,161	298,347 (218,679)	298,347 109,761,311 (216,679) (55,082,920)	0 84,907,728 (55,236,100)	33,080,424 (12,719,671)	126,742 (82,267)	049,244,422 (189,736,513)	1,879,344	350.923,765 (190,367,844)
DEVELOPMENT OF RETURN:						, 1	0 1 kg (197)	\$10'50w/#00	341,134,977	1,438,382	4,045,609,182	51,278,814	4,096,887,996
OPERATING REVENUES	374,212,055	331,855,476	15,263,921	1,356,140	2,027,634	1.481,886	670,770,665	\$67,122,200	155,096,418	1,464,902	1,808,430,194	18.150,685	1,828,620,879
OPERATION AND MAINTENANCE EXPENSES DEPRECIATION (INCL. NUCLEAR DECOM)	175,181,385	154,288,940	7,483,083	908,438	996,507	779,822	244,620,288	188,848,982	64,353,306	365,002	855,814,863	8,675,012	864,389,675
TAXES OTHER THAN INCOME. FREE AND STATE WITHER TAX	(116,967) 38,429,016	(105,818) 32,222,176	(5,856) 1,692,942	183,648 183,648	214,630	158. 25.75 25.75	(148,119) \$2.071,208	(96,481)	(36, 109)	(176)	(\$10,486) 169,813,306	(10,079)	(\$20,675)
TOTAL OPERATING EXPENSES	261,789,160	246,902,013	415,786	1,242,047	1,640,662	1,161,157	62,871,851 406,540,011	24,676,630 278,629,512	11,801,866	318,958	1,365,320,667	1,177,508	1,370,103,074
A STURN	82,422,891	32,753,482	2,134,729	114,063	446,942	289,913	162,230,654	76,462,666	33,595,656	650,501	453, 109, 527	3.408.278	466.817.808
RATE OF RETURN	41,70%	10.86%	5.37%	2,43%	7.97%	7.97% 6.76%	13,09%	8.87%	10,48%	48,22%	11.20%	6.65%	11.54%
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OHIO EDISON COMPANY GOST ALLOCATION STUDY INCL. RATE INCREASE TEST YEAR JANSS - DEC 89

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DEVELOPMENT OF RATE BASE:	RES-Z	RES.M	ጸ ተ	RES-Z PIPP	RES-M PIPP	RES.H Pipp	GEN_SERV	SM Gen_Serv	AEL
TOTAL PLANT IN SERVICE - ORIGINAL COST TOTAL PLANT - DEPRECIATION RESERVE CONSTRUCTION WORK IN PROGRESS TOTAL RATE BASE ADDITIONS TOTAL RATE BASE DEDUCTIONS TOTAL RATE BASE	1,955,638 1 (571,604) 0 4,018 (168,280) (150,897 (43,411) 0 364 (13,112) 94,738	160,138 (46,304) 0 826 (13,622) 101,038	92,684 (27,291) 0 245 (7,912) 57,708	5,638 (1,625) 0 15 (489) 3,540	2,928 (851) 0 17 (247)	465,497 (133,799) 0 1,460 292,586	914,803 (254,290) 0 2,395 (81,754) 581,154	159,840 (44,176) 0 294 (14,385) 101,572
DEVELOPMENT OF RETURN: TOTAL OPERATING REVENUES	465,971	36,482	51,728	24,203	404	974	136,248	239,439	32,022
TOTAL O&M (LESS: DEPR and OTHER TAX) DEPRECIATION EXPENSE AMORTIZATION EXPENSE TAXES OTHER THAN INCOME TOTAL INCOME TAX TOTAL OPERATING EXPENSES	223,662 71,602 0 63,420 18,764 377,447	17,941 5,473 0 4,848 1,428 29,691	24,619 5,812 5,812 3,914 40,165	11,348 3,407 0 3,134 1,326 19,215	700 206 0 184 77 74 74 74 74	475 107 108 727 762	53,262 16,745 0 15,925 13,289 99,222	99,095 32,419 0 29,269 18,944 179,727	17,532 5,659 0 4,610 (77) 27,724
RETURN RATE OF RETURN	88,524 7.26%	6,791	11,562	4,988 6,64%	260	212	37,026 12.65%	59,712	4,298 4.23%

CLEVELAND ELECTRIC ILLUMINATING COMPANY COST ALLOCATION STUDY TEST YEAR JAN95 - DEC 95

DEVELOPMENT OF RATE BASE:	MED Gen_Serv	MED LRG Gen_Serv Gen_Serv	7	Jao	STREET	EMERGE TRAFFIC	TRAFFIC	SCHOOLS LIND INT IND CURT	LIND_(NT	IND_CURT
TOTAL PLANT IN SERVICE - ORIGINAL COST TOTAL PLANT - DEPRECIATION RESERVE CONSTRUCTION WORK IN PROGRESS TOTAL RATE BASE DEDUCTIONS TOTAL RATE BASE DEDUCTIONS TOTAL RATE BASE	682,456 (187,994) 0 2,174 (61,431) 435,205	672,022 (184,256) 0 2,255 (61,101) 428,920	5,619 (1,621) 0 15 (484) 3,530	26,595 (9,129) 0 149 (1,617) 16,998	56,536 (32,251) 0 257 (3,489) 21,052	367 (101) 0 (33) 232	5,669 (1,555) 0 20 (513) 3,620	(34,443) (34,443) 0 312 (11,026) 78,965	65,461 (17,930) 0 1,610 (6,223) 42,918	7,010 (1,920) 0 72 (645) 4,516
DEVELOPMENT OF RETURN:								÷	,	
TOTAL OPERATING REVENUES	182,986	181,950	1,957	10,170	17,802	33	949 6	30,653	52,344	3,702
TOTAL O&M (LESS: DEPR and OTHER TAX) DEPRECIATION EXPENSE AMORTIZATION EXPENSE TAXES OTHER THAN INCOME TOTAL INCOME TAX TOTAL OPERATING EXPENSES	82,075 24,158 0 22,013 12,733 140,979	85,348 23,778 0 21,714 11,550 142,390	201 201 201 318 225	3,425 1,069 1,093 1,391 6,978	7,421 3,127 0 2,063 1,336	85.0 0 0 0 0 14	882 201 0 155 (159)	13,498 4,392 3,884 1,932 23,705	29,879 2,365 0 3,892 5,117	1,503 249 319 511 583
RETURN	42,006	39,559	732	3,192	3,855	6)	(130)	6,948	11,090	1,120
RATE OF RETURN	9.65%	9.22%	20.73%	19.96%	18.31%	-3.66%	-3,59%	8.80%	25.84%	24.79%

Bundled COS Topsheet

DEVELOPMENT OF RATE BASE:	LIND_CURT LC	LCOMM_CON IND_CON		LIND_CON AEL_CON	AEL_CON G	GCOMM_CON	VLM	SPACE_CON	JURISDICT
TOTAL PLANT IN SERVICE - ORIGINAL COST TOTAL PLANT - DEPRECIATION RESERVE CONSTRUCTION WORK IN PROGRESS TOTAL RATE BASE ADDITIONS TOTAL RATE BASE DEDUCTIONS TOTAL RATE BASE	308,947 (83,511) 0 2,293 (28,761) 196,968	(33,756) (33,756) 0 360 (11,100) 78,250	239,877 (65,718) 0 937 (21,979) 153,117	379,390 (103,571) 0 1,705 (34,968) 242,565	21,871 (6,010) 0 85 (1,987)	366 (103) 2 2 (33) 232	28,783 (7,967) 0 110 (2,563) 18,382	62,585 (17,323) 0 124 (5,561) 39,825	6,718,464 (1,912,500) 0 22,112 (593,867) 4,234,209
DEVELOPMENT OF RETURN: TOTAL OPERATING REVENUES	110,948	31,610	67,515	101,198	6,010	132	8,071	10,738	1,807,238
TOTAL O&M (LESS: DEPR and OTHER TAX) DEPRECIATION EXPENSE AMORTIZATION EXPENSE TAXES OTHER THAN INCOME TOTAL INCOME TAX TOTAL OPERATING EXPENSES	57,592 11,056 0 11,362 7,960 87,970	14,682 4,344 0 3,891 1,881 24,797	32,818 8,494 7,873 4,155 53,339	56,923 13,476 0 112,195 2,876 85,470	3,009 775 712 323 4,819	გნი <i>ნ</i> ნ8	3,734 1,020 0 947 558 6,259	7,406 2,218 0 1,720 (834)	849,403 242,377 0 221,381 109,372 1,422,533
RETURN RATE OF RETURN	22,978 11.55%	6,813	14,176 9.26%	15,728	1,192 8.64%	42.	1,812 9.86%	229	384,705 9.09%

Page 1

DEVELOPMENT OF RATE BASE:	R-0.	₹-04 40	R-06	R-07	R-01a	R-048	R-568	R-07a	R-09	R-09a	68_13	GS_14	
TOTAL PLANT IN SERVICE - ORIGINAL COST TOTAL PLANT - DEPRECIATION RESERVE CONSTRUCTION WORK IN PROGRESS TOTAL RATE BASE ADDITIONS TOTAL RATE BASE DEDUCTIONS	679,198 (213,610) 0 789 (16,606) 449,772	161,097 (49,603) 0 275 (3,848) 108,120	4,319 (1,327) 0 14 (113) 2,893	163,854 (49,116) 0 435 (4,612) 100,559	27,401 (8,793) 0 40 (749)	6,348 (1,835) 0 5 (82) 4,426	85 0 - 57 7	6,075 (1,980) 0 22 (206) 3,911	2,010 (692) 0 0 4 (79)	\$ § ° 0 € ₹	8 (0 0 6 0	131,046 (39,400) 0 289 (2,909) 89,025	
DEVELOPMENT OF RETURN: TOTAL OPERATING REVENUES	180,950	44,435	1,534	54,110	8,162	1,099	55	2,441	650	8	127	44,349	
TOTAL D&M (LESS: DEPR and OTHER TAX) DEPRECIATION EXPENSE AMORTIZATION EXPENSE TAXES OTHER THAN INCOME TOTAL INCOME TAX TOTAL OPERATING EXPENSES	98,173 27,798 20,286 5,290 151,547	24,139 6,560 4,848 1,455 37,002	157 44 44 153 153 153 153 153 153 153 153 153 153	26,353 6,250 6,250 4,279 42,111	4,136 1,124 1,124 881 4,43 6,583	840 257 158 (128)	86 258	22. 22. 22. 22. 25. 7. 25.	96 88 83 84 83 84 84 84 84 84 84 84 84 84 84 84 84 84	\$ - 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	သီးသ ကားမ်ားတို့	18,816 5,296 4,305 4,289 32,684	
RETURN RATE OF RETURN	29,402 8.54%	7,433	343	11,999	1,578 8,82%	(27) -0.62%	32	604 15.45%	107	3 5.70%	47	11,685	

TOLEDO EDISON COMPANY COST ALLOCATION STUDY TEST YEAR JAN95 - DEC 95 FERC OATT - 3115100 - SPECIAL STUDIES

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Page

DEVELOPMENT OF RATE BASE;	65-17	GS-18	SD_MS	MED_GS	LG_GEN SERV	PV-46	& 1. 1.	SR-2	68.1	STLTG	GS-19
TOTAL PLANT IN SERVICE - ORIGINAL COST TOTAL PLANT - DEPRECIATION RESERVE CONSTRUCTION WORK IN PROGRESS TOTAL RATE BASE DEDUCTIONS TOTAL RATE BASE	47,929 (13,464) 0 111 (710) 33,867	7,019 (3,028) 0 (17) (528) 3,446	305,047 (86,322) 0 1,014 (4,287) 216,452	351,294 (96,986) 0 1,018 (4,651) 250,676	187,188 (51,501) 0 567 (2,354)	264 (110) 0 0 255 213	19,020 (5,336) 0 74 (262)	15,167 (4,248) 0 54 (206)	21,548 (6,314) 0 29 (441)	31,646 (15,766) 0 (1(3) (2,319)	2,098 (614) (2) (2) (37) (45)
Development of Return:				÷							
TOTAL OPERATING REVENUES	13,333	2,560	105,383	101,918	50,624	2,750	7,238	4,930	3,619	8,229	157
TOTAL O&M (LESS: DEPR and OTHER TAX) DEPRECIATION EXPENSE AMORTIZATION EXPENSE	6,875 1,917	324	46,332 12,180	53,236	29,325 7,457	1,468	2,946	2,393	3,291 866	4,381	297 86
TAXES OTHER THAN INCOME	1,394	270	9,914	10,333	5,344	4	652	482	528	1,016	4
TOTAL OPERATING EXPENSES	10,756	1,897	78,033	4,364 62,136	42,954	2,025 2,025 2,025	5,160	3,820	(612) 4,074	7,364	(119) 308
RETURN	2,576	654	27,350	19,783	7,670	728	2,078	1,110	(455)	865	(151)
RATE OF RETURN	7,61%	18.97%	12.64%	7.89%	5.73%	341.58%	15.39%	10.31%	-3.07%	6.44%	-10.47%

TOLEDO EDISON COMPANY
COST ALLOCATION STUDY
TEST YEAR JAN95 - DEC 85
FERC OATT - 3/15/00 - SPECIAL STUDIES

Page

TOLEDO EDISON COMPANY COST ALLOCATION STUDY TEST YEAR JAN95 - DEC 95 FERC OATT - 3/16/00 - SPECIAL STUDIES										
DEVELOPMENT OF RATE BASE:	ECON. DEV	LG_GS_ CURT	SUB_ CURT	BULK	SM_GS_CONT	LG_GS_ CONT	PRI_CONT	SUB_ CONT	BULK	JURISDICT
TOTAL PLANT IN SERVICE - ORIGINAL COST TOTAL PLANT - DEPRECIATION RESERVE CONSTRUCTION WORK IN PROGRESS	83,840 (22,928)	1,541 (405)	24,203 (6,349)	90,053 (23,825)	1,154 (336)	29,500 (8,103)	(32,653)	162,711 (43,225)	39,787 (10,630)	
TOTAL RATE BASE ADDITIONS TOTAL RATE BASE TOTAL RATE BASE	284 (830) 60,365	1,141	(105) (105)	1,168 (396) 67,001	8624 a C	21,260 21,260	89,051 89,051	2,277 (929) 120,835	259 (178) 29,237	9,441 (48,412) 1,878,303
Development of Return: Total operating Revenues	22,822	583	9,078	59,107		930	32,440	103.997	12.879	880 038
TOTAL O&M (LESS: DEPR and OTHER TAX) DEPRECIATION EXPENSE AMORTIZATION EXPENSE	13,449 3,351	293	5,427 988	27,832 3,625	24 84	4,061 1,185	21,363 4,887	53,133 6,535	8,366 1,597	460,496 109,839
TAXES OTHER THAN INCOME TOTAL INCOME TAX TOTAL OPERATING EXPENSES	2,405 278 19,482	5. 485 855	829 350 7,574	3,994 5,120 40,870	43 94	744 (479) 5,510	3,4 64 (542) 29,162	7,641 10,960 78,269	1,260 85 11,309	86,701 49,108 706,144
RETURN	3,339	8	1,504	12,537	212	120	3,278	26,728	1,570	173,894
RATE OF RETURN	5.53%	17.50%	8.39%	18.71%	26.44%	0.61%	3.68%	21.29%	5.37%	9.26%

Exhibit AJY - 3

Ohio Edison - Residential Bills December 31, 2008 Bills (Winter)

	R	esidential		Space	 tional Time- Day 10 KW	Mar	Load nagement 10	Е	lectrically
Bills	9	Schedule		leating	 to 6,000	ľ	W to 6,000		eated Apt
		(a)		(b)	(b)		(b)		(b)
250	\$	33.16	\$	33.46	\$ 137.90	\$	36.83	\$	34.28
500	\$	63.90	\$	64.52	\$ 147.19	\$	67.40	\$	54.63
750	\$	94.62	\$	95.55	\$ 156.47	\$	97.95	\$	67.27
1,000	\$	125.37	\$	119.26	\$ 165.77	\$	128.51	\$	79.94
1,500	\$	186.78	\$	144.73	\$ 175.06	\$	168.55	\$	133.73
2,000	\$	248.24	\$	170.17	\$ 184.34	\$	187.58	\$\$	194.65
2,500	\$\$	309.43	\$	195.42	\$ 202.90	\$	206.37	\$	255.34
3,000	\$	370.66	\$	220.64	\$ 221.26	\$\$	225.17	\$	316.04
3,500	\$	431.85	(\$	245.89	\$ 239.60	\$	243.96	\$	376.72
4,000	\$	493.07	\$	271.10	\$ 257.96	(\$	262.74	\$	437.40
4,500	\$	554.27	(5)	296.35	\$ 276.28	\$	281.55	₩	498.10
5,000	\$	615,50	\$	321.57	\$ 312.98	\$	300.34	69	558.78
6,000	\$	737.93	\$	372.04	\$ 349.68	 \$	337.93	\$	680.17
7,000	\$	860.34	\$	422.49				\$	801.53
8,000	\$	982.76	69	472.97				\$	922.92
9,000	\$	1,105.17	\$	523.42				\$	1,044.28
10,000	\$	1,227.60	\$	573.89				\$	1,165.67

Percentage	e Paid by Non-	Standard Rate	Bills to Standard	Rate Bills	
250	100%	101%	416%	111%	103%
500	100%	101%	230%	105%	85%
750	100%	101%	165%	104%	71%
1,000	100%	95%	132%	103%	64%
1,500	100%		94%		72%
2,000	100%		74%		78%
2,500	100%	63%	66%		83%
3,000	100%				85%
3,500	100%	57%	55%	56%	87%
4,000	100%			<u> </u>	89%
4,500	100%	53%	50%	51%	90%
5,000	100%	52%	51%	49%	91%
6,000	100%	50%	47%	46%	92%
7,000	100%	49%			93%
8,000	100%	48%			94%
9,000	100%				94%
10,000	100%	47%			95%

The FE discovery responses that were used to develop Exhibit AJY-3 were designated as confidential by FirstEnergy. However, on January 6, 2011, FE counsel agreeded that the information used to develop Exhibit AJY-3 need not be treated as confidential.

- (a) CONFIDENTIAL Revised Response to OCC Interrogatory 8-68 Attachment 2
- (b) CONFIDENTIAL Response to OCC Request for Production of Documents 1-3 Attachment 2 (12/31/08 Bill)

CEI - Residential Bills December 31, 2008 Bills (Winter)

				. 11 4	 		11-10	Г	
			•	ace Heating		'	Water &		
	Re	sidential	Op	ot Load Mgt	Space		Space	6	lectrically
Bills	So	chedule	10 !	KW to 6,000	Heating		Heating	н	eated Apt
		(a)		(b)	(b)		(p)		(p)
250	\$	29.99	\$	31.89	\$ 28.82	\$	28.88	\$	28.77
500	\$	60.11	\$	61.10	\$ 58.03	\$	58.13	\$	44.01
750	\$	88.71	\$	81.21	\$ 78.14	\$	79.01	\$	55,79
1,000	\$	117.30	\$	101.30	\$ 98.23	\$	99.16	\$	67.51
1,500	\$	150.78	\$	114.23	\$ 124.12	\$	125.08	\$	91.07
2,000	\$	184.27	\$	124.68	\$ 150.00	\$	150.97	\$	114.51
2,500	\$_	217.75	\$	145.58	\$ 175.67	\$	176.66	\$	185.80
3,000	\$_	251.21	\$	166.23	\$ 201.29	\$	202.30	\$	257.04
3,500	\$	284.71	\$	186.89	\$ 226.97	\$	228.00	\$	328.34
4,000	\$	318.17	\$	207,55	\$ 252:59	\$	253.64	\$	399.59
4,500	\$	351.65	\$	228.20	\$ 278.26	\$	279.33	\$	470.88
5,000	\$_	385.12	. \$	269.51	\$ 303.90	\$	304.98	\$	542.14
6,000	\$	452.09	\$	310.83	\$ 355.21	\$	356.34	\$	684.70
7,000.	\$	519.04			\$ 406.50	\$	407.67	\$\$	827.23
8,000	\$	585.99			\$ 457.81	\$	459.01	\$	969.78
9,000	\$	652.96			\$ 509.12	\$	510.36	\$	1,112.34
10,000	\$	719.92			\$ 560.42	\$	561.70	\$	1,254.89

Percentage	Paid by Non-	Standard Rate Bills	to Standard F	ate Bills	
250	100%	106%	96%	96%	96%
500	100%	102%	97%	97%	73%
750	100%	92%	88%	89%	63%
1,000	100%	86%	84%	85%	58%
1,500	100%	76%	82%	83%	60%
2,000	100%	68%	81%	82%	62%
2,500	100%	67%	81%	81%	85%
3,000	100%	66%	80%	81%	102%
3,500	100%	66%	80%	80%	115%
4,000	100%	65%	79%	80%	126%
4,500	_100%	65%	79%	79%	134%
5,000	100%	70%	79%	79%	141%
6,000	100%	69%	79%	79%	151%
7,000	100%		78%	79%	159%
8,000	100%		78%	78%	165%
9,000	100%		78%	78%	170%
10,000	100%		78%	78%	174%

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- (a) CONFIDENTIAL Revised Response to OCC Interrogatory 8-68 Attachment 2
- (b) CONFIDENTIAL Response to OCC Request for Production of Documents 1-3 Attachment 2 (12/31/08 Bill)

CEI - Residential Bills December 31, 2008 Bills (Winter)

			, ·	Space &	٠,	Space &						
	_			•		•			۱.,	4	۱ ۔،	
		esidential		ter Heating		ter Heating	_			ectrically		ectrically
	٤	Schedule	1	0 KW to	1	I0 KW to	Sp	ace Heating	He	eated Apt	Hea	ted Apt R
Bills		R-01	6,0	000 R-06	6,0	XXX R-06a		R-07		R-09	<u> </u>	09a
		(a)		(b)		(b)		(b)		(b)		(b)
250	\$	31.28	\$	31.30	\$	30.36	\$	30.48	t/3	30.00	\$	28.67
500	5	62.73	\$	60.95	\$	59.11	\$	61.28	\$	45.44	\$	43.82
750	\$	94.14	\$	90.59	\$	87.83	\$	88.09	\$	57.18	\$	55.48
1,000	\$	125.57	\$	120.21	\$	116.55	\$	110.49	\$	68.91	\$	67.15
1,500	\$	176.97	\$	155.69	\$	151.19	\$	141.99	\$	92.38	\$	90.48
2,000	\$	228.33	\$	176.79	\$	172.27	\$	173.53	\$	115.81	\$	113.77
2,500	\$	279.72	\$	197.67	\$	193.09	\$	204.80	\$	176.20	\$	171.67
3,000	\$	331.07	\$	218.53	\$	213.92	\$	236.09	\$	236.54	\$	229.53
3,500	\$	382.46	\$	239.42	\$	234.75	\$	267.36	\$	296.93	\$	287.42
4,000	\$	433.82	\$	260.29	\$	255.59	\$	298.67	\$	357.28	\$	345.29
4,500	\$	485.21	\$	281.18	\$	276.42	\$	329.94	\$	417.67	\$	403.18
5,000	\$	536.57	\$	302.05	\$	297.26	\$	361.25	\$	478.02	\$	461.06
6,000	\$	639.33	\$	343.80	\$	338.93	\$	423:82	\$	598.76	\$	576.62
7,000	\$	742.08			-	The second second	3			,		
8,000	\$	844.84		,								;
9,000	\$	947.58				•		,				
10,000	\$	1,050.33					-					

Percentage	Paid by Non-	Standard Rate I	tills to Standard	Rate Bills		
250	100%	100%	97%	97%	96%	92%
500	100%	97%	94%	98%	72%	70%
750	100%	96%	93%	94%	61%	59%
1,000	100%	96%	93%	88%	55%	53%
1,500	100%	88%	85%	80%	52%	51%
2,000	100%	77%	75%	76%	51%	50%
2,500	100%	71%	69%	73%	63%	61%
3,000	100%	66%	65%	71%	71%	69%
3,500	100%	63%	61%	70%	78%	75%
4,000	100%	60%	59%	69%	82%	80%
4,500	100%	58%	57%	68%	86%	83%
5,000	100%	56%	55%	67%	89%	86%
6,000	100%	54%	53%	66%	94%	90%
7,000	100%					
8,000	100%					
9,000	100%					
10,000	100%					

The FE discovery responses that were used to develop Exhibit AJY-3 were designated as confidential by FirstEnergy. However, on January 6, 2011, FE counsel agreeded that the information used to develop Exhibit AJY-3 need not be treated as confidential.

- (a) CONFIDENTIAL Revised Response to OCC Interrogatory 8-68 Attachment 2
- (b) CONFIDENTIAL Response to OCC Request for Production of Documents 1-3 Attachment 2 (12/31/08 Bill)

Exhibit AJY - 4

P.U.C.O. NO. 12 ELECTRIC SERVICE

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RESIDENTIAL SCHEDULE

Applicable to residential installations in a single family house, a single suite in a multiple family house, or a single suite in a multiple apartment, a manufactured housing unit or any other residential unit, and not more than four such installations on the same Premises when combined as provided herein.

MONTHLY RATES:

1.	KILOWATTHOUR CHARGE		<u>SUMMER</u> <u>Cents</u> pe	<u>winter</u> r kwh	
	For the first	500 kWh	11.969	9.829	
	For the next	500 kWh	<u>11.354</u>	9.214	(D)
	For all excess		11.354	4.480	

The Winter Rates specified above shall be applicable in eight consecutive monthly billing periods beginning with the October bills each year. The Summer Rates shall apply in all other billing periods.

CUSTOMER CHARGE (per month)

3. OPTIONAL LOAD MANAGEMENT RATE

where a residential customer elects to control his load manually, or through the use of a load control device, or requests a load meter, the rates specified in Section 1 above shall be modified as follows:

- A Time-of-Day option is available under which the load will be metered by a Time-of-Day load meter and the billing load shall be determined monthly and shall be the larger of the 30-minute on-peak registered load or onefourth of the 30-minute off-peak registered load as indicated by a kilowatt demand meter but not less than 5.0 kW. On-peak time shall be 8:00 a.m. to 8:00 p.m. weekdays with the exception of Holidays.
- A Non-Time-of-Day option is also available under which all load will be measured by a Non-Time-of-Day load meter, irrespective of the time at which the highest billing load occurs. The billing load shall be determined monthly and shall be the highest 30-minute load registered in the month as indicated by a kilowatt demand meter but not less than 5.0 kW.

Filed under authority of Order No. 95-300-EL-AIR of The Public Utilities Commission of Ohio, dated April 11, 1996

Issued April 18, 1996 by Murray R. Edelman, President Effective for service rendered on or after April 18, 1996 **(D**

The Cleveland Electric Illuminating Company Cleveland, Ohio

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(D)

P.U.C.O. NO. 12 ELECTRIC SERVICE

RESIDENTIAL SCHEDULE (Cont'd)

MONTHLY RATES: (Cont'd)

3. OPTIONAL LOAD MANAGEMENT RATE (Cont'd)

- c. For the purposes of both options a and b above, the initial 125 kWh per kW of billing load will be billed at Residential Schedule Rates. All use in excess of 125 kWh per kW of billing load will be billed at \$.0178 per kWh.
 - A \$6.50 monthly metering charge will apply to the Timeof-Day option
 under this Schedule while a \$3.20 monthly metering charge will apply
 to the Non-Time-of-Day option.

 (T)
- e. Upon receiving service under this optional rate, a customer shall beineligible to receive service under any other provision of the residential schedule for a continuous twelve-month period. After discontinuation of service under this optional rate, the Customer shall be ineligible to receive service under this optional rate for a twelve-month period from the time service was discontinued.
- f. Multi-metered accounts are precluded from receiving service under the Optional Load Management Rate.

Filed under authority of Order No. 95-300-EL-AIR of The Public Utilities Commission of Ohio, dated April 11, 1996

Issued April 18, 1996 by Murray R. Edelman, President Effective for service rendered on or after April 18, 1996

P.U.C.O. NO. 12 ELECTRIC SERVICE

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RESIDENTIAL SCHEDULE (Cont'd)

MONTHLY RATES: (Cont'd)

4. APPLICABLE RIDERS

The Rates and charges specified above shall be modified in accordance with the provisions of the following applicable Riders:

ELECTRIC FUEL COMPONENT	<u>Rider No. 1</u>	<u>Sheet No. 156</u>	. (D)
INTERIM EMERGENCY, TEMPORARY			
RECOVERY METHOD FOR PIPP		•	
ARREARAGES	Rider No. 8	Sheet No. 221	(D)

SPECIAL RULES:

1. MULTIPLE INSTALLATIONS ON ONE METER

Four or less residential installations on the same Premises may be combined on one meter and billed under this schedule with the number of kWh in the rate blocks of the Rate each multiplied by the number of residential installations.

2. UNAVAILABLE TO CERTAIN INSTALLATIONS

This schedule shall not be applicable to the following installations which shall be billed under other schedules of the Company:

a. Any combination on one meter of more than four residential installations on the same Premises.

Filed under authority of Order No. 95-300-EL-AIR of The Public Utilities Commission of Ohio, dated April 11, 1996

Issued April 18, 1996 by Murray R. Edelman, President Effective for service rendered on or after April 18, 1996

Exhibit AJY-4 4th RevisedPage 4 of 15 Sheet No. 86.2

P.U.C.O. NO. 12 ELECTRIC SERVICE UNB-2 Page 89 of 441

RESIDENTIAL SCHEDULE (Cont'd)

SPECIAL RULES: (Cont'd)

- 2. UNAVAILABLE TO CERTAIN INSTALLATIONS (Cont'd)
 - b. Any combination on one meter of residential and commercial installations on the same Premises.
 - c. Pumps, elevators, X-ray machines, welding machines and other equipment where the use of electricity is intermittent or the load is of fluctuating character and where a special service connection is required.
 - d. Any service which constitutes an additional service installation.
- 3. PERCENTAGE OF INCOME PAYMENT PLAN (PIPP)

Monthly bills to PIPP Customers for electric service, exclusive of <u>Rider No. 1</u> and the other <u>Riders provided for in Section 3 above</u>, shall be reduced by 6.241%.

(D)

Exhibit AJY-4

The Cleveland Electric Illuminating Company Cleveland, Ohio

Original Page 5 of 15 Sheet No. 93.1

P.U.C.O. NO. 12 ELECTRIC SERVICE UNB-2 Page 107 of 441

RESIDENTIAL WATER HEATING AND SPACE HEATING SCHEDULE

Applicable on an optional basis to residential installation in a single family house utilizing electricity as the primary source of energy for water heating and utilizing a permanently installed electric space heating system as a substantial source of the space heating requirements and applying also to a single suite in a multiple family house, or a single suite in a multiple apartment, a manufactured housing unit or any other residential unit, and not more than four such installations on the same Premises when combined as provided herein. Not less than 75 percent of the customer's connected load must be within the dwelling unit.

This rate does not apply to commercial or industrial service. If a residential unit is used for both residential and commercial purposes, the appropriate commercial or industrial rate shall apply unless the wiring is so arranged that the residential usage can be metered separately. The hallways and other common facilities of an apartment building or apartment complex are to be billed under the appropriate commercial or industrial rate.

To be approved by the Company, an electric water heater installed after October 1, 1983 shall have a minimum insulation of R-10, or a thermal insulation jacket that, in combination with the water heater's insulation, meets or exceeds such minimum insulation of R-10.

After January 1. 1985, a new space heating installation, to be approved by the Company, must be in an individually-metered residential dwelling unit in either a single family house, a single suite in a multiple family house, a single suite in a multiple apartment, a manufactured housing unit or any other residential unit, and must meet or exceed special insulation and other energy conservation standards specified by the Company under this Schedule.

(T)

Exhibit AJY-4
Original Page 6 of 15
Sheet No. 93.2

P.U.C.O. NO. 12 ELECTRIC SERVICE

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RESIDENTIAL WATER HEATING AND SPACE HEATING SCHEDULE (Cont'd)

MONTHLY RATES:

1. KILOWATTHOUR CHARGE	<u>SUMMER</u> <u>Cents per kWh</u>	(D)
For the first 500 kWh	11.969	-
For all excess kWh. per kWh	8.969	
	WINTER Cents per kWh	(0)
For the first 500 kWh	9.829	
For the next 100 kish	6.729	
For the next 400 kWh	5.929	
For all excess	<u>2.852</u>	
The Winter Rates specified above shall be applicable in monthly billing periods beginning with the <u>October billing</u> Summer Rates shall apply in all other billing periods.		ന
2. CUSTOMER CHARGE (per month)	<u>\$4.75</u>	(D)
3. OPTIONAL LOAD MANAGEMENT RATE		3 - 4

Where a residential customer elects to control his load manually, or through the use of a load control device, or requests a load meter, the rates specified in Section 1 above shall be modified as follows:

P.U.C.O. NO. 12 ELECTRIC SERVICE UNB-2 Page 109 of 441

RESIDENTIAL WATER HEATING AND SPACE HEATING SCHEDULE (CONT'd)

MONTHLY RATES: (Cont'd)

- 3. OPTIONAL LOAD MANAGEMENT RATE (Cont'd)
 - a. A Time-of-Day option is available under which the load will be metered by a Time-of-Day load meter and the billing load shall be determined monthly and shall be the larger of the 30-minute on-peak registered load or onefourth of the 30-minute off-peak registered load as indicated by a kilowatt demand meter but not less than 5.0 kW. On-peak time shall be 8:00 a.m. to 8:00 p.m. weekdays with the exception of Holidays.
 - b. A Non-Time-of-Day option is also available under which all load will be measured by a Non-Time-of-Day load meter, irrespective of the time at which the highest billing load occurs. The billing load shall be determined monthly and shall be the highest 30-minute load registered in the month as indicated by a kilowatt demand meter but not less than 5.0 kW.
 - c. For the purposes of both options a and b above, the initial 125 kWh per kW of billing load will be billed at Residential Water Heating Schedule Rates. All use in excess of 125 kWh per kW of billing load will be billed at \$.0178 per kWh.
 - d. A \$6.50 monthly metering charge will apply to the Timeof-Day option under this Schedule while a \$3.20 monthly metering charge will apply to the Non-Time-of-Day option.

(B)

P.U.C.O. NO. 12 ELECTRIC SERVICE

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RESIDENTIAL WATER HEATING AND SPACE HEATING SCHEDULE (Cont'd)

MONTHLY RATES (Cont'd)

- 3. OPTIONAL LOAD MANAGEMENT RATE (Cont'd)
 - e. Upon receiving service under this optional rate, a customer shall be ineligible to receive service under any other provision of the residential schedule for a continuous twelve-month period. After discontinuation of service under this optional rate, the Customer shall be ineligible to receive service under this optional rate for a twelve-month period from the time service was discontinued.
 - f. Multi-metered accounts are precluded from receiving service under the Optional Load Management Rate.

4. APPLICABLE RIDERS

The Rates and charges specified above shall be modified in accordance with the provisions of the following applicable Riders:

ELECTRIC FUEL COMPONENT	<u>Rider No. 1</u>	Sheet No. 156	(D)
ELECTRIC SPACE HEATING COMPETITIVE GUARANTEE	Rider No. 5	Sheet No. 218	(D)
INTERIM EMERGENCY, TEMPORARY			(υ)
RECOVERY METHOD FOR PIPP ARREARAGES	Rider No. 8	Sheet No. 221	(B)

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RESIDENTIAL WATER HEATING AND SPACE HEATING SCHEDULE (CONT'd)

SPECIAL RULES:

1. MULTIPLE INSTALLATIONS ON ONE METER

Four or less residential installations on the same Premises may be combined on one meter and billed under this schedule with the number of kWh in the rate blocks of the Rate each multiplied by the number of residential installations.

2. UNAVAILABLE TO CERTAIN INSTALLATIONS

This schedule shall not be applicable to the following installations which shall be billed under other schedules of the Company:

- a. Any combination on one meter of more than four residential installations on the same Premises.
- b. Any combination on one meter of residential and commercial installations on the same Premises.
- c. Pumps, elevators, X-ray machines, welding machines and other equipment where the use of electricity is intermittent or the load is of fluctuating character and where a special service connection is required.
- d. Any service which constitutes an additional service installation.
- 3. PERCENTAGE OF INCOME PAYMENT PLAN (PIPP)

Monthly bills to PIPP Customers for electric service, exclusive of Rider No. 1 and the other Riders provided for in Section 3 above, shall be reduced by 6.241%.

- (D)

QUALIFICATION PROCEDURE FOR SPACE HEATING DISCOUNT

The Dutlder of each individually-metered residential dwelling unit shall provide and certify to the Company information specifying the thermal insulation effectiveness (i.e., R/numbers) for insulation installed in each building section along with a description of installation and construction details. If each of the following insulation and other energy conservation standards in that dwelling unit is met, the Company shall approve the Consumer's application to be billed under the provisions of the space heating discount.

Filed under authority of Order No. 95-300-EL-AIR of The Public Utilities Commission of Ohio, dated April 11, 1996

Issued April 18, 1996 by Murray R. Edelman, President Effective for service rendered on or after April 18, 1996

Exhibit AJY-4
Original Page 10 of 15
Sheet No. 93.6

P.U.C.O. NO. 12 ELECTRIC SERVICE

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RESIDENTIAL WATER HEATING AND SPACE HEATING SCHEDULE (Cont'd)

ENERGY CONSERVATION STANDARDS FOR SPACE HEATING DISCOUNT

I.			<u>Sections</u> (Except in Manufactured Units) (Cont'd)	Minimum Insulating Value of Insulation Installed	
	Α.	Exte	erior Walls	•	
	-	1.	Masonry walls including basement walls above frost line.	R/5	
		2.	Frame and other fabricated exterior walls above grade.		
			 Where use of expanded polystyrene rigid board insulation (or equivalent material with comparable R/factor) is permitted. 	R/16.5	
			b. In other locations.	R/11	
		3.	Common walls between separate dwelling units.	R/11	
	В.	<u>Cei</u>	<u>ings</u>		
		1.	Uppermost ceiling separating heated from unheated areas.	R/30	
	C.	Floo	ors.		
		1.	Frame floors over unheated areas.	R/22	

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RESIDENTIAL WATER HEATING AND SPACE HEATING SCHEDULE (Cont'd)

ENERGY CONSERVATION STANDARDS FOR SPACE HEATING DISCOUNT (Comt'd)

- I. <u>Building Sections</u> (Except in Manufacturing Housing Units) (Cont'd)
 - C. Floors (Cont'd)
 - Slab-on-grade floors shall have insulation at the perimeter edge;
 - a. On the inside of the foundation wall from top of slab floor to below the frost line around the perimeter of the slab, or

R/10

b. From the top of slab floor and extended down the thickness of the slab and then continued horizontally back under the slab to a width of at least two feet around the perimeter of the slab floor:

> Vertical Portion Horizontal Portion

R/10 R/5

3. Heating/cooling ducts that are installed in slab floors shall be enclosed on the warm winter side of the perimeter insulation in the manner provided in 2-(b) above.

D. Windows

Total window area shall not exceed 15% of the total floor area.

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RESIDENTIAL WATER HEATING AND SPACE HEATING SCHEDULE (Cont'd)

ENERGY CONSERVATION STANDARDS FOR SPACE HEATING DISCOUNT (Cont'd)

- Building Sections (Except in Manufacturing Housing Units) (Cont'd)
 - D. <u>Windows</u> (Cont'd)
 - 2. Windows shall be either double-glazed or installed with storm windows.
 - Metal windows shall provide a thermal break between the inside and outside surface areas of the frame.
 - 4. Basement windows shall be either double-glazed, with storm windows, or provided with plastic bubbles covering the entire window opening. No more than the minimum area of windows allowed by municipal code shall be installed.
 - 5. Air leakage shall not exceed 0.5 cfm per foot of operable sash crack.

E. Doors

- 1. Doors shall contain an insulation core, or
- 2. Uninsulated doors shall be installed with storm doors.
- 3. Air leakage shall not exceed 0.5 cfm per square foot of door area for sliding glass doors and swinging doors, respectively.
- II. <u>Insulation and Other Construction Techniques</u> (Except in Manufactured Housing Units)
 - A. <u>Insulation Installation Procedures</u>

Insulation shall be installed in building sections in a workmanlike manner in order to receive the thermal insulation effectiveness of the manufacturers' designated R/numbers on their products.

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RESIDENTIAL WATER HEATING AND SPACE HEATING SCHEDULE (Cont'd)

ENERGY CONSERVATION STANDARDS FOR SPACE HEATING DISCOUNT (Cont.d)

- Installation and Other Construction Techniques (Except in Manufacturing Housing Units) (Cont'd)
 - A. Insulation Installation Procedures (Cont'd)
 - 1. Insulation on all side walls shall be firmly packed without exposures, at both top and bottom of wall cavities.
 - 2. Insulation shall be chinked into all rough windows and door frame openings and covered with a vapor barrier.
 - 3. Batts shall be neatly stapled at least every 6 inches.
 - B. A maximum of one sliding glass door per floor of living area shall be installed.
 - C. All shower heads shall be equipped with flow control devices to limit total flow to a maximum of 3 gpm per shower head.
 - D. All heating/cooling ducts running through unconditioned spaces shall be fully insulated, both supply and return air ducts (R/7 or better).
 - E. Hot Water Installation Procedures
 - Water heaters providing the domestic hot water supply shall not be located in unheated areas unless additional insulation is installed surrounding the tank.
 - Water heaters shall be located as close as possible to the points of greatest use of hot water. Where points of use are widely separated, more than one water heater shall be installed to eliminate excessive runs of hot water lines.

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RESIDENTIAL WATER HEATING AND SPACE HEATING SCHEDULE (Cont'd)

ENERGY CONSERVATION STANDARDS FOR SPACE HEATING DISCOUNT (Cont'd)

- II. <u>Installation and Other Construction Techniques</u> (Except in Manufacturing Housing Units) (Cont'd)
 - E. <u>Hot Water Installation Procedures</u> (Cont'd)
 - 3. All hot water lines running through unconditioned areas shall be insulated (R/3.5 or better).

F. <u>Caulking and Sealants</u>

Exterior joints around windows and door frames, between wall and foundation, between wall and roof, between wall panels, at penetrations of utility services through walls, roofs, and through floors over unheated spaces, and all other openings in the exterior envelope of said dwelling structures shall be caulked, gasketed, weatherstripped, or otherwise sealed to prevent air leakage.

G. <u>Vapor Barriers</u>

- All insulation shall be installed with vapor barriers, rated 1
 perm or less, on the warm winter side of the insulation;
 provided, however, that vapor barriers shall not be required for
 top-ceiling areas that meet the attic ventilation provisions of
 Section 1529.Il of the Regional Dwelling House Code or applicable provisions of the Ohio Building Code.
- 2. Slab floors in living areas and slabs in crawl-space areas shall have vapor barriers rated 4 mil thickness with maximum 1 perm vapor penetration installed beneath the slab.

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RESIDENTIAL WATER HEATING AND SPACE HEATING SCHEDULE (Cont'd)

ENERGY CONSERVATION STANDARDS FOR SPACE HEATING DISCOUNT (Cont'd)

- II. <u>Installation and Other Construction Techniques</u> (Except in Manufacturing Housing Units) (Cont'd)
 - G. <u>Vapor Barriers</u> (Cont'd)
 - Vapor barriers, if damaged, shall be repaired before the final wall finish is installed.
- III. Manufactured Housing Units Standards for Space Heating Discount

At minimum, manufactured housing shall meet the requirements of the Ohio Basic Building Code for Energy Conservation in New Building Construction, Rule 4101:2-25-03.

Exhibit AJY - 5

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The Toledo Edison Company Toledo, Ohio

P.B.C.O. No. 7

Winth Revised Sheet No. 40

RESIDENTIAL RATE "R-01"

APPLICABILITY:

This rate is applicable to a single family residence, a single occupancy apartment, a mobile housing unit or any other single family residential unit.

This rate does not apply to commercial or industrial service. If a residential unit is used for both residential and commercial purposes, the appropriate general service rate shall apply unless the wiring is so arranged that the residential usage can be metered separately. The hallways and other common facilities of an apartment building or apartment complex are to be billed on the appropriate general service rate.

MONTHLY RATE:

	SUMMER	Winter
(1) Customer Charge		
Single-Phase Service	\$ 4 <u>.75</u>	\$ 4.75
Three-Phase Service	\$ 8.75	\$ 8.75
(2) Energy Charge		
First 1000 KWH, per KWH	11,26¢	10.14c
All Additional KWH, per KWH	9.98¢	7.88¢

SEASONAL PERIODS:

The Summer period shall be the billing months of Jane through September and the Winter period shall be the billing months of October through May.

MINIMUM:

The minimum bill shall be the monthly customer charge.

TERMS OF PAYMENT:

All bills for service shall be payable on or before the due date shown on the bill. The due date shall not be less than fourteen days after the mailing of the bill. Interest, at the rate of 1.5 percent (1.5%) per month, shall be charged on any unpaid balance existing at the next billing date for all Customers, except this provision is not applicable to unpaid account balances of customers enrolled on income payment plans pursuant to Section 4901:1-18-04(B), Ohio Administrative Code. For residential customers, the late payment service charge will be assessed only when there is more than one late payment in a twelve-month period.

ELECTRIC FUEL COMPONENT:

The energy charge shall be adjusted to include the current cost of fuel consumed to produce electric energy in compliance with Rule 4901:1-11 of the Ohio Administrative Code, as reflected in Rider No. 1 - Electric Fuel Component Rate of this tariff.

ACCOUNT ACTIVATION:

The initial bill for a new customer or a rustumer at a new location shall include an account activation charge of \$8.00.

TYPE OF SERVICE:

The type of service available includes alternating current, 60 hertz, single phase at the Company's secondary voltages, overhead or underground as available at the specific costomer location. The customer may elect three-phase service where this can be made available without additional construction cost.

This sheet filed pursuant to the Opinion and Order in Case No. 95-299-EL-AIR of the Public Stilities Commission of Ohio dated April 11, 1996.

Continued on Sheet No. 41

Effective: April 18, 1996

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The Toledo Edison Company Toledo, Ohio

P.U.C.O. No. 7

Fifth Revised Sheet No. 41

RESIDENTIAL RATE "R-01"

TERMS AND COMDITIONS:

(1) Service under this rate is supplied in accordance with the Rules and Regulations of the Company and is subject to the jurisdiction of the Public Utilities Commission of Ohio.

INTERIM EMERGENCY AND TEMPORARY RECOVERY METHOD FOR PERCENTAGE OF INCOME PAYMENT PLAN ARREAFAGES:

Monthly charges computed under this schedule shall be adjusted in accordance with the INTERIM EMERGENCY AND TEMPORARY RIDER for the recovery of Percentage of Income Payment Plan arrearages as set forth in Ridex No. 3.

This sheet filed pursuant to the Opinion and Order in Case No. 95-299-EL-AIR of the Public Utilities Commission of Ohio dated Roril 11, 1996.

Effective: April 18, 1996

Issued: April 18, 1996

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The Toledo Edison Company Toledo, Ohio

P.U.C.O. No. 7

Ninth Revised Sheet No. 46

RESIDENTIAL HEATING RATE "R-07"

APPLICABILITY:

This rate is available on an optional basis to a high usage single family residence utilizing a permanently installed electric space heating system as a substantial source of the space heating requirements and applying also to a single occupancy apartment, a mobile housing unit or any other single family residential unit meeting the utilization requirements. Fot less than 75 percent of the customer's connected load must be within the dwelling unit.

This rate does not apply to commercial or industrial service. If a residential unit is used for both residential and commercial purposes, the appropriate general service rate shall apply unless the wiring is so arranged that the residential usage can be metered separately. The hallways and other common facilities of an apartment building or apartment complex are to be billed on the appropriate general service rate.

MONTHLY RATE:

	SUMMER	WINTER
(1) Customer Charge Single-Phase Service Three-Phase Service	\$ 4.75 \$ 8.75	\$ 4.75 \$ 8.75
(2) Energy Charge First 500 RWH, per KWH Next 400 RWH, per KWH All Additional RWH, per KWH	11.26¢ 9.02¢ 9.98¢	10.14¢ 8.49¢ 3.88¢

SEASONAL PERIODS:

The Summer period shall be the billing months of June through September and the Winter period shall be the billing months of October through May.

MINIMUM:

The minimum bill shall be the monthly customer charge.

TERMS OF PAYMENT:

All bills for service shall be payable on or before the due date shown on the bill. The due date shall not be less than fourteen days after the mailing of the bill. Interest, at the rate of 1.5 percent (1.5%) per month, shall be charged on any unpaid balance existing at the next billing date for all Customers, except this provision is not applicable to unpaid account balances of customers enrolled on income payment plans pursuant to Section 4901:1-18-04(3), Ohio Administrative Code. For residential customers, the late payment service charge will be assessed only when there is more than one late payment in a twelve-month period.

ELECTRIC FUEL COMPONENT:

The energy charge shall be adjusted to include the current cost of fuel consumed to produce electric energy in compliance with Rule 4901:1-11 of the Chic Administrative Code, as reflected in Rider No. 1 - Electric Fuel Component Rate of this tariff.

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This sheet filed pursuant to the Opinion and Order in Case No. 95-299-EL-AIR of the Public Utilities Commission of Chio dated April 11, 1996.

Continued on Sheet No. 47

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The Toledo Edison Company Toledo, Ohio

P.U.C.O. No. 7

Page 61 of 303 Fourth Revised Sheet No. 47

RESIDENTIAL HEATING RATE "R-07"

ACCOUNT ACTIVATION:

The initial bill for a new customer or a customer at a new location shall include an account activation charge of \$8.00.

TYPE OF SERVICE:

The type of service available includes alternating current, 60 hertz, single phase at the Company's secondary voltages, overhead or underground as available at the specific customer location. The customer may elect three-phase service where this can be made available without additional construction cost.

TERMS AND CONDITIONS:

- (1) Service under this rate is supplied in accordance with the Rules and Regulations of the Company and is subject to the jurisdiction of the Public Utilities Commission of Ohio.
- (2) Costomer must have permanently installed and in operation, electric space heating equipment supplying a substantial portion of the heating requirements of his residence.
- (3) Customer may have permanently installed and in operation, electric water heating equipment, approved by the Company, supplying the entire requirement for domestic hot water. The maximum electric water heating element rating shall be 5500 watts. Two element water heaters with non-interlocked elements have a permissible total element wattage of 7000 watts. In order to assure satisfactory hot water service, the Company recommends that the water heating equipment in residences have minimum total tank capacity of 40 gallons.
- (4) Continued applicability of this rate to a customer is contingent upon their participation in a positive load control program involving the installation of load controls on electric water heating and central air conditioning should the Company so request.

INTERIM EMERGENCY AND TEMPORARY RECOVERY METHOD FOR PERCENTAGE OF INCOME PAYMENT PLAN ARREARAGES:

Monthly charges computed under this schedule shall be adjusted in accordance with the INTERIM EMERGENCY AND TEMPORARY RIDER for the recovery of Percentage of Income Payment Plan arrearages as set forth in Rider No. 3.

(D)

This sheet filed pursuant to the Opinion and Order in Case No. 88-171-EL-AIR of the Public Utilities Commission of Ohio dated January 31, 1989.