

FILE

BEFORE

THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke)
Energy Ohio for Approval of a Market)
Rate Offer to Conduct a Competitive)
Bidding Process for Standard Service) Case No. 10-2586-EL-SSO
Offer Electric Generation Supply,)
Accounting Modifications, and Tariffs for)
Generation Service.)

VOLUME IV

TESTIMONY

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Offer Electric Generation Supply,)	
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DIRECT TESTIMONY OF

JEFFREY R. BAILEY

ON BEHALF OF

DUKE ENERGY OHIO, INC.

November 15, 2010

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Attachments:

JRB-1: Rate Conversion Process

JRB-2: Development of Seasonal and Time of Day Factors

JRB-3: Estimated Rate Impacts

I. INTRODUCTION

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

2 A. My name is Jeffrey R. Bailey, and my business address is 1000 East Main Street,
3 Plainfield, Indiana 46168.

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

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

9 **Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATION AND**
10 **PROFESSIONAL EXPERIENCE.**

11 A. I received Bachelor of Science degrees in Industrial Management and Engineering
12 from Purdue University, West Lafayette, Indiana. I also received from Purdue
13 University a Master of Science degree majoring in Industrial Engineering.

14 I was employed by Duke Energy Indiana, Inc. (then known as PSI Energy,
15 Inc.) in July of 1990 as Supervisor, Rate Engineering. I was subsequently
16 promoted to Manager, Rate Engineering in 1991. I have held several positions in
17 the Rate, Pricing, and Market Planning areas for Duke Energy Indiana and its
18 affiliates (Cinergy Services, Inc., which later merged into DEBS) following the
19 Cinergy Corp. / PSI Energy, Inc. / The Cincinnati Gas and Electric Company
20 transaction in 1994. In 1997, I accepted the position of Manager, Sales Analysis.
21 In 2000, I joined the Financial Operations Department where I held the positions

1 of Manager, Financial Projects, and Manager, Finance. I returned to the Rate
2 Department in mid-2002. Following the merger of Cinergy Corp. with Duke
3 Power, I assumed my current position in the fall of 2006.

4 Before joining Duke Energy Indiana in July of 1990, I was employed by
5 the Indiana Utility Regulatory Commission. I began my employment there in
6 1983 as a Staff Engineer. I was promoted through several positions of increasing
7 responsibility at the Commission, the last of which was Assistant Chief Engineer.
8 My primary responsibility as Assistant Chief Engineer for the Commission was
9 the supervision of the gas and electric sections that investigated rate and
10 regulatory matters pending before the Commission.

11 **Q. PLEASE DESCRIBE YOUR DUTIES AS DIRECTOR OF RATE DESIGN**
12 **AND ANALYSIS.**

13 A. As Director, Rate Design and Analysis, my primary responsibility is the
14 development of Duke Energy's rates and charges, including those rates and
15 charges as may be contained in tariffs, agreements, or contracts for electric
16 service.

17 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC**
18 **UTILITIES COMMISSION OF OHIO?**

19 A. Yes, I have presented testimony at the Public Utilities Commission of Ohio
20 (Commission) and several other regulatory jurisdictions where Duke Energy has
21 customers.

1 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS
2 PROCEEDING?

3 A. The purpose of my testimony in this proceeding is to: (i) explain how the results
4 of the proposed competitive bidding process (CBP) will be converted to retail
5 rates; (ii) describe the development of seasonal and time-differentiated pricing
6 options; and, (iii) discuss schedules illustrating the estimated impacts of the
7 proposed rate design in this proceeding by rate schedule.

8 Q. WHAT ARE THE ATTACHMENTS AND SCHEDULES FOR WHICH
9 YOU ARE RESPONSIBLE?

10 A. I am sponsoring all or part of the following exhibits:

- 11 • Attachment JRB-1, Development of Seasonal and Time of Day Factors;
- 12 • Attachment JRB-2, Rate Conversion Process; and
- 13 • Attachment JRB-3, Estimated Rate Impacts.

14 II. DISCUSSION OF RETAIL RATE CONVERSION PROCESS

15 Q. HOW WILL THE RESULTS OF THE CBP BE CONVERTED INTO
16 RETAIL RATES?

17 A. The Company's proposed CBP price for generation supply will result in multiple
18 clearing prices for each year of standard service offer (SSO) service. The clearing
19 prices will be averaged using the number of tranches purchased at each price as
20 weights to obtain the Blended Competitive Bid Price. The Company will utilize a
21 wholesale to retail rate conversion process to convert the Blended Competitive
Bid Price to a retail rate, referred to as the Standard Service Offer Generation

1 Charge (SSOGC). For purposes of this filing, the Company has chosen in the first
2 period of the MRO to "blend" the SSOGC with its current retail prices, with a
3 10% contribution from the SSOGC rate and a 90% contribution from its current
4 retail prices. More detail on this blending process can be found in the testimony of
5 Company witnesses James E. Ziolkowski and William Donald Wathen Jr.

6 **Q. PLEASE DESCRIBE IN MORE DETAIL HOW THE CBP PRICE WILL**
7 **BE CONVERTED TO A RETAIL RATE.**

8 A. Any capacity-related costs associated with the CBP will be allocated to the
9 respective rate classes based on the average of their coincident peaks, including
10 distribution losses, for the months of June through September of the prior year¹ (4
11 CP Method). These capacity costs will then be converted to energy charges based
12 on the applicable kWh sales level for each class and further adjusted for
13 commercial activity taxes.

14 Energy charges will be calculated for each class based upon the remaining
15 non-capacity CBP price adjusted for losses and commercial activity taxes.

16 The results of both capacity- and energy-related charges will be further
17 modified for seasonal and time-of-day factors for billing purposes, as further
18 discussed below, and the appropriate portion included in Rider MRO discussed by
19 Mr. Ziolkowski.

20 **Q. WHY DOES THE COMPANY CONSIDER THE 4 CP METHOD**
21 **APPROPRIATE?**

¹ Duke Energy Ohio has used peak demand data from calendar year 2009 for illustrative purposes.

1 A. The Company has historically peaked during the summer period, and the
2 Company's tariffs have provisions, like the ratchet for billing demand, tied to the
3 summer period. In addition, the 4 CP Method is reasonably supported, based
4 upon the Federal Energy Regulatory Commission (FERC) factor tests to
5 determine the appropriateness of coincident peaks for cost allocation purposes.
6 Because electric heating does not contribute to the 4 CPs, there is no allocation of
7 capacity-related costs to these groups.

8 **Q. HAS THE COMPANY PRODUCED A LOSS STUDY FOR THE**
9 **CONVERSION OF THE CBP PRICE TO RETAIL RATES?**

10 A. Yes. The energy pricing of PJM Interconnection LLC (PJM) includes
11 transmission losses; therefore, for purposes of the conversion, it has been assumed
12 that transmission-served customers will have no additional energy costs due to
13 losses. The Company has calculated losses for its distribution system and has
14 relied on a recent study by the Electric Power Research Institute to distribute these
15 losses between primary- and secondary-served customers. These loss factors will
16 then be used to modify the CBP price to account for these losses.

17 **Q. HOW ARE SEASONALITY AND TIME OF USE FACTORS**
18 **INCORPORATED INTO THE COMPANY'S PROPOSED RATES?**

19 A. Seasonality will be retained, or introduced, into the pricing based upon seasonal
20 factors developed from four years (July 2006 through June 2010) of PJM
21 locational marginal price (LMP) data at the Dayton Hub.

1 The hourly LMPs have been multiplied by the load of all “wires-
2 connected” load to Duke Energy Ohio (*i.e.*, all shoppers and non-shoppers) to
3 arrive at an hourly revenue. These revenue results are then aggregated based on
4 the respective summer and winter periods and divided by sales in the same period
5 to result in summer and winter factors. When applied to the CBP prices, these
6 factors convert the annual average CBP price to load-weighted prices for the
7 respective summer and winter periods. This same data can also be used to adjust
8 prices into on- and off-peak periods where desired.

9 **Q. PLEASE DESCRIBE EXHIBIT JRB-1.**

10 A. Exhibit JRB-1 illustrates the calculations and the resulting seasonal and time of
11 day factors used in the final conversion of the CBP prices to retail rates.

12 **Q. IS THIS WEIGHTING APPROPRIATE?**

13 A. In my opinion, yes. The load-weighting better reflects to retail customers the
14 actual cost of providing service, while the average annual CBP price allows
15 bidders to have more hours over which to spread risk, which results in lower
16 auction prices for customers. These summer and winter factors will be provided
17 to bidders in the auction process for their information. We envision this
18 information being updated annually for each succeeding auction.

19 **Q. WHY WAS TOTAL LOAD USED IN THESE CALCULATIONS?**

20 A. The level of switching can dramatically impact class prices. A disproportionate
21 number of non-shopping customers in a particular class when compared to
22 historical norms may significantly distort prices. For example, if all non-shopping

1 load were residential, the high covariance with weather for this class would result
2 in very high prices that would ultimately discourage high load factor commercial
3 and industrial load from taking service from Duke Energy Ohio. To prevent this,
4 the use of total wires-connected load results in class prices more consistent with
5 past pricing representing historical norms. This further serves to neither
6 encourage nor discourage additional switching.

7 **Q. WHAT MAJOR RATE CLASSES WILL EITHER RETAIN OR HAVE**
8 **SEASONALITY INTRODUCED TO THEIR STRUCTURE?**

9 A. The Company's current residential structure has a seasonal component, with rates
10 differentiated by winter and summer periods. The seasonal factors derived from
11 the PJM LMP and load data will be used to adjust the CBP component of the
12 price to reflect these seasonal differences. The Company's residential Rate TD,
13 Optional Time-of-Day Rate, will have the CBP price component adjusted for not
14 only its seasonal differences but its various time components as well. Any pilot
15 programs, like Rate TD-AM, Time-of-Day Rate for Residential Service with
16 Advanced Metering, will have its prices modified in a similar manner.

17 The Company's commercial and industrial rates (Rate DS, Service at
18 Secondary Distribution Voltage; Rate DP, Service at Primary Distribution
19 Voltage; and Rate TS, Service at Transmission Voltage) are not directly
20 seasonally or time differentiated, but can be modified to a "quasi" time-of-use rate
21 through Rider LM. Rider LM allows for the modification of billing demand to be
22 the greater of the on-peak demand or 50% of the off-peak demand. This

1 mechanism allows for customers who can shift load to off-peak periods a means
2 to take advantage of lower billing demand and energy charges. The Company
3 intends to retain this mechanism for customers taking service under this Rider, but
4 introduce seasonal prices to the CBP price portion of the energy prices applicable
5 to the Company's commercial and industrial rates. As the auction prices become
6 a greater and greater portion of these rates, the rate structures will be radically
7 transformed where the recovery of fixed-related charges will transition from
8 demand charges to energy charges.

9 The Company's Real Time Pricing Program, Rate RTP, will have a
10 capacity component based upon the parent rate (Rates DS, DP, or TS) derived in
11 the same manner as described above. The energy charges, however, will be the
12 day-ahead prices for the Company's PJM node, differentiated by the appropriate
13 loss factor.

14 **Q. PLEASE DESCRIBE EXHIBIT JRB-2.**

15 A. Exhibit JRB-2 incorporates the all of the items previously discussed to effectuate
16 the blending process. With the exception of Rate RTP,² all of the Company's rate
17 schedules are included in this analysis. The class rates derived from this Exhibit
18 are used to compute the rate impacts to the various customer classes. For the sake
19 of brevity, only the first period of the MRO is shown.

20 **Q. WHAT ARE THE COMPANY'S FUTURE PLANS RELATED TO TIME-**
21 **DIFFERENTIATED PRICING?**

² Rate RTP has not been estimated due to the hourly structure of the rate.

1 A. The Company remains committed to time-differentiated pricing and intends to
2 continue to pursue various pricing initiatives through the collaborative process.
3 Currently the Company has approval for a new residential rate, Rate TD-AM, and
4 a Peak Time Rebate applicable to residential rates. Duke Energy Ohio is also
5 considering various modifications to this structure to better understand the
6 variables that drive customer acceptance of these rates and has recently filed for
7 approval of a revised TD-AM tariff. Duke Energy Ohio has also filed for
8 approval a critical peak pricing component. And, of course, the Company's real
9 time pricing program is available for customers who can take advantage of that
10 level of price transparency.

III. IMPACTS TO CUSTOMERS

11 **Q. PLEASE DESCRIBE EXHIBIT JRB-3.**

12 A. Exhibit JRB-3 details the impacts to the various customer classes as a result of the
13 blending of the legacy ESP prices and the auction prices³. Page 1 of 3 details the
14 impacts to customer classes resulting from the first period of the MRO comprised
15 of 90% ESP and 10% CBP. Page 2 of 3 details the impacts to customers in the
16 second period of the MRO comprised of 80% ESP and 20% CBP. Page 3 of 3
17 details the rate impacts for the final year of the proposal at 100% CBP prices. All
18 comparisons are relative to rates in effect at December 31, 2011⁴. Although Duke

³ Duke Energy Ohio has estimated the annualized CBP price to be \$0.055 per kWh, with \$0.0455 representing the energy-related portion of the price.

⁴ The specific timing of the rate changes can be found in the testimony of Mr. Wathen.

1 Energy Ohio has made an attempt to reasonably estimate the auction price, the
2 auction price is not known with certainty at this time. Therefore, the results
3 shown in this exhibit are for illustrative purposes only.

IV. CONCLUSION

4 **Q. WERE EXHIBITS JRB-1 THROUGH JRB-3 PREPARED BY YOU OR**
5 **UNDER YOUR SUPERVISION?**

6 **A. Yes.**

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

8 **A. Yes.**

Duke Energy Ohio, Inc.

Seasonal and TOU Average Day Ahead Prices and Factors Using 4-Year Average With Weighting

	Total kWh	Day Ahead Revenue	Average Price per mWh	Factors
Summer	30,292,933,908	\$1,479,485,521	\$48.8393	1.0727
Winter	52,451,896,274	\$2,287,780,899	\$43.6167	0.9580
On Peak	24,343,856,230	\$1,468,863,595	\$60.3382	1.3253
Off Peak	58,400,973,952	\$2,298,402,825	\$39.3556	0.8644
On Peak Summer	9,427,561,934	\$659,992,985	\$70.0068	1.5376
On Peak Winter	14,916,294,296	\$808,870,610	\$54.2273	1.1911
Off Peak Summer	20,865,371,974	\$819,492,536	\$39.2752	0.8626
Off Peak Winter	37,535,601,978	\$1,478,910,289	\$39.4002	0.8654
Annual Average	82,744,830,182	\$3,767,266,420	\$45.5287	1.0000

Notes

(A) 4-Year Average of Prices, kWh and Revenue from 7/1/2006 - 6/30/2010

(B) Summer = June 1 - September 30; Winter = October 1 - May 31

(C) Total kWh = kWh from 7/1/2006 - 6/30/2010

(D) Day Ahead Revenues = Day Ahead Price X kWh

(E) Average Price per mWh = Sum of Revenues / kWh / 1000

(F) Factor = Row / Annual Average (Average Price per mWh)

(G) Off Peak Hours (Summer) - 8:01 pm to 11:00 am next day (Weekday)

- Friday 8:01 pm to 11:00 am the following Monday

- 8:01 pm day before Holiday to 11:00 am day after Holiday

(H) Off Peak Hours (Winter) - 2:01 pm to 5:00 pm and 9:01 pm to 9:00 am next day (Weekday)

- Friday 9:01 pm to 9:00 am the following Monday

- 9:01 pm day before Holiday to 9:00 am day after Holiday

(I) Holidays - New Year's Day, President's Day, Good Friday, Memorial Day,

Independence Day, Labor Day, Columbus Day, Veterans Day,

Thanksgiving Day, Christmas Day

- Legally observed days if occurring on weekend

Source: PJM AEP/Dayton Hub Historical LMP for 7/1/2006 - 6/30/2010

	A	B	C	D	E	F	G	H	I
1	Competitive Bid Process Price								
2	Blend Period	1		\$0.055000					
3	Existing Rates			90%					
4	CBP			10%					
5									
6									
7	Allocation of Capacity Related Costs								
8	Total Retail kWh Sales			20,078,872.082					
9	Estimate of per Unit Energy Cost			\$0.045500					
10	Estimate of per unit Capacity Cost			\$0.009500					
11	Total Capacity Cost			\$190,749.285					
12									
13									
14									
15	Rate Schedule	Sum of Summer CP	Ratio	Allocated Capacity Costs	kWh Sales	Capacity Price			
16	RS	6,085,070	42.1196%	\$80,342.787	7,223,512.535	\$0.011122			
17	DM	448,680	3.1045%	\$5,921.747	525,523.834	\$0.011268			
18	DS	4,989,210	34.5285%	\$65,863.034	6,550,763.857	\$0.010054			
19	EH	0	0.0000%	\$0	87,935.322	\$0.000000			
20	DP	1,519,941	10.5190%	\$20,064.885	2,378,555.274	\$0.008443			
21	TS	1,390,610	9.6239%	\$16,357.574	3,182,724.911	\$0.005750			
22									
23	LIGHTING (Dark to Dawn)	8,831	0.0611%	\$116.579	103,685.919	\$0.001124			
24	LIGHTING (Dawn to Dark)	6,263	0.0433%	\$82.678	18,159.430	\$0.004553			
25	TOTAL	14,449,505	100.0000%	\$190,749.285	20,078,872.082				
26									
27									
28									

OK

A	B	C	D	E	F	G	H	I
29								
30								
31	Development of Energy Charges							
32	Commercial Activity Tax		0.2600%					
33								
34								
35								
36								
37								
38	Rate Schedule	Season	Factors	Season	Adjusted Energy Price	Factors	Peak	Off-Peak
39			Loss			Peak	Peak	Off-Peak
40	RS	Summer	3.96%	107.27%	\$0.050953	163.76%	\$0.073037	\$0.040975
41		Winter	3.96%	95.80%	\$0.045505	119.11%	\$0.056675	\$0.041106
42								
43	DM	Summer	3.96%	107.27%	\$0.050953			
44		Winter	3.96%	95.80%	\$0.045505			
45								
46	DS	Summer	3.96%	107.27%	\$0.050953			
47		Winter	3.96%	95.80%	\$0.045505			
48								
49	EH	Summer	3.96%	107.27%	\$0.050953			
50		Winter	3.96%	95.80%	\$0.045505			
51								
52	DP	Summer	2.45%	107.27%	\$0.050165			
53		Winter	2.45%	95.80%	\$0.044800			
54								
55	TS	Summer	0.00%	107.27%	\$0.048936			
56		Winter	0.00%	95.80%	\$0.043703			
57								
58								
59	LIGHTING (Dark to Dawn)	Summer	3.96%	107.27%	\$0.050953			\$0.040975
60		Winter	3.96%	95.80%	\$0.045505			\$0.041106
61								\$0.040641
62								
63	LIGHTING (Other)	Summer	3.96%	107.27%	\$0.050953			
64		Winter	3.96%	95.80%	\$0.045505			
65								
66								

A	B	C	D	E	F	G	H	I
67								
68	Development of Capacity Charges							
69								
70	Commercial Activity Tax							
71	0.2600%							
72								
73								
74								
75								
76								
77	Rate Schedule	Season	Loss	Factors	Season	Adjusted Capacity Price	Peak	Off-Peak
78	RS	Summer		3.95%	107.27%	\$0.012455	153.76%	\$0.017854
79		Winter		3.95%	95.80%	\$0.011124	119.11%	\$0.013830
80	DM	Summer		3.95%	107.27%	\$0.012619	88.26%	\$0.010018
81		Winter		3.95%	95.80%	\$0.011289	86.54%	\$0.010048
82	DS	Summer		3.95%	107.27%	\$0.011259		
83		Winter		3.95%	95.80%	\$0.010056		
84	EH	Summer		3.95%	107.27%	\$0.000000		
85		Winter		3.95%	95.80%	\$0.000000		
86	DP	Summer		2.45%	107.27%	\$0.009308		
87		Winter		2.45%	95.80%	\$0.008313		
88	TS	Summer		0.00%	107.27%	\$0.006184		
89		Winter		0.00%	95.80%	\$0.005523		
90	LIGHTING (Dark to Dawn)	Summer		3.95%	107.27%	\$0.001259		
91		Winter		3.95%	95.80%	\$0.001124		
92	LIGHTING (Dawn)	Summer		3.95%	107.27%	\$0.005099		
93		Winter		3.95%	95.80%	\$0.004553		
94								
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102								
103								
104								

Summer / Winter Composite Factor ==>

\$0.004664

[illegible]

	A	B	C	D	E	F	G	H	I	J	K
	Development of Blended Prices										
					Rider Gen	Adjusted CBP Prices			Rider MRO CBP Blend 10% Capacity		
				ESP Prices	ESP Blend 90%	Energy	Capacity	Energy	Capacity	Total	Final Price
Rate EH	Summer	All Consumption	\$0.083217	\$0.056895	\$0.050953	\$0.000000	\$0.000000	\$0.005095	\$0.000000	\$0.005095	\$0.061990
	Winter	All Consumption	\$0.063217	\$0.056895	\$0.045505	\$0.000000	\$0.000000	\$0.004551	\$0.000000	\$0.004551	\$0.061446
Rate DP	Summer Demand	First 1000 KW Additional KW	\$10.460232 \$8.230419	\$8.414209 \$7.407377							\$9.414209 \$7.407377
	Energy	Next 300KWH/KW Additional Kwh	\$0.067018 \$0.042985	\$0.051316 \$0.038687	\$0.050165 \$0.050165	\$0.009308 \$0.009308	\$0.009308 \$0.009308	\$0.005017 \$0.006017	\$0.000931 \$0.000931	\$0.005948 \$0.005948	\$0.057284 \$0.044635
	Winter Demand	First 1000 KW Additional KW	\$10.460232 \$8.230419	\$8.414209 \$7.407377							\$9.414209 \$7.407377
	Energy	Next 300KWH/KW Additional Kwh	\$0.057018 \$0.042985	\$0.051316 \$0.038687	\$0.044800 \$0.044800	\$0.009313 \$0.009313	\$0.009313 \$0.009313	\$0.004480 \$0.004480	\$0.000931 \$0.000931	\$0.005311 \$0.005311	\$0.056627 \$0.043998
Rate TS	Summer Demand	First 50,000 KVA Additional Kva	\$13.008434 \$8.761683	\$11.707591 \$8.785497							\$11.707591 \$8.785497
	Energy	Next 300KWH/KW Additional Kwh	\$0.044310 \$0.041168	\$0.039879 \$0.037051	\$0.048936 \$0.048936	\$0.008184 \$0.008184	\$0.008184 \$0.008184	\$0.004894 \$0.004894	\$0.000618 \$0.000618	\$0.005512 \$0.005512	\$0.045391 \$0.042593
	Winter Demand	First 50,000 KVA Additional Kva	\$13.008434 \$8.761683	\$11.707591 \$8.785497							\$11.707591 \$8.785497
	Energy	Next 300KWH/KW Additional Kwh	\$0.044310 \$0.041168	\$0.039879 \$0.037051	\$0.043703 \$0.043703	\$0.005523 \$0.005523	\$0.005523 \$0.005523	\$0.004370 \$0.004370	\$0.000552 \$0.000552	\$0.004922 \$0.004922	\$0.044801 \$0.041973

[illegible]

[illegible]

Development of Blended Prices										
A	B	C	D	E	F	G	H	I	J	K
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Rate SL, OL, NSU, NSP, SE	All Consumption									
Rate TC, TOL, TNSU, TNSP, TSE	All Consumption									
Rate SC, ENERGY ONLY, SCL, SCLNSU, SCLNSP, SCLSE	All Consumption									
Rate SC, SCL, SCLNSU, SCLNSP, SCLSE	All Consumption									
Rate UOL, S	All Consumption									

ANNUALIZED TEST YEAR REVENUES AT PROPOSED VS. 2011 RATES
FOR THE TWELVE MONTHS ENDED JUNE 30, 2010
(ELECTRIC SERVICE)

DATA: 12 MONTHS ACTUAL & 0 MONTHS ESTIMATED
TYPE OF FILING: X ORIGINAL UPDATED REVISED
WORK PAPER REFERENCE NO(S):

Period 1 of the MRO: 90% ESP, 10% CBP Blend

LINE NO.	RATE CLASSIFICATION (A)	REVENUE AT PRESENT RATES (B)	REVENUE AT PROPOSED RATES (C)	REVENUE CHANGE (AMOUNT) (D=C-B)	% OF REVENUE CHANGE (E=D/B)
RESIDENTIAL SERVICE					
1	RESIDENTIAL SERVICE (RS)	820,975,249	807,529,340	(13,445,909)	(1.64%)
2	OPTIONAL HEATING SERVICE (ORH)	662,490	663,508	1,018	0.15%
3	TIME OF DAY ADVANCED METERING (TD-AM)	545	537	(8)	(1.47%)
4	OPTIONAL TIME OF DAY SERVICE (TD)	39,247	38,982	(265)	(0.68%)
5	COMMON USE RESIDENTIAL SERVICE (CUR)	11,690,270	10,963,029	(727,241)	(6.22%)
6	RESIDENTIAL THREE-PHASE SERVICE (RS3P)	289,167	286,980	(2,187)	(0.75%)
7	RESIDENTIAL SERVICE-LOW INCOME (RSLI)	7,694,826	7,554,712	(140,114)	(1.82%)
8	TOTAL RESIDENTIAL	841,351,794	827,037,068	(14,314,726)	(1.70%)
DISTRIBUTION VOLTAGE SERVICE					
9	SECONDARY DISTRIBUTION (DS)	764,780,708	701,313,242	(63,467,466)	(8.30%)
10	SECONDARY DISTRIBUTION (DS RTP)	141,000	141,000	0	0.00%
11	UNMETERED SMALL FIXED LOADS (GSFL)	4,479,247	4,126,475	(352,772)	(7.88%)
12	ELEC SPACE HEATING (EH)	8,363,651	7,673,096	(690,555)	(8.26%)
13	SEC DISTRIBUTION SERVICE-SMALL (DM)	77,426,054	70,640,802	(6,785,252)	(8.76%)
14	PRIMARY DISTRIBUTION VOLTAGE (DP)	226,038,740	211,569,265	(14,467,475)	(6.40%)
15	PRIMARY DISTRIBUTION VOLTAGE (DP RTP)	(8,250,996)	(8,250,996)	0	0.00%
16	OPT UNMTRD SM FX LD ATTACH DIRECTLY PWR LINE (SFL-ADPL)	79,246	72,972	(6,274)	(7.92%)
17	TOTAL DISTRIBUTION	1,073,055,650	987,285,856	(85,769,794)	(7.99%)
TRANSMISSION VOLTAGE SERVICE					
18	TRANSMISSION VOLTAGE (TS)	222,616,435	209,211,358	(13,405,079)	(6.02%)
19	TRANSMISSION VOLTAGE (TS RTP)	5,252,583	5,252,583	0	0.00%
20	TOTAL TRANSMISSION	227,869,018	214,463,939	(13,405,079)	(5.88%)
LIGHTING SERVICE					
21	STREET LIGHTING (SL)	6,790,762	6,636,038	(154,724)	(2.28%)
22	TRAFFIC LIGHTING (TL)	1,099,377	1,070,103	(29,274)	(2.66%)
23	OUTDOOR LIGHTING (OL)	3,450,769	3,352,783	(97,986)	(2.84%)
24	NON STD STREET LIGHTING (NSU)	234,554	228,475	(6,079)	(2.59%)
25	NON STD POL'S (NSP)	377,488	370,929	(6,559)	(1.74%)
26	S L - CUST OWNED (SC)	1,331,992	1,345,136	13,144	0.99%
27	S L - OVERHEAD EQUIV (SE)	632,755	614,272	(18,483)	(2.92%)
28	UNMETERED OUTDOOR LIGHTING (UOLS)	587,106	565,129	(21,977)	(3.74%)
29	TOTAL LIGHTING	14,504,603	14,182,865	(321,738)	(2.22%)
30	TOTAL RETAIL	2,156,781,265	2,042,969,748	(113,811,517)	(5.28%)

ANNUALIZED TEST YEAR REVENUES AT PROPOSED VS. 2011 RATES
FOR THE TWELVE MONTHS ENDED JUNE 30, 2010
(ELECTRIC SERVICE)

DATA: 12 MONTHS ACTUAL & 0 MONTHS ESTIMATED
TYPE OF FILING: ☒ ORIGINAL ☐ UPDATED ☐ REVISED
WORK PAPER REFERENCE NO(S):

Period 2 of the MRO: 80% ESP, 20% CBP Blend

LINE NO.	RATE CLASSIFICATION (A)	REVENUE AT PRESENT RATES (B)	REVENUE AT PROPOSED RATES (C)	REVENUE CHANGE (AMOUNT) (D=C-B)	% OF REVENUE CHANGE (E=D/B)
RESIDENTIAL SERVICE					
1	RESIDENTIAL SERVICE (RS)	820,975,249	793,086,181	(27,889,068)	(3.40%)
2	OPTIONAL HEATING SERVICE (ORH)	662,490	659,592	(2,898)	(0.44%)
3	TIME OF DAY ADVANCED METERING (TD-AM)	545	530	(15)	(2.75%)
4	OPTIONAL TIME OF DAY SERVICE (TD)	39,247	38,678	(569)	(1.45%)
5	COMMON USE RESIDENTIAL SERVICE (CUR)	11,690,270	10,769,545	(920,725)	(7.88%)
6	RESIDENTIAL THREE-PHASE SERVICE (RS3P)	289,167	284,475	(4,692)	(1.62%)
7	RESIDENTIAL SERVICE-LOW INCOME (RSLI)	7,694,826	7,404,742	(290,084)	(3.77%)
8	TOTAL RESIDENTIAL	841,351,794	812,243,743	(29,108,051)	(3.46%)
DISTRIBUTION VOLTAGE SERVICE					
9	SECONDARY DISTRIBUTION (DS)	764,780,708	682,597,448	(82,183,260)	(10.75%)
10	SECONDARY DISTRIBUTION (DS RTP)	141,000	141,000	0	0.00%
11	UNMETERED SMALL FIXED LOADS (GSFL)	4,479,247	3,987,740	(511,507)	(11.42%)
12	ELEC SPACE HEATING (EH)	8,363,651	7,565,375	(798,276)	(9.54%)
13	SEC DISTRIBUTION SERVICE-SMALL (DM)	77,426,054	68,849,908	(8,576,146)	(11.08%)
14	PRIMARY DISTRIBUTION VOLTAGE (DP)	226,036,740	207,475,541	(18,561,199)	(8.21%)
15	PRIMARY DISTRIBUTION VOLTAGE (DP RTP)	(8,250,996)	(8,250,996)	0	0.00%
16	OPT UNMTRD SM FX LD ATTACH DIRECTLY PWR LINE (SFL-ADPL)	79,246	70,150	(9,096)	(11.48%)
17	TOTAL DISTRIBUTION	1,073,055,650	962,416,166	(110,639,484)	(10.31%)
TRANSMISSION VOLTAGE SERVICE					
18	TRANSMISSION VOLTAGE (TS)	222,616,435	204,858,490	(17,757,945)	(7.98%)
19	TRANSMISSION VOLTAGE (TS RTP)	5,252,583	5,252,583	0	0.00%
20	TOTAL TRANSMISSION	227,869,018	210,111,073	(17,757,945)	(7.79%)
LIGHTING SERVICE					
21	STREET LIGHTING (SL)	6,790,762	6,562,712	(228,050)	(3.36%)
22	TRAFFIC LIGHTING (TL)	1,099,377	1,081,363	(18,014)	(1.64%)
23	OUTDOOR LIGHTING (OL)	3,450,769	3,306,261	(144,508)	(4.19%)
24	NON STD STREET LIGHTING (NSU)	234,554	225,589	(8,965)	(3.82%)
25	NON STD POL'S (NSP)	377,488	367,807	(9,681)	(2.56%)
26	S L - CUST OWNED (SC)	1,331,992	1,338,775	6,783	0.51%
27	S L - OVERHEAD EQUIV (SE)	632,755	605,480	(27,275)	(4.31%)
28	UNMETERED OUTDOOR LIGHTING (UOLS)	587,106	589,553	(2,447)	(0.42%)
29	TOTAL LIGHTING	14,504,803	14,057,540	(447,263)	(3.08%)
30	TOTAL RETAIL	2,156,781,265	1,998,828,522	(157,952,743)	(7.32%)

ANNUALIZED TEST YEAR REVENUES AT PROPOSED VS. 2011 RATES
FOR THE TWELVE MONTHS ENDED JUNE 30, 2010
(ELECTRIC SERVICE)DATA: 12 MONTHS ACTUAL & 0 MONTHS ESTIMATED
TYPE OF FILING: ☒ ORIGINAL ☐ UPDATED ☐ REVISED
WORK PAPER REFERENCE NO(S):

Period 3 of the MRO: 0% ESP, 100% CBP Blend

LINE NO.	RATE CLASSIFICATION (A)	REVENUE AT PRESENT RATES (B)	REVENUE AT PROPOSED RATES (C)	REVENUE CHANGE (AMOUNT) (D=C-B)	% OF REVENUE CHANGE (E=D / B)
RESIDENTIAL SERVICE					
1	RESIDENTIAL SERVICE (RS)	820,975,249	677,531,341	(143,443,908)	(17.47%)
2	OPTIONAL HEATING SERVICE (ORH)	662,490	628,270	(34,220)	(5.17%)
3	TIME OF DAY ADVANCED METERING (TD-AM)	545	470	(75)	(13.76%)
4	OPTIONAL TIME OF DAY SERVICE (TD)	39,247	36,242	(3,005)	(7.66%)
5	COMMON USE RESIDENTIAL SERVICE (CUR)	11,690,270	9,221,591	(2,468,679)	(21.12%)
6	RESIDENTIAL THREE-PHASE SERVICE (RS3P)	289,167	264,437	(24,730)	(8.55%)
7	RESIDENTIAL SERVICE-LOW INCOME (RSLI)	7,694,826	6,204,906	(1,489,920)	(19.36%)
8	TOTAL RESIDENTIAL	841,351,794	693,887,257	(147,464,537)	(17.53%)
DISTRIBUTION VOLTAGE SERVICE					
9	SECONDARY DISTRIBUTION (DS)	764,780,708	532,848,401	(231,932,307)	(30.33%)
10	SECONDARY DISTRIBUTION (DS RTP)	141,000	141,000	0	0.00%
11	UNMETERED SMALL FIXED LOADS (GSFL)	4,479,247	2,697,625	(1,781,622)	(39.78%)
12	ELEC SPACE HEATING (EH)	8,363,651	6,702,553	(1,661,098)	(19.86%)
13	SEC DISTRIBUTION SERVICE-SMALL (DM)	77,426,054	54,524,183	(22,901,871)	(29.58%)
14	PRIMARY DISTRIBUTION VOLTAGE (DP)	226,036,740	174,725,052	(51,311,688)	(22.70%)
15	PRIMARY DISTRIBUTION VOLTAGE (DP RTP)	(8,250,996)	(8,250,996)	0	0.00%
16	OPT UNMTRD SM FX LD ATTACH DIRECTLY PWR LINE (SFL-ADPL)	79,246	47,571	(31,675)	(39.97%)
17	TOTAL DISTRIBUTION	1,073,055,650	763,435,389	(309,620,261)	(28.85%)
TRANSMISSION VOLTAGE SERVICE					
18	TRANSMISSION VOLTAGE (TS)	222,616,435	170,013,582	(52,602,853)	(23.63%)
19	TRANSMISSION VOLTAGE (TS RTP)	5,252,583	5,252,583	0	0.00%
20	TOTAL TRANSMISSION	227,869,018	175,266,165	(52,602,853)	(23.08%)
LIGHTING SERVICE					
21	STREET LIGHTING (SL)	6,790,762	5,976,286	(814,476)	(11.99%)
22	TRAFFIC LIGHTING (TL)	1,099,377	1,171,415	72,038	6.55%
23	OUTDOOR LIGHTING (OL)	3,450,769	2,934,338	(516,431)	(14.97%)
24	NON STD STREET LIGHTING (NSU)	234,554	202,531	(32,023)	(13.65%)
25	NON STD POL'S (NSP)	377,488	342,899	(34,589)	(9.16%)
26	S L - CUST OWNED (SC)	1,331,992	1,287,505	(44,487)	(3.34%)
27	S L - OVERHEAD EQUIV (SE)	632,755	535,300	(97,455)	(15.40%)
28	UNMETERED OUTDOOR LIGHTING (UOLS)	587,106	604,896	17,790	3.03%
29	TOTAL LIGHTING	14,504,803	13,055,170	(1,449,633)	(9.99%)
30	TOTAL RETAIL	2,156,781,265	1,845,643,981	(511,137,284)	(23.70%)