

18
Hunter, Donielle

From: ContactThePUCO@puc.state.oh.us
Sent: Monday, April 12, 2010 12:28 PM
To: Docketing
Subject: Docketing
Attachments: bueche.tif; EBUE0317106T 4190987.pdf

Public Utilities Commission of Ohio
Investigation and Audit Division

Memorandum

Date: 4/12/2010

Re: Ed Bueche
32362 Birchwood Ln

Avon Lake, OH 44012

Docketing Case No.: 10-176-EL-ATA

Notes: Customer opposed to elimination of all electric rate.

Please docket the attached in the case number above.

RECEIVED-DOCKETING DIV
2010 APR 12 PM 1:37
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This is to certify that the images appearing are an
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Technician Sm Date Processed APR 12 2010

CASE# 10-176-EL-ATA

(First Energy Rate Increase)

April 6, 2010

**From: Edward J. Bueche
32362 Birchwood Lane
Avon Lake, OH 44012
(440) 933 - 7877**

**To: ATTN: IAD
Public Utilities Commission of Ohio
180 E. Broad Street
Columbus, Ohio 43215-3793**

The attached letter was originally mailed on March 10, 2010. I assumed that by copying it to Mr. Alan Shriber it would be assigned to the correct docket and be registered as such. Apparently that was not the case.

PLEASE FILE THE ATTACHED DOCUMENT IN THE DOCKET FOR CASE# 10-176-EL-ATA.

Thank you,



Edward J. Bueche

RECEIVED

APR 10 2010

**INVESTIGATION AND AUDIT DIVISION
PUBLIC UTILITIES COMMISSION OF OHIO**

CASE# 10-176-EL-ATA

(First Energy Rate Increase)

March 10, 2010

**From: Edward J. Bueche
32362 Birchwood Lane
Avon Lake, OH 44012
(440) 933 - 7877**

**To: Governor Ted Strickland
Riffe Center, 30th Floor
77 South High Street
Columbus, OH 43215**

Dear Governor Strickland:

The effect of the First Energy rate increase has been devastating to the owners of all electric homes. If the power company(s) are permitted to break their implied or explicit contracts with these homeowners it will not only impact these homeowners financially in the short term but their communities in the long term due to the loss in property market value as home sales prices plummet. It is a blackmark on both the PUCO and the OCC as they failed to recognize the impact of the 2010 rate increase and or were apparently incapable of asking the right questions to determine the impact.

The power company(s) created this situation to solve their problem of excess capacity during the winter months. Faced with the costly expenses of seasonally curtailing operations, laying off personnel, inventorying raw materials, then restarting and retraining, they made a management decision to create a demand for their excess capacity by courting builders and developers to build all electric homes. The builders were provided with economic incentives to build the homes and promised that the power company would provide these homes with significantly discounted electric rates to assure their sale. In addition the potential buyers of these homes would be promised with permanently discounted rates. Otherwise the builders would have had a huge supply of white elephants on their hands. Now that First Energy has a truly captive monopoly on these homes and no longer is faced with excess capacity in the winter season, they are arguing that the all electric homeowners have had it too good too long and it is not fair for them to continue to receive the promised rates. In fact the all electric homes were created by the power companies to provide a benefit to the power companies. This program was not a giveaway. It was enacted to maintain and increase profitability by the power companies.

The reduced rates were promised on these residential homes forever, regardless of ownership. The State of Ohio should adopt this position and mandate that the all electric residential rates will remain in effect forever.

Attached are my analyses of factors relevant to the rate increases proposed by First Energy and approved by the PUCO and OCC. The analyses are presented in three Sections:

- 1) Frequency Distributions of Usage by Temperature Range,
- 2) Regression Analyses of Usage vs Temperature and
- 3) Rate Comparisons and Rate Increases.

I find it somewhat disheartening that representatives of the PUCO and OCC did not prepare or have prepared similar analyses.

March 10,2010

These analyses indicate the following

- 1) The base loading for my all-electric home is about 1,000 kWh / 30 days.
- 2) The base loading for a non all-electric home is about 800 kWh / 30 days.
- 3) The maximum usage for my all-electric home is about 6,000 kWh / 30 days (winter).
- 4) The maximum usage for a non all-electric home is about 1,500 kWh / 30 days (summer)
- 5) My usage for winter heating is increased by 3 kWh per day for every degree less than 62°. At 22° this equates to 3,600 kWh / 30 days for heating. Adding the base load results in a total bill for 4,600 kWh / 30 days.
- 6) About 500 kWh / 30 days are required for heating water and cooking.
- 7) First Energy's (CEI) all-electric rates historically have been formulated to charge the next 100 kWh (after the first 500 kWh) at 68% of the first 500 kWh rate, the next 400 at 60% of the first 500 kWh rate and over 1,000 kWh at 29% of the first 500 kWh rate. This formulation accounts for most of the "all-electric" discount. Any attempt to equalize this rate formulation will generate huge rate increases for the all-electric homeowners.
- 8) A typical all-electric home, consuming an average of 3,500 kWh per winter billing cycle will experience an average rate increase of 64% over 2009, a 78% increase over 2008, an 89% increase over 2007 and a 90% increase over 2006. At 6,000 kWh these increases are 93%, 108%, 119% and 121% respectively.

I received March's bill today. It netted out 81.2% higher than 2009's March billing (predictor equation = 75.1% higher). It netted out 92.8% higher than 2008's March billing (predictor equation = 89.8% higher. Apparently First Energy has not had time to react to the restoration of 2008 rates. This emphasizes the need to make them retroactive.

The following are the actions that should be implemented to assure that this situation does not recur:

- 1) The all-electric residential rates should be permanently restored
- 2) The new rate structure should be made retroactive to January 2008 and credits issued for overcharges. The credits should also include interest at a rate of 8.82% APY as allowed to First Energy by the PUCO in 2010 Rider Sheet 103.
- 3) All all-electric residences in Ohio should qualify for the all-electric rates.
- 4) The PUCO and OCC must become more aggressive and more diligent in their evaluation of requested rate increases. (They should demand any data that they deem necessary to make a knowledgeable decision be provided by the power company)
- 5) The PUCO and/or OCC should translate rate proposals into a one page summary similar to that shown in Exhibits 5, 6 and 8 of the attached analyses AND publish this document in the news media at least 30 days before any public hearing is held.
- 6) First Energy should be required to make a similar detailed listing of charges in their monthly billings. The current billings combine charges into ever changing categories making analysis virtually impossible.
- 7) The PUCO and OCC should review the Generation Service Rider (Sheet 114) which shows a rate of \$0.068818 for the first 500 kWh and \$0.078818 for over 500

CASE# 10-176-EL-ATA

(First Energy Rate Increase)

March 10, 2010

kWh. A review of the 2006 summer rates show no rates increasing with increased kWh usage. What is the explanation for this increase other than further penalizing the all electric homes?

In closing, I hope my efforts will provide some useful information and methods of problem solving to involved personnel. I also request that any public hearings regarding these issues be prominently publicized and request that regional meetings be held in the Lorain County area in the future.

A handwritten signature in cursive script, appearing to read "Edward J. Bruck".

**cc: Alan R. Schiber (PUCO)
Janine Migden-Ostrander (OCC)
Matt Lundy
Jennifer Fenderbosch
Timothy J Grendell**

SECTION I - FREQUENCY DISTRIBUTIONS

ELECTRICAL POWER CONSUMPTION AND BILLING

The following presents electric usage data for an all-electric home and the analyses of these data to develop an understanding of the current First Energy Rate dilemma. The raw data were taken from my electric bills from December 2000 through February 2010.

An overview of these data indicated that estimated meter readings could not be used to accurately analyze the data. A prime example of this situation is the December 2009 estimated billing of 802 kWh followed by the January 2010 billing of 5,820 kWh. Obviously December was severely understated and January overstated. Data from billing cycles involving an estimated meter reading were therefore excluded from the data base.

Inasmuch as billing cycles varied from 28 to 34 days (with one at 21 days), All usage data were analyzed using kilowatt hours per day.

FREQUENCY DISTRIBUTIONS

After distributing the raw data in a number of data sets, it became apparent that separating the data by temperature range would be appropriate. Figures 1a - 1f of Exhibit 1 exhibit these distributions. They are arranged in order of increasing temperature range including:

18° - 29° 30° - 39° 40° - 49° 50° - 61° 62° - 71° and 72° - 77°

As anticipated, usage decreases as temperature increases until an average daily temperature of about 62 degrees is attained. At 62 degrees, usage appears to level out until an average daily temperature of 71 degrees is attained. Over 71 degrees, usage begins to increase with increasing temperature. Averages, by temperature range are shown below:

	<u>18° - 29°</u>	<u>30° - 39°</u>	<u>40° - 49°</u>	<u>50° - 61°</u>	<u>62° - 71°</u>	<u>72° - 77°</u>
Avg. kWh/Day	140.3	115.4	86.1	50.5	36.0	41.8
Avg. kWh/30 Days	4,209	3,462	2,643	1,515	1,080	1,254
Avg. Temperature	26.0°	35.1°	44.8°	55.0°	67.0°	74.2°

As the average temperature decreases below 67.0°, the average usage increases from 36.0 kWh/day (at 67° average) to 140.3 kWh/day (at 26° average). Conversely, usage increases above the 67° average temperature to 41.8 kWh/day at an average temperature of 74.2°.

Base Loading

The 62 through 71 degree temperature range represents the transition range between heating and cooling and provides an estimate of the "base loading" for my all-electric home, i.e. the anticipated usage when neither heating nor cooling is required equals 1,080 kWh per 30-day billing cycle.

More limited analyses of two of my family members' usages showed one averaging 521 kWh and the other 640 kWh per winter billing cycle. These are probably good estimates of their "base loading".

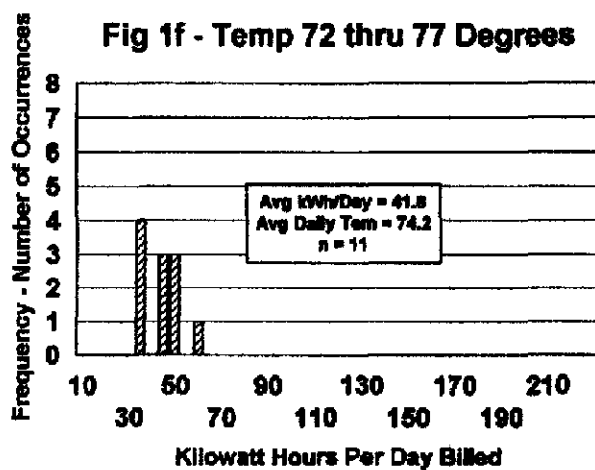
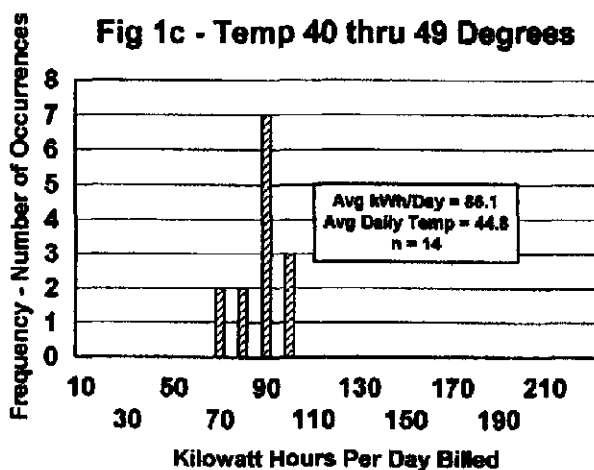
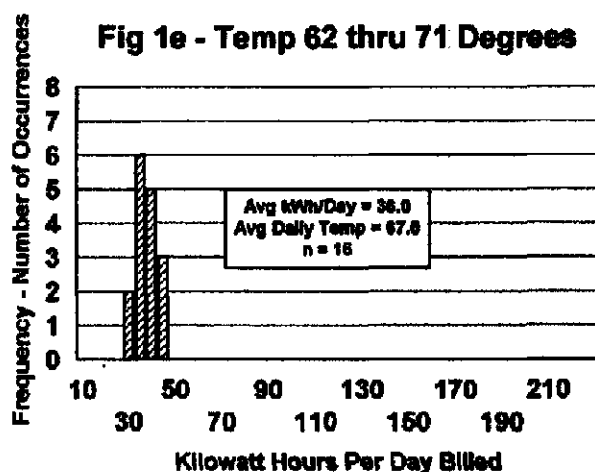
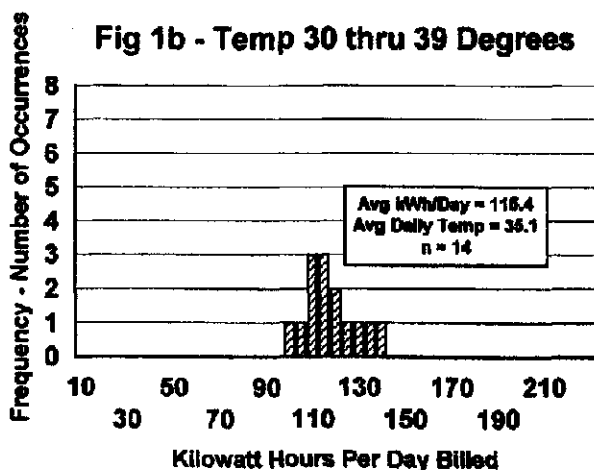
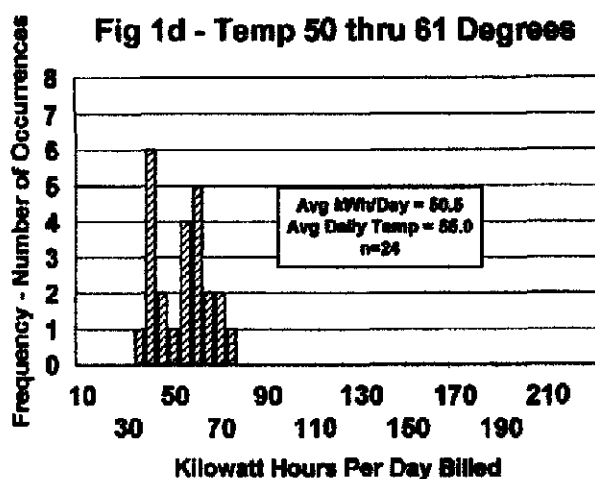
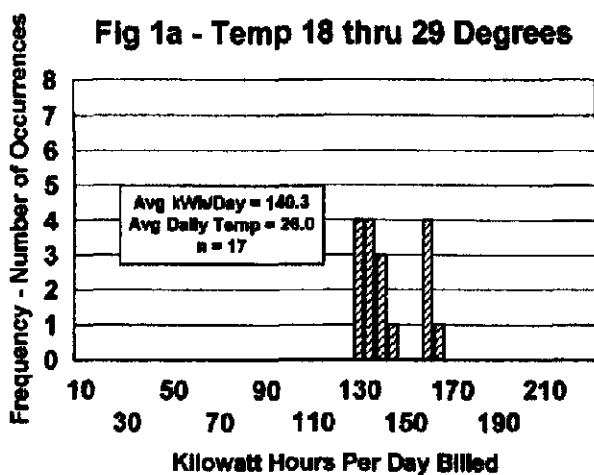
The difference in the base loads between our homes is attributed to our electric water heater and electric range. These two mandatory electricity consumers apparently account for about 500 kWh/month in our home.

First Energy Rate Structure

It is also interesting that First Energy's Rate structure has been historically setup with separate rates for the first 500 kWh, the next 100, the next 400 and over 1,000. It seems more than coincidental that they relate to the base load of my mother (521), my son (640) and myself (1,040).

EXHIBIT 1

FREQUENCY DISTRIBUTIONS - KWH/DAY BY TEMPERATURE RANGE 12/2000 THROUGH 2/2010



SECTION II - REGRESSION ANALYSES

ELECTRICAL POWER CONSUMPTION AND BILLING

REGRESSION ANALYSES

Monthly Regression Analyses

Exhibit 2 displays regression analyses of average kWh/day vs average daily temperatures for each month based on the end of the billing cycle. The slopes of the curves define the month as either winter (negative slope) or summer (positive) slope.

Seasonal Regression Analyses

Exhibit 3 displays similar regression analyses with the months grouped together as seasons. The billing cycles for November through May represent the "Winter" billing cycle, July through September represent the "Summer" billing cycle and the months of June and October represent a "Transitional" billing cycle

The *winter billing cycle*, while stated as from November through May, actually encompasses usage from as early as October 7 to as late as May 21. (The billing cycles were changed from 2005 to 2006). These data indicate an excellent relationship between usage and temperature with a correlation coefficient of 0.986 (1.0 is perfect). It says that daily usage is increased by 3.05 kWh for every degree the temperature falls below 60°. In other words; at 60°, usage will be 38 kWh per day and at 20°, it will be increase to 160 kWh per day. For a 30 day billing cycle, this amounts to 1,140 kWh at 60° and 4,800 kWh at 20°. (Note: The solid data points in Exhibit 3 represent calculated points from the general equation of Exhibit 4 and confirm the excellent relationship for the "winter" heating season.)

The *summer billing cycle*, July through September, encompasses usage from as early as June 22 to as late as September 22. While the relationship is not as strong as the winter relationship (correlation coefficient of 0.488), it does show the reversal of the slope indicative of the additional usage required to cool during the summer. It says usage increases by 1.73 kWh per day for every degree of temperature rise above 67°. It estimates the usage at 30.8 kWh at 67° per day and 46.5 kWh per day at 77°. For a 30 day billing cycle, this amounts to 924 kWh at 67° and 1,395 kWh at 77°.

The *transitional billing cycle*, June and October, encompasses usages from May 9 to June 22 and September 8 to October 22 and covers a temperature range from 54 through 67 degrees. The lack of a relationship (correlation coefficient of 0.02) might be explained by these transitional months not being clearly defined as either heating or cooling months.

First Energy's (CEI) tariff schedule for 2006 includes the comment that "Winter Rates shall be applicable in eight consecutive monthly billing periods of October through May". This results in some possible misinterpretation as my billing cycles varied from ending around the 21st of the month to around the 7th of the month. I wonder if a billing cycle ending on October 22nd is a winter month or a summer month. I have the same question for a billing cycle ending on October 7th. And I have similar questions concerning May and possibly June at the other end of the winter month period. A possible solution to this concern might be to state on the bill which rate schedule is being used for each bill. An even better approach would be to include all of the individual rate factors used and the costs associated with each. A novel billing method would be to generate them in a format similar to the one I developed to display First Energy's tariff schedules as shown in Exhibits 5 and 6.

SECTION II - REGRESSION ANALYSES

ELECTRICAL POWER CONSUMPTION AND BILLING

General Regression Equation

Exhibit 4 - Figure 4a, displays the kWh per day usage plotted against the average temperature. It clearly displays a minima in usage occurring within the temperature range from 62° to 71° (consistent with heating required under 62° and cooling required over 71°).

Figure 4b displays the kWh per day usage plotted against the absolute value of the temperature difference from the range of 62° through 71°. This manipulation assumes that neither heating nor cooling is required within this range (essentially the *transitional billing cycle* range). With this manipulation the data generates an excellent relationship (correlation coefficient of 0.97).

Figure 4c displays the original data points from Figure 4a with the curve generated by the regression equation (Usage = 2.99 X Absolute Temperature Difference + 33) superimposed.

These data confirm previous analyses and establish a reasonable factor of 3 as the multiplier for each degree deviation from the range of 62° to 71°. It also reinforces the base level usage for our home to be about 33 kWh per day or about 1,000 kWh per month.

Exhibit 2

Monthly Regression Analyses - kWh / Day Usage vs Average Daily Temp 12/2000 thru 2/2010

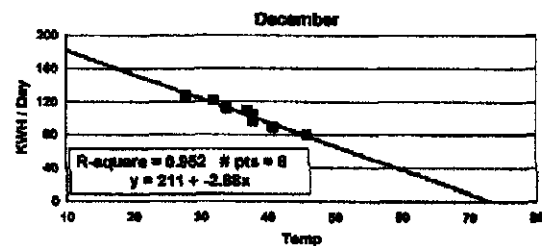
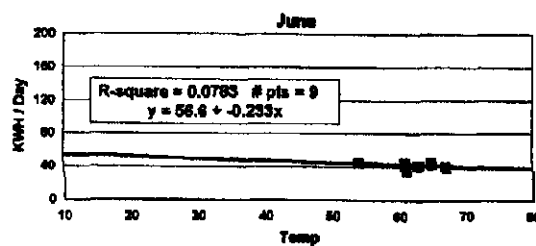
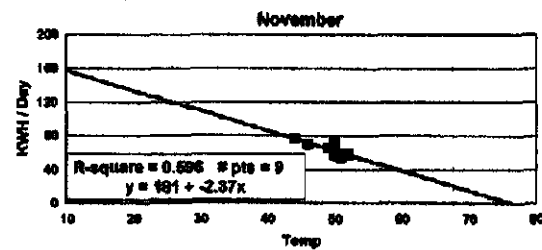
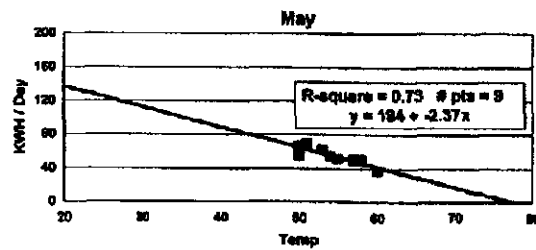
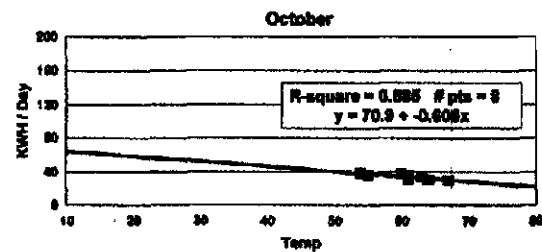
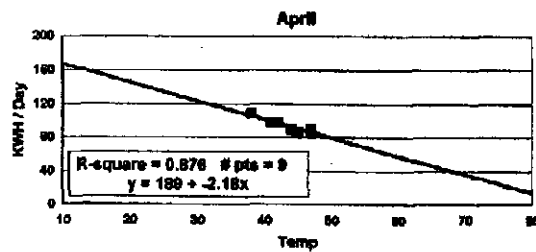
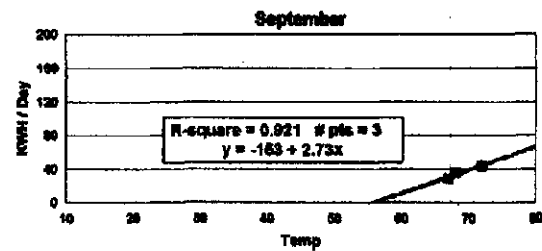
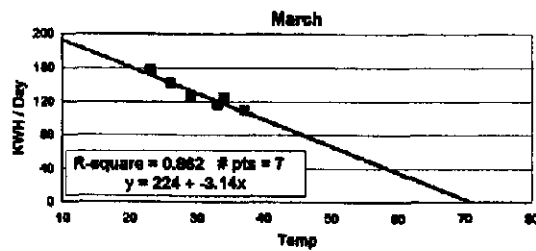
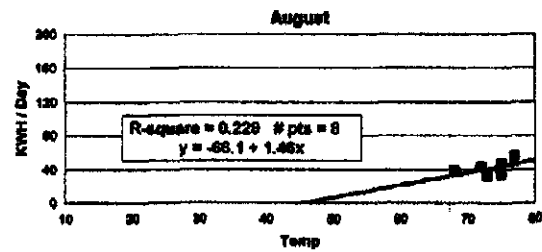
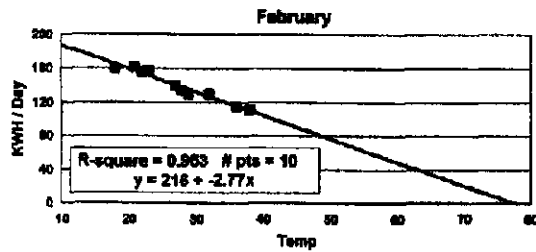
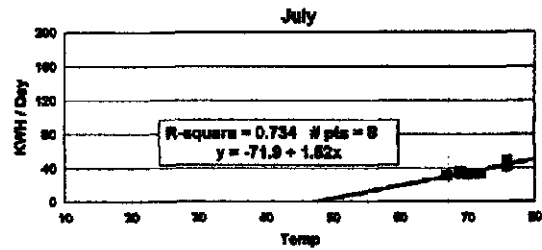
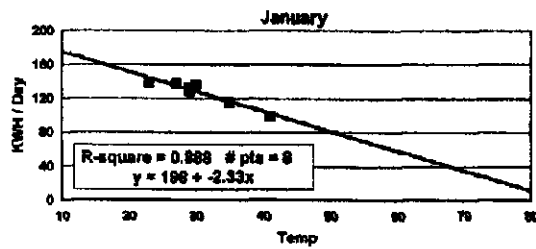


EXHIBIT 3

Seasonal Regression Analysis - kWh / Day Usage vs Average Daily Temperature 12/2000 thru 2/2010

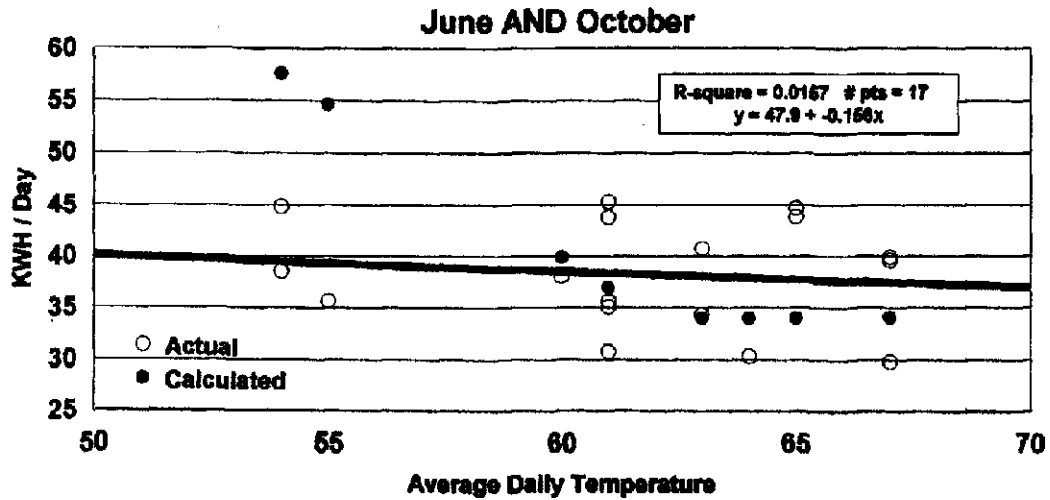
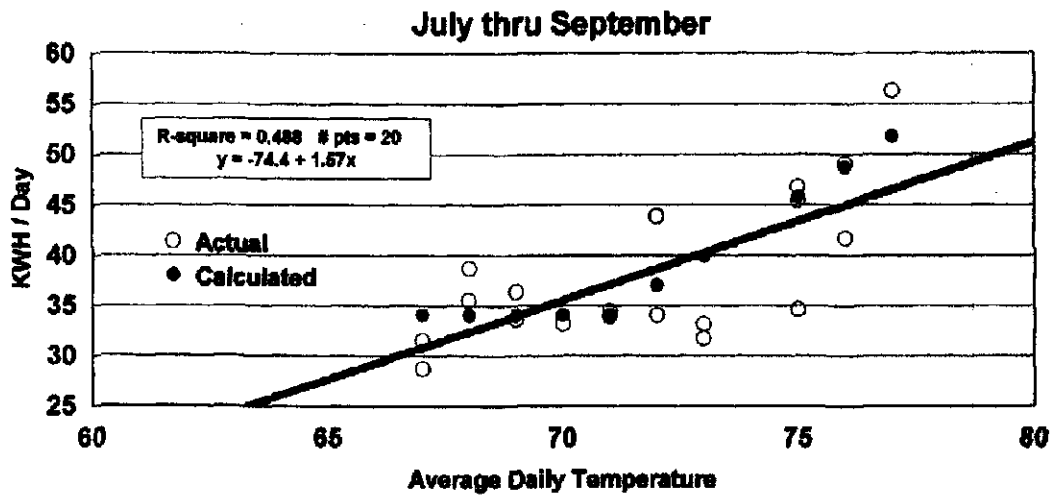
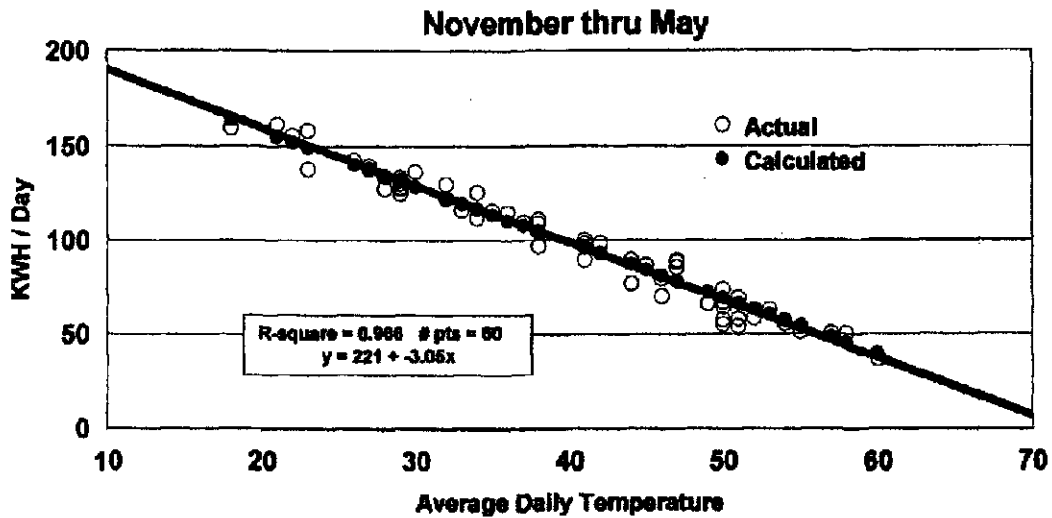


EXHIBIT 4

General Regression Equation - kWh / Day vs Temperature - 12/2000 thru 2/2010

Fig 4a - kWh Usage Per Day vs Average Temperature

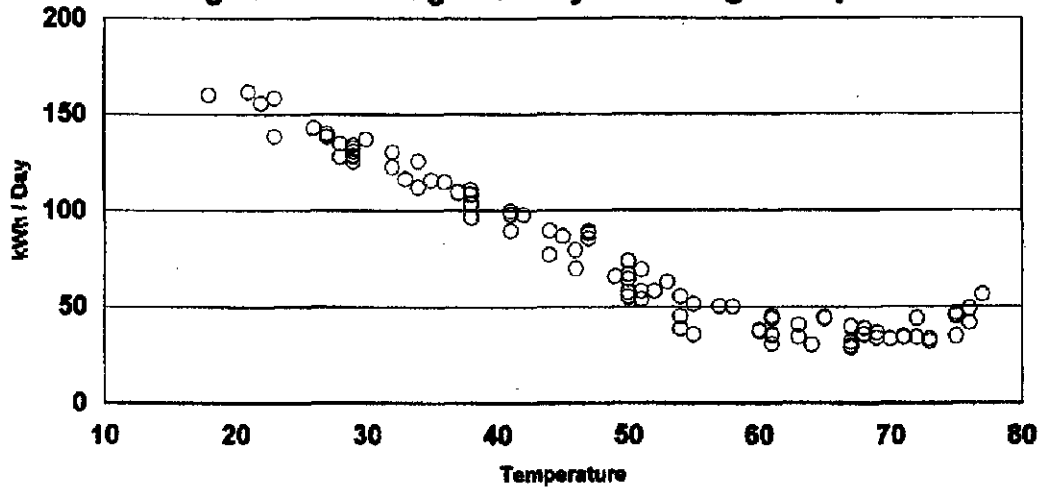


Fig 4b - kWh Usage Per Day vs Absolute Temp Difference

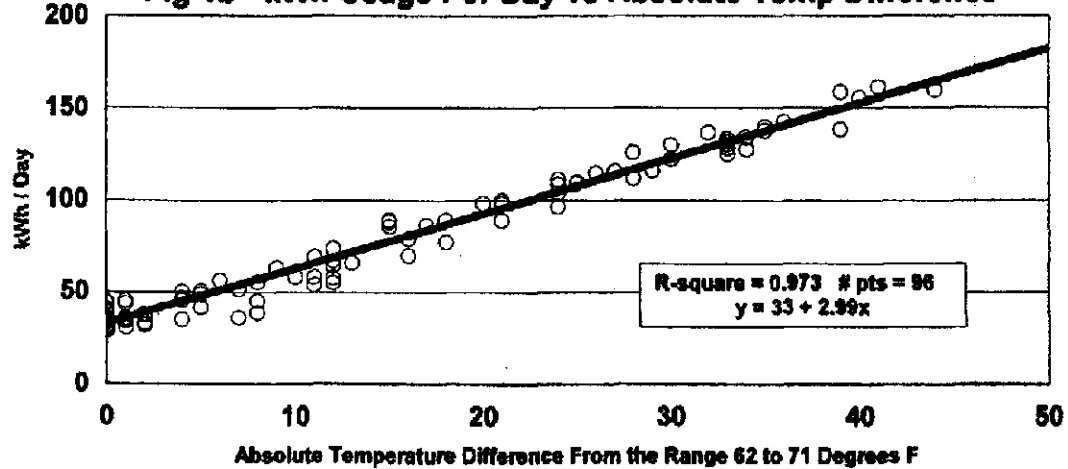
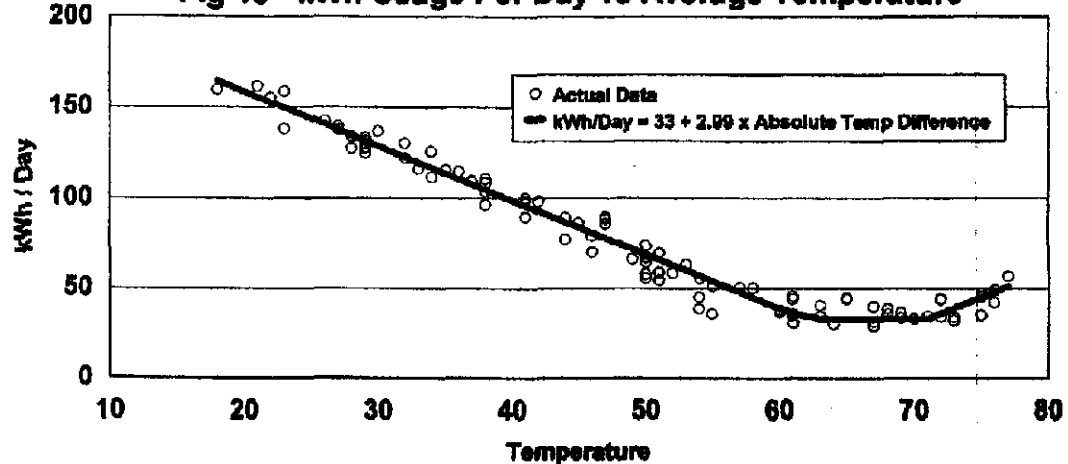


Fig 4c - kWh Usage Per Day vs Average Temperature



SECTION III - RATES COMPARISONS & PRICE INCREASES

ELECTRICAL POWER CONSUMPTION AND BILLING

RATES

Rates

Exhibits 5, 6 and 8 display "CEI Residential Water Heating and Space Heating - Winter Rates" for the years of 2003, 2006 and 2010, respectively. The 2003 data originated from "Rate Sheets" provided by CEI's Customer Service Dept. The 2006 and 2010 data were derived from the "tariffs" on First Energy's web site. To the best of my knowledge all applicable rates (except Load Management tariffs) are included in these exhibits. These exhibits reside on my computer and can be used to generate a detailed billing for any kWh usage. Usage for each Exhibit is set at 4000 kWh for consistency.

Comparison of All-Electric Winter Rates

Exhibit 7 compares the relationships between the major rate classifications from 2003 and 2006. It will be observed that "RTC", "GTC" and "Distribution" exhibit a fixed relationship. The "Next 100 kWh" rate is 68.4% of the "First 500 kWh" rate, the "Next 400 kWh" rate is 60.3% of the "First 500 kWh" rate and the "Over 1000 kWh" rate is 29.0% of the "First 500 kWh" rate. This same relationship, or very close to it, existed in 2003 for the "Transmission" category. These relationships coupled with various riders with similar rate structures combine to give the all-electric homes their discounted rates.

Any attempt to create an identical rate structure for a home heating the house with gas, heating their water with gas and cooking with gas and a home performing the same functions with electricity will always result in a huge rate increases for the all-electric consumer. Mathematically there can be no other outcome.

2010 Rate Increase

Exhibit 8, "CEI Residential Water Heating and Space Heating - Winter Rates" for 2010 was used to calculate each of my winter billings for the years of 2006 through 2009. The percent increase in each bill was then calculated and is displayed both graphically and in a summary table in Exhibit 9.

It is interesting that we just received our March 2010 bill today. The following table compares it to March 2009 and March 2008:

March 2010	Usage 4,315 kWh	Pay this amount	\$440.52
March 2009	Usage 4,019 kWh	Pay this amount	\$234.71
March 2008	Usage 4,703 kWh	Pay this amount	\$248.91

- 2010 Billing is 87.7% higher than 2009 for 7.4% more kWh - Net 81.2% higher
- 2010 Billing is 77.0% higher than 2008 for 8.3% less kWh - Net 92.8% higher

The calculated differences from Exhibit 9 predict a net of 75.1% higher than 2009 and 89.8% higher than 2008.

Rate increases of this order of magnitude will occur every time a flat rate or modified flat rate is adopted. Mathematically, it can not be overcome! It should be totally unacceptable to target the all electric homes with a rate increase that is not identical to the rate increase for the gas / electric homes. The only acceptable means of increasing rates is to apply the same percentage increase to all categories for both all electric and gas / electric homes.

Source - CEI Customer Service

	FIRST 500 (or increment) kWh	NEXT 100 (or increment) kWh	NEXT 400 (or increment) kWh	NEXT 1000 (or increment) kWh	OVER 2000 (or increment) kWh	Total Charges for 4896 kWh Usage
kWh Multipliers for each Usage Increment	500	100	400	1000	2000	
VARIABLE RATE CHARGES & CREDITS						
RTC	0.047440	0.032480	0.028620	0.013760	0.013760	\$79.70
GTC	0.029980	0.020520	0.018080	0.008700	0.008700	\$50.37
Generation Related Component	-0.012610	-0.004560	-0.002500	0.006460	0.005460	\$8.62
Distribution	0.041130	0.026170	0.024810	0.011930	0.011930	\$69.10
Transmission	0.001770	0.001210	0.001070	0.000510	0.000510	\$2.96
Total Variable Rate Factors	0.107710	0.077820	0.070060	0.040360	0.040360	
Total Variable Rate Factor Charges	\$63.88	\$7.78	\$28.03	\$40.38	\$60.72	\$210.76
TRANSITION CREDIT (5% of RTC+GTC-GRC)						(\$6.93)
FIXED RATE NON-RIDER CHARGES						
Ancillary: Scheduling & Dispatch	0.000060	0.000060	0.000060	0.000060	0.000060	\$0.24
Ancillary: Reactive Supply Voltage	0.000110	0.000110	0.000110	0.000110	0.000110	\$0.44
Ancillary: Regulation & Frequency Response	0.000070	0.000070	0.000070	0.000070	0.000070	\$0.28
Ancillary: Spinning Reserve	0.000110	0.000110	0.000110	0.000110	0.000110	\$0.44
Ancillary: Supplemental Reserve	0.000050	0.000050	0.000050	0.000050	0.000050	\$0.20
Total Fixed Rate Non-Rider Factors	0.000400	0.000400	0.000400	0.000400	0.000400	
Total Fixed Rate Non-Rider Charges	\$0.20	\$0.84	\$0.16	\$0.40	\$0.80	\$1.60
FIXED RATE RIDER CHARGES						
Universal Service	0.00054370	0.00054370	0.00054370	0.00054370	0.00054370	\$2.17
EEF Rider	0.00010758	0.00010758	0.00010758	0.00010758	0.00010758	\$0.43
Total Fixed Rate Rider Rate Factors	0.00065128	0.00065128	0.00065128	0.00065128	0.00065128	
Total Fixed Rate Rider Rate Charges	\$0.33	\$0.87	\$0.26	\$0.65	\$1.30	\$2.61
OTHER CHARGES						
State kWh Tax Rate Factors	0.00465000	0.00465000	0.00465000	0.00465000	0.00419000	
State kWh Tax Rate Charges	\$2.33	\$0.47	\$1.86	\$4.65	\$5.38	\$17.69
Muni Dist Tax (1.22% * (Meter Charge + Customer Charge + Distribution + Transition Rate Credit A))						\$0.85
Meter Charge (Fixed = \$3.06)						\$3.06
Customer Charge (Fixed = \$4.53)						\$4.53
Transition Rate Credit (Fixed = \$5.00)						(\$5.00)
TOTAL BILL						\$226.53

EXHIBIT 6

CEI RESIDENTIAL WATER HEATING AND SPACE HEATING - WINTER RATES 2006

Source - First Energy Website (CEI)

	FIRST 500 (or increment) kWh	NEXT 100 (or increment) kWh	NEXT 400 (or increment) kWh	NEXT 1000 (or increment) kWh	OVER 2000 (or increment) kWh	Total Charges for 4000 kWh Usage
kWh Multipliers for each Usage Increment	500	100	400	1000	2000	
VARIABLE RATE CHARGES & CREDITS						
Distribution [Dist]	0.041130	0.028170	0.024810	0.011930	0.011930	\$69.10
Rate Stabilization [GTC]	0.029980	0.020520	0.018080	0.008700	0.008700	\$50.37
Regulatory Transition [RTC]	0.047440	0.032480	0.028620	0.013760	0.013760	\$79.70
Trans & Anc Svc (19) [Transmission]	0.004406	0.003269	0.002984	0.001847	0.001847	\$9.27
Generation Charge [GRC]	-0.012810	-0.004790	-0.002700	0.005260	0.005260	\$7.82
Total Variable Rate Factors	0.110148	0.079649	0.071794	0.041497	0.041497	
Total Variable Rate Factor Charges	\$55.07	\$7.96	\$28.72	\$41.50	\$82.99	\$216.25
Credit F (12) (- 12.8% * RTC)						(\$10.20)
OTHER CHARGES						
Universal Service Rider (14)	\$0.00084	\$0.00084	\$0.00084	\$0.00084	\$0.00084	\$3.36
State kWh Tax Rate Factors	0.00465000	0.00465000	0.00465000	0.00465000	0.00419000	
State kWh Tax Rate Charges	\$2.33	\$0.47	\$1.86	\$4.86	\$8.38	\$17.68
Muni Dist Tax (16) (1.358% * Distribution)						\$0.94
Customer Charge						\$4.53
Temp Energy Eff Rider (15)						\$0.09
Credit E (12)						(\$5.00)
TOTAL BILL						\$227.65

EXHIBIT 7
CEI RESIDENTIAL WATER HEATING AND SPACE HEATING
WINTER RATE RELATIONSHIPS

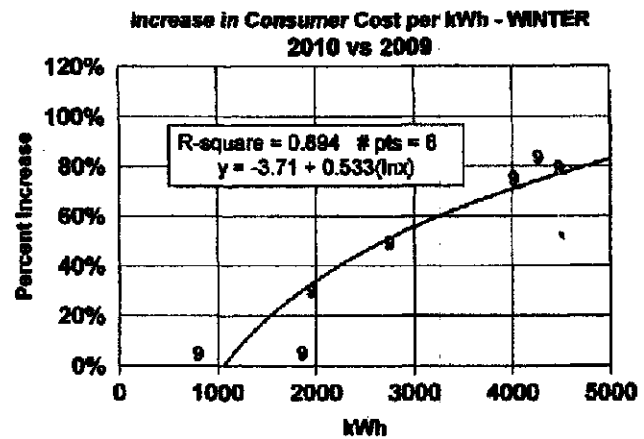
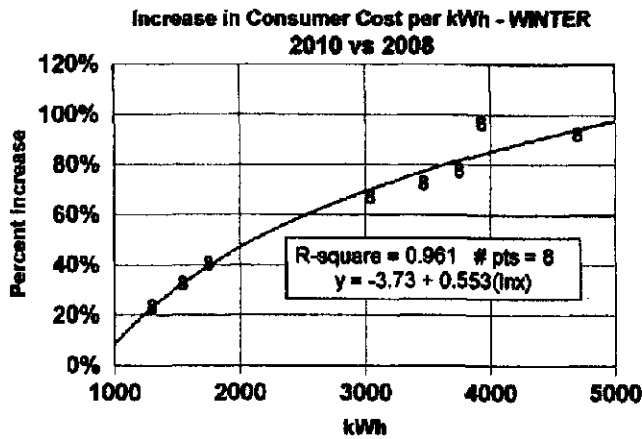
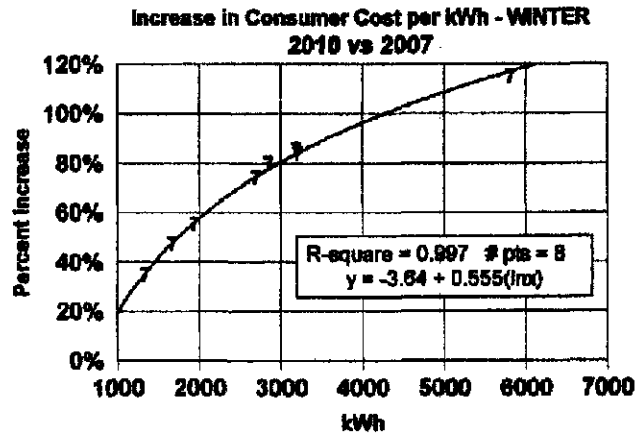
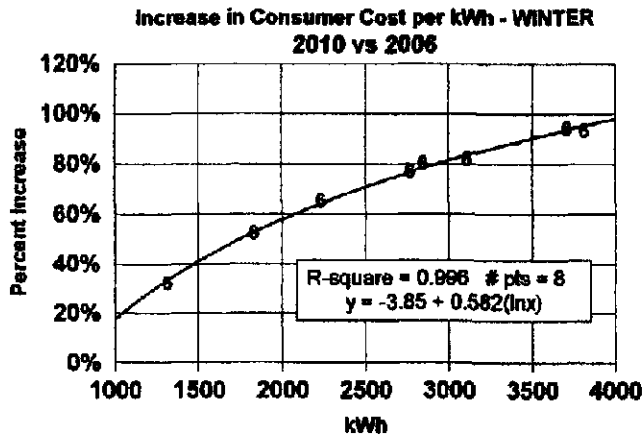
Rate Category	Year	FIRST 500 kWh Actual Rate	NEXT 100 As a % of the First 500	NEXT 400 As a % of the First 500	NEXT 1000 As a % of the First 500	OVER 2000 As a % of the First 500
RTC	2003	0.047440	68.47%	60.33%	29.01%	29.01%
Regulatory Transition [RTC]	2006	0.047440	68.47%	60.33%	29.01%	29.01%
GTC	2003	0.029980	68.45%	60.31%	29.02%	29.02%
Rate Stabilization [GTC]	2006	0.029980	68.45%	60.31%	29.02%	29.02%
Distribution	2003	0.041130	68.49%	60.32%	29.01%	29.01%
Distribution [Dist]	2006	0.041130	68.49%	60.32%	29.01%	29.01%
Transmission	2003	0.001770	68.36%	60.45%	28.81%	28.81%
Trans & Anc Svc (19) [Transmission]	2006	0.004406	74.19%	67.74%	41.94%	41.94%
Generation Related Component	2003	-0.012610	36.16%	19.83%	-43.30%	-43.30%
Generation Charge [GRC]	2006	-0.012810	37.39%	21.08%	-41.06%	-41.06%
Total Variable Rate Factors	2003	0.107710	72.25%	65.06%	37.47%	37.47%
Total Variable Rate Factors	2006	0.110146	72.31%	65.18%	37.68%	37.68%

CEI RESIDENTIAL WATER HEATING AND SPACE HEATING - WINTER RATES
2010

	SHEET NO.	FIRST 500 (or increment) kWh	NEXT 1500 (or increment) kWh	OVER 2000 (or increment) kWh	Total Charges for 4000 kWh Usage
kWh Multipliers for each Usage Increment		500	1500	2000	
CUSTOMER CHARGE					
Custl Chg	10	(Constant at \$4.00 per Month)			\$4.00
				Sub Total	\$4.00
DISTRIBUTION RELATED COMPONENT					
Dist - Engy	10	0.0295100	0.0295100	0.0295100	\$118.04
Delivery Service Improvement	108	0.0025710	0.0025710	0.0025710	\$10.28
Dist - Uncollectible Engy	99	0.0000000	0.0000000	0.0000000	\$0.00
Dist - Line Ext Cost Recovery - Engy	107	0.0000000	0.0000000	0.0000000	\$0.00
Dist - Res Def Dist Cost - Engy	120	0.0045480	0.0149520	0.0149520	\$54.61
Dist - Res Def Dist Cost - Cust	120	(Constant at -\$1.00 per Month)			(\$1.00)
Dist - DSM / EE1 - Engy	115	0.0001960	0.0001960	0.0001960	\$0.78
Dist - DSE Rider DSE2	115	0.0000000	0.0000000	0.0000000	\$0.00
Dist - DSM / EE2 - Res - Engy	97	0.0003000	0.0003000	0.0003000	\$1.20
Engy Eff Rev Loan Fund	91	(Constant at \$0.09 per Month)			\$0.09
PIPP Uncollectible - Engy	109	0.0000000	0.0000000	0.0000000	\$0.00
State Tax - Tot KWH	92	0.0046500	0.0046500	0.0041900	\$17.68
State kWh Tax (CAT) - Engy	92	(Usually about \$0.06 per Month)			\$0.00
Universal Service	90	0.0019513	0.0019513	0.0019513	\$7.81
				Sub Total	\$209.49
TRANSITION CHARGE					
Regulatory Transition & Transition Rate	89	0.0118490	0.0118490	0.0118490	\$47.40
RT & TR Credit G	89	(Constant at -\$2.25 per Month)			(\$2.25)
RT & TR Credit H	89	(-0.128 X RT & TR)			(\$6.07)
				Sub Total	\$39.08
COST RECOVERY CHARGES					
Gen CEI Delta Rev Rec Engy	112	0.0042290	0.0042290	0.0042290	\$16.92
Gen Cost Rev True Up Engy	103	0.0008780	0.0008780	0.0008780	\$3.51
Trans Def Trans Cost Rec Engy	100	0.0004560	0.0004560	0.0004560	\$1.82
Transmission Engy (TAS2)	83	-0.0019080	-0.0019080	-0.0019080	(\$7.63)
				Sub Total	\$14.62
BYPASSABLE GENERATION & TRANSMISSION COMPONENT					
Gen AER Alt Engy Res Engy	84	0.0035570	0.0035570	0.0035570	\$14.23
Gen EDR (a) Res Crd Engy	116	0.0000000	-0.0190000	-0.0190000	(\$66.50)
Gen Fuel Rider	105	0.0000000	0.0000000	0.0000000	\$0.00
Gen Service Engy (WINTER)	114	0.0630470	0.0630470	0.0630470	\$252.19
Non-Dist Uncollectible Engy	110	0.0004460	0.0004460	0.0004460	\$1.78
Transmission Engy (TAS & TAS1)	83	0.0000000	0.0000000	0.0000000	\$0.00
				Sub Total	\$201.70
RESIDENTIAL DISTRIBUTION CREDIT					
Dist Res Dist Credit Engy	81	0.0000000	-0.0170000	-0.0170000	(\$59.50)
				Sub Total	(\$59.50)
ECONOMIC DEVELOPMENT COMPONENT					
Gen Delta Rev Rec (Ctb) Engy	96	0.0000000	0.0000000	0.0000000	\$0.00
				Sub Total	\$0.00
GRAND TOTAL					\$409.39

EXHIBIT 9

EFFECT OF 2010 RATE INCREASE ON ALL ELECTRIC HOME COSTS



kWh	2010 %-Increase vs 2006 Billing	2010 %-Increase vs 2007 Billing	2010 %-Increase vs 2008 Billing	2010 %-Increase vs 2009 Billing
	Increase = $-3.85 + 0.562 \cdot \ln(\text{kWh})$	Increase = $-3.64 + 0.555 \cdot \ln(\text{kWh})$	Increase = $-3.73 + 0.553 \cdot \ln(\text{kWh})$	Increase = $-3.71 + 0.533 \cdot \ln(\text{kWh})$
500	-23.3%	-19.1%	-29.3%	-39.8%
1000	17.0%	19.4%	9.0%	-2.8%
1500	40.6%	41.9%	31.4%	18.8%
2000	57.4%	57.9%	47.3%	34.1%
2500	70.4%	70.2%	59.7%	46.0%
3000	81.0%	80.4%	69.8%	55.7%
3500	89.9%	88.9%	76.3%	64.0%
4000	97.7%	96.3%	81.7%	71.1%
4500	104.8%	102.9%	87.2%	77.4%
5000	110.7%	108.7%	92.0%	83.0%
5500	116.2%	114.0%	96.3%	88.0%
6000	121.3%	118.8%	100.1%	92.7%