My Experience as a Rates Analyst at FirstEnergy

ABSTRACT

Over the past summer, I was able to work as an intern at FirstEnergy. Headquartered in Akron, Ohio, FirstEnergy is one of the largest electric service companies in the United States. They provide electricity to over six million customers in the midwestern and mid-Atlantic regions of the country. I was able to secure this internship by applying via their company website. My role at the company was as a rates analyst within the Rates & Regulatory Affairs department. During my time as a rates analyst, I was tasked with collecting and analyzing rates data in hopes of providing customers with more affordable electrical bills. My experience at FirstEnergy allowed me to learn about how electric bills are calculated, the various factors that affect the price of electric bills, how the electric service industry operates, as well as gain invaluable skills that will be beneficial to me in the future.

LEARNING OBJECTIVES

The goal of the internship was to successfully integrate interns into the Rates & Regulatory Affairs department at FirstEnergy. This was done by placing interns into the various teams of the Rates & **Regulatory Affairs department and have them** complete assignments and projects alongside other department members.



Figure 1. FirstEnergy Headquarters in Akron, Ohio

Mahamoud Musleh

FirstEnergy

Figure 2. FirstEnergy Company Logo

PROJECTS

- **Affordability Trend Analysis**
- 2022 Winter/Summer Total Bill Breakdown
- 2022 Winter/Summer Delivery Bill Analysis
- Base Rate Case Research
- JCP&L 2022 Summer EEI Survey
- JCP&L 2022 Customer Bill Inserts

Example 1			
RS –Residential Service			
This Service Classification is available to associated incidental nonresidential use residential use.		•	
	Customers using 1,200 kWh per month would compute their bills		
Summer Rate (June - September)	as follows:		
Customer Charge \$3.25	Customer Charge	\$ <mark>3.25</mark>	
Basic Generation Svc.* First 600 kWh @ 8.6367¢ per kWh Over 600 kWh @ 9.5592¢ per kWh Delivery Charges	600 kWh x . <mark>086367</mark> 600 kWh x . <mark>095592</mark>	51.82 57.36	
First 600 kWh @ 3.0685¢ per kWh Over 600 kWh @ 8.3650¢ per kWh	600 kWh x . <mark>030685</mark> 600 kWh x . <mark>083650</mark>	18.41 50.19	
	Total Bill	\$181.03	
Winter Rate (October - May)	Customers using 1,200 k month would compute th as follows:	uld compute their bills	
Customer Charge \$3.25	Customer Charge	\$ <u>3.25</u>	
Basic Generation Svc.* @ <mark>9.6354</mark> ¢ per kWh Delivery Charges @ <mark>4.2125</mark> ¢ per	1,200 kWh x .096354 1,200 kWh x .042125	115.62 50.55	
kWh	Total Bill	\$169.42	

Special Provision "a" Customers on this rate have electric water heaters and a separate meter, which measures electricity used to heat water during off-peak hours (8 p.m. to 8 a.m. EST, 9 p.m. to 9 a.m. DST). The water heater measures only the kWh used to heat water during off-peak hours. The regular (RS) meter measures all the kWh used. When

calculating bills, the kWh registered on the off-peak meter are subtracted from the RS meter kWh. All off-peak water heating kWh are billed a Basic Generation Service Charge* of 8.9278¢ when winter rates apply, and 8.9490¢ when summer rates apply. In addition, all off-peak water heating kWh are billed a Delivery Charge of 3.2358¢ throughout the year. A monthly supplemental Customer Charge of \$1.70 also is applied to these accounts. (This provision is no longer available and is restricted to those locations where it is now installed.

Example 3

Special Provision "b" Customers who have electric storage type water heaters that meet company specifications and are installed to company requirements, which restrict use of both upper and lower elements to the hours of 11 p.m. to 4 p.m. EST (12 midnight to 5 p.m. DST), have a special meter to measure electricity used to heat water between those hours. All off-peak water heating kWh are billed a Basic Generation Service Charge* of 8.9278¢ when winter rates apply, and 8.9490¢ when summer rates apply. In addition, all controlled water heating kWh are billed a Delivery Charge of 3.8574¢ throughout the year. A monthly supplemental Customer Charge of \$1.70 also is applied to these accounts. (This provision is no longer available and is restricted to those locations where it is now installed.



CONCLUSION

The rates and regulatory affairs area of the utilities industry is very complex as it contains many different pieces that are intertwined. FirstEnergy has done a great job of dividing up these pieces to different teams within the Rates & Regulatory Affairs department. I was fortunate enough to able to work with multiple teams within the department allowing me to experience the different aspects of the industry. The experience I've gained during my time at FirstEnergy will be indispensable to me in the future.

Example 2

RS-OPWH–Residential Service with Off-Peak Water Heating

RS-CTWH–Residential Service with Controlled Water Heating



Figure 4. The Public Utilities Commission of Ohio Logo

FUTURE CAREER PLANS

The next step for me is to continue my education at graduate school after completing my undergraduate degree. I will hopefully be completing a Ph.D. in applied mathematics.

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