

MEMORANDUM

Date: March 2, 2021

To: PUC Commissioners
CC: Will Seuffert
Janet Gonzalez
Ryan Barlow
Financial Analyst Staff

From: Ray Hetherington
Bob Harding

Re: Retail Electric Average Monthly Bills Comparisons

Please find attached a complete set of data showing:

1. Electric Price Comparisons (originally published December 1, 2020 and revised January 22, 2021)
2. 2019 Average Monthly Bill (AMB) Tables (originally published February 4, 2021)
 - a. AMBs All Ownership Types by State
 - b. AMBs All IOUs Only by State
 - c. Minnesota IOU Comparison
 - d. All US IOUs Comparison
3. Historical Nominal Dollar Comparison of MN IOUs Average Monthly Bills to US IOUs
4. Historical Real Dollar Comparison of MN IOUs Average Monthly Bills to US IOUs
5. 2019 Data for Each Individual MN Utility
6. 2019 Comparison of Industrial AMBs of Great River Energy Individual Owner/Members to MN IOUs

The data that these reports and charts are based on (unless otherwise noted) comes from the U.S. Energy Information Administration's (EIA) Annual Electric Power Industry Report, Form EIA-861 detailed data files.¹

Many of the reasons for monitoring retail electric prices are related to the Commission's role in the economic regulation of this sector of the economy. One of the more specific reasons for compiling this information is that in 2017, the Legislature enacted an amendment to the State's energy policy goals statute. The Legislature added the provision, contained in Minn. Stat. § 216C.05, subd. 2[4], that one of the four energy policy goals of the State of Minnesota is that "retail electricity rates for each customer

¹ <https://www.eia.gov/electricity/data/eia861/>

class be at least five percent below the national average.” However, many other policy goals and specific ratemaking objectives can be found elsewhere in Minnesota statutes; including Minn. Stat., Ch. 216B which pertains to the Public Utilities Commission. The following is a complete copy of Minn. Stat. § 216C.05, subd. 2.

Minn. Stat. § 216C.05, subd. 2. Energy policy goals.

It is the energy policy of the state of Minnesota that:

- (1) annual energy savings equal to at least 1.5 percent of annual retail energy sales of electricity and natural gas be achieved through cost-effective energy efficiency;
- (2) the per capita use of fossil fuel as an energy input be reduced by 15 percent by the year 2015, through increased reliance on energy efficiency and renewable energy alternatives;
- (3) 25 percent of the total energy used in the state be derived from renewable energy resources by the year 2025; and
- (4) retail electricity rates for each customer class be at least five percent below the national average.

1. Electric Price Comparisons (1 MN IOU Retail Elec Price Compare 20-11.pdf)

In early December 2020, staff circulated the attached electric price comparison memo updated to include data for 2019 (see “Comparison of 2019 MN Retail Electric Prices – Rev 012221”). This information was presented at a planning meeting in January 2021. Based on questions from Commissioners, we discovered that the “waterfall” charts showing pricing by state for 2019 was mis-labeled. The chart said that it was based on Investor Owned Utility data when, in fact, it was showing data for utilities of all ownership types. On January 22, 2021, a revised memo was distributed, that showed the correct data set for IOUs for the “waterfall” charts. This memo is e-filed in Docket No. E,G-999/PR-20-11.

2. 2019 Average Monthly Bill (AMB) Tables

The data in this February 4, 2021 memo includes four sets of pdf files:

a. Average Monthly Bills (AMBs) All Ownership Types by State (2a 2019 AMB All State.pdf)

The data in this file is in the form of a table that shows the 2019 average monthly bills based on all ownership types. There is one page for each customer class: residential, commercial, and industrial. The averages are sorted in descending order by highest average monthly bill, as indicated in the “High Bill Order” column.

Below is a summary showing the results for Minnesota compared to the US (listed in High Bill Order):

2019 Average Monthly Bills for All Utilities: MN Compared to US

	High Bill Order	High Price Order	State	Revenue (\$000)	Volume	Customer Count	Price ¢/kWH	Avg Mthly Bill \$
Res	25	18	US	187,436,037	1,440,288,909	135,249,616	13.01	115.49
	41	16	MN	2,906,625	22,288,152	2,446,111	13.04	99.02
Comm	16	23	MN	2,369,105	22,904,299	299,995	10.34	658.10
	17	17	US	145,279,763	1,360,876,555	18,694,240	10.68	647.61
Ind	17	18	MN	1,636,945	21,748,034	8,998	7.53	15,160.26
	34	26	US	68,284,892	1,002,352,849	954,222	6.81	5,963.40

b. Average Monthly Bills (AMBs) All IOUs Only by State (2b 2019 AMB IOU State.pdf)

The data in this file is similar to the data in the document referenced above but showing results for only Investor Owned Utilities (IOUs).

Again, below is a summary showing the results for Minnesota compared to the US (listed in High Bill Order):

2019 Average Monthly Bills for Investor Owned Utilities: MN Compared to US

	High Bill Order	High Price Order	State	Revenue (\$000)	Volume	Customer Count	Price ¢/kWH	Avg Mthly Bill \$
Res	21	17	US	111,442,303	781,066,918	78,426,048	14.27	118.42
	48	21	MN	1,340,264	10,149,752	1,331,485	13.20	83.88
Comm	12	26	MN	1,572,334	15,304,350	177,640	10.27	737.60
	16	18	US	84,850,673	665,140,819	10,388,289	12.76	680.66
Ind	4	26	MN	1,107,198	15,362,702	896	7.21	102,975.99
	32	19	US	34,481,750	441,085,065	389,144	7.82	7,384.10

c. Minnesota IOU Comparison (2c 2019 AMB IOU MN Summary.pdf)

This is a single page summary showing the data above but for each individual Minnesota IOU by customer class.

d. All US IOUs Comparison (2d 2019 AMB All US IOUs.pdf)

This is a 12-page report of the same data (4 pages per customer class) showing each individual Investor Owned Utility in the United States. This schedule also highlights corporate ownership for our MN IOUs, so you can view data for their related utilities in other states.

3. Nominal Dollar History AMB 2005-2019 (3 Nom Hist AMB.pdf)

This document contains three line charts (one per customer class) showing the nominal dollar history (actual dollar amounts not adjusted for inflation) of average monthly bills for Minnesota's three regulated IOUs versus the average for all U.S. IOUs.

In addition, each chart has a table showing compound growth rates (CGR) on a rolling cumulative basis (first year is 2005-2006 and final year is 2005-2019). The nominal history shows CGRs by customer class as:

2005-2019 Compound Growth Rate for Average Monthly Bills in Nominal Dollars

	Residential	Commercial	Industrial
United States	2.4%	1.5%	0.0%
Minnesota Power	3.1%	2.5%	5.1%
Otter Tail Power	2.8%	1.9%	6.7%
Xcel Energy	2.3%	2.1%	2.0%

4. Real Dollar History AMB 2005-2019 (4 Real Hist AMB.pdf)

This document contains three line charts (one per customer class) showing the real dollar history (earlier years inflated to the equivalent of 2019 dollars) of average monthly bills for Minnesota's three regulated IOUs versus the average for all U.S. IOUs.

The indexing data for real dollars was based on total GDP from the Bureau of Economic Analysis.²

As above, each chart has a table showing compound growth rates (CGR) on a rolling cumulative basis (first year is 2005-2006 and final year is 2005-2019). The real dollar history shows CGRs by customer class as:

2005-2019 Compound Growth Rate for Average Monthly Bills in Real Dollars

	Residential	Commercial	Industrial
United States	0.6%	-0.3%	-1.8%
Minnesota Power	1.3%	0.7%	3.2%
Otter Tail Power	1.0%	0.1%	4.8%
Xcel Energy	0.5%	0.3%	0.2%

5. 2019 AMB by Class for Each Minnesota Utility (5 2019 MN Utils All.pdf)

This is a 9-page schedule of the same average monthly bill data for 2019 by customer class showing each individual utility in Minnesota. This schedule also highlights Great River Energy owner/members.

²<https://apps.bea.gov/iTable/iTable.cfm?reqid=19&step=2#reqid=19&step=2&isuri=1&1921=survey> Table 1.1.9.

The final page of the report shows a summary by Ownership Type for each customer class. It also shows a percent to total for each ownership type so you can see the relative share of total Minnesota for each statistic. You should note that "EIA Adjustment" is a total that EIA adds to balance their books annually.

6. 2019 Great River Energy (GRE) Industrial Price and AMB (6 2019 MN GRE Industrial.pdf)

The final attachment shows Great River Energy industrial class prices and average monthly bills for each individual member/owner. (25 of 28, 3 member/owners had no industrial customers in 2019.)

The bottom portion shows the data for all of Minnesota and the individual Minnesota investor owned utilities. Please note that the individual IOU prices in 2019 were lower than the composite GRE total price, while the average monthly bills were much higher, representing the relative body of larger customers for the IOUs.