## SECTION 4 - OTHER ELECTRIC UTILITY RATES

Historically, in a non-competitive environment where utility franchise territories were protected, a utility could reasonably set rates on a cost-of-service plus margin basis, or the utility could diverge from the cost study and set rates according to local policy objectives. However, some portions of the country have now been opened to retail competition. Although retail competition may be many years away in this area, it is still important to understand the competitive position of the utility for other reasons such as economic development. The information in this section is also useful in examining the various methods used by the utilities to recover costs from the different classes.

## DIFFERENCE OF RATES AMONG MEMBER UTILITIES

Electric rates vary from utility to utility due to several factors. Some of the differences may be explained by the following factors:

- The percentage of power purchased from the Western Area Power Administration in comparison to the power purchased from Missouri River Energy Services (MRES)
- The cost of transmission for wheeling power from the generation source to the city gate
- The equitability of the rates across the various customer classes
- The blend of retail customers, such as the percentage of industrial energy sales to the percentage of residential and small commercial sales
- The percentage of revenues that is transferred to other non-electric funds
- The amount of expenses that may be subsidized by other utilities, for example, the electric utility paying for other city utilities' labor and / or other expenses
- The amount of funds spent in recent years on capital improvement projects, which correlates to the condition and reliability of the distribution system
- The amount of annual debt service, along with the covenants and restricted reserves
- The level of cash reserves and the governing board's philosophy towards reserves

## RATE CLASSES INCLUDED IN THE COMPARISONS

To compare Fort Pierre to other utilities, MRES chose rates that would be charged to customers in the Residential, Small Commercial, and Large Commercial classes. The rates chosen were the basic rates offered by the utilities that would be applicable to the majority of the customers in the classes. These rates are not representative of all the different types of rates that are available.

## UTILITIES INCLUDED IN THE COMPARISONS

MRES chose the rates of four investor-owned utilities, four municipal utilities, and one local rural electric cooperative for comparison purposes. For utilities that bill an energy adjustment, the factors are based on the average of the 12 monthly adjustments for 2007.

- Montana-Dakota Utilities (South Dakota rates)
  Bismarck, North Dakota

- NorthWestern Corporation (South Dakota rates)
  Huron, South Dakota

- Otter Tail Power (South Dakota rates)
  Fergus Falls, Minnesota

- Xcel Energy (South Dakota rates)
  Sioux Falls, South Dakota

- Beresford Municipal Utilities
  Beresford, South Dakota

- Flandreau Municipal Utilities
  Flandreau, South Dakota

- Pierre Municipal Utilities
  Pierre, South Dakota

- Winner Municipal Utilities
  Winner, South Dakota

- West Central Electric Cooperative
  Murdo, SD

## Residential Rates

| Utility | Monthly Customer Charge | Energy Charge (per kWh) | Energy Block (kWh) | Energy Adjustment (per kWh) |
|---|---|---|---|---|
| Ft. Pierre | $8.00 | $0.05990<br>0.05170<br>0.00880 | 0-500<br>Over 500<br>Generation Surcharge | $- |
| Montana-Dakota Utilities | 6.00 | 0.09210<br>0.08504<br>0.06964 | 0-450<br>451-750<br>Over 750 | 0.00669 |
| NorthWestern Corporation | 5.00 | <br>0.06146<br>0.06046<br>0.05446<br>0.04346<br>0.02046<br><br>0.004628<br>0.002865 | <u>Base Charges:</u><br>0-200<br>201-800<br>801-1,000<br>1,001-1,200<br>Over 1,200<br>Plus:<br>All (Delivered Cost of Energy)<br>All (Ad Valorem Taxes) | 0.02048 |
| Otter Tail Power Company | 5.80 | 0.07579<br>0.06453<br>0.05129 | 0-200<br>201-1,000<br>Over 1,000 | 0.01185 |
| Xcel Energy | 8.55 | 0.07250<br>0.06260<br>0.05750<br>0.04280 | All (June – Sep.)<br>0-1,000 (Oct. – May)<br>Over 1,000 (Oct. – May)<br>Space Heating Over 1,000 (Oct. – May) | 0.01740 |
| Beresford | 10.80 | 0.07980 | All | - |
| Flandreau | 9.40 | 0.05720 | All | - |
| Pierre | 8.50 | 0.05900 | All | - |
| Winner | 10.50 | 0.06800 | All | - |
| West Central Electric Cooperative | - | 0.20000<br>0.07800<br>0.06800<br>0.06000 | 0 - 150<br>151 - 350<br>351 - 500<br>Over 500 | 0.00300 |

## Small Commercial Rates

| Utility | Monthly Customer Charge | Energy Charge (per kWh) | Energy Block (kWh) | Energy Adjustment (per kWh) |
|---|---|---|---|---|
| Ft. Pierre | | | | $- |
| Single-phase | $14.00 | $0.06350 | 0-500 | |
| Three-phase | 18.00 | 0.05680 | Over 500 | |
| | | 0.00880 | Generation Surcharge | |
| Montana-Dakota Utilities | 12.00 | 0.08173 | 0-2,000 | 0.00669 |
| | | 0.06006 | 2,001-10,000 | |
| | | 0.05441 | Over 10,000 | |
| | | - | 0-10 kW | |
| | | 5.00 | Over 10 kW | |
| NorthWestern Corporation | 8.00 | | Base Charges: | 0.02048 |
| | | 0.08310 | 0-200 | |
| | | 0.07310 | 201-1,000 | |
| | | 0.07310 | Over 1,000 (June-Sept) | |
| | | 0.05810 | Over 1,000 (Oct-May) | |
| | | | Plus: | |
| | | 0.00357 | All (Delivered Cost of Energy) | |
| | | 0.00413 | All (Ad Valorem Taxes) | |
| Otter Tail Power Company | 6.00 | 0.08275 | 0-1,000 | 0.01185 |
| | | 0.07141 | 1,001-2,000 | |
| | | 0.05237 | Over 2,000 | |
| | | 0.04268 | All kWh in excess of 200 per kW | |
| | | 2.15 | All kW over 10 kW | |
| Xcel Energy | 7.25 | 0.06830 | All (June – Sep.) | 0.01740 |
| | | 0.05830 | All (Oct. – May) | |
| Beresford | 16.25 | 0.07250 | All | - |
| Flandreau | 16.65 | 0.06140 | All | - |
| Pierre | 16.00 | 0.06300 | All | - |
| Winner | 15.00 | 0.07250 | All | - |
| West Central Electric Cooperative | - | 0.20000 | 0-150 | 0.00300 |
| | | 0.09200 | 151-2,500 | |
| | | 0.06000 | Over 2,500 | |

## Large Commercial Rates

| Utility | Monthly Service Charge | Demand Charge (per kW) | Demand Block (kW-mos.) | Energy Charge (per kWh) | Energy Block (kWh) | Energy Adjustment (per kWh) |
|---|---|---|---|---|---|---|
| Ft. Pierre | $25.00 | $9.8483 | All | $0.03300<br>0.00880 | All<br>Generation Surcharge | $- |
| Montana-Dakota Utilities | | | | | | |
| Over 50 kW | 15.00 | 5.00 | All | 0.06262<br>0.04937<br>0.04467 | 0-2,000<br>2,001-10,000<br>Over 10,000 | 0.00669 |
| Over 200 kW | 20.00 | 4.25 | All | 0.03189 | All | 0.00669 |
| NorthWestern Corp. | | | | | | |
| Under 100 kW | - | 6.13<br><br>1.09<br><br>0.675 | All<br>Plus:<br>All (Delivered Cost of Energy)<br>All (Ad Valorem Tax) | 0.05358<br>0.03658<br>0.02158<br>0.01158 | 0-100 kWh per kW<br>101-400 kWh per kW<br>401-500 kWh per kW<br>Over 500 kWh per kW | 0.02048 |
| Over 100 kW | - | 6.13<br>5.43<br>4.73<br><br>1.09<br><br>0.675 | 0-100<br>101-500<br>Over 500<br>Plus:<br>All (Delivered Cost of Energy)<br>All (Ad Valorem Tax) | 0.03258<br>0.01558<br>0.01058<br>0.00558 | 0-100 kWh per kW<br>101-400 kWh per kW<br>401-500 kWh per kW<br>Over 500 kWh per kW | 0.02048 |
| Otter Tail Power | | | | | | |
| Primary | 25.50 | 6.75<br>4.85 | 0-100<br>Over 100 | 0.03362<br>0.02449 | 0-360 kWh per kW<br>Over 360 kWh per kW | 0.01185 |
| Secondary | 25.50 | 7.05<br>5.15 | 0-100<br>Over 100 | 0.03415<br>0.02498 | 0-360 kWh per kW<br>Over 360 kWh per kW | 0.01185 |
| Xcel Energy | | | | | | |
| Primary | 15.25 | 8.55<br>5.94 | June-Sep.<br>Oct.-May | 0.03030<br>(0.0055) | All<br>Over 360 kWh per kW | 0.01740 |
| Secondary | 15.25 | 9.35<br>6.74 | June-Sep.<br>Oct.-May | 0.03090<br>(0.0055) | All<br>Over 360 kWh per kW | 0.01740 |
| Beresford | 26.40 | 11.29 | All | 0.03750 | All | - |
| Flandreau | 41.60 | 9.56 | All | 0.02700 | All | - |
| Pierre | 25.00 | 8.00 | All | 0.03000 | All | - |
| Winner | 25.00 | 7.30 | All | 0.04400 | All | - |
| West Central Electric Cooperative | - | - | All | 0.20000<br>0.09000<br>0.07500<br>0.06000 | 0-150<br>151-2,500<br>2,501 – 5,000<br>Over 5,000 | 0.00300 |

## SECTION 5 - PROPOSED RATES

Several factors were considered in determining the proposed rates:

- Current rates
- Projected operating results (Section 2)
- Costs to serve each customer class (Section 3)
- Other utility rates (Section 4)
- Fort Pierre Municipal Utilities policies and objectives

## RATE DESIGN

Rate increases will be necessary over the next three years due to rising wholesale power and distribution costs. A portion of the increases is also necessary to build cash reserves. **Implementing the proposed rates shown on the next page would result in a 15% overall increase in 2009. Based on current projections, additional increases of 7% in 2010 and 4% in 2011 will likely be necessary.** The Appendix shows the proposed 2010 and 2011 rates, which may need to be changed during each year's budget process based on revenue requirements.

### Proposed Rate Recommendations

1. Increase the monthly customer charges for all three rate classes. The customer charge, which does not include any kWh usage, recovers the costs of serving customers in areas such as meter reading, meter maintenance, billing and record keeping, along with a portion of facilities costs.

2. Implement seasonal energy rates in the Residential class. From June through September, Residential customers would pay a higher energy rate to reflect higher wholesale power costs during those months. Residential power usage patterns in the summer tend to increase average power costs for the utility. In the future, Fort Pierre may wish to consider seasonal rates for all customer classes. In the months of October through May, customers would be charged a lower rate for monthly usage over 750 kWhs. Much of the usage above 750 kWhs is by customers with electric heating who often have a higher load factor and thus a lower cost of service than other Residential customers. This lower rate would also keep electric rates more competitive with other heating sources.

3. Charge a flat energy rate for all usage by Small Commercial customers. Currently, approximately 75% of usage is billed in the last energy rate block, which includes usage over 500 kWhs per month. This change would simplify the rate schedule and better reflect the costs of providing service.

4. Increase the Residential and Small Commercial rates by greater percentages than the Large Commercial rates. Both the cost-of-service study discussed in Section 3 and the rate comparisons discussed later in this section indicate that Large Commercial customers are paying more than they should based on the costs of serving them and based on what they would pay to other area utilities.

As a result of the 2009 proposed rates, a Residential customer with usage of 1,000 kWhs per month would see an increase of $15.40 per month from June through September, and $12.15 per month from October through May. The average increase at 1,000 kWhs would be $13.23 per month, or 18.2%.

Most Small Commercial customers would see an increase of 17% to 21% in 2009, with customers using more energy seeing slightly higher increases.

Finally, Large Commercial customers would see increases of 5% to 12% in 2009. Customers with higher load factors would have a smaller increase. Load factor is the relationship between the peak demand of the customer and quantity of energy usage. A higher load factor indicates more consistent and efficient use of power and the distribution system. (Most Fort Pierre Large Commercial customers have average load factors between 25% and 60%).

**Current and Proposed Rates**

| Customer Class | Rate Components | Current Rates | 2009 Proposed Rates | 2009 Percent Change (A) |
|---|---|---|---|---|
| **Overall Increase** | | | **15.0%** | |
| Residential | Customer Charge | $8.00 | $9.00 | |
| | Energy Charge – per kWh | | | |
| | All Months | | | 18.2% |
| | 0-500 kWh | 0.0599 | | |
| | Over 500 kWh | 0.0517 | | |
| | June-September | | 0.070 | |
| | October –May | | | |
| | 0-750 kWh | | 0.070 | |
| | Over 750 kWh | | 0.057 | |
| Small Commercial | Customer Charge | | | |
| | Single Phase | 14.00 | 15.00 | |
| | Three Phase | 18.00 | 20.00 | 18.6% |
| | Energy Charge – per kWh | | | |
| | 0-500 kWh | 0.0635 | | |
| | Over 500 kWh | 0.0568 | | |
| | All kWh | | 0.072 | |
| Large Commercial (Over 25 kW) | Customer Charge | 25.00 | 28.00 | |
| | Energy Charge | 0.033 | 0.033 | 7.5% |
| | Demand Charge | 9.8483 | 11.25 | |
| Outside City Limits Surcharge | All kWh | 0.0215 | 0.023 | 7.0% |
| Generation Surcharge | All kWh | 0.0088 | 0.009 | N/A |
| Security Lights | Monthly Charge | 10.00 | 10.00 | 0.0% |
| Street Lights | Energy Charge – All kWh | No Charge | 0.080 | N/A |

(A) Percentage changes include generation surcharge revenues under current and proposed rates.

## Other Observation

Prior to 2003, the City of Fort Pierre was charged a discounted rate for usage at various city facilities. In 2003, these meters were moved to the full commercial rates. Consistent with this change, MRES suggests that the electric utility begin billing the City of Fort Pierre for street lighting at a rate of $0.08 per kWh. Currently, there is no charge, but most utilities bill for street lighting so that the utility receives revenue for all electric service that is provided. The rate would recover not only the cost of power but also the costs of providing and maintaining street lights and poles, along with a small portion of distribution system costs. The annual revenues would be approximately $48,000 based on estimated street lighting energy of 600,000 kWhs. The utility could then either retain the additional revenues or transfer the amounts back to the City at the end of the year at the Council's discretion.

The rate study has assumed no additional net revenues from street lighting at this time. If this change is made in the future, the proposed rates could be reduced by approximately 2%, or these amounts could be used to build electric utility cash reserves.

## Targeted Minimum Reserve Level

Maintaining adequate reserve levels is always important, and especially in the electric utility industry since it is very capital intensive. In a study of 64 area municipal utility financial statements, MRES found that the median level of cash as a percentage of operating revenues was 55% for these utilities. Since the electric utility had a cash deficit at the end of three of the past four years, Fort Pierre had the lowest cash reserves among those 64 utilities.

MRES recommends a targeted minimum reserve level of $600,000, which would be about 24% of 2012 operating revenues under proposed rates. This total excludes restricted bond reserves.

Maintaining at least this reserve level would provide for unanticipated expenses or contingencies that may arise. MRES recommends reserves for the following purposes:

- Capital improvements and equipment replacement fund would include a minimum of $150,000, which is equal to two years of average cash outlay.

- Operations fund would include $350,000, or two months of operating expenses along with operating transfers. This fund would include the cash needed for daily operating costs, including paying the wholesale power bills and payroll.

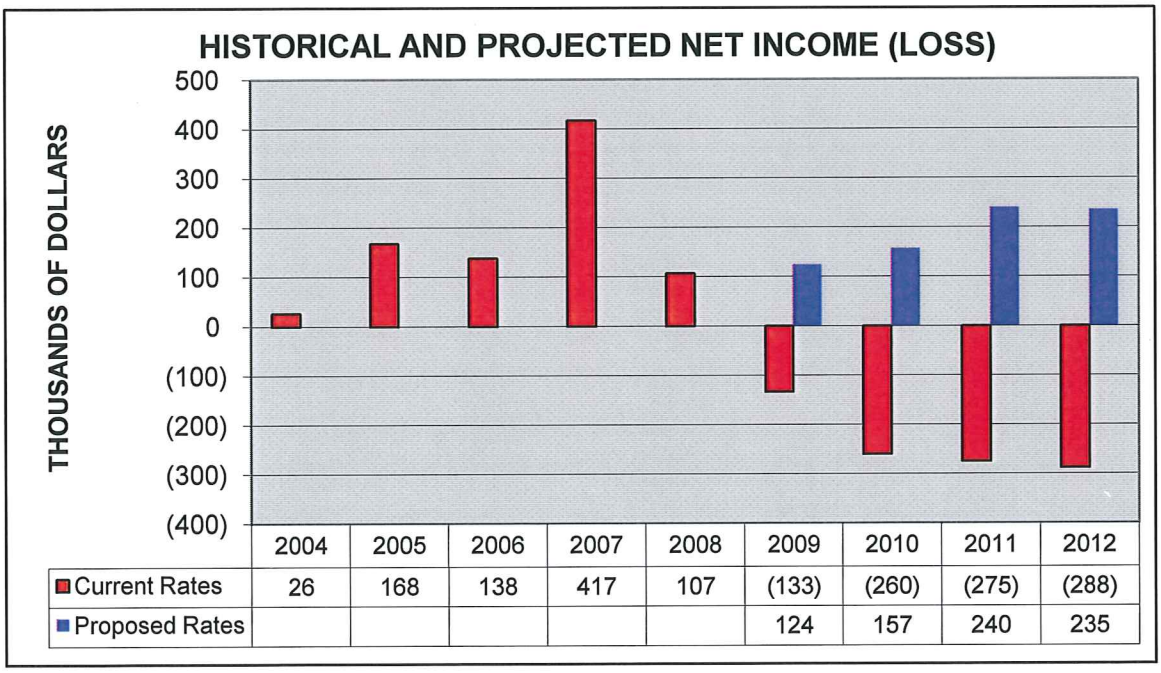
- Contingencies and emergencies fund would include $100,000 to cover unexpected expenses or lost revenues due to storm damage; bankruptcy or closing of a large customer; substation failure; or other catastrophes. This fund would also pay any expenses until insurance reimbursement or government aid occurs.

## PROJECTED OPERATING RESULTS AT PROPOSED RATES

The table below shows the projected operating revenues, revenue requirements, and net income **assuming the implementation of increases of 15% in 2009, 7% in 2010, and 4% in 2011.** Depending on any changes to the key assumptions primarily discussed in Sections 1 and 2, additional rate increases may be necessary.

| Projected Annual Operating Results (Proposed Rates) | | | | |
|---|---|---|---|---|
| **Year** | **2009** | **2010** | **2011** | **2012** |
| Projected Operating Revenues | $2,233,585 | $2,402,562 | $2,523,091 | $2,550,851 |
| Projected Revenue Requirements | 2,110,053 | 2,245,865 | 2,283,554 | 2,316,290 |
| **Net Income** | **$123,532** | **$156,697** | **$239,537** | **$234,561** |
| Net Income as a Percent of Revenues | 5.5% | 6.5% | 9.5% | 9.2% |

The following graph shows the historical and projected net income or loss with projected amounts shown under proposed rates. Under the proposed rates, income would increase to around $240,000 in 2011.

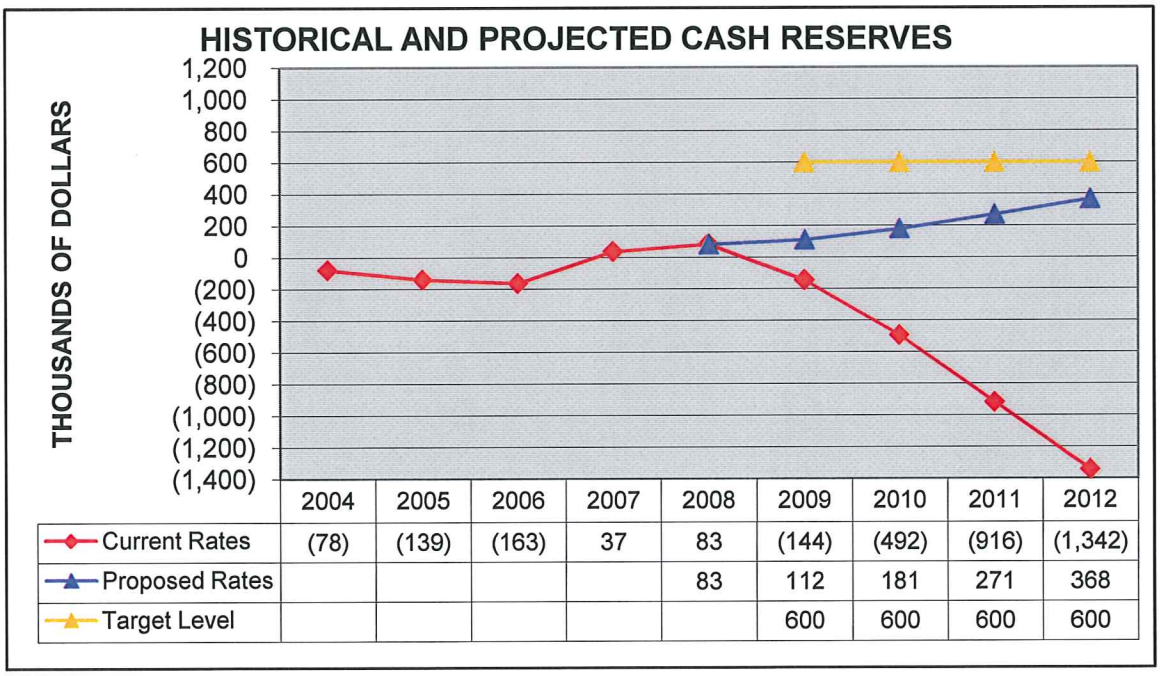


## PROJECTED OPERATING RESULTS AT PROPOSED RATES (CONTINUED)

The following table and graph shows projected reserves under proposed rates. Reserves would increase slowly in 2009 and 2010 before rising to around $370,000 in 2012, based on the proposed increases and current cost projections. Additional increases may be necessary after 2011 to reach the targeted minimum reserve level of $600,000.

**Projected Cash Reserves (Proposed Rates)**

| Year | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|
| Projected Operating Revenues | $1,930,080 | $2,233,585 | $2,402,562 | $2,523,091 | $2,550,851 |
| Beginning of Year Reserves | $36,565 | $82,925 | $112,390 | $181,003 | $271,086 |
| Addition (Reduction) of Reserves | 46,360 | 29,465 | 68,613 | 90,083 | 97,348 |
| **End of Year Reserves** | **$82,925** | **$112,390** | **$181,003** | **$271,086** | **$368,434** |
| Reserves as a Percent of Revenues | 4% | 5% | 8% | 11% | 14% |
| Targeted Min. Level | N/A | $600,000 | $600,000 | $600,000 | $600,000 |




*Reserves exclude funds restricted by bond covenants

## CUSTOMER BILLS AND AVERAGE REVENUE PER KWH GRAPHS

Exhibits 5-A through 5-E at the end of this section contain graphs of customer bills for the Residential and Small Commercial classes and average revenue per kWh for the Large Commercial class.

All five graphs are calculated under current rates and proposed rates. The averages on 5-E can be used to calculate the bills under both sets of rates by knowing the load factor for these customers. In these graphs as well as the comparisons discussed next, the generation surcharge has been added to the base rates to determine customer bills.

## COMPARISONS TO OTHER UTILITIES

Exhibits 5-F through 5-H at the end of this section contain comparisons between Fort Pierre and the regional utilities whose rates were listed in Section 4. The comparisons, using the rates shown in that section, are based on the following levels of usage per month:

- Residential – Average usage of 1,000 kWhs
- Small Commercial (Single Phase) – Average usage of 2,000 kWhs
- Large Commercial – 46,000 kWhs and average demand of 150 kW (42% Load Factor)

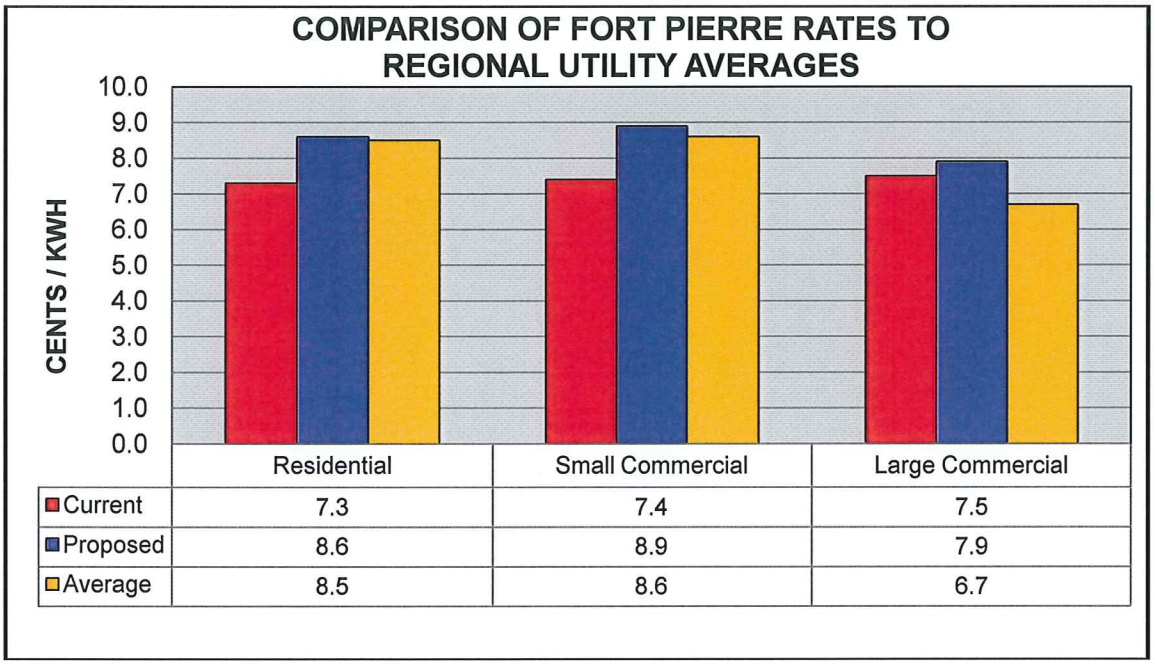
The top portion of each exhibit shows bills calculated using the various utilities' rates, and the bottom portion shows the percentage differences between other utilities and proposed Fort Pierre rates.

The last two graphs on the next page summarize the rate comparison information. The first graph compares cents per kWh for each class using the calculated bills and three sets of values: current Fort Pierre rates, 2009 proposed Fort Pierre rates, and an average of 9 regional utilities.

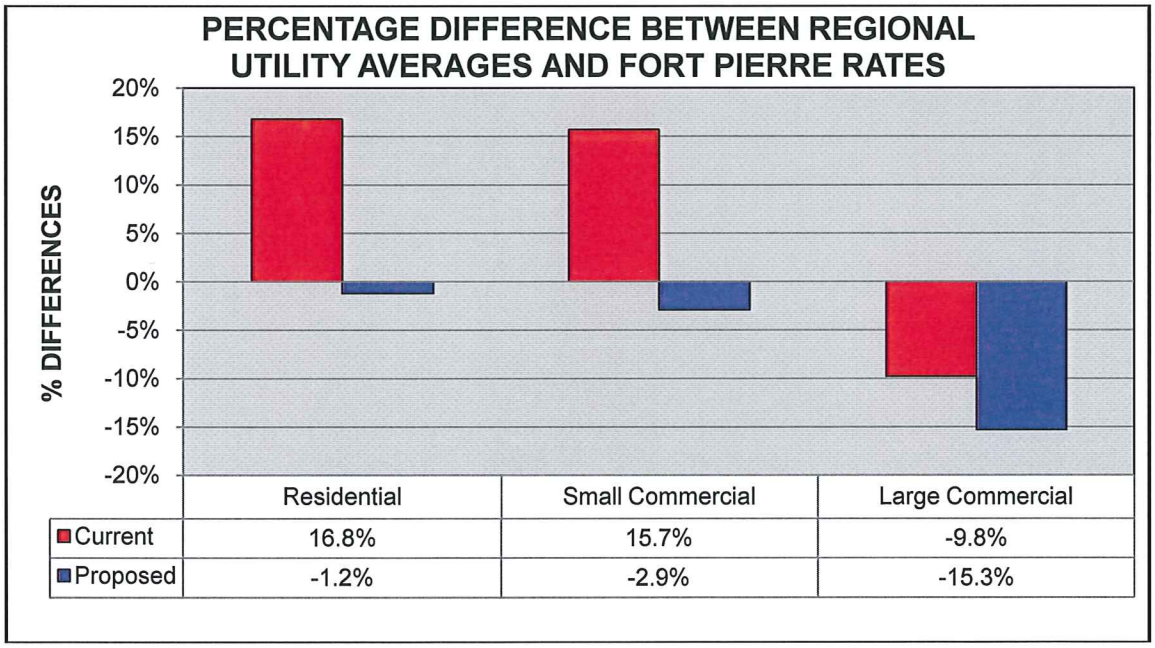
The second graph shows the percentage differences between the regional utility average and both the current and 2009 proposed Fort Pierre rates. This graph indicates that for Residential and Small Commercial customers, the regional utility average is 16% to 17% higher than Fort Pierre rates. Meanwhile, the utility average is 10% lower than Fort Pierre for Large Commercial customers.

After the 2009 rate adjustments, the regional utility averages will be 1% to 3% lower than Fort Pierre's rates for Residential and Small Commercial customers, and 15% lower for Large Commercial customers. However, several other utilities are experiencing cost pressures and may increase rates or pass along increased costs through their electric cost adjustment in 2009.

## COMPARISONS TO OTHER UTILITIES (CONTINUED)




| | Residential | Small Commercial | Large Commercial |
|---|---|---|---|
| Current | 7.3 | 7.4 | 7.5 |
| Proposed | 8.6 | 8.9 | 7.9 |
| Average | 8.5 | 8.6 | 6.7 |




| | Residential | Small Commercial | Large Commercial |
|---|---|---|---|
| Current | 16.8% | 15.7% | -9.8% |
| Proposed | -1.2% | -2.9% | -15.3% |