Rate making is a cornerstone of electric cooperatives’ financial strength. It is also one of the most crucial forms of communication between electric cooperatives and their members.

Sheldon C. Petersen (CFC) & Jim Matheson (NRECA)
Rate design is the process of establishing the actual rates (or charges) that are used to bill members each month. Here are answers to the four most frequently asked rate design questions from members. There are many more in the Frequently Asked Questions section at the back of this brochure. If you have unanswered questions after you’ve taken a closer look—give us a call at 406-446-2310 or email your question to bec@beartoothelectric.com.

**WHAT’S HAPPENING?**

Rate design was identified as a priority issue in the BEC 2017 and 2019 Strategic Plans. Since October 2018, the BEC Risk Management Committee, with the help of an outside consultant, has been studying rate design alternatives. A great deal of analysis has been conducted, and many alternatives have been considered.

The primary rate design recommendations are:
- Transition to a 3-Part Rate for the Residential and Small Commercial rate classes.
- Minor adjustments to the existing 3-Part Rates for Large Commercial, Industrial, and Irrigation rate classes.

**WHY IS BEC DOING THIS?**

- The new rates address historic weather-related impacts on BEC revenues and member bills.
- New meters, billing formats, and software tools facilitate the implementation of new rate design and members’ ability to manage electricity costs.
- BEC’s finances are stable, so new rate designs can be implemented without the need to increase overall revenues.

**HOW WILL IT AFFECT ME?**

The new rate designs will produce the same overall revenues for BEC as the current rates. The same overall revenues occur because the Base Charge and Energy Charge will be reduced when the System Charge is introduced.

For a member with common energy usage characteristics, the total monthly bill will be essentially the same. However, some members will pay slightly more, and others will pay slightly less depending on their individual energy usage characteristics.

**WHEN MIGHT ALL THIS HAPPEN?**

The Risk Management Committee made rate design recommendations to the Board in December 2019. The Board will send out a 30-day Member Notice announcing their consideration the first of May. Member feedback and questions will be taken during these 30 days. Action will be taken at the June 30, 2020, Board meeting.
Three Step Process to Rate Making

1. Revenue requirements (How much?)
2. Cost of Service Analysis (COSA) (From whom?)
3. Rate design (How?)
   • The first two are straight forward exercises.
   • The last step requires consideration of a number of factors.

Revenue Requirements

**1. HOW MUCH?**

How much revenue is required to operate the cooperative?

BEC’s annual budget defines our annual costs while our Cooperative’s Financial Forecasting system predicts a five-year and ten-year financial picture based upon known costs, historical data, and assumptions. The five-year forecast offers the greatest degree of accuracy.

Cooperative Costs by Operations Sector

**BASE COSTS**
- Meter reading
- Billing
- Administration
- Accounting
- Finance
- Customer service
- Communications, etc.

Costs incurred without a single kilowatt (kWh) sold.

These costs are generally recovered through a monthly base charge.

**SYSTEM DRIVEN COSTS**
- Linemen
- Vehicles
- System maintenance
- Tree trimming
- Property taxes
- System depreciation
- Debt service, etc.

Costs that are driven by maximum energy usage measured in kilowatts (kW).

These costs are generally recovered through a system charge.

**ENERGY DRIVEN COSTS**
- Wholesale energy purchases
- NorthWestern Energy transmission

“Energy” represents the electricity consumed during a billing period, measured in kilowatt hours (kWh).

“Transmission” represents the delivery of electricity to BEC’s distribution system.

These costs are generally recovered through a combined energy charge or unbundled transmission and energy charges.
Overview

The COSA is used to determine the cost to provide service to customers, both in total and by individual rate class. The COSA is an effective tool for assessing whether each rate class is paying its fair share of total costs and for designing rates that fairly assign cost responsibility to each rate class. The Cooperative prepares a COSA using standard methodologies that have been established by industry experts, accepted by regulatory commissions, and/or approved by the courts. These methods determine as accurately as possible what it costs for the utility to serve each class of members.

The COSA can then be used to show the actual per-unit costs to serve each rate class, separated or unbundled into base, system, and energy. These unbundled, per-unit costs, provide essential guidance for designing rates that are fair, just and reasonable.
Rate Design

How are rates designed to collect costs fairly across and within each rate class?

History
Rate Design is nothing new to the Board. It has been a key strategic initiative identified by the Trustees in both their 2017 and 2019 Strategic Plans. BEC has conducted COSAs every few years, but this is the first time we’ve looked at rate design for many years. Since October 2018, the Risk Management Committee, with the help of an outside consultant, has been studying rate design alternatives. A great deal of analysis has been conducted, and many alternatives have been considered. This latest effort, with its primary objective, to remain revenue neutral (meaning the cooperative does not need to increase revenue at this time) and as in all good rate design initiatives, to allocate the cooperative’s costs fairly among the membership.

The Risk Management Committee made its rate design recommendations to the Board in December 2019. One recommendation, in particular, to be voted on during the June Board meeting is to transition Residential and Small Commercial rate classes from the existing 2-Part Rate to a 3-Part Rate structure like all other BEC rate classes (Large Commercial, Industrial, and Irrigation). In addition, the Board will vote on a few recommended minor changes to the Large Commercial, Industrial, and Irrigation rate classes.

Rate Design Goal:

REVENUE

It is important to understand BEC is not looking to increase revenues from its members. Revenue neutral means that zero additional revenue is being sought with these rate change recommendations. The proposed new 3-part rate design will bring more equity among members within a rate class, i.e., Residential, Small Commercial, etc., to ensure everyone is paying their fair share in the recovery of BEC’s costs. Anytime the overall rate structure changes, there will be a few members that incur increases/decreases in their bills, depending on their energy usage characteristics. Still, the vast majority of members will see relatively small changes on their bill.
The COSA assigned BEC’s costs of operation into the proper “buckets.” The current residential 2-part rate analysis illustrated below, shows how costs are currently allocated, absent a System Charge, adding portions of those costs to both the base and energy charges.

**3. HOW?**

**Current Residential Rate Design: 2-Part Rate**

The diagram illustrates how costs flow into charges, with base and system charges being captured in both the base and energy charges. The breakdown is as follows:

- **Base Charge**: $33.50/Month
- **Energy Charge**: $0.09238/kWh
A 3-Part rate design incorporates the following components:

1. **Base Charge** ($/month) for customer service, administration and general expenses.
   - The Base Charge incorporates all administration costs, i.e., billing, accounting, finance, customer service, communications, etc., associated with operating the cooperative.

2. **System Charge** ($/kW) for co-op electric distribution system costs.
   - The System Charge reflects those costs associated with BEC’s electric system; i.e., linemen, vehicles, tree trimming, depreciation, debt service, and property taxes, etc. This charge reflects each member’s proportional load placed on BEC’s electric system to recover costs. It is measured by the highest usage (measured in kW) during a 15-minute period each month.

3. **Energy Charge** ($/kWh) for wholesale power and NWE transmission costs.
   - The Energy Charge represents the costs associated with energy purchases from our wholesale supplier and the costs associated with delivery to BEC’s electric distribution system through NorthWestern Energy’s transmission system.

There are inherent benefits to both the member and BEC with a 3-part rate design. The member will see an immediate 10.4% reduction in the Base Charge and 9.3% reduction in the Energy (kWh) Charge. The reduction in the Energy Charge will reduce high bills which can occur as a result of extreme cold/heat events and make bills more predictable. BEC will benefit from more stable revenues which are currently at risk during ever-changing weather patterns. The introduction of a System Charge will provide more predictable revenue for budgets and financial forecasting.

**Recommended Rate Charges:**

<table>
<thead>
<tr>
<th></th>
<th>Base Charge ($/month)</th>
<th>System Charge ($/kW)</th>
<th>Energy Charge ($/kWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Rate</strong></td>
<td>$33.50</td>
<td>$0.00</td>
<td>$0.09238</td>
</tr>
<tr>
<td><strong>Recommended Rate</strong></td>
<td>$30.00</td>
<td>$2.00</td>
<td>$0.08387</td>
</tr>
</tbody>
</table>

Recommended Residential Rate Design: 3-Part Rate
The Risk Management Committee made rate recommendations to the Board in December 2019. On May 1, the Board will release a 30-day Member Notice announcing the Board’s consideration to move the Residential and Small Business rate classes to a 3-Part Rate and minor changes to the Large Commercial, Industrial, and Irrigation rate classes. Member feedback and questions will be taken during this 30-day period. Action will be taken at the June 30, 2020, Board meeting.

30-Day Member Notice:

The Risk Management Committee made rate recommendations to the Board in December 2019. On May 1, the Board will release a 30-day Member Notice announcing the Board’s consideration to move the Residential and Small Business rate classes to a 3-Part Rate and minor changes to the Large Commercial, Industrial, and Irrigation rate classes. Member feedback and questions will be taken during this 30-day period. Action will be taken at the June 30, 2020, Board meeting.
Every electrical appliance and device in your household requires a certain amount of energy (kWh) to operate. Instead of total consumption (kWh), a household’s system charge is based upon the maximum amount of power required over a 15-minute period in a given month. This system charge reflects each member’s maximum load placed on BEC’s electric distribution system. Because your system charge is set based upon your maximum 15-minute power requirement, there is an incentive to use less power all at once.

This new rate design gives members one more way to control their costs by making small changes in household activities. To save money on the system charge, avoid using major appliances like your dishwasher, heating and air conditioning systems, or washer and dryer at the same time. Remember—the system charge is the maximum 15-minute power requirement metered each month.

The important difference between kilowatt-hours (kWh) and kilowatts (kW) is that a kWh reflects the total amount of electricity used (how much). In contrast, a kW reflects the rate of electricity usage (how much used at once). Knowing when and at what rate energy is consumed, allows members to reduce electricity expenses.

**How to Control your Kilowatts (kW)—**

Try not to use electricity like this—turning everything on at once. High $$$!

Try to use electricity like this—stagger your usage. Save $$$!

Turning on all of your lighting, oven, television, washing machine, and dishwasher all at the same time will incur a large system charge (kW) reading.

Instead, spread out the usage of electric appliances when you can to lighten the load and system charge (kW) reading.

**What other tools are there to assist me?**

You can find lots of useful information by logging into your SmartHub app on your computer, laptop, tablet, or mobile device. Your SmartHub energy graphs provide information on what your maximum kW measurement was and when it occurred. In addition, we are currently developing an online tool that will calculate your bill based on different inputs that you enter. It will be available on our website www.beartoothelectric.com should the Board accept the Risk Management Committee’s rate recommendation.
**What is rate design?**
Rate design is the process of establishing the actual rates (or charges) that are used to bill members each month. A good rate design generates enough revenue to cover all of BEC’s costs of doing business and allocates these costs equitably among the members.

**What process was used to arrive at the proposed rate designs?**
Rate design was identified as a priority issue in the Board’s 2017 and 2019 Strategic Plans. Since October 2018, the BEC Risk Management Committee, with the help of an outside consultant, has been studying rate design alternatives. A great deal of analysis has been conducted, and many alternatives have been considered.

The Risk Management Committee made its rate design recommendations to the Board in December 2019. The Board will vote on these recommendations at the June 30, 2020, monthly meeting.

**What rate design changes are proposed?**
The primary rate design recommendations are:

- Transition to a 3-Part Rate for the Residential and Small Commercial rate classes.
- Minor adjustments to the existing 3-Part Rates for Large Commercial, Industrial, and Irrigation rate classes.

**What is a 3-Part Rate?**
BEC costs can be grouped into three buckets:

1. **Base Costs**—meter reading, billing, administration, accounting, finance, customer service, communications, etc.
2. **System Driven Costs**—all costs related to BEC’s electric distribution system, i.e., Linemen, vehicles, system maintenance, tree trimming, property taxes, system depreciation, etc.
3. **Energy Driven Costs**—costs for wholesale power and NWE transmission to deliver to BEC’s electric distribution system.

A 3-Part Rate includes separate charges to cover each of these cost buckets:

1. **Base Charge**—($/month) to collect Base Costs.
2. **System Charge**—($/kW) to collect System Driven Costs.
3. **Energy Charge**—($/kWh) to collect Energy Driven Costs.

**How is this different from current BEC rate designs for Residential and Small Commercial?**
BEC has traditionally used a 2-Part Rate for Residential and Small Commercial with a Base Charge and an Energy Charge. Currently, System Costs are collected partly through the Base Charge (roughly 28%) and partly through the Energy Charge (roughly 72%). With the new 3-Part Rate, System costs are collected through the Base Charge (20%), System Charge (23%), and the Energy Charge (57%).

**Have other utilities implemented 3-Part Rates?**
Most electric utilities, including BEC, have used 3-Part Rates for larger consumers (for example, large commercial, industrial and irrigation accounts) for many years. There has been growing interest throughout the utility industry in 3-Part Rates for small consumers. Four other Montana rural electric cooperatives have implemented 3-Part Rates for residential and small commercial accounts.
7. **How is the System Charge billed?**
The BEC distribution system must be designed to deliver the maximum amount of electricity used by each member. So, the System Charge will be billed based on your maximum energy usage (kW) during any 15-minute period during the month. The System Charge will be billed monthly in $/kW.

8. **What is the difference between a kilowatt-hour (kWh) and a kilowatt (kW)?**
- The important difference is kW reflects the instantaneous load placed on the electric system, and kWh reflects that load on the system over a period of time.
- Consider 10-100 watt light bulbs turned on at the same time. The load placed on the utility system is 1000 watts or 1 kW. If those 10-100 watt light bulbs were left on for one hour, they would use 1 kWh.

   ![Bulbs](image)

   Turn on ten 100 watt bulbs = 1,000 watts or 1 kW.

   Leave ten 100 watt bulbs on for 1 hour =

   \[1 \text{ kW} \times 1 \text{ hour} = 1 \text{kWh}\]

9. **How will the proposed rate design affect my monthly bill?**
The new rate designs will produce the same overall revenues for BEC as the current rates. This occurs because the Base Charge and Energy Charge will be reduced when the System Charge is introduced.

   For a member with average usage characteristics, the total monthly bill will be essentially the same. However, some members will pay slightly more, and others will pay slightly less depending on their individual energy usage characteristics.

10. **What are the benefits of the rate design changes being proposed?**
In addition to allocating costs fairly, the new rate design:
- Reduces dependence on the Energy Charge to fund System Costs. This stabilizes BEC revenues and monthly member bills and reduces high bills during extreme weather events.
- Reduces dependence on the Base Charge to fund System Costs. The Base Charge disproportionately impacts small consumers.
- Better aligns BEC and member interests in energy efficiency and member-owned distributed generation.

11. **Why are the new rate designs being proposed now?**
- The new rates address historic weather-related impacts on BEC revenues and member bills.
- New meters, billing formats, and software tools facilitate the implementation of new rates and members’ ability to manage electricity costs.
- BEC’s finances are stable, so new rate designs can be implemented without the need to increase overall revenues.
12. **How will the new rate design impact BEC’s support for energy efficiency and member-owned distributed generation?**

BEC is supportive of member efforts to use electricity more efficiently and to install member-owned distributed generation. However, because these activities reduce BEC’s energy sales, they reduce the revenues available to fund System Costs. The new rate design reduces this impact on BEC revenues and better aligns BEC and member interests.

13. **What actions can I take to manage my monthly bill with the new rate design?**

Steps members have traditionally taken to reduce energy usage, such as weatherization and purchasing more efficient lighting and appliances will continue to reduce the Energy Charge portion of the monthly bill. Some of these measures may also reduce the System Charge portion of the bill. In addition, the System Charge portion of the bill can be managed by not running all electricity consuming devices in the household at the same time.

14. **When will the new rate designs be implemented?**

The Board will make its decisions on rate design at the June 30, 2020, Board meeting. A new bill format displaying both kWh and kW will be rolled out later this summer. New rates for all classes are proposed to go into effect on April 1, 2021.

15. **Is there a plan to make additional rate design changes in the future?**

BEC plans to review its rate designs regularly in the future. Any future changes would be the result of a thorough and transparent process.

16. **Where can I get more information?**

More information is available at www.beartoothelectric.com/My BEC/Rate Design.

17. **How can I weigh in on these proposals?**

Members can comment on the rate design proposals by contacting any Board member (contact info at www.beartoothelectric.com/My BEC/Board of Trustees), contacting General Manager Kevin Owens at 406-446-2310, emailing him at bec@beartoothelectric.com, or by attending the June 30, 2020, Board meeting.

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