Rate Setting

Sengbe Kemokai, Local Government Specialist 2
December 22, 2021
Introduction: Topics Covered

- Introduction to Local Government Assistance & RUBA
- Why is Financial Stability Important?
- How can Utility Operators Help?
- Rate Setting
- Rate Setting Scenarios
LGA/RUBA Program

Regional Offices

Local Government Specialists

Kotzebue
Nome
Bethel
Dillingham
Fairbanks
Anchorage
Juneau
LGA/RUBA Program

**LGA**
- Elections
- Title 29 Compliance
- Financial Management
- Bulk Fuel Management & Power Cost Equalization
- Personnel Management

**RUBA**
- Advice & technical assistance to rural utilities
- Best Practices scoring
- Utility Management Trainings

And Much More!
Local Government Resource Desk:
https://www.commerce.alaska.gov/web/dcra/
LocalGovernmentResourceDesk.aspx
What is Financial Sustainability?
Why is Financial Sustainability Important?

Expenses = Cost of Service

- Chlorine
- Electricity
- Fuel Oil
- Insurance
- Parts
- Payroll
- Phone
- Training
- Vehicles
- Worker's Comp
- Travel
- Regulatory Costs
- Testing
- Repairs
Why is Financial Sustainability Important?

Revenue = How you Pay for Service

Customer Fees

Services

Municipal Taxes

PILT

State Community Assistance

Etc.
How Can Utility Operators Help?

- Reduce Expenses
- Improve Collections
- Rate Setting
How Can Utility Operators Help?

Reduce Expenses

• Activities
• Purchases
• Policies
How Can Utility Operators Help?

- Keep up on repairs
- O&M Schedule
- Purchasing Policy

- Fix leaks
- Don’t buy last minute

- Buy in bulk
- Encourage water conservation

- Shop around
- Keep an inventory
How Can Utility Operators Help?

- Do your customers actually pay their bills?

Improve Collections
How Can Utility Operators Help?

- Utility Ordinances
- Collection Policy
- Bundling Services
- Delinquency Notices
- Fines, Penalties, Interest
- Payment Plans
- Liens
- Small Claims Court
How Can Utility Operators Help?

Rate Setting

• The process of determining how much a customer should pay for a service in order to cover all expenses of the utility.

• Figure out your expenses.

• Figure out your revenues.
• How much do you charge?
• How much *should* you charge?
• What happens if customers don’t pay?
• Change your rates?
Rate Setting Factors

- Utility expenses
- Collection rate
- Number of customers
- Types of customers
- Amount of water used
- Meters (if any)
Where does rate setting information come from?

- New utility
- Existing utility
- Expanding utility
Uniform Flat Rate

- Same each month for everyone
- No meter expense
- Billing is easy
- Not equitable
- High consumption
- Single Block Rate
- Increasing Block Rate
- Decreasing Block Rate
1. Determine Bill Collection Rate

\[
\frac{\text{Amount Collected}}{\text{Amount Billed}} = \text{Collection Rate(\%)}
\]
1. Determine Bill Collection Rate

\[
\frac{\text{Amount Collected}}{\text{Amount Billed}} = \text{Collection Rate} \%
\]

- Amount Collected: $15,000
- Amount Billed: $20,000

Collection Rate = 75%
Collection Rate

75%?
- Less money saved for R&R, more potential long-term issues

50%?
- Less money for R&R
- Less money for basic repairs, even MORE potential for long-term issues

25%?
- Less money for R&R
- Less money for basic repairs
- Can’t pay salaries on time
- What else?
2. Determine Annual Cost of Service

Operations & Maintenance

- Chlorine
- Electricity
- Fuel Oil
- Insurance
- Parts
- Payroll
- Phone
- Training
- Vehicles
- Worker’s Comp
- Travel
- Regulatory Costs
- Testing
- Repairs

+ Repair & Replacement

- Major Repairs
- Deferred Maintenance
- Replacement

Annual expenses

Longer-term expenses
3. Determine usage by customer classification

- Meter readings
- Customer classifications

Total water produced – water used by customers = Calculated Line Loss
Customer Classes

- Residential
- Commercial
- School
- Community
4. Flat Rate Math

\[ R = \frac{\text{COS}}{\text{CR}} \times \%U \div N \]

- **R** = monthly flat rate per customer
- **COS** = cost of service
- **CR** = collection rate
- **%U** = percent used by class
- **N** = number of customers in the class

\[ R = \frac{\$240,000}{75\%} \times 55\% \div 200 \]
4. Flat Rate Math

\[ R = \left( \frac{\$340,000}{75\%} \right) \left( \frac{76,000}{12} \right) \div 200 \]

- \( R \) = monthly flat rate per customer
- \( \text{COS} \) = cost of service
- \( \text{CR} \) = collection rate
- \( \%U \) = percent used by class
- \( N \) = number of customers in the class
4. Flat Rate Math

\[ R = \frac{\$14,667}{4} \div 200 \]

- \( R \) = monthly flat rate per customer
- \( \text{COS} \) = cost of service
- \( \text{CR} \) = collection rate
- \( \%U \) = percent used by class
- \( N \) = number of customers in the class
4. Flat Rate Math

\[ R = \frac{\left( \frac{\$240,000}{40\%} \right)}{12} \times \frac{\$600,000}{12} \times \frac{0,000\%}{12} \div 200 \]

- **R** = monthly flat rate per customer
- **COS** = cost of service
- **CR** = collection rate
- **%U** = percent used by class
- **N** = number of customers in the class
4. Flat Rate Math

\[ R = \frac{\$23,7560}{200} \]

- \( R \) = monthly flat rate per customer
- \( \text{COS} \) = cost of service
- \( \text{CR} \) = collection rate
- \( \%U \) = percent used by class
- \( N \) = number of customers in the class
## Collection Rates Matter!

<table>
<thead>
<tr>
<th>Collection Rate</th>
<th>Customer Monthly Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>40%</td>
<td>$137.50</td>
</tr>
<tr>
<td>75%</td>
<td>$73.33</td>
</tr>
<tr>
<td>100%</td>
<td>$55.00</td>
</tr>
</tbody>
</table>
Rate Setting

Block Rates

- Monthly **Base Rate**
  Fixed Costs

- **Flow Rate** *(per gallon or block)*
  Variable Costs
Computing Block Rates

Monthly Base Rate:
Fixed Cost ÷ Customers ÷ 12 mo.

Flow Rate:
Variable Costs ÷ Gallons Produced
Guiding Principles

- Utilities should be self-supporting
- Rates should help build reserves
- Rates should not be permanent
- Inform and involve the public
When to Review Rates?

- Annually
- Anticipate Changes
- Adjust as Needed
1. Last year, Moose Creek billed $81,600 but only received $69,360. What is the collection Rate?
   $69,360 ÷ $81,600 = 85\%$ collection rate

2. Since the collection rate is less than 100%, Moose Creek must bill *more than* $81,600 in order to receive that amount. What is the total annual amount to be billed?
   $81,600 annual cost ÷ 85\% = $96,000 annual amount to be billed

3. What is the monthly rate per residential unit?
   ($96,000 ÷ 100 customers) ÷ 12 months = $80.00
Step 1. Determine the collection rate.
Last year, the utility provided service to 55 residential customers, a school, and a washeteria. It billed $43,000 and received $38,500.

What is the collection rate (round to nearest %)?
\[
\frac{38,500}{43,000} = 0.895 \text{ or } 90\%
\]

Step 2. Determine the cost of service.
Current operating expenses are $44,500. The utility needs to establish an account for reserves with funding at $5,000 per year.

What is the cost of service? 
\[
$44,500 + $5,000 = $49,500
\]

What gross revenue amount should be used to calculate rates?
\[
\frac{$49,500}{0.90} = $55,000
\]
Step 3. Determine usage by customer classification.
Total water produced was 3,500,000 gallons. According to meter readings, the school used 70,000 gallons and the washeteria used 105,000 gallons.

How many gallons were used by residential customers?
3,500,000 – (70,000 + 105,000) = 3,325,000

What percentage of the total did each class use?
School: 70,000 / 3,500,000 = 2%
Washeteria: 105,000 / 3,500,000 = 3%
Residents: 3,325,000 / 3,500,000 = 95%
Step 4. Divide total cost between customers.
How much is to be charged annually to the:

- School? $1,100 (55,000 \times 0.02)
- Washeteria? $1,650 (55,000 \times 0.03)
- Residents? $52,250 (55,000 \times 0.95)

- Gross revenue amount used to calculate rates: $55,000
- School usage: 2%
- Washeteria usage: 3%
- Resident usage: 95%
Step 5. Determine new monthly uniform flat rates.

New rate for the school: \$1,100 / 12 = \$91.67 
New rate for the washeteria: \$1,650 / 12 = \$137.50
New rate for residents: \$52,250 / 55 households = \$950/yr / 12 = \$79.17

With a collection rate of 90%, how much annual revenue will the utility receive? \$1,100 + \$1,650 + \$52,250 = \$55,000 \times .90 = \$49,500
The Water Rate Calculator Guidebook

State of Alaska
Michael Dunleavy,
Governor

Department of Commerce, Community, and Economic Development
Julie Anderson, Commissioner
Introduction to Local Government Assistance & RUBA

Why is Financial Stability Important?

How can Utility Operators Help?

Rate Setting

Rate Setting Scenarios
Rural Utility Business Advisors (RUBA)

Contact Information:
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Local Government Assistance (LGA)

Resource Desk

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