



THE STATE
of **ALASKA**
GOVERNOR MIKE DUNLEAVY

**DEPARTMENT OF COMMERCE, COMMUNITY AND
ECONOMIC DEVELOPMENT**
Division of Community and Regional Affairs

Rate Setting

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Introduction: Topics Covered

Introduction to Local Government Assistance & RUBA

Why is Financial Stability Important?

How can Utility Operators Help?

Rate Setting

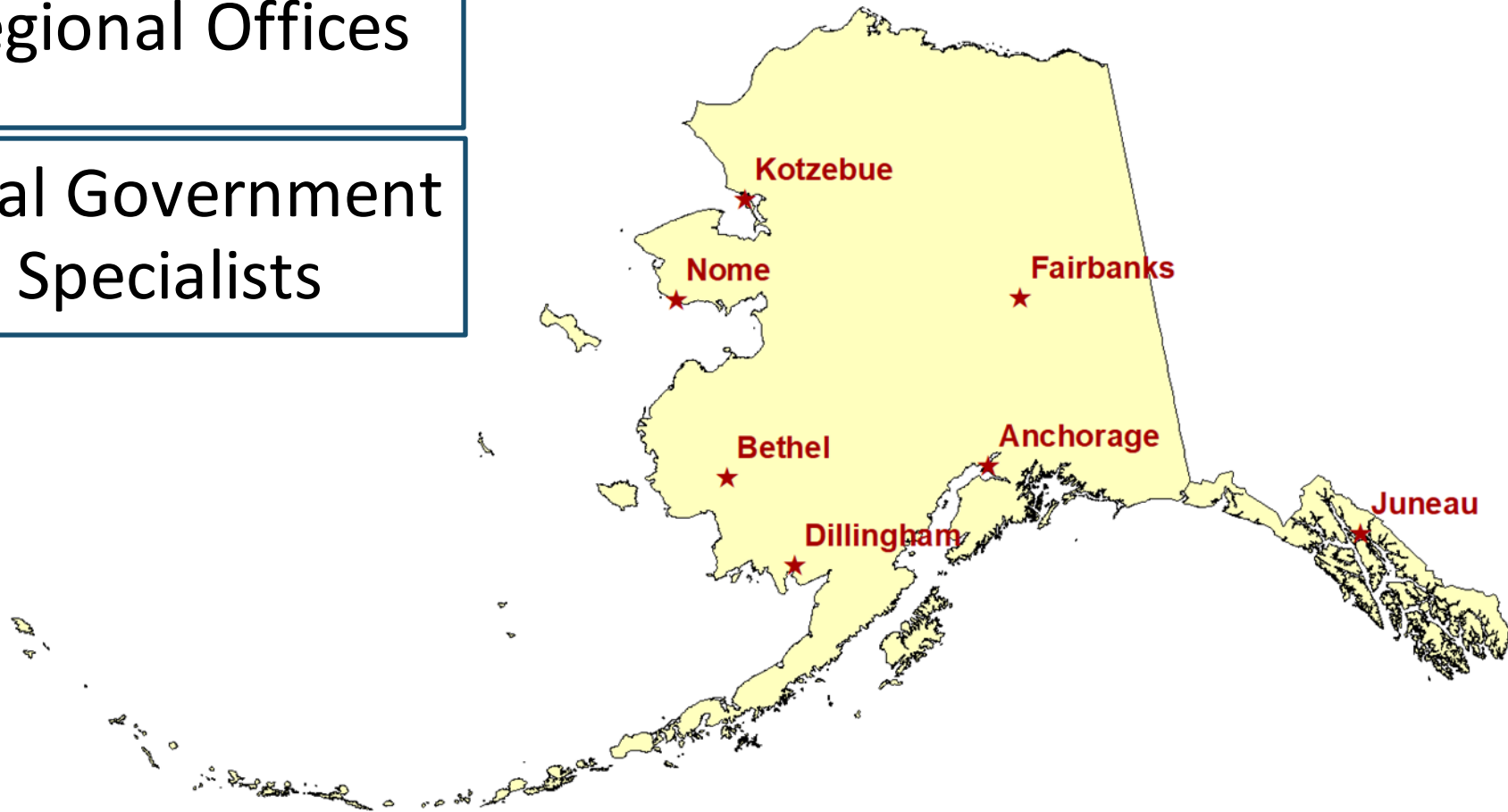
Rate Setting Scenarios



LGA/RUBA Program

Regional Offices

Local Government
Specialists





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>

Resources &
Information

Find your Local
Government
Specialist



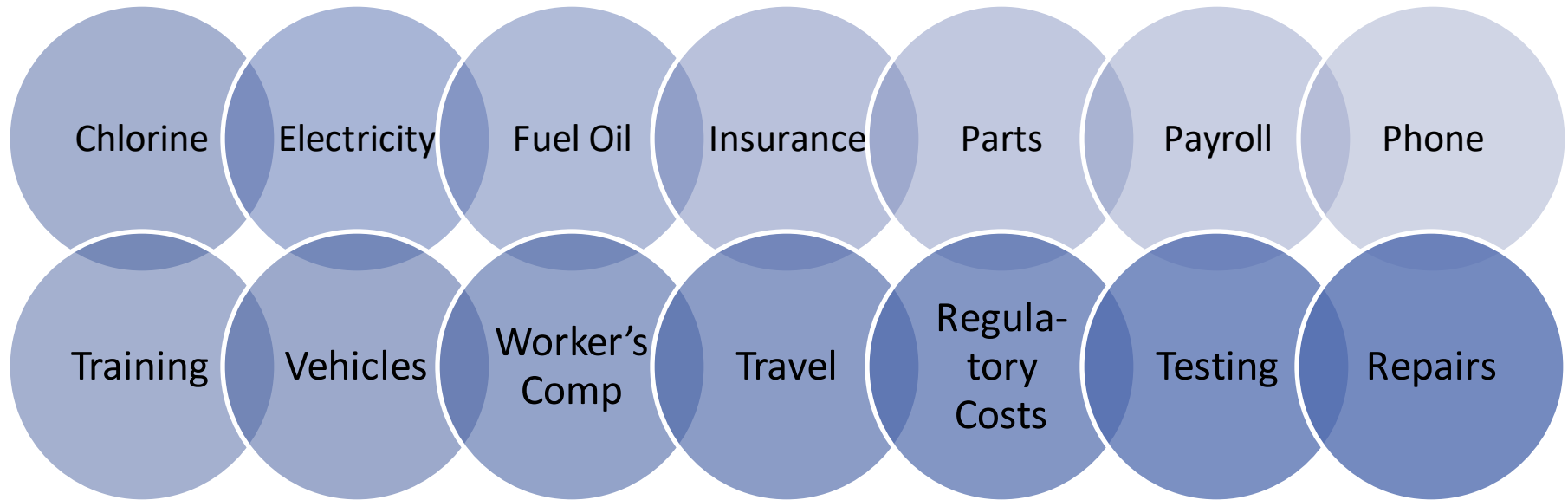
Why is Financial Sustainability Important?

What is Financial Sustainability?



Why is Financial Sustainability Important?

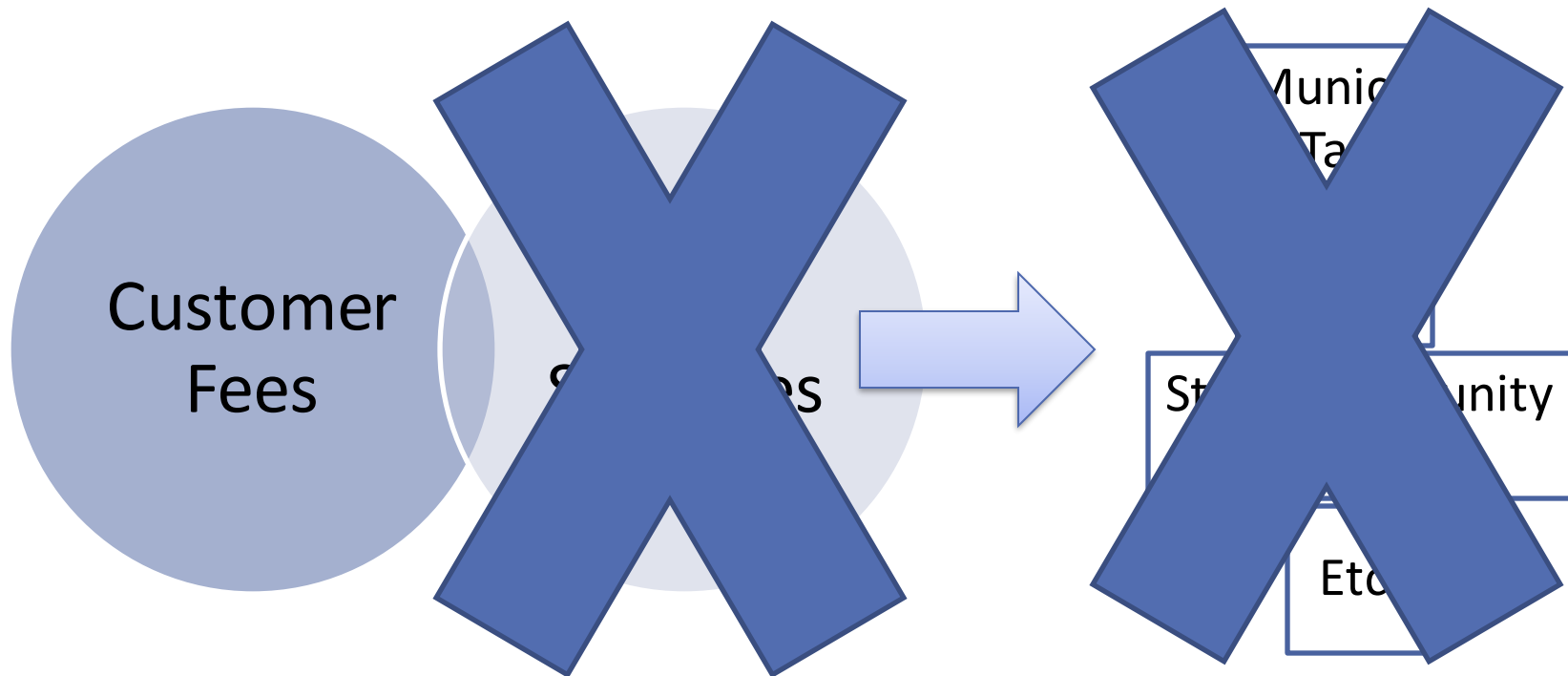
Expenses = Cost of Service





Why is Financial Sustainability Important?

Revenue =
How you Pay for Service





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

Purchasing
Policy

O&M
Schedule

Don't buy last
minute

Fix
leaks

Buy in
bulk

Shop around

Keep an
inventory

Encourage
water
conservation



How Can Utility Operators Help?

Improve Collections

- Do your customers actually pay their bills?



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.



Rate Setting

- **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)





Rate Setting

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



Rate Setting

- **Single Block Rate**
- **Increasing Block Rate**
- **Decreasing Block Rate**



Rate Setting

1. Determine Bill Collection Rate

$$\frac{\text{Amount Collected}}{\text{Amount Billed}} = \text{Collection Rate(\%)}$$



Rate Setting

1. Determine Bill Collection Rate

$$\frac{\text{Amount Collected}}{\text{Amount Billed}} = \text{Collection Rate(\%)}$$

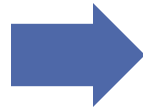
$\frac{\$15,000}{\$20,000} = 75\%$



Collection Rate

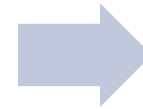
75% ?

- 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?



Rate Setting

2. Determine Annual Cost of Service

Operations &
Maintenance

+

Repair &
Replacement

Chlorine

Electricity

Fuel Oil

Insurance

Parts

Payroll

Phone

Training

Vehicles

Worker's
Comp

Travel

Regula-
tory
Costs

Testing

Repairs

+

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



Rate Setting

Customer Classes



Residential



Commercial



School



Community



Rate Setting

4. Flat Rate Math

$$R = \frac{\left(\frac{\$240,000}{75\%} \right) \left(55\% \right)}{12} \div 200$$

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



Rate Setting

4. Flat Rate Math

$$R = \frac{(\cancel{\$320,000} - \cancel{\$320,000} \times 75\%)(\cancel{60\%})}{12} \div 200$$

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

$$R = (\$73.33667) \div 200$$

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

$$R = \frac{(\text{COS} - \text{CR})(\%U)}{12} \div 200$$

Note: The original image contains red text overlays on the equation. The numerator is shown as $(\$240,000 - \$60,000)(40\%)$. The denominator is 12. The final result is 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

$$R = \$23,750 \div 200$$

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



Collection Rates Matter!

Collection Rate	Customer Monthly Rate
40%	\$137.50
75%	\$73.33
100%	\$55.00



Block Rates

- Monthly Base Rate
Fixed Costs
- Flow Rate (per gallon or block)
Variable Costs





Computing Block Rates

Monthly Base Rate:

Fixed Cost \div Customers \div 12 mo.

Flow Rate:

Variable Costs \div 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





Rate Setting Scenario 1

1. Last year, Moose Creek billed \$81,600 but only received \$69,360.

What is the collection Rate?

$$\$69,360 \div \$81,600 = \underline{85} \% \text{ collection rate}$$

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?

$$\$81,600 \text{ annual cost} \div 85\% = \underline{\$96,000} \text{ annual amount to be billed}$$

3. What is the monthly rate per residential unit?

$$(\$96,000 \div 100 \text{ customers}) \div 12 \text{ months} = \underline{\$80.00}$$



Rate Setting Scenario 2

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 %)?

$$\underline{38,500/43,000 = .895 \text{ or } 90\%}$$

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? $\underline{\$44,500 + \$5,000 = \$49,500}$

What gross revenue amount should be used to calculate rates?

$$\underline{\$49,500 / .90 = \$55,000}$$



Rate Setting Scenario 2

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?

$$\underline{3,500,000 - (70,000 + 105,000) = 3,325,000}$$

What percentage of the total did each class use?

$$\text{School: } \underline{70,000 / 3,500,000 = 2\%}$$

$$\text{Washeteria: } \underline{105,000 / 3,500,000 = 3\%}$$

$$\text{Residents: } \underline{3,325,000 / 3,500,000 = 95\%}$$



Rate Setting Scenario 2

Step 4. Divide total cost between customers.

How much is to be charged annually to the:

School? 55,000 X .02 = \$1,100

Washeteria? 55,000 X .03 = \$1,650

Residents? 55,000 X .95 = \$52,250

- Gross revenue amount used to calculate rates: \$55,000
- School usage: 2%
- Washeteria usage: 3%
- Resident usage: 95%



Rate Setting Scenario 2

Step 5. Determine new monthly uniform flat rates.

New rate for the school: $\underline{\$1,100 / 12 = \$91.67}$

New rate for the washeteria: $\underline{\$1,650 / 12 = \$137.50}$

New rate for residents: $\underline{\$52,250 / 55 \text{ households} = \$950/\text{yr} / 12 = \$79.17}$

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



Resources

The Water Rate Calculator Guidebook



State of Alaska
Michael Dunleavy,
Governor

Department of Commerce, Community, and Economic Development
Julie Anderson, Commissioner



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Rate Setting Scenarios



Contact Information

Rural Utility Business Advisors (RUBA)

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Resource Desk

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