

Rural Alaska Electric Utility Management Pilot Project & Guidebook: Business Management Indicators

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Rural Alaska Electric Utility Management Pilot Project

Pilot Project

- Rural Utility management guidebook
- Provide assistance to approximately 10 communities this year

Guidebook will be available from AEA's website in May

- Includes templates for preventive maintenance and workbooks for developing budgets
- Identifies financial and operational metrics to track utility performance and health using publicly available data

Co-funded by AEA and USDA



Rural Alaska Electric Utility Business Management Guidebook

Part 1: Financial Management

Part 2: Operations Management

Part 3: Planning for the future



Financial and Operational Metrics

PCE Effective Rate

What is it:

- The rate that PCE-eligible customers pay per kWh

Standard:

- Should be within \$0.05/kWh to the PCE floor
- Example:
 - If PCE floor is \$0.17/kWh, then the effective rate should be less than \$0.23/kWh

Potential actions to take:

- Identify and report all eligible expenses
- Evaluate utility expenses to determine if they are necessary and benefiting customers
- Adjust customer rates



Financial and Operational Metrics

Net Operating Income

What is it:

- The difference between utility revenue and expenses

Standard:

- Net operating income should be above zero

Potential actions to take:

- Evaluate rates
- Check customer meters
- Find other revenue sources
- Increase generation efficiency and/or reduce line loss
- Do not reduce or eliminate needed operational expenses



Financial and Operational Metrics

Line loss

What is it:

- The difference between the electricity generated and sold

Standard:

- Line loss should be less than 5%.

Potential actions to take:

- Check customer meter accuracy
- Check main bus meter accuracy
- Have a distribution system assessment to find inefficiencies



Financial and Operational Metrics

Generation efficiency

What is it:

- The number of kilowatt-hours of electricity produced per gallon of diesel

Standard:

- Maximum efficiency is based on the engine size and type.
- Achievable efficiencies are generally at least 2 kwh/gal greater than the PCE standards

Potential actions to take:

- Check fuel meter and main bus meter
Perform proper maintenance on the engine
- Do overhauls on regular basis
- Balance phases
- Make sure power factor is between 0.8 to 0.9
- Upgrade and properly size engines





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