

ALASKA ENERGY AUTHORITY

RURAL UTILITY NEEDS & OPERATOR REALITIES

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50 YEARS OF SERVICE



AEA Programs and Services Overview



Owned Assets

- Bradley Lake Hydroelectric Project
- Alaska Intertie
- Sterling to Quartz Creek Transmission Line
- Cook Inlet PowerLink



Power Cost Equalization

- \$46 Million Program
- 188 Rural Communities
- 81 Electric Utilities
- Benefits 81,000+ Alaskans (All figures reflect FY2025)



Rural Energy

- Bulk Fuel Upgrades
- Rural Power System Upgrades
- Circuit Rider Program
- Electrical Emergency Assistance



Renewable Energy and Energy Efficiency

- Renewable projects; biomass, electric vehicles, hydroelectric, solar, and wind
- Federal programs: NEVI and Home Energy and High Efficiency Rebate Allocation



Grants and Loans

- Renewable Energy Fund
- Power Project Fund
- Federal Grants



Energy Planning

- Alaska Energy Security Task Force
- State Energy Security Profile
- Electronic Library
- Energy Data Resources
- 40101(d) Grid Resilience



Railbelt Transmission Organization

- AEA, Railbelt Reliability Council, and Utility Governance
- Certificate of Public Convenience and Necessity
- Tariff Under Regulatory Review

AEA Circuit Rider Team

Remote and **On-site Assistance** is available.



Remote Technical Assistance

- Real-time troubleshooting by phone
- Support via text and email



On-site Technical Assistance

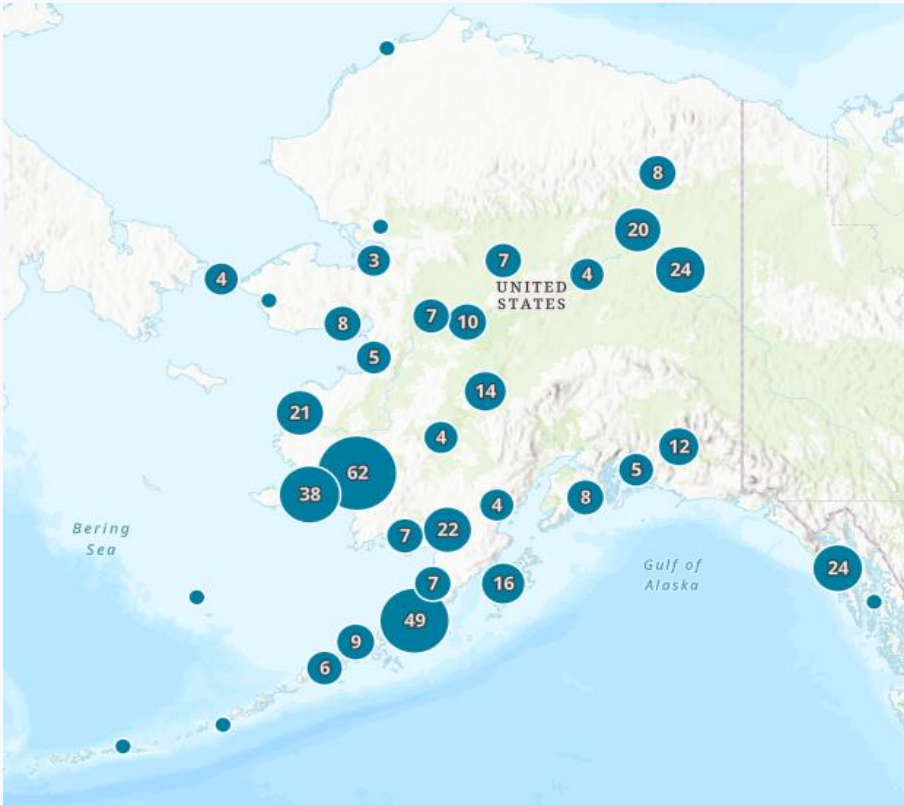
- Provided during scheduled training trips
- Hands-on support that reinforces operator training







Circuit Rider & Response (Remote and Onsite)

- ✓ **Dashboard Tracking:** Each dot and number represent a unique Circuit Rider incident that is input into AEA's Circuit Rider Dashboard.
- ☎ **Operator Support:** Operators or managers call Circuit Riders with questions when they arise, providing real-time assistance.
- 🤝 **Partnership:** AEA partners with the Denali Commission to support the Circuit Rider program.

📍 Alaska Circuit Rider Locations



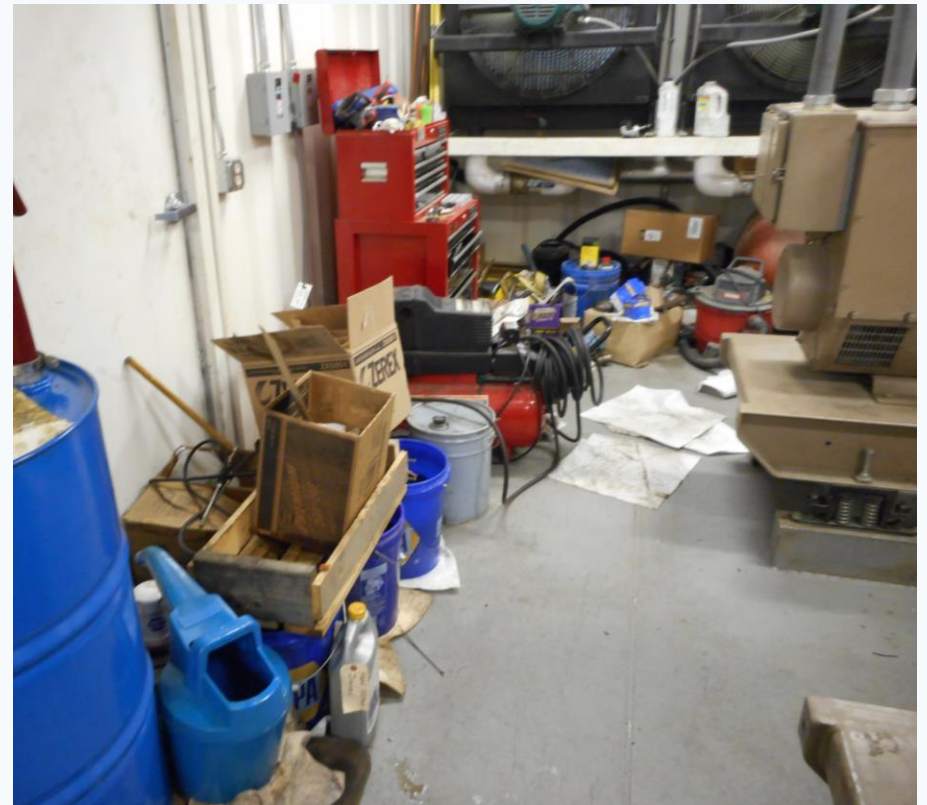
Rural Power Plant Operator Realities - Part 1

-  **Stressful job:** Responsible for keeping lights on and ensuring continuous power supply to the community.
-  **Minimal recognition:** Operators receive little attention until issues arise, and then it's typically negative attention.
-  **Low support:** May not have proper tools and trouble getting required O&M materials.
-  **Adversarial relationship:** Often have difficult relationships with management.




 High Stress Level


 24/7 On Call

Rural Power Plant Operator



Rural Power Plant Operator Realities - Part 2

-  **Minimal hours and low pay:** 4 hour work days, \$18-20/hr
-  **Asked to do more than they have the skills for:** Creates dangerous situations, can lead to more problems
-  **All of the above lead to high turnover:** Experienced operators leaving for better opportunities

 Pay Rate
\$18-20/hr

 Work Day
4 hours

Rural Power Plant Operator



Working conditions and challenges faced by rural operators in Alaska's unique environment.

Rural Utility Needs and Gaps - Part 1



Continued training and education for operators.

Basic to advanced O&M training for all skill levels.



Offsite as well as onsite CR training to provide comprehensive learning opportunities.



O&M manual needs to become a daily reference guide. Not a dust collector—make it part of daily operations.



Managers need to understand the O&M manual as well and make it part of their business practice.

Key Takeaway: Regular training and accessible documentation are critical for operational success.

Training & Education



Rural Utility Needs and Gaps - Part 2

- ✓ **Symbiotic Relationship:** Utility needs to work together to be successful. Each position needs to have a high-level understanding of the others.
- 📅 **Weekly Check-ins:** There should be weekly check-in meetings between managers and operators to ensure alignment.
- 👤 **Accountability:** Managers need to be going down to the plant regularly to maintain accountability.

📷 Training & Education



Plant Manager & Operator Collaboration

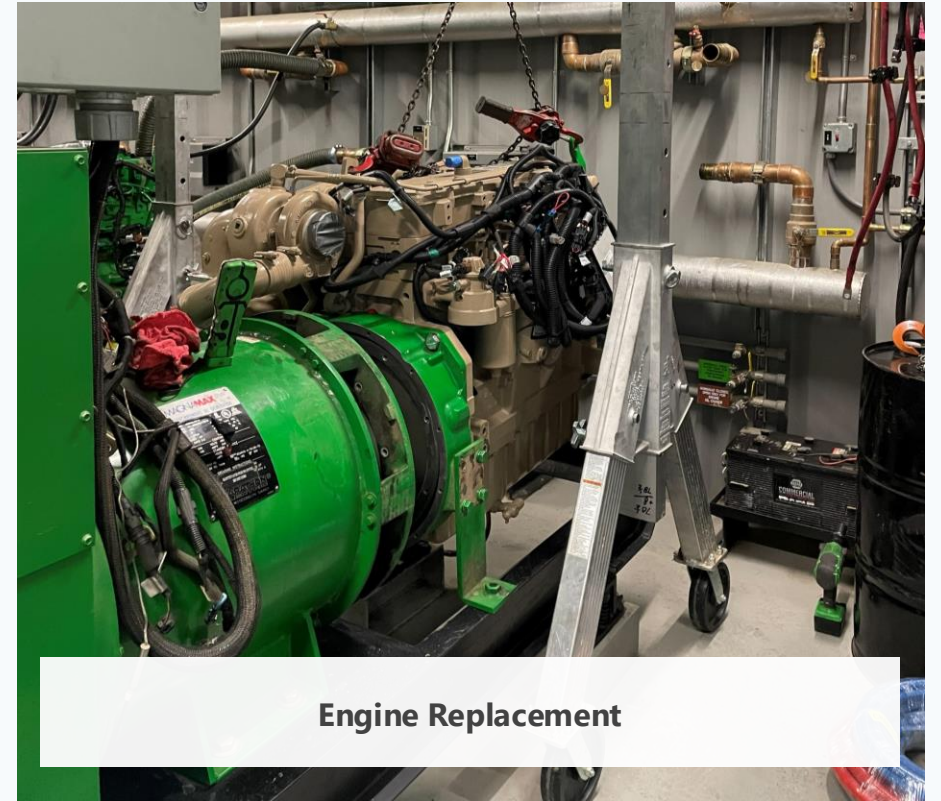
💡 **Key Takeaway:** Clear roles, routine check-ins, and active management engagement are as critical as technical skills for utility success.

Rural Utility Needs and Gaps - Part 3

- ✓ **Front Office/Manager Training:** Modeled after Alaska Vocational Technical Center's BFO and PPO training, focusing on best practices, PCE, and managing repair and replacement accounts.
- 📅 **Itinerant Training Follow-up:** Assess current practices and then provide training to ensure proper implementation and maintenance.
- 👤 **Technical Assistance:** Availability of technical assistance similar to CR program for ongoing support and troubleshooting.

💡 **Key Takeaway:** Sustained utility performance relies on strong front-office training, follow-up, and technical support.

📷 Training & Support



Engine Replacement



Thank You

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