

Standalone Rural Electric Utilities

Municipalities and Tribes may choose to retain ownership/operation of the community electric utility because:

- The Council, with community input, gets to determine how the utility will make power and run the utility. Or...
- It creates local jobs, including board/council seats that pay stipends for attending meetings. Or...
- The Council can control customer rates and payment plans. Or...
- A utility can be a source of revenue. Or...
- AVEC said no.

Challenges	Solutions?
Personnel – Finding and Keeping: • Utility clerk, power plant operators, meter readers • Diesel mechanic, electrician, lineman, bookkeeper • Hybrid power plants require high level of training for complex controls and equipment integration/repairs	• Detailed Job Descriptions • On-site training and pay enough hours to do the job right • Compensation commensurate with performance – evaluate annually • Bring in student interns (14+ can work in office, 16+ in power plant) • Partnerships with nearby communities • Tribal Consortium/Borough/ANCSA Corp (“loose” coop) - Assistance that doesn’t require giving up local control • Hire high end consultants/technicians to do complex services on hybrid systems
High Costs – Extremely Low Sales • Lime Village (pop. 6) (utility has 15 R, 6 CFs, 1 C, 1 F/S) \$1.77/kWh - \$.76	• Self-generation? Utility consist of a repairman and fuel sales?
Collections – hard to collect from family and friends	• Pre-Pay Metering – limited stock remaining reserved for existing installations. AMPY system no longer in production.
Board Members must navigate complicated issues	• Board training

Standalone Rural Electric Utilities

Several do an exceptional job under tough circumstances - mostly due to the good fortune of having a motivated and devoted staff – and good partners. It doesn't matter how many people are left; it matters who is left.

Creative Solutions

Chaninik Wind Group – villagers help each other install wind turbines, install dual meter bases, and repair equipment whenever possible.

NWAB Independent Power Producers/Community Solar – Tribe/Community owns renewable generation and sell kWhs to the utility. The kWhs become a fuel cost and eligible for PCE with each fuel report. The utility's customer and PCE rates don't change much if at all, but the IPP can use the revenue to repair/replace/increase renewable energy generation.

Nikolski (pop. 41 and growing) – Use Power Plant Operator Pairs (1 woman and 1 man). Man does the generator work while the woman documents everything on the plant log.

Started with TDX Power training 3 pairs. Those folks trained 2 more pairs.

They pay someone in Anchorage to do administrative work for utility as none of them want to do that job.

Standalone Rural Electric Utilities

POWER COST EQUALIZATION BUTTS HEADS WITH RENEWABLE ENERGY

ONE EXAMPLE:

Puvurnaq Power Company – Kongiganak, AK. According to Manager Rod Phillip, PPC has reduced imported diesel fuel for village heat and power by 50% since installing (5) 100 kW wind turbines and Electric Thermal Stoves (ETS) that utilize excess wind kWhs to produce heat for residential customers.

The RCA included those excess wind kWhs when calculating the utility's PCE rate. This caused a decrease in the PCE rate. They further reduced the PCE rate by deducting the revenue (which sells for \$0.10/kWh) from the utility's expenses when calculating their PCE rate.

PPC's PCE rate was only reduced by \$0.03 this time, which seems a small difference - \$22.50 on 750 kWhs. But it will become more significant with the planned addition of more wind turbines, more ETS, and EV charging.

Reducing diesel should be incentivized, not penalized.

Standalone Rural Electric Utilities

Connie Fredenberg
Utility Management Assistance
907-444-6220
conniefredenberg@mtaonline.net

Working hard to work myself out of a job.