Utility Financial Analysis and Benchmarking Study Draft

Alaska Energy Authority

Prepared by the University of Alaska Center for Economic Development

Top two photos are from Alaska Center for Energy and Power (ACEP) website (utility in Wales, AK).
Bottom photo from Cordova Electric website.

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Executive Summary

The purpose of this report is to fill information gaps within the current body of research on utility financials. That entails building baseline "norms" from utility data, in accordance with the performance indicators outlined in the *Rural Village Electric Utility Management Plan Using Common Performance Indicators* report, developed by the University of Alaska Center for Economic Development (UACED). It also includes a preliminary credit analysis of utility financials to determine their "bankability", and ability to take on debt to finance future infrastructure needs. The report contains the following elements:

- Problem statement
- Methods and literature review
- Performance indicators and findings
- Preliminary utility credit analysis
- Recommendations and future research

Methods and literature review

The goal of this report was to tackle specific information gaps and needs within the utility financial research field. Part of that process meant locating underutilized data sources, particularly publicly available sources. It also included extensively reviewing the current research, so this report could take the existing body of knowledge a step further in putting data to performance indicators. The data for this report came from IRS 990 forms filed on behalf of utility co-ops, and municipal financial records filed with the State of Alaska. These financial records were crosschecked against annual Power Cost Equalization (PCE) filings.

Indicators, findings, and credit analysis

The indicators, as mentioned above, come from the *Utility Management* report. The indicators in this report, as well as some additionally derived indicators, describe important elements of system efficiency, financial management, description of power system, and quality of service. This report, due to data limitations, focused on establishing baseline data, or "norms" for indicators within the financial management and system efficiency sectors. Preliminary credit analysis consisted of calculating quick ratios, current ratios, and net revenue margin for all utilities. These ratios were measured against general banker standards to illustrate the strengths and weaknesses of utility financials.

Recommendations and future research

Further breakouts in the financials are critical to future research. Additionally, the accuracy and consistency of the publically available data needs to be addressed, particularly as this data is being used to and look for efficiencies, and calculate "bankability" and creditworthiness of utilities for outside financial services. Finally, future research should engage utility personnel in developing realistic benchmarks for performance indicators, as well as offering insights on current inaccuracies or anomalies found in the data.

Introduction

Rural Alaskan electric utilities are unique in the world of power generation and distribution. For starters, the overwhelming majority of the state's more than 200 remote rural communities have no interties connecting them to large-scale electric generation. Most of these communities depend on diesel generators to produce power on a smaller scale for communities as small as a few dozen residents. Economies of scale are hard to achieve in both the generation of power and the business operations of these utilities, many of which serve a single isolated, small community. Compared to electric utilities on the state's Railbelt that serve tens of thousands of ratepayers and benefit from centralized coal, natural gas, or hydroelectric power production, rural utilities suffer from high costs, small ratepayer bases, and limited administrative capacity.

While numerous studies have attempted to characterize the business and operational challenges facing rural utilities and recommend solutions, the current effort takes a unique focus. Previous efforts have acknowledged the difficulty of obtaining reliable financial data, and this gap has been a key barrier in analyzing the financial structure of utilities. This report contains a brief literature review summarizing key information from previous studies.

At the same time, rural utilities have utilized grant funding to pay for assets, when, for instance, a generator fails and must be replaced. As state budgets have seen dramatic reductions, and continued cuts are expected on the horizon, state policymakers see a potential need to transition to debt financing for capital assets and working capital. The capacity of many rural utilities to repay loans remains unclear. However, dedicated loan programs exist to meet utility financing needs including:

- Power Project Loan Fund (PPLF) run by the Alaska Energy Authority (AEA)
- Bulk Fuel Loan programs run by the Alaska Department of Commerce, Community, and Economic Development (DCCED)
- US Department of Agriculture (USDA) that runs the Electric Infrastructure Loan and Loan Guarantee Program.

Furthermore, while the overall financial and operational performance of rural electric utilities is widely regarded as mixed in terms of quality, a common set of benchmarks is lacking. Benchmarks are measurable outcomes that are readily comparable to peer entities, and attempt to capture the state of various operational categories. The *Rural Village Electric Utility Management Plan Using Common Performance Indicators* report established a framework for benchmarking rural utilities using 49 performance indicators.

In some respects, this current project is a successor to that document. It attempts to add to the state electric utility knowledge base in three ways:

- First, the report introduces IRS Form 990s and municipal budgets as resources and demonstrates how to use both to dig deeper than Power Cost Equalization (PCE) filings allow. These publicly available information sources provide multiple years' worth of balance sheets and income statements for all utilities organized as non-profits or municipal electric utilities. They have not, to the best of this team's knowledge, been used to assess the financial performance of rural utilities. The researchers hope that these "new" sources can help to fill some of the gaps in financial data that others have identified.

- Second, the report attempts to further flesh out a working set of performance indicators. It draws on UACED's earlier work by calculating benchmarks based on empirical data. The 990s and municipal financials, along with PCE filings, are used as data sources.
- Lastly, the report attempts to characterize the creditworthiness of rural utilities in a preliminary way. It uses the 990s and municipal financials to perform a basic credit analysis, identifying strengths and weaknesses in the utility financials that could enable, or inhibit, obtaining credit from lenders.

Problem statement

As state budgets shrink, rural utilities face some uncertainty about financing power generation projects and other aspects of their operations. Past dependence on grant funding from the state cannot continue at the current rate, therefore many utilities may seek to finance their capital needs with debt.

Additionally, comprehensive data sets that address the issue of consistent reporting methods with utility financials are lacking. Steps need to be taken towards developing benchmarks, performance indicators, and baseline data. Baseline data allows for utility performance evaluations, which assess strengths and weaknesses in: power systems, system efficiency, financial strength, and quality of service. This is particularly key as the state lacks data on the creditworthiness or "bankability" of the majority of utilities in the state.

Methods

Evaluation is a key component in measuring change over time, overall effectiveness of a utility, and in comparing effectiveness across multiple utilities. For this project we incorporated the performance indicators outlined in the *Rural Village Electric Utility Management Plan Using Common Performance Indicators* report. The report takes a comprehensive look at how to measure and assess rural utility systems, based in part on examples from the World Bank, and international aid programs. It established a common methodology and terminology for collecting data.

Using the performance indicators report as a guide, information was gathered from different utilities to establish baseline data and perform a preliminary credit analysis. The indicators and banking ratios are listed below, and will be explained in greater detail later in the report.

Data was gathered to calculate performance indicators including:

- General population statistics (including residential, community facility, and other customers)
- Power generated annually (kWh-year)
- Power sold annually (kWh-year)
- Effective customer electric rate
- Annual non-fuel costs
- Non-fuel costs per kWh sold
- Annual fuel costs
- Fuel cost per gallon

- Fuel cost per kWh generated
- Electricity consumption per capita
- Generation unit cost
- Line loss ratio
- Amount of PCE reimbursement sent to community vs. PCE reimbursement the community reported receiving
- PCE as a % of revenue
- Annual revenue
- Operating expenses

Banking ratios were calculated for the following:

- Quick ratio
- Current ratio
- Working capital
- Debt ratio

Utility financial data was gathered from a variety of public sources including: municipal finances, 990 IRS forms filed by co-ops, and PCE filings. It was important to gather data from as many sources as possible to overcome source bias, and be able to cross reference the data. To be included in this project, utilities needed to participate in the PCE program and had to have publically available financial records. This narrowed the field of possible utilities considerably, as the utilities also had to be run by the city/municipality or managed as a co-op. Municipal financial records were accessed through the financial document delivery system on the State of Alaska Division of Community and Regional Affairs (DCRA) website. Co-op 990 forms were accessed through GuideStar, a website that provides 990 filings and information on non-profit organizations. Overall, 30 utilities were included in this project. Since 6 of the utilities serve more than one community, there were actually 71 communities represented in this project.

Table 1: Community category explanation

Classification	Description
Category 3 (includes 5 utilities)	Utilities serve larger communities ranging from 2,280 to 22,000 customers. Includes communities like Cordova and Unalaska with thousands of residents and several large commercial ratepayers, or utilities serving multiple villages like AVEC. Effective electric rate are lower, ranging from $.17 to $.24.
Category 2 (includes 4 utilities)	Utilities serve small to medium communities ranging from 59 to 1,029 customers. Most communities have some tax base. Category 2 communities are mostly coastal, and have seafood processors that may be commercial customers to the utility. Effective electric rates are also low ranging from $.14 to $.22.
Category 1 (includes 21 utilities)	Utilities serve isolated communities ranging from 70 to 700 residents. Most category 1 utilities provide power for a single small community. These villages usually have little

	or no tax base and face the toughest obstacles to outside financing. Effective electric rates are much higher ranging from $.14 to $.46.

The communities were subdivided into three categories consistent with previous utility research done at AEA and the Alaska Center for Energy and Power (ACEP). The third category included communities with a large utility user base, and/or access to a large tax base, as well as consistent access to private financing. The second category included communities with a medium sized utility user base, which had some tax base, and might have access to some private financing. The first category included communities with a smaller utility user base, no tax base, and no access to private financing. Essentially, the communities with higher revenue utilities are likely to have more creditworthiness and have a greater chance of accessing various debt financing options. However, it is important to note that while some communities/utilities are placed in the third category, they actually have quite large reserves and quite low/zero liabilities.

The indicators and banking ratios were then analyzed in two different formats, by assessing change over time within each individual community, and change over time by community, year, and indicator. This allows for tracking of trends over time not only within communities, but also within indicators.

Background/literature review

UACED worked to pursue a project that targets data gaps that have not been examined in previous research. There is a lot of research in this field that particularly looks at ways to create more efficient and reliable systems. By collating many of the different types of data and establishing norms as to what a well-run, efficient, and financially stable utility looks like, this study attempts to build from past work.

Rural Village Electric Utility Management Plan Using Common Performance Indicators

The utility management report, as mentioned earlier was created to assist researchers in finding common terminology and methodology while tracking pertinent information on electric utilities. The report focused on improving the way in which data is tracked and analyzed for rural utilities. With a common system to track information, and the development of a baseline of norms, it is possible to evaluate the performance and financial standing of a rural utility more easily. The goal in the short term is to begin systematically collecting data for further evaluation. The goal in the long term is to allow for cooperation and information sharing between utilities. This includes establishing best practices for things like maintenance, increasing generation and system efficiency, and identifying infrastructure improvements to decrease line loss and improve service quality.

Unpublished RCA Analysis

An in-house analysis performed by AEA using PCE filings found no statistically significant economies of scale within rural utility companies. As is demonstrated by looking at the Alaska Village Electric Cooperative (AVEC) model, the number of utilities forming a “single utility” does not ensure that there will be an economy of scale for electricity production. Rather the cost savings most often associated, particularly anecdotally, with AVEC most likely comes from the combination of operations and maintenance services. For all of the communities we examined, none had a customer base that was large enough to support an economy of scale in electricity production.

The analysis noted that most of the utilities charge a different rate for residential and non-residential customers, most of them have residents paying more than non-residents, presumably businesses. While there is no PCE money the community could recoup by charging businesses a higher electric rate, it seems more financially sound to have businesses pay a higher rate. It is assumed that the reason behind the lack of rate differentiation is due to fears that businesses will pass along higher electric rates in the form of additional surcharges to their customers.

There is a positive correlation between efficiency and increasing reported operations and maintenance costs. This makes sense, the more the infrastructure is being maintained, the more efficient, and therefore cost efficient the system is going to be. The analysis also found that a vast majority of the communities examined are actually getting as much money as possible in regards to the allowable amount for PCE. Essentially, most of those communities are already getting the max amount they could get; however, some communities could still be underreporting.

Barriers and Opportunities for Private Investment in Alaska Energy Projects

This 2016 report by ACEP proposed bringing in outside investment to help utilities finance their infrastructure needs. The report noted that many of the true costs of the energy markets have been distorted because of the influx/constant presence of grant money. When the grant money is gone, there is a possibility that some utilities will go out of business. ACEP touched briefly on the need to keep utilities and communities informed on the financial realities that lie ahead. This is a key point, because informing communities about their financial options will be necessary, as many communities will need to work with an advisor or other resources to prepare for debt financing on future projects.

Since the current effort includes a preliminary credit analysis, it expands further on the question of bankability raised in the ACEP report, which did not include a utility-level financial analysis.

Performance indicators

Description of power system

These indicators look at the size and general demographics of the community. They also examine the capacity of the utility systems, and physical infrastructure. They primarily assess the size of the communities served by the utility, in particular looking for inconsistencies in the number of reported customers versus the number of community members in a given year.

Power generated (kWh/year)

Table 2: Average power generated annually, by category

Average Power Generated (kWh-year)							
	2010	2011	2012	2013	2014	2015	Overall
Category 3	34,603,999	34,209,770	36,302,755	36,357,109	45,031,525	44,915,588	38,570,124
Category 3 without AVEC	23,239,145	23,941,006	25,786,184	25,841,277	26,429,178	26,116,670	25,225,577
Category 2	5,935,140	6,036,353	5,946,319	6,003,604	5,777,622	7,245,054	6,157,349
Category 1	957,678	927,948	1,168,312	1,170,151	1,087,759	1,092,427	1,067,379

Source: PCE filings found on AEA website

The data for this indicator is from PCE filings. This indicator looks at the total amount of power generated in kilowatt-hours per year. It includes power produced by diesel, as well as other sources, including renewables. Also included in power generated is any power purchased from an Independent Power Producer (IPP). As the state focuses time and resources on encouraging renewable development, this is an important indicator to track the output of current renewable projects; particularly the output of renewable fuel source as a percentage of the overall output of the utility. Given that AVEC serves considerably more communities and customers than any of the other utilities in category 3, it is not surprise that they as a utility generate the most power, considerably more than any of the other utilities. Which is why there is an additional row in the table above to show the average power generation for category 3 communities, both with and without AVEC power generation numbers. While AVEC does increase the power generation average, category 3 communities still generate power on a much larger scale than the next category of communities.

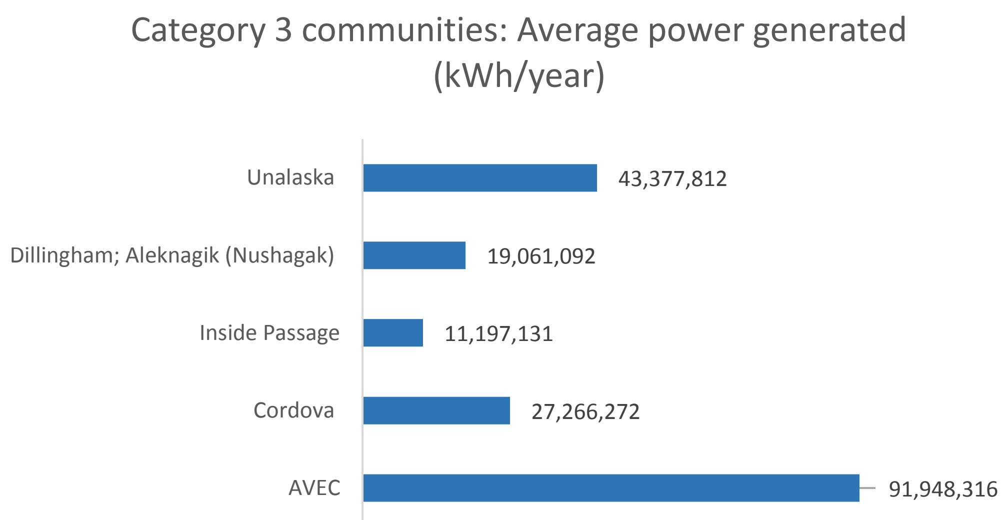

Figure 1: Category 3 communities, average power generated (kWh/year), 2010-2015
Source: PCE filings found on AEA website

As can be seen in figure 1, the larger communities in category 3 tend to generate significantly more power than the communities in category 2, with the exception being the Inside Passage and Dillingham utilities. This is not surprising given their larger utility user base, one of their defining traits.

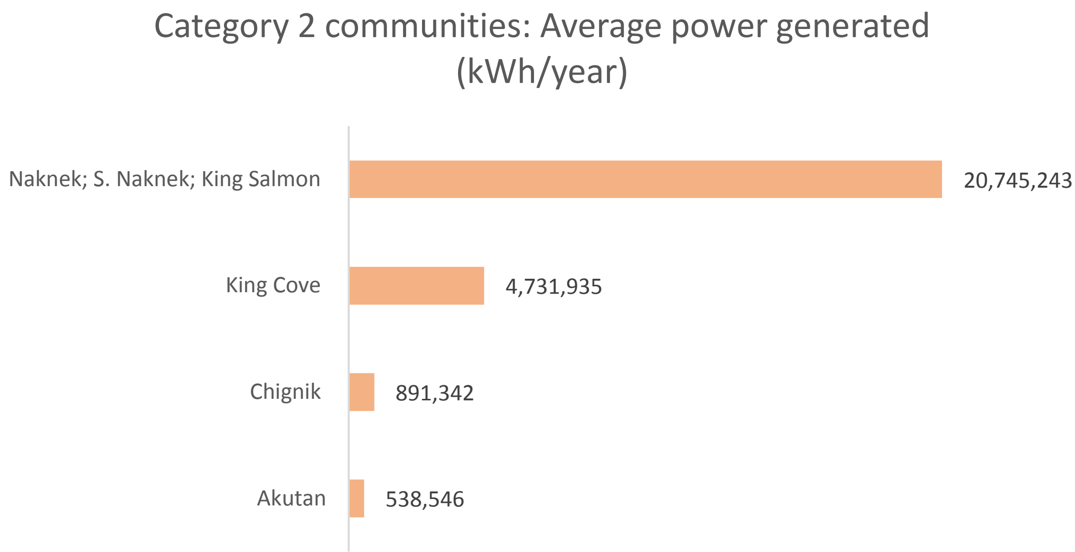

Figure 2: Category 2 communities, average power generated (kWh/year), 2010-2015
Source: PCE filings found on AEA website

The average power generated for communities in category 2 is much less than category 3, except for Naknek. The Naknek utility produced a considerably larger amount of electricity than the other communities. This is most likely attributable to the larger populations in Naknek and King Salmon. These communities also have seafood processors that are large consumers of power.

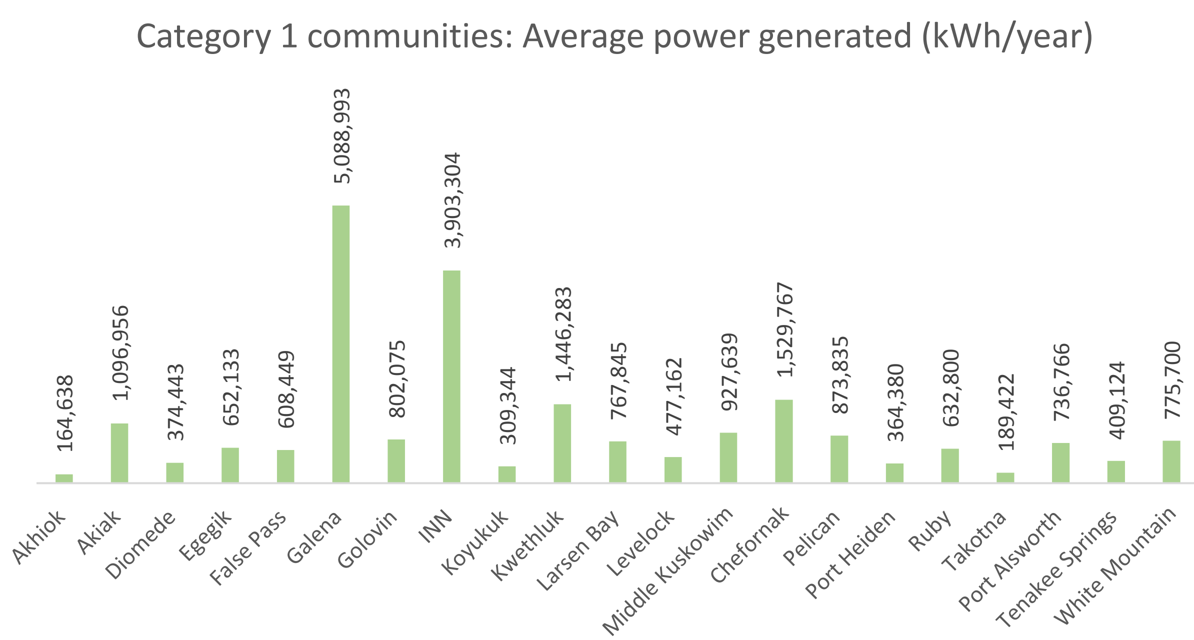

Figure 3: Category 1 communities, average power generated (kWh/year), 2010-2015
Source: PCE filings found on AEA website

Power generation for category 1 communities was considerably lower than the other 2 categories. This is mainly due to the fact that the communities in category 1 have a much smaller utility user base. The outliers in category 1 are Galena and INN. INN is a co-op that services 3 communities, which accounts for the higher power generation.

Power sold (kWh/year)

Table 3: Average power sold annually, by category

Power Sold (kWh-year)							
	2010	2011	2012	2013	2014	2015	Overall
Category 3	27,253,107	31,525,672	33,793,396	34,551,970	42,209,287	42,119,664	35,242,183
Category 2	5,635,349	5,421,491	5,266,413	5,305,112	5,143,258	6,302,936	5,512,427
Category 1	755,932	742,774	982,170	975,067	897,345	973,930	887,870

Source: PCE filings found on AEA website

This indicator looks at the total amount of power sold in kilowatt-hours per year. This indicator can be highly sensitive to communities with a few large non-residential customers, such as a fish processing plant, school, or medical facility. It is important to note the differences between the reported power generated and power sold, as some communities seem to have sold more power than was reportedly generated.

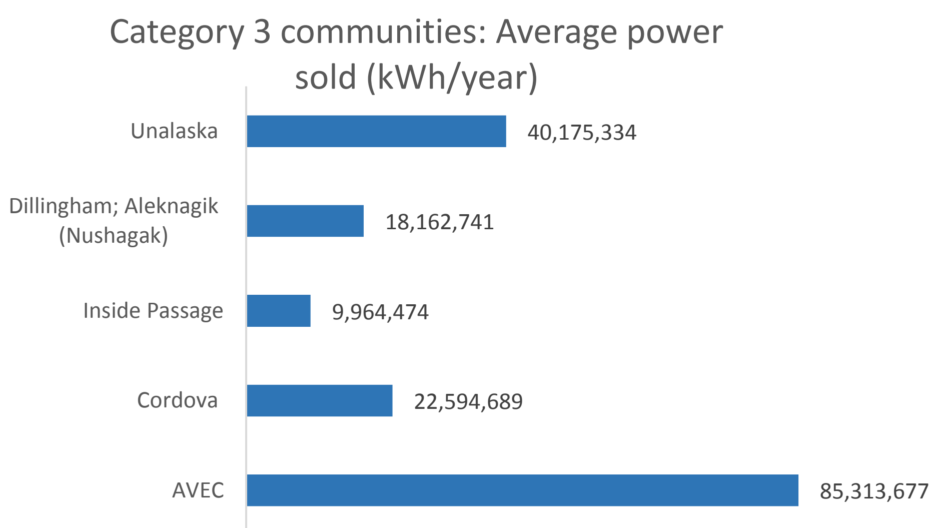

Figure 4: Category 3 communities, average power sold (kWh/year), 2010-2015
Source: PCE filings found on AEA website

Similar to the power generation indicator, it is no surprise that the largest communities in Category 3 sell the most electricity. It is interesting that Cordova only sells about 83% of what they produce, which is the lowest percentage of all of the communities. The 17% that is not sold could be attributed to line loss.

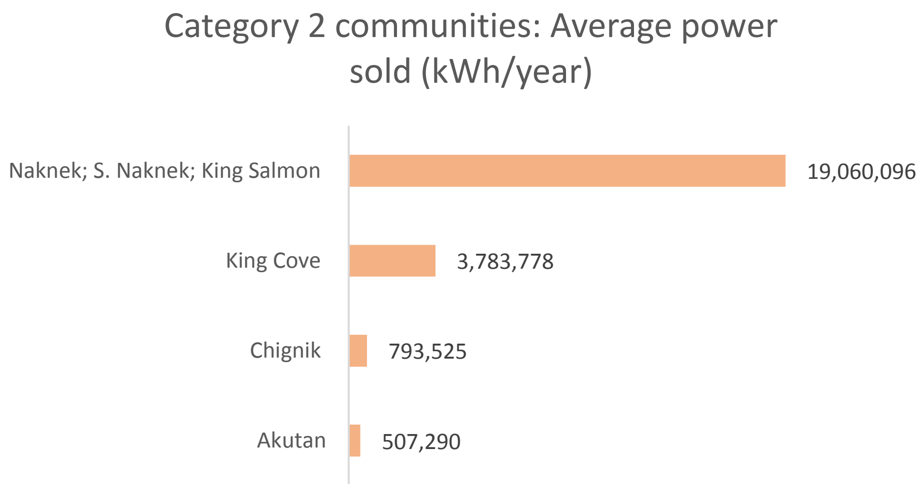

Figure 5: Category 2 communities, average power sold (kWh/year), 2010-2015
Source: PCE filings found on AEA website

The communities in this category have annual sales appropriate to the amount they are producing. Meaning they have low or normal amounts of line loss. As was apparent with the power generation indicator, Naknek far outsells the other communities in category 2. This is mainly due to the fish processing plants that purchase power from the utility.

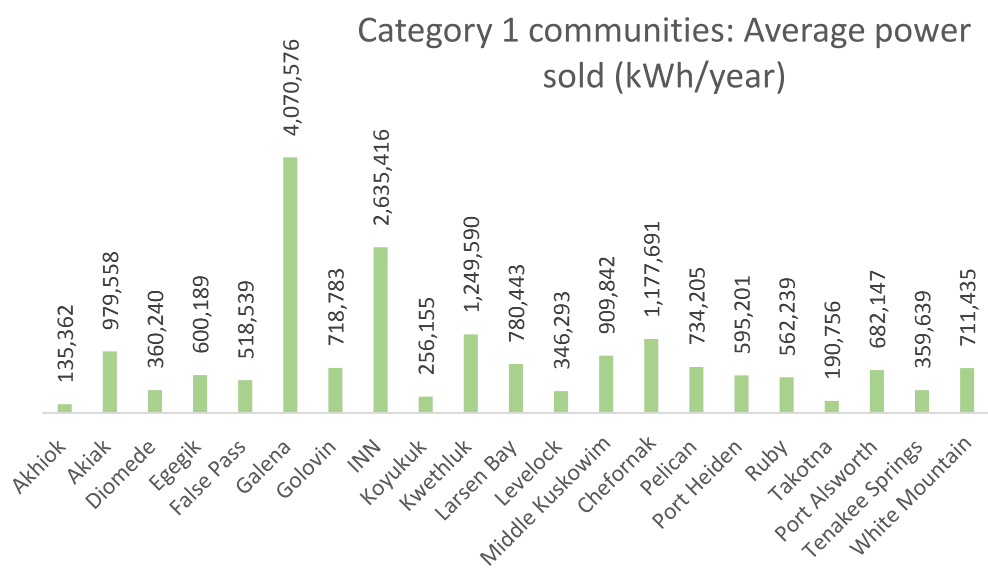

Figure 6: Category 1 communities, average power sold (kWh/year), 2010-2015
Source: PCE filings found on AEA website

The communities with the lowest power sales have correspondingly small populations. Takotna has an average population of 52, and accordingly sell an impressive amount of power for a small community. Galena and INN have large businesses that account for the high amount of power sold for their respective populations. Larsen Bay, Takotna, and Port Heiden all reported selling more kWh then they had generated.

System efficiency

Generation unit cost

Table 4: Average generation unit cost, by category

Generation Unit Cost				
	2012	2013	2014	Overall
Category 3	$ 0.51	$ 0.50	$ 0.58	$ 0.53
Category 2	$ 0.45	$ 0.53	$ 0.60	$ 0.53
Category 1	$ 0.92	$ 0.68	$ 0.92	$ 0.84

Source: The ratios calculated for this indicator were done using total expenditures from municipal financials or co-op 990 forms, and power generated from PCE filings.

This indicator calculates the total expenditures of the utility divided by the amount of power generated. It is particularly important in assessing the cost of generating power. This indicator could also be calculated by looking at total expenditures divided by the amount of electricity sold. However, given that numerous communities had noticeable discrepancies between the amount of electricity produced and the amount of electricity sold (possibly from extensive line loss), it was deemed most important to examine the cost to amount produced ratio. Additionally, this indicator is important in determining economies of scale in electricity production. The lower the generation unit cost, the more economical it becomes to produce electricity, and pass on greater cost savings to the customer.

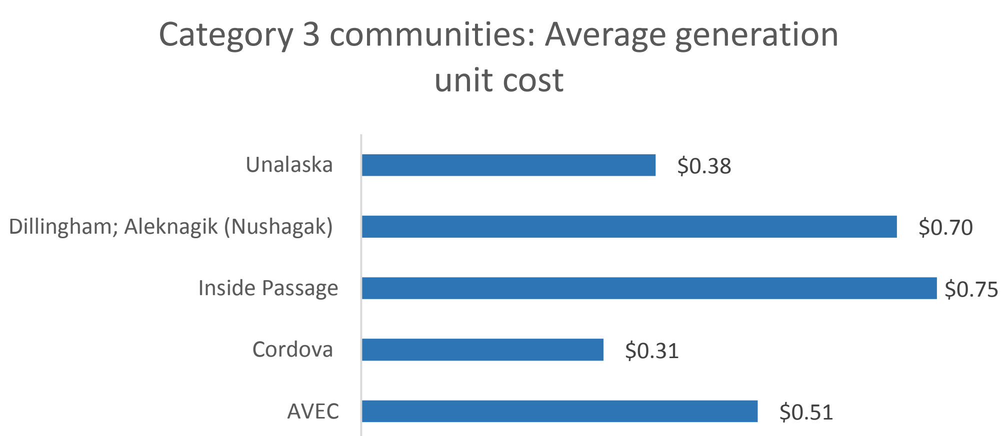

Figure 7: Category 3 communities, average generation unit cost, 2012-2014
Source: The ratios calculated for this indicator were done using total expenditures from municipal financials or co-op 990 forms, and power generated from PCE filings.

The generation unit cost indicator looks at production costs, and can indicate economies of scale, system efficiencies, and sources of power. It is interesting that both Cordova and Unalaska have smaller generation unit costs than AVEC. This could be because Cordova has access to hydroelectric power, which is considerably cheaper than diesel. It is odd that Unalaska would have smaller generation unit cost, given that the do not have access to hydroelectric resources AVEC also has some communities with access to renewable power sources, however, those cost savings are spread out amongst all ratepayers, resulting in an overall higher generation unit cost.

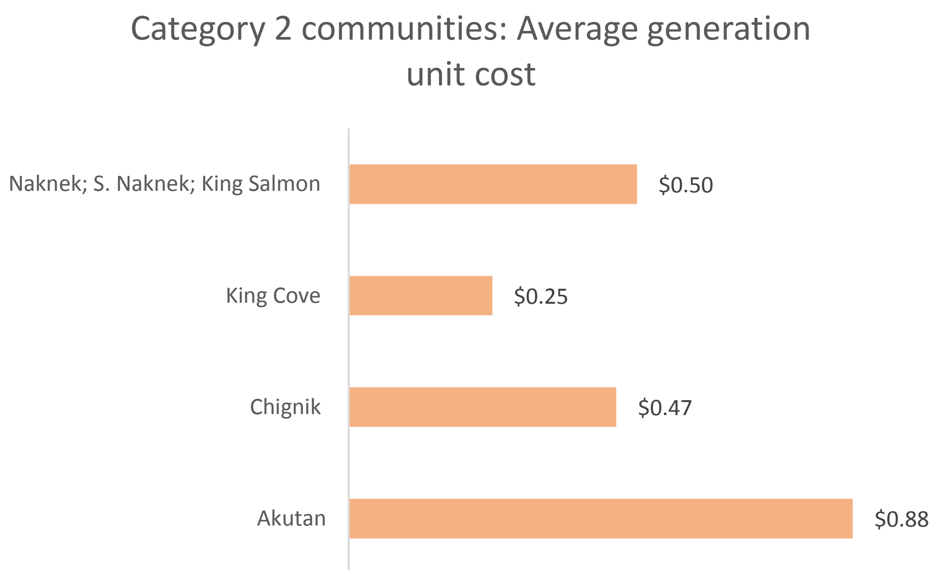

Figure 8: Category 2 communities, average generation unit cost, 2012-2014
Source: The ratios calculated for this indicator were done using total expenditures from municipal financials or co-op 990 forms, and power generated from PCE filings.

Category 2 communities have higher generation unit costs than category 3 communities, which is to be expected. King Cove has low generation unit cost relative to the other category 2 communities, because it has hydroelectric power in its portfolio. As mentioned earlier, use of cheap renewables such as hydropower, can greatly reduce generation unit costs.

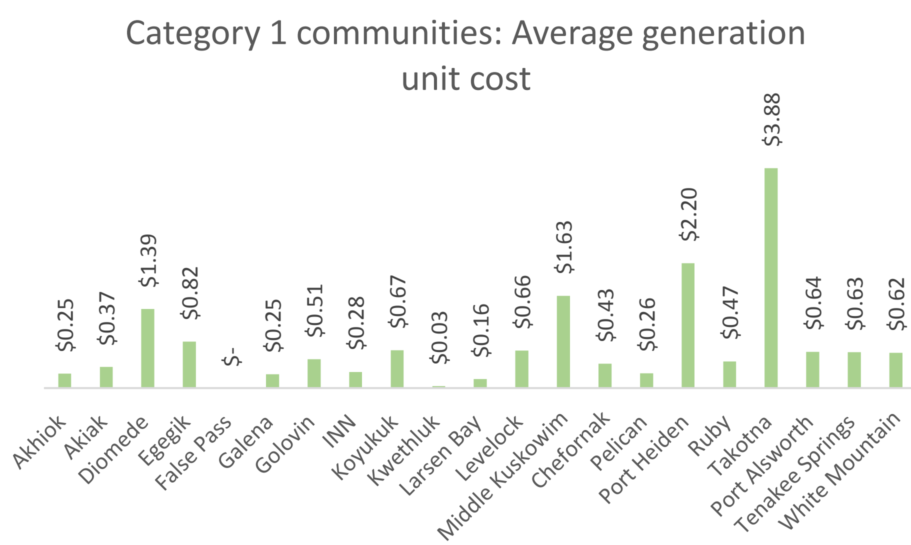

Figure 9: Category 1 communities, average generation unit cost, 2012-2014

Source: The ratios calculated for this indicator were done using total expenditures from municipal financials or co-op 990 forms, and power generated from PCE filings.

Six of the 20 communities have generation unit costs below $.30, which is very surprising given the small population of those communities. This might indicate accounting errors, or the presence of renewable energy source. In particular the generation unit cost for Kwethluk ($0.03) seems suspiciously low. Takotna has an extremely high generation unit cost, which is seemingly unexplained by the data. False Pass had no financial information available, which accounts for the missing generation unit cost.

Line loss ratio

Table 5: Average line loss ratio, by category

Line Loss Ratio							
	2010	2011	2012	2013	2014	2015	Overall
Category 3	22%	8%	8%	6%	7%	7%	10%
Category 2	9%	13%	12%	12%	13%	14%	12%
Category 1	10%	15%	2%	12%	12%	N/A	10%

Source: PCE filings found on AEA website

The data for this indicator is from PCE filings. This indicator looks at the amount of electricity sent out through distribution lines versus the amount reported on a customer meter. High rates of line loss could indicate degrading infrastructure (energy that is lost through transmission on physical lines), or that some of the electricity being produced is not being reported as used, and therefore not being paid for.

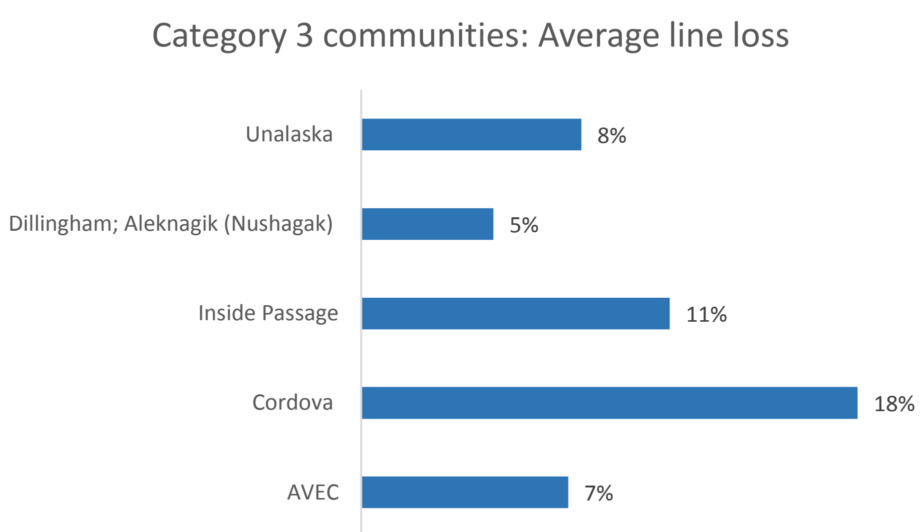

Figure 10: Category 3 communities, average line loss ratio, 2012-2014
Source: PCE filings found on AEA website

As can be seen in figure 10, the average line loss for category 3 communities is quite small, compared to the other two categories. However the exception is the utility in Cordova, which incorporates hydroelectric energy, which accounts for the higher line loss.

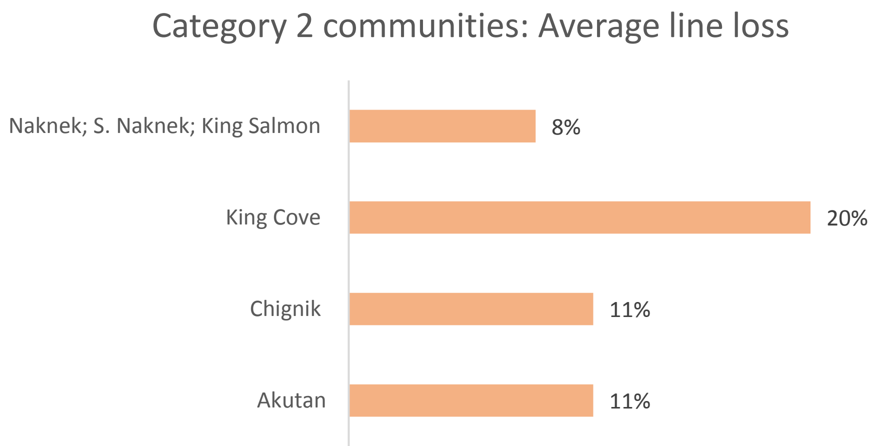

Figure 11: Category 2 communities, average line loss, 2012-2014
Source: PCE filings found on AEA website

The line loss indicator is a measure of power sold versus the amount of power generated. While not a perfect substitute for line loss, which is generally power lost through physical transmission, it points out some of the same irregularities seen with line loss. King Cove, similar to Cordova has higher line loss than normal due to the use of hydroelectric resources.

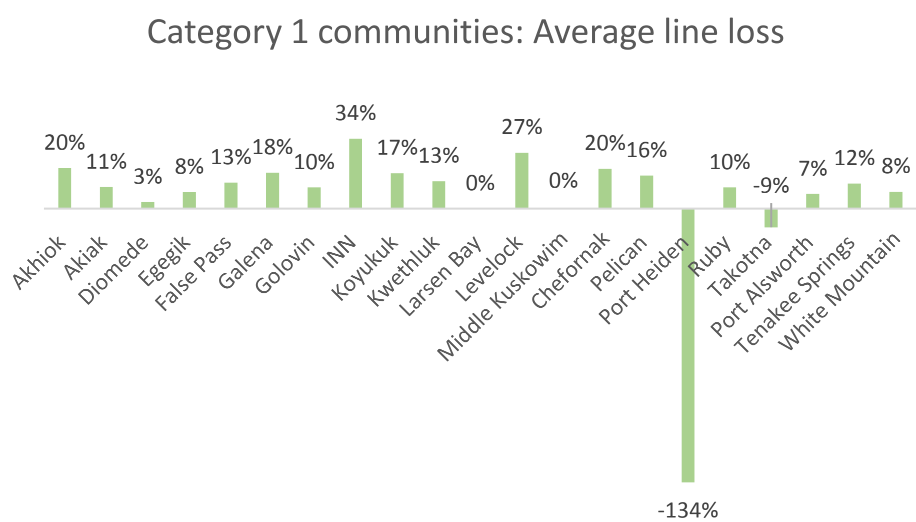

Figure 12: Category 1 communities, average line loss, 2012-2014
Source: PCE filings found on AEA website

As would be expected the line loss for category 1 communities is greater than communities in the other two categories. Port Heiden has a very large negative line loss, which means they also reported selling considerably more power than they reported generating. Takotna (-9%), and Larsen Bay (0%), have unrealistically low line loss ratios. The line loss ratios, whether high or low, could be due to: old infrastructure, lack of maintenance, bad accounting, and improper checking of equipment and connections.

Financial strength

These indicators look at where a utilities funding sources come from, how well they are poised to be able to pay down their yearly obligations and debts, and how effectively they are using their resources.

Effective electric rates (i.e. after PCE adjustments)

Table 6: Average effective generation rates, by category

Effective Electric Rates ($/ kWh)							
	2010	2011	2012	2013	2014	2015	Overall
Category 3	$0.20	$0.22	$0.22	$0.21	$0.21	$0.23	$ 0.21
Category 2	$0.18	$0.18	$0.19	$0.19	$0.19	$0.19	$ 0.19
Category 1	$0.20	$0.20	$0.20	$0.24	$0.20	$0.20	$ 0.21

Source: PCE filings found on AEA website

This indicator looks at the effective rate the customers pay, after the PCE subsidy. What is interesting to note is that some community rates rise slowly over time, which is to be expected when accounting for fluctuations in fuel prices and inflation. However, some communities have effective rates that vary wildly, which cannot be explained by natural variation in fuel prices or PCE subsidies. This indicator is useful in examining the rate setting ability of the utility.

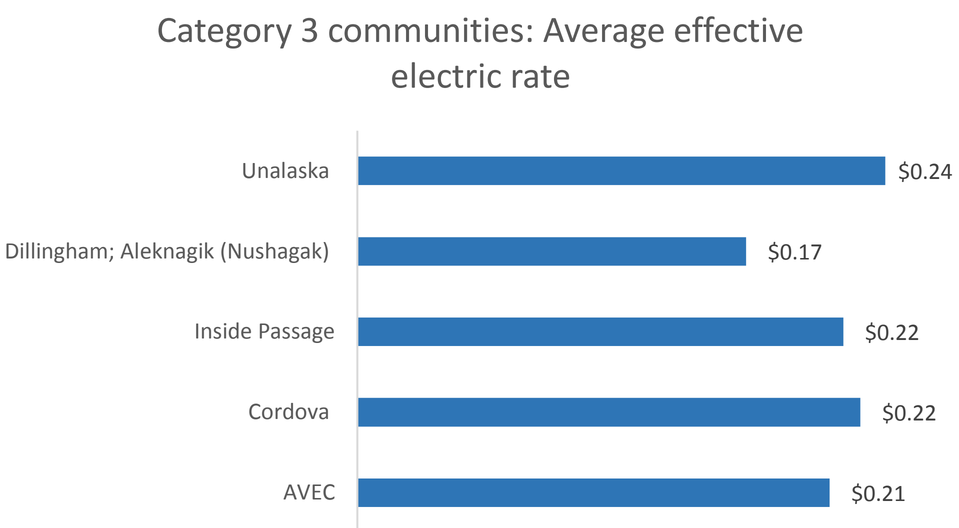

Figure 13: Category 3 communities, average effective electric rates, 2010-2015
Source: PCE filings found on AEA website

Effective electric rates are another good measure of the economy of scale of electricity production. The average electric rate for category 3 communities is on par with electric rates for communities in the Railbelt. That is not surprising, because the intention of the PCE subsidies is to bring electric rate in rural communities more in alignment with their Railbelt counterparts.

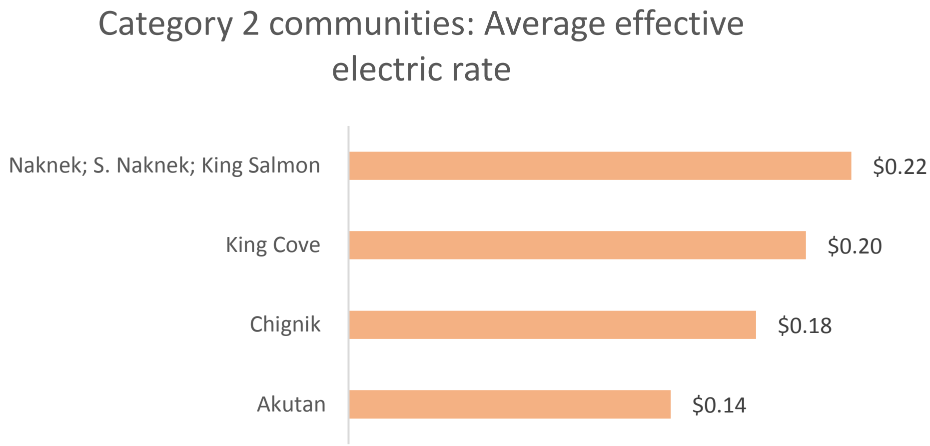

Figure 14: Category 2 communities, average effective electric rates, 2010-2015
Source: PCE filings found on AEA website

It is surprising that Akutan has such low effective rates, lower than all of the category 3 communities. Akutan has a population of approximately 41[1], the smallest category 2 community. The lower rates in Akutan are due to a local subsidy that lowers energy costs even further for Akutan customers.

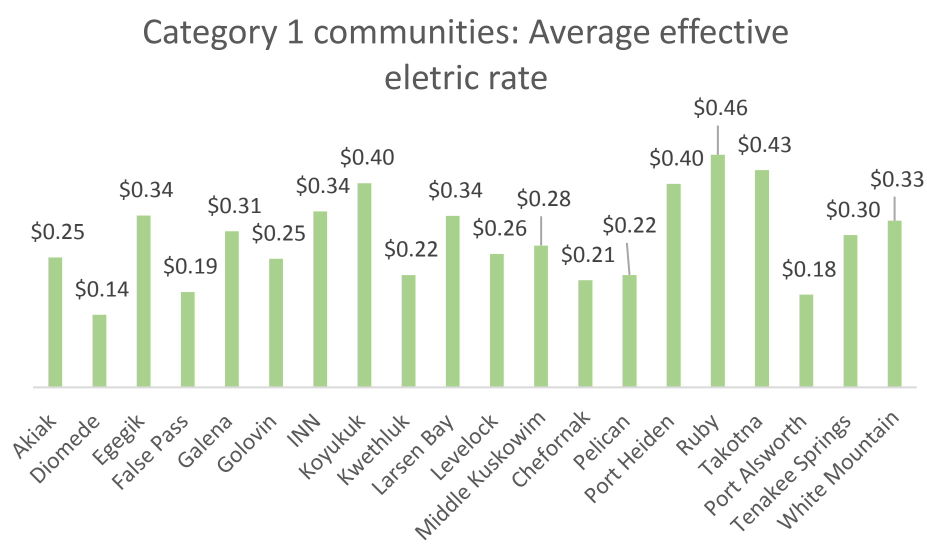

Figure 15: Category 1 communities, average effective electricity rate, 2010-2015
Source: PCE filings found on AEA website

Diomede like Akutan has a low effective rate given its population. This could be due to the fact that both Diomede and Akutan have not changed their residential rate in the 6 years examined for this report.

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[1] This population number came directly from the PCE filings found on the AEA website.

That is worrisome given that fuel costs, and presumably non-fuel costs have varied considerably over that 6-year period.

Average effective electric rate vs. Average unit cost vs. Rate charged

The figures below examine the relationship between the rate charged to customers, the effective rate (the rate charged minus the PCE subsidy), and the unit cost, i.e. the amount of money it costs to produce a single kWh. Comparing these three indicators illustrates the amount per kWh that is subsidized in each community.

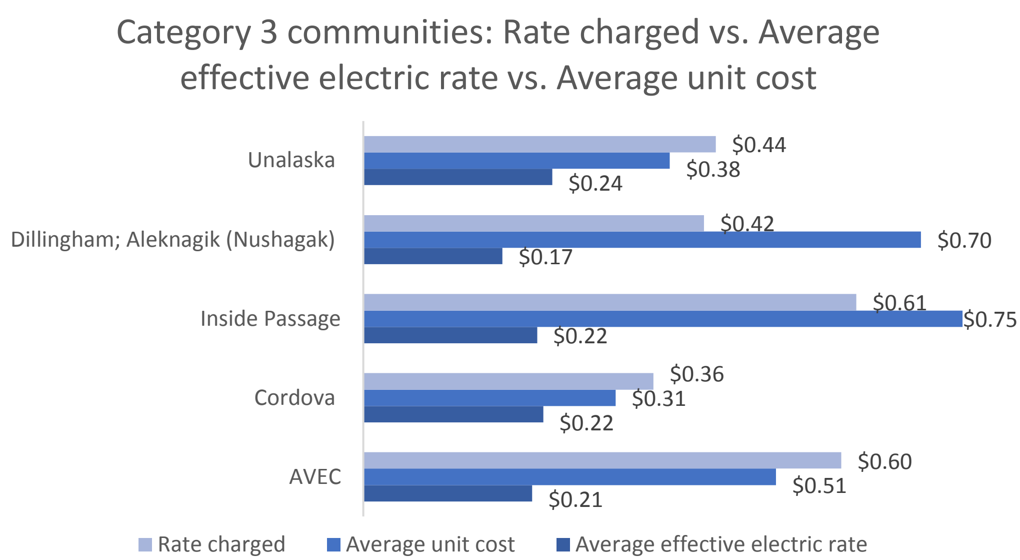


Figure 16: Category 3 communities, rate charged vs. average effective electric rate vs. average unit cost
Source: The electric rate data comes from PCE filings, the unit cost ratio was calculate (as described earlier) using municipal financials, and co-op 990 forms.

As can be seen in figure 16, Inside Passage and Dillingham have relatively heavily subsidized power. Residents pay $0.17 per their first 500 kWh of electricity and $0.42 after 500 kWh, while the true cost of producing that kWh was $0.71. A majority of that gap is covered by PCE subsidies. However, it is interesting to note how large some PCE subsidies are for communities in category 3. Essentially, Inside Passage and Dillingham both heavily subsidize the cost of power, either through PCE, or other programs. Also, Unalaska, Cordova, and AVEC seem to have a healthy tariff system, the rate charged per kWh is more than it costs to produce a kWh, meaning they have built in a profit margin.

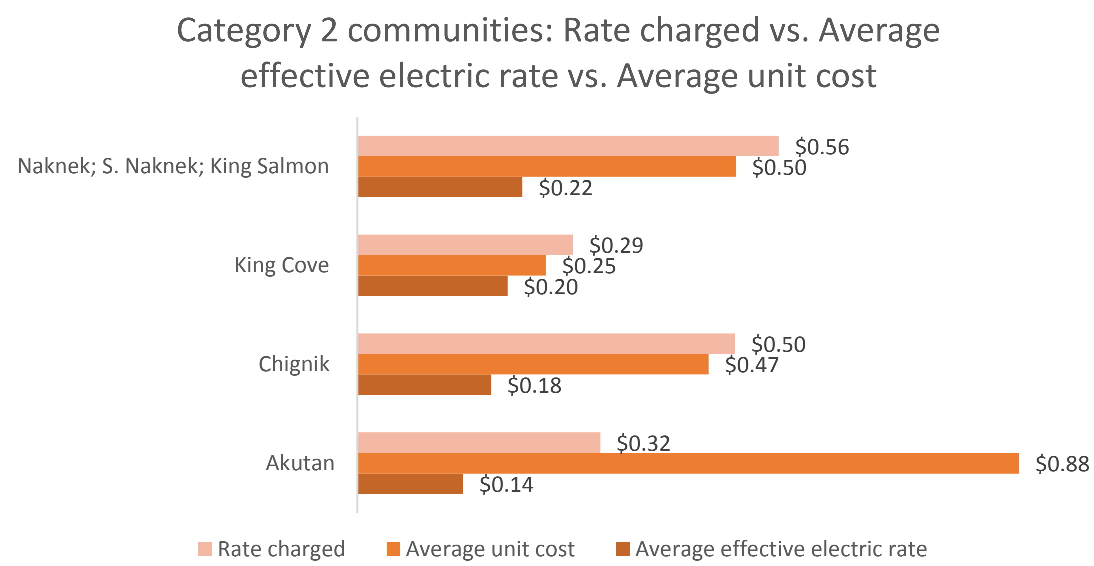
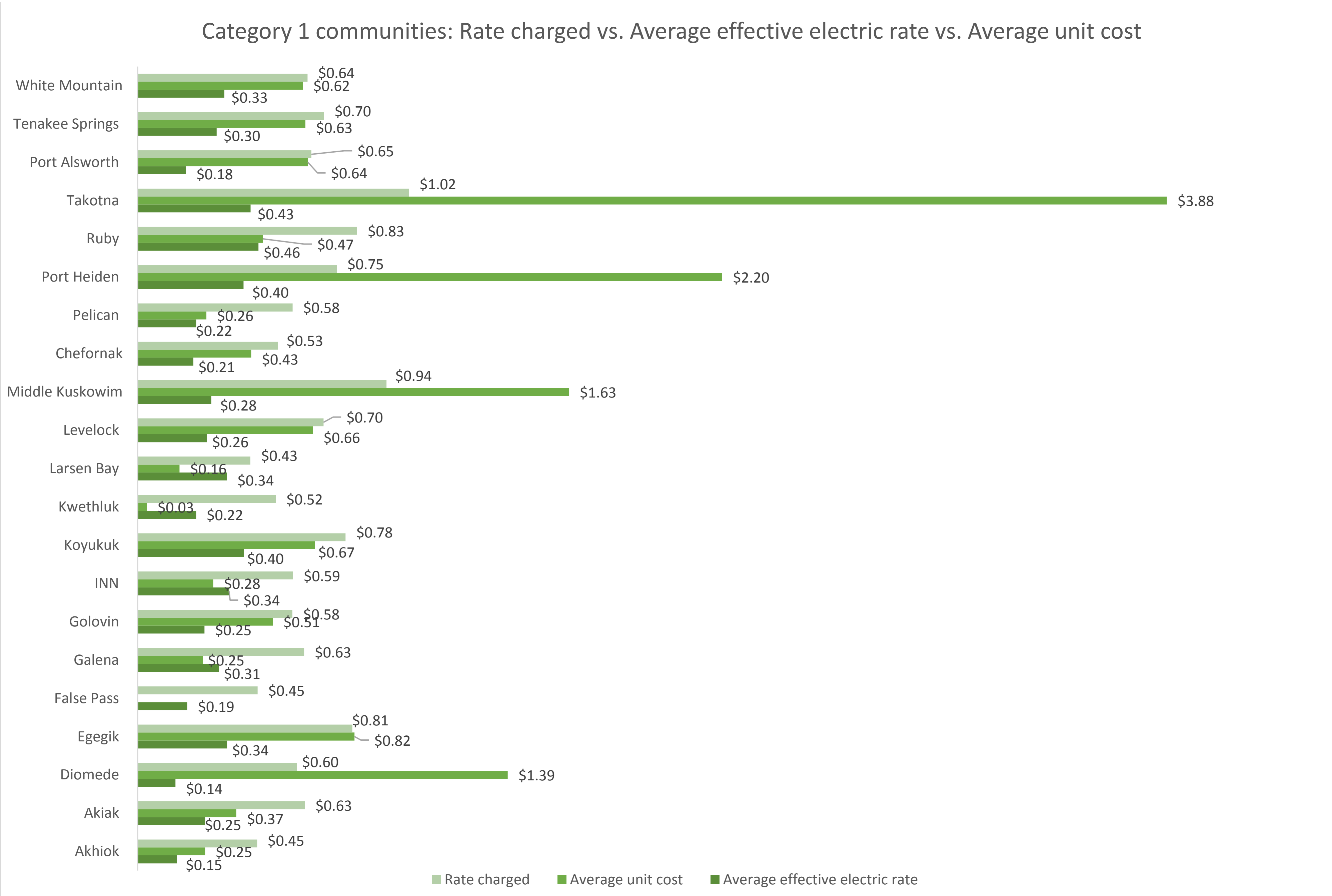


Figure 17: Category 2 communities: Rate charged vs. Average effective electric rate vs. Average unit cost
Source: The electric rate data comes from PCE filings, the unit cost ratio was calculate (as described earlier) using municipal financials, and co-op 990 forms.

Figure 17 illustrates how heavily power is subsidized in Akutan, the power is subsidized through both a local program, and the PCE program. As would be expected, category 2 communities have larger power subsidies. This is to be expected, as category 2 communities have smaller user bases, and less tax base to help lower the overall cost of electricity. Akutan is the only community that does not have a rate charged that at least covers the unit cost of a single kWh. This is worrisome because there does not seem to be any margin built into their tariff system.



Category 1 communities: Rate charged vs. Average effective electric rate vs. Average unit cost
White Mountain
$0.64
$0.62
$0.33
Tenakee Springs
$0.70
$0.63
$0.30
Port Alsworth
$0.65
$0.64
$0.18
Takotna
$1.02
$3.88
$0.43
Ruby
$0.83
$0.47
$0.46
Port Heiden
$0.75
$2.20
$0.40
Pelican
$0.58
$0.26
$0.22
Chefornak
$0.53
$0.43
$0.21
Middle Kuskowim
$0.94
$1.63
$0.28
Levelock
$0.70
$0.66
$0.26
Larsen Bay
$0.43
$0.16
$0.34
Kwethluk
$0.52
$0.03
$0.22
Koyukuk
$0.78
$0.67
$0.40
INN
$0.59
$0.28
$0.34
Golovin
$0.58
$0.51
$0.25
Galena
$0.63
$0.25
$0.31
False Pass
$0.45
$0.19
Egegik
$0.81
$0.82
$0.34
Diomede
$0.60
$1.39
$0.14
Akiak
$0.63
$0.37
$0.25
Akhiok
$0.45
$0.25
$0.15
Rate charged
Average unit cost
Average effective electric rate

Figure 18: Category 1 communities, Rate charged vs. Average effective electric rate vs. Average unit cost
Source: The electric data comes from PCE filings, the unit cost ratio was calculated (as described earlier) using municipal financials, and co-op 990 forms.

Figure 18 illustrates the amount by which power is subsidized in category 1 communities. What is very interesting, is that for the most part, the communities in this category are less subsidized than communities in category 2 or 3. This could be due to: inadequate rate setting (i.e. not maximizing the amount of PCE subsidies), improper accounting, or good financial health (there is no need for large subsidies). There are also a few communities who have astronomically large gaps between the amount charged, and the cost to produce: Diomede, Takotna, and Port Heiden. This indicates either that costs are far outside of typical structures for unknown reasons, or that information is being reported inaccurately. However, 16 of the 21 utilities charge rates that at least cover their unit cost per kWh, which is positive.

Amount of PCE reimbursement sent to community vs. PCE reimbursement the community reported receiving

This indicator compares the amount of PCE subsidy the community reported receiving versus the PCE subsidy AEA reported sending to community. This indicator was not specifically identified in the performance indicator report. However, the level of accuracy at which the utilities were accounting for PCE monies needs to be examined. PCE revenue plays an important role in the "bankability" of a community, because it is a consistent revenue source. Communities who are not specifically reporting PCE subsidies as a revenue source might be missing an opportunity to show strength in terms of annual cash flow.

PCE as a % of revenue

Table 7: Average PCE as a % of revenue, by category

PCE as a % of Revenue				
	2012	2013	2014	Overall
Category 3	16%	15%	14%	15%
Category 2	12%	11%	10%	11%
Category 1	21%	24%	19%	21%

Source: PCE data is from PCE filings, revenue data is from municipal financials and co-op 990 forms.

This indicator was also not a part of the original performance indicators report. However, when determining a utility's ability to take on debt to finance capital projects, understanding overall dependence on PCE revenues is crucial. Communities that are more dependent on PCE revenue most likely lack diversification in their revenue base, including proper tariff setting.

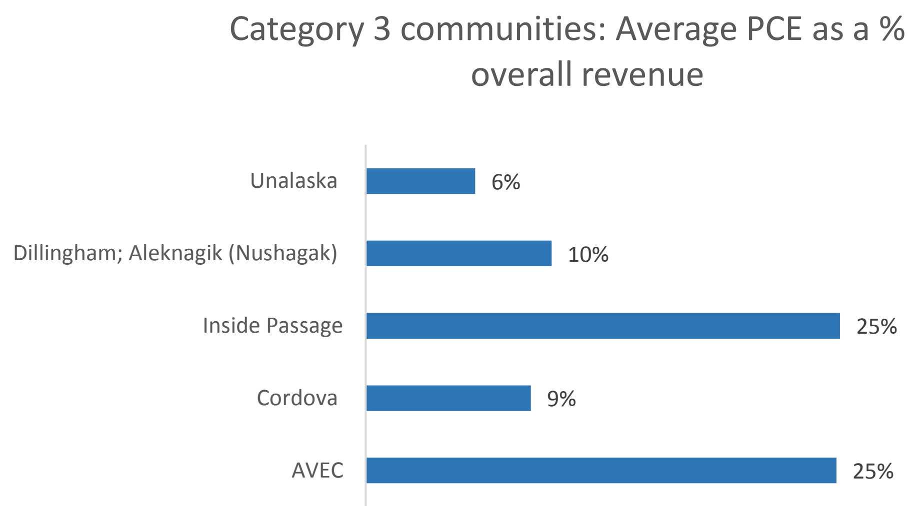


Figure 19: Category 3 communities, average PCE as a % of overall revenue, 2012-2014
Source: PCE data is from PCE filings, revenue data is from municipal financials and co-op 990 forms.

It is surprising that there is so much variance within this indicator for category 3 communities. Given the financial stability of the communities in this category, it would be expected that PCE subsidies would amount to approximately the same general percentage of overall revenue for all the communities. One explanation could be that since both AVEC and Inside Passage are co-ops made up of multiple communities, there might be some small communities in the co-op receiving large subsidies, which skews the overall percentage.

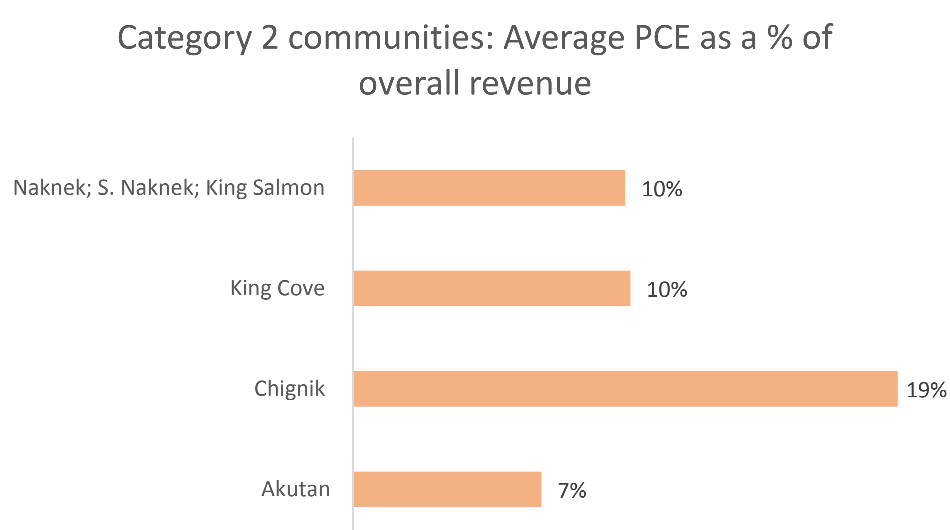


Figure 20: Category 2 communities, average PCE as a % of overall revenue, 2012-2014
Source: PCE data is from PCE filings; revenue data is from municipal financials and co-op 990 forms.

Naknek, King Cove, and Akutan have surprising low percentages of PCE as a part of their total revenue. This could mean they do not currently maximize the amount of PCE subsidies that are applied for. It could also be a signal of financial stability, with other ratepayers making up the bulk of their overall revenues.

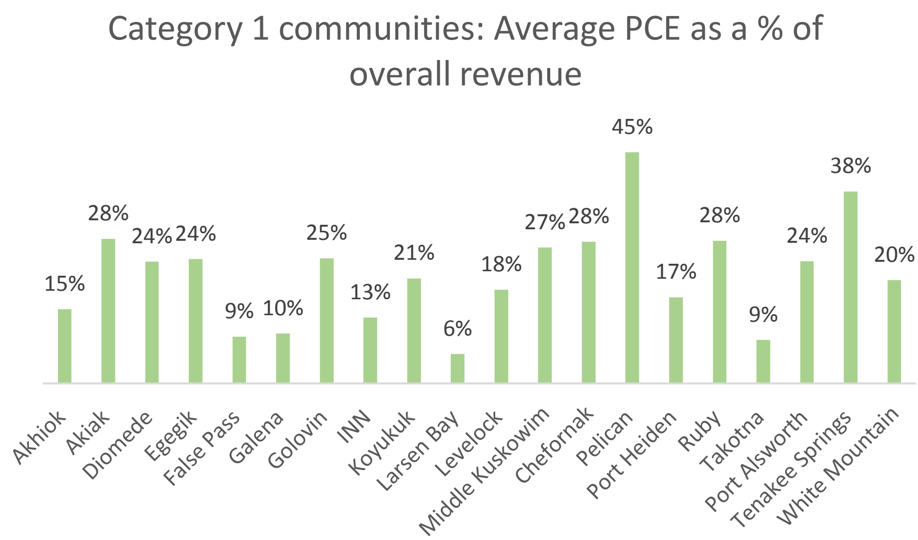


Figure 21: Category 1 communities, average PCE as a % of overall revenue, 2012-2014
Source: PCE data is from PCE filings, revenue data is from municipal financials and co-op 990 forms.

The vast range of PCE subsidies is to be expected in the category 1 communities. The small communities being highly dependent on PCE as a main revenue source could cause this variance. It could also show that rates have not changed (at least in the 6 years examined here), therefore the communities are not maximizing reimbursement from PCE.

Non-fuel costs per kWh generated

Table 8: Average Non-fuel costs, by category

Non-fuel costs ($/kWh sold)							
	2010	2011	2012	2013	2014	2015	Overall
Category 3	$0.17	$0.18	$0.18	$0.20	$0.18	$0.18	$ 0.18
Category 2	$0.12	$0.14	$0.13	$0.19	$0.20	$0.14	$ 0.15
Category 1	$0.19	$0.21	$0.25	$0.22	$0.19	$0.24	$ 0.22

Source: PCE filings found on AEA website

This indicator looks at the amount of non-fuel expenditures per kWh generated. Non-fuel costs include personnel, operations, and maintenance. This indicator illustrates changes in non-fuel costs over time and helps clarify anecdotal evidence about excess spending in non-fuel costs by utilities.

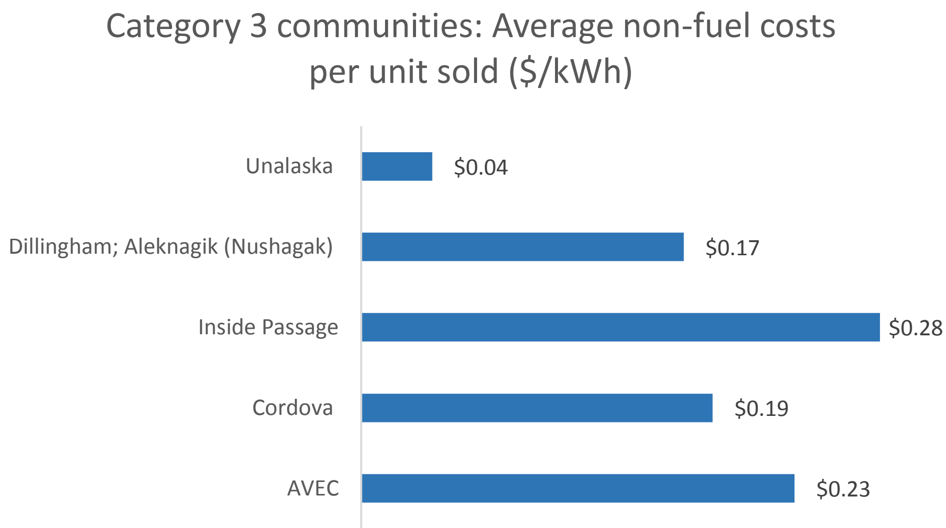


Figure 22: Category 3 communities, average non-fuel costs per kWh sold, 2010-2015
Source: PCE filings found on AEA website

The large variance among non-fuel costs per unit sold within category 3 communities is unexpected. One possible explanation for the variance could be the size of the utilities, larger utilities can spread out non-fuel cost surcharges over more ratepayers. Unalaska is a municipal run utility, the non-fuel costs of the utility might be lumped in with general city expenses, instead of being broken out as separate utility expense.

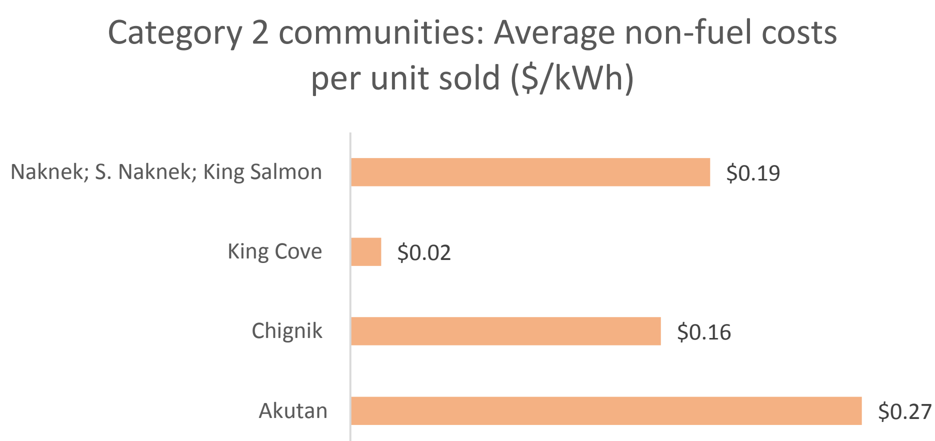


Figure 23: Category 2 communities, average non-fuel costs per kWh sold, 2010-2015
Source: PCE filings found on AEA website

The non-fuel costs for King Cove seem far too low given the general range of the other category 2 communities. This could be due to poor accounting practices. As was mentioned earlier with Unalaska, King Cove is a municipal run utility, and many non-fuel expenses might be accounted for elsewhere in the city's budget.

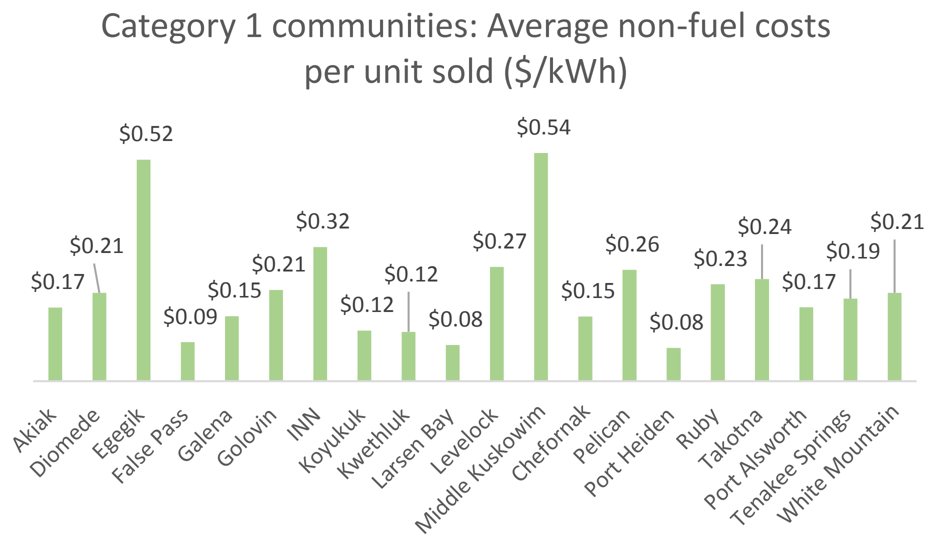


Figure 24: Category 1 communities, average non-fuel costs per kWh sold, 2010-2015
Source: PCE filings found on AEA website

Non-fuel costs for category 1 communities vary wildly from year to year. This could be due to inconsistent accounting practices, and inconsistent reporting. For example, False Pass and Larsen Bay have two of the lowest non-fuel costs, and are also two the smallest communities, this seems to be incongruent.

Fuel costs per kWh sold

Table 9: Average fuel costs per kWh sold, by category

Fuel Costs per kWh Sold							
	2010	**2011**	**2012**	**2013**	**2014**	**2015**	**Overall**
Category 3	$0.20	$0.19	$0.23	$0.24	$0.23	$0.21	$ 0.22
Category 2	$0.26	$0.26	$0.29	$0.34	$0.29	$0.22	$ 0.28
Category 1	$0.28	$0.30	$0.35	$0.37	$0.40	$0.34	$ 0.34

Source: PCE filings found on AEA website

This indicator looks at the cost of fuel, per kWh sold. While this is a heavily researched indicator, it is important to understanding the rate setting process and financial standing for the utility.

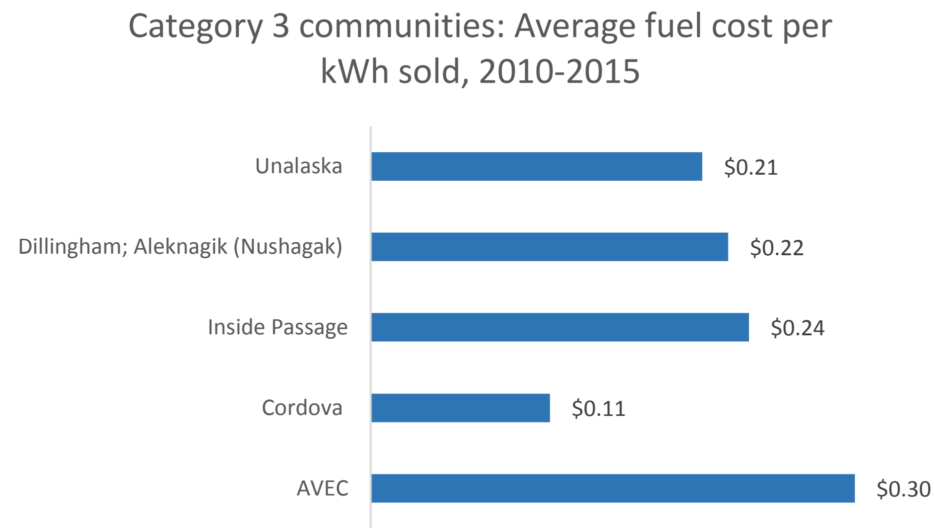


Figure 25: Category 3 communities, average fuel costs per kWh sold, 2010-2015
Source: PCE filings found on AEA website

AVEC's has the highest fuel per kWh sold cost, which is likely due to the fact that many of the communities that are a part of AVEC purchase fuel from separate distributors, meaning more variable pricing. Also, while AVEC as a whole is a large utility, some of the communities in AVEC are small and remote, compared to the other communities in this category, which usually means increased costs for fuel delivery. Cordova's fuel per kWh sold costs is quite low. This is most likely due to their use of renewable energy, like hydropower, which decreases the amount of fuel they purchase.

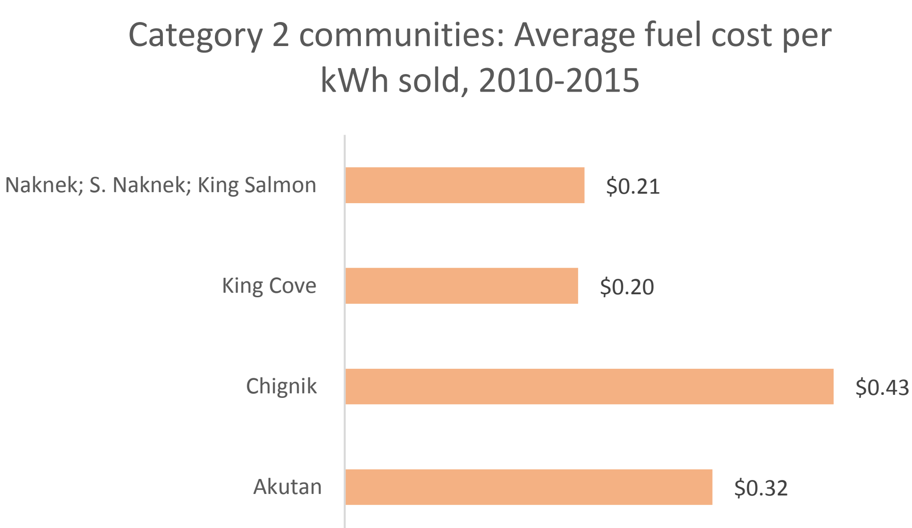


Figure 26: Category 2 communities, average fuel costs per kWh sold, 2010-2015
Source: PCE filings found on AEA website

Chignik has the highest fuel cost per kWh sold. This could be because the infrastructure is less efficient, and uses more fuel. It could also be that Chignik is more remote, and therefore pays a higher premium for their fuel. The other three communities in this category have relatively similar fuel per kWh sold costs.

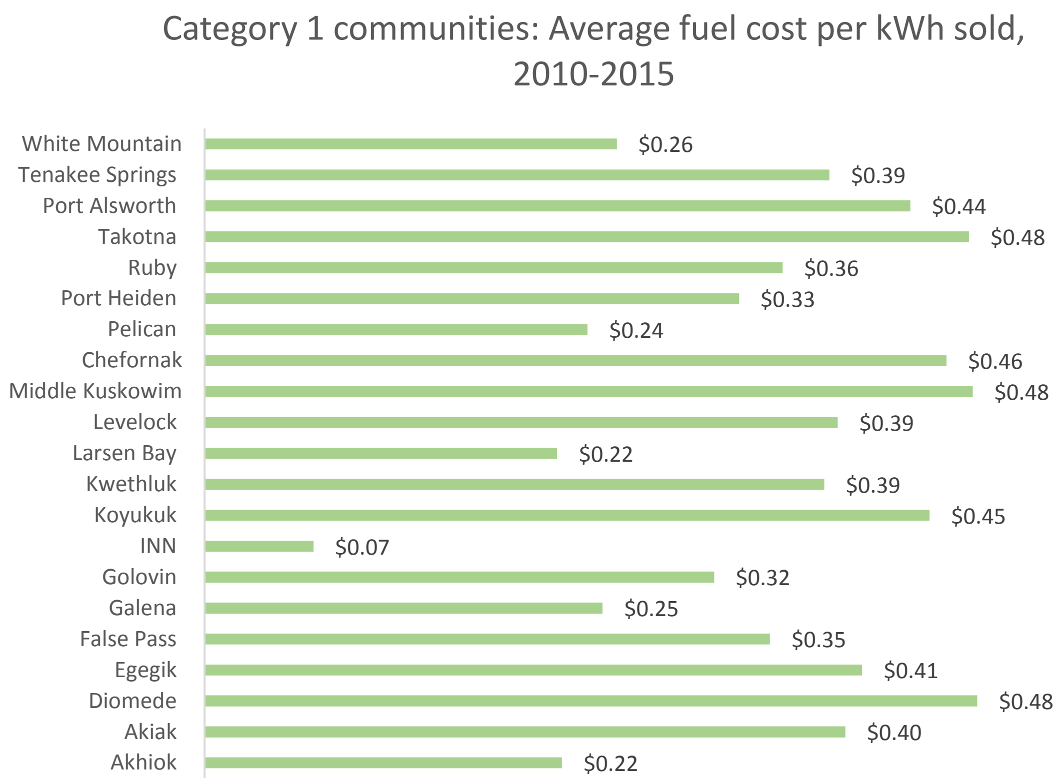


Figure 27: Category 1 communities, average fuel costs per kWh sold, 2010-2015
Source: PCE filings

There is a lot of variation in the fuel per kWh sold costs for category 1 communities. INN has very low fuel per kWh costs, most likely due to the utility's use of hydropower, mainly run-of-river systems. Two of the three communities with the highest fuel per kWh sold costs Takotna and Middle Kuskokwim, are located in western Alaska, and are very remote, which likely explains the higher fuel cost. Also, the remoteness of Diomede, an island in northwest Alaska, likely explains the higher fuel costs.

Fuel cost per gallon

Table 10: Average fuel cost per gallon, by category

Fuel Costs per Gallon							
	2010	2011	2012	2013	2014	2015	Overall
Category 3	$ 2.66	$ 3.04	$ 3.71	$ 3.87	$ 3.79	$ 3.44	$ 3.42
Category 2	$ 2.93	$ 2.94	$ 3.51	$ 3.86	$ 3.78	$ 3.63	$ 3.44
Category 1	$ 3.81	$ 3.73	$ 4.06	$ 4.49	$ 4.50	$ 4.31	$ 4.15

Source: PCE filings found on AEA website

This indicator looks at the fuel cost per gallon. Fuel costs per community are incredibly variable based on the market, and geographic location of the community. This indicator shows the similarities or differences in a community's fuel costs based on the category they have been subdivided into.

Essentially, it illustrates communities that benefit from economies of scale when purchasing fuel, or that have better access for fuel deliveries.

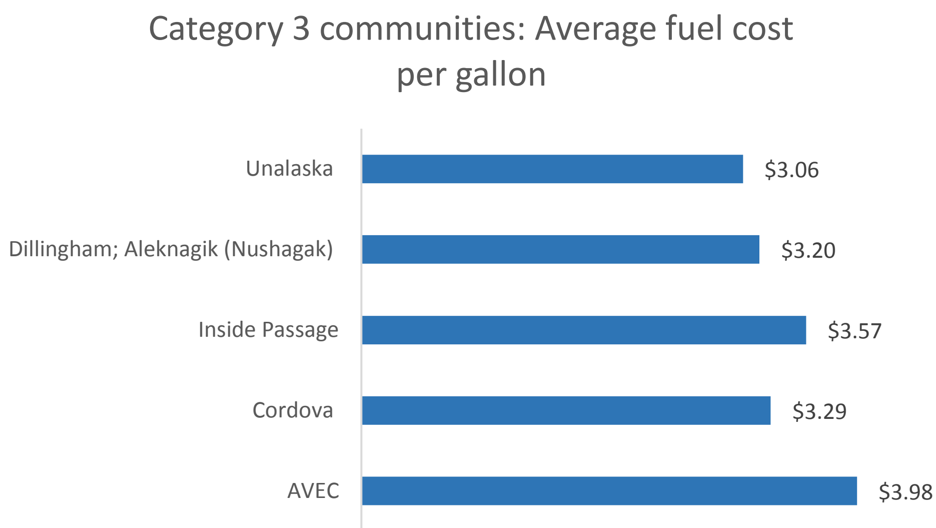


Figure 28: Category 3 communities, average fuel cost per gallon, 2010-2015
Source: PCE filings found on AEA website

There is little variation amongst the per gallon fuel costs for category 3 communities, which is to be expected. Inside Passage and AVEC most likely have higher average per gallon fuel costs because they are purchasing and delivering fuel to multiple communities, some of which have high transportation costs for fuel because of their location.

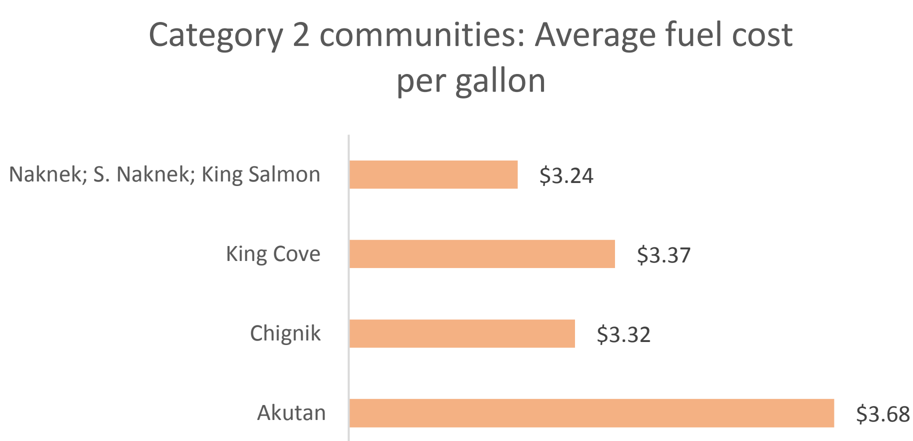


Figure 29: Category 2 communities, average fuel cost per gallon, 2010-2015
Source: PCE filings found on AEA website

Given the amount of power Naknek produces, it is likely that they purchase fuel in bulk and therefore receive a better price per gallon, as mentioned previously. It is no surprise that Akutan pays the most per gallon of the category 2 communities, as they produce the smallest amount of kWh, and probably buy the least volume of fuel, making it more expensive.

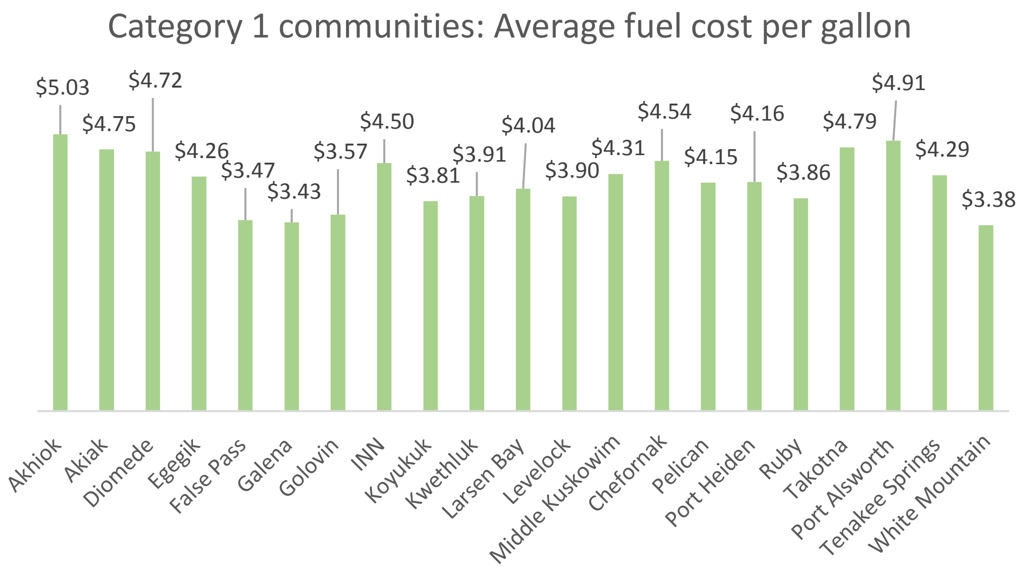


Figure 30: Category 1 communities, average fuel cost per gallon, 2010-2015
Source: PCE filings found on AEA website

The average per gallon fuel cost has a relatively normal distribution amongst the category 1 communities. As was mentioned previously, the amount of variation is to be expected given the geographic and population differences between many of the communities.

Fuel cost per kWh generated

Table 11: Average fuel cost per kWh generated, by category

Fuel Costs per kWh generated							
	2010	2011	2012	2013	2014	2015	Overall
Category 3	$ 0.15	$ 0.18	$ 0.21	$ 0.22	$ 0.22	$ 0.19	$ 0.20
Category 2	$ 0.25	$ 0.24	$ 0.25	$ 0.27	$ 0.26	$ 0.25	$ 0.25
Category 1	$ 0.31	$ 0.31	$ 0.37	$ 0.34	$ 0.37	$ 0.37	$ 0.35

Source: PCE filings found on AEA website

This indicator measures the cost of production, influenced by system efficiency, fuel costs, and presence of renewables. The smaller the scale of power the utility is producing, generally, the more expensive the kWh generation will be. However, larger communities that consistently have higher fuel costs per kWh generated might have inefficiencies within their infrastructure.

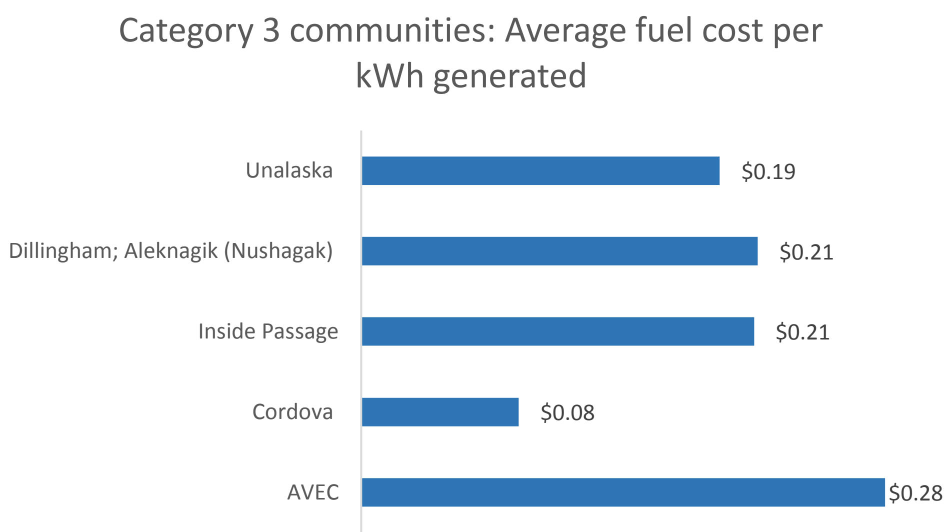


Figure 31: Category 3 communities, average fuel cost per kWh generated ($/kWh), 2010-2015
Source: PCE filings found on AEA website

As can be seen in figure 31, there is little variation among the category 3 communities. The cost to produce a single kilowatt-hour is approximately the same. However, Cordova's low fuel cost per kWh is likely due to their hydropower facilities, as was mentioned earlier, they also seem to purchase the least amount of fuel of the category 3 communities.

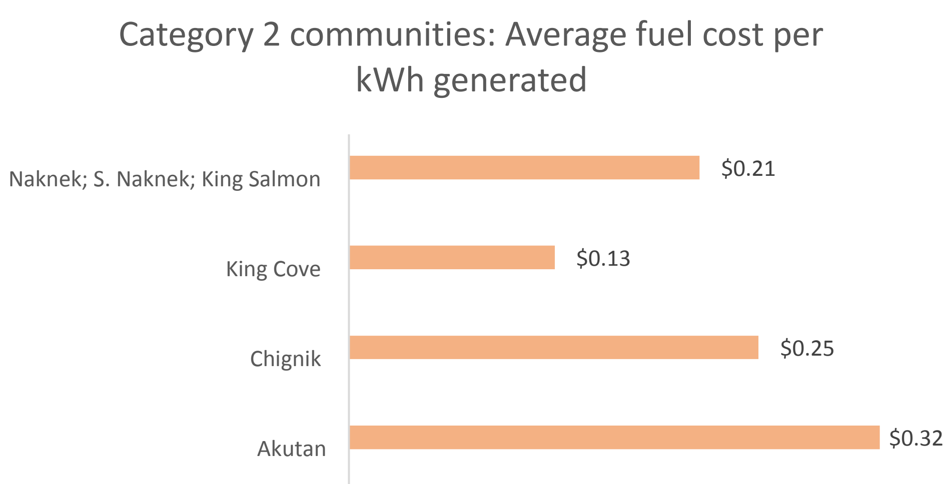


Figure 32: Category 2 communities, average fuel cost per kWh generated ($/kWh), 2010-2015
Source: PCE filings found on AEA website

King Cove, similar to Cordova in category 3, has very low fuel cost per kWh generated, which is most likely attributable to their use of renewable resources. Otherwise, the category 2 communities have very similar fuel cost per kWh generated. This makes sense as they all generate power on relatively the same scale.

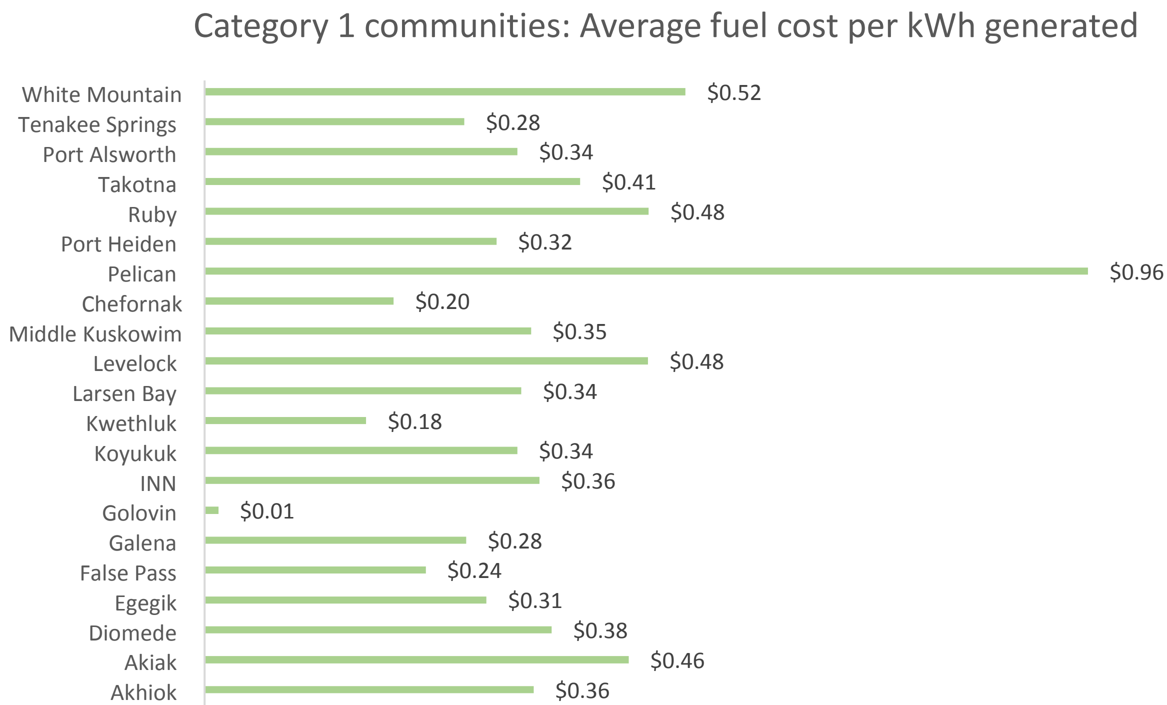


Figure 33: Category 1 communities, average fuel cost per kWh generated ($/kWh), 2010-2015
Source: PCE filings found on AEA website

Pelican's fuel cost per kWh generated seems extremely high when compared to the other category 1 communities. They purchased less fuel, and paid less per gallon than many of the other category 1 communities. This most likely means that the $0.96 per kWh could be due to accounting errors, or that they have rapidly declining infrastructure that is not nearly as efficient as equipment from many other similar sized communities.

Electricity consumption per capita

Table 12: Average electricity consumption per capita, by category

Electricity Consumption per Capita							
	2010	2011	2012	2013	2014	2015	Overall
Category 3	6,790	7,361	7,434	7,501	7,477	7,413	7,329
Category 2	12,031	14,258	12,402	12,292	12,500	12,447	12,655
Category 1	4,875	5,001	5,658	5,914	5,362	5,501	5,414

Source: PCE filings found on AEA website, and population numbers from DCRA website

This indicator looks at energy consumption per capita. Energy consumption per capita is a heavily studied topic, because many rural communities consume smaller amounts of energy than is recommended by the World Health Organization. This indicator is important because it tracks energy consumption not only by community, but also by category. Essentially, belonging to a higher category, which generally means cheaper electricity, does not ensure increased energy consumption.

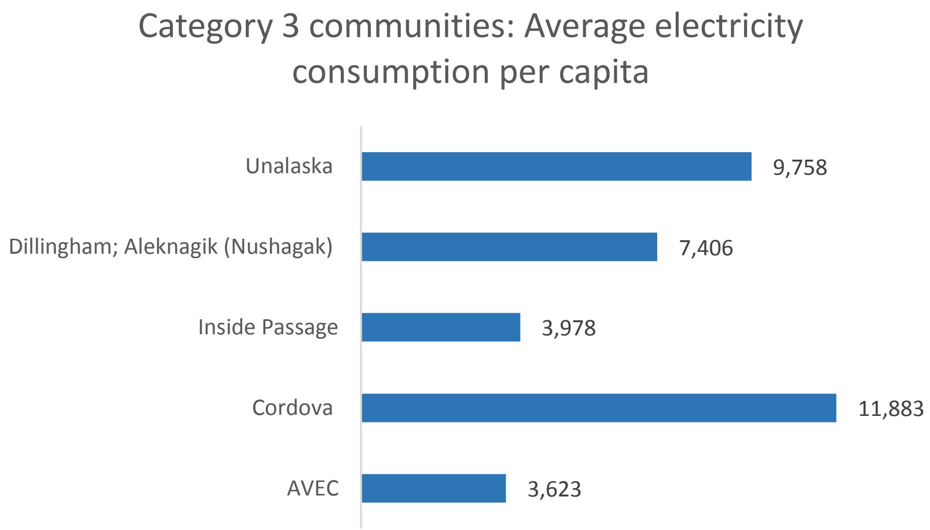


Figure 34: Category 3 communities, average electricity consumption per capita, 2010-2015
Source: PCE filings found on AEA website

It is interesting that Cordova has the largest energy consumption per capita, because they are not the largest community in category 1. In fact, they have a user base approximately 1/6th the size of AVEC's. This most likely due to the fact that AVEC is composed of many communities which vary in size and location. Generally, the more remote community locations with higher electric rates tend to have lower consumption.

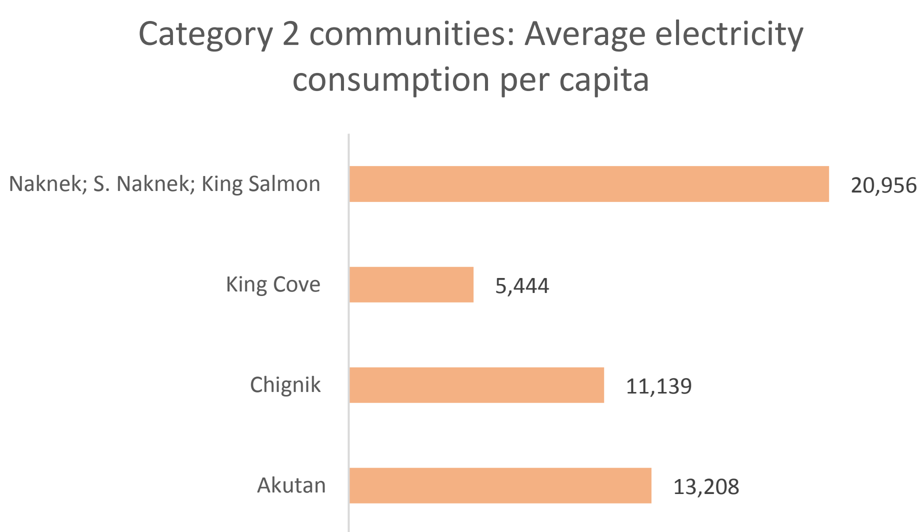


Figure 35: Category 2 communities, average electricity consumption per capita, 2010-2015
Source: PCE filings found on AEA website

Akutan has very low consumption per capita, which is less surprising given its small population, 41, relative to the other category 2 communities. Naknek has high consumption per capita compared to the other category 2 communities.

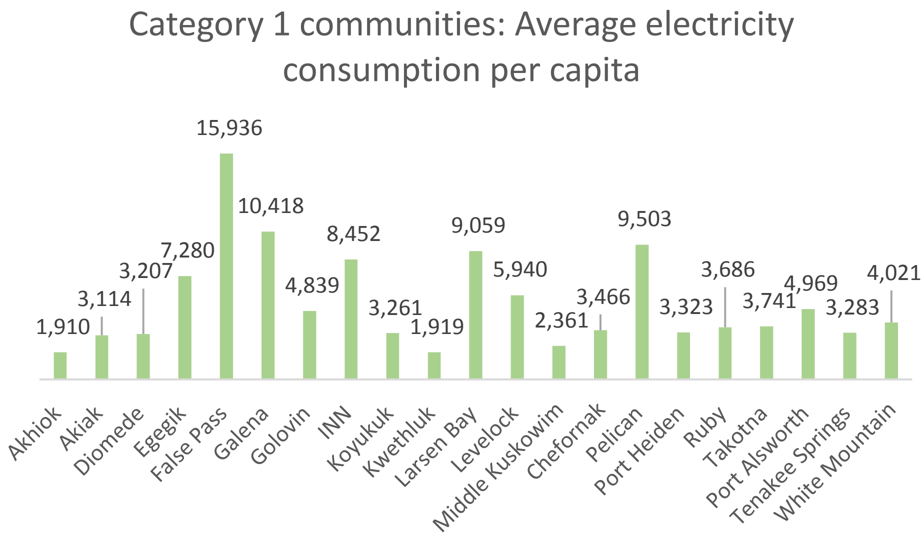


Figure 36: Category 1 communities, average electricity consumption per capita, 2010-2015
Source: PCE filings found on AEA website

The category 1 communities have variation in per capita consumption, however given the varying size of the communities this is to be expected. However, Pelican, Larsen Bay, and False Pass seem to have extremely high consumption per capita for their relative size. It is interesting that all of the category 1 communities have higher consumption per capita rates than Akutan from category 2.

Preliminary Credit Analysis

In the current fiscal climate, grant funding to pay for capital and other expenditures is increasingly scarce. Policymakers with influence in the state's electric utility sector warn that utilities must begin to seek alternative means of accessing financing, including debt. Two state-run loan programs exist to meet the financial needs of Alaska's electric utilities. The Power Project Fund Loan Program (PPFL), administered by AEA, finances capital projects related to "distribution, transmission, efficiency and conservation, bulk fuel storage and waste energy" for utilities and other community organizations.[2] The Bulk Fuel Revolving Loan Program, run by the Department of Commerce, Community, and Economic Development, Division of Community and Regional Affairs, finances the single most important working capital need for utilities, the purchase of fuel, heating oil, and gasoline to run generators.[3]

Both programs require an analysis of the borrower's financial position, using financial indicators (and additional information) similar to what is presented here. The purpose of this section of the report is to explore in a preliminary fashion the financial indicators of utilities from a lender perspective, to determine areas of strength and weakness. To do this, the team used publicly available financial data

[2] Alaska Energy Authority "Power Project Loan Fund" http://www.akenergyauthority.org/Programs/Loans
[3] DCRA "Bulk Fuel Revolving Loan Program" https://www.commerce.alaska.gov/web/dcra/BulkFuelLoanProgram.aspx

from IRS Form 990's (for non-profit utilities) and municipal financials reported to DCRA (for municipally-run utilities) to calculate key ratios used by bankers to offer preliminary opinions on the creditworthiness of these entities. The ratios presented here indicate liquidity, equity, debt levels, and financial efficiency, which all help to determine—in concert with other information—the capacity of a borrower to repay loans. The results of this analysis will be presented at the conclusion of this section.

Several caveats present themselves when preforming this type of analysis, as there are clear limitations. Ultimately a lender would scrutinize the financials (and non-financial information) of a borrower in greater detail than the public sources offer when weighing a loan application. Furthermore, the CED team's experience confirms what others have noted, that the accounting and bookkeeping quality of rural utilities varies considerably, and not all reported figures are trustworthy. Even when accounting standards are high, not all entities report financial information in the same manner, making comparisons difficult.

An additional limitation of credit analysis in general is that ratios ignore the timing of cash flows, which could vary from month to month depending on when revenues are realized, and when expenses are due. This is especially important for rural utilities, since they are often forced to purchase fuel one time for an entire year.

Despite these drawbacks, this analysis is intended to lay a foundation for further exploration on the subject of rural utility financing.

Current Ratio

Table 13: Average current ratio, by category

Current Ratio				
	2012	2013	2014	Overall
Category 3	1.46	1.54	1.85	1.62
Category 2	6.88	6.34	5.34	6.19
Category 1	32.55	43.56	94.02	56.71

Source: Municipal financial records, and co-op 990 forms

The current ratio, also called the working capital ratio, helps estimate the ability of an organization to pay off its short-term (current) liabilities using its short-term assets. Current assets include cash, accounts receivable, inventory, and marketable securities. For rural utilities, fuel is considered a current asset as well. Current liabilities consist of debt and accounts payable—in other words, money owed in the next year. The current ratio is calculated according to this formula:

Current Assets/Current Liabilities=Current Ratio

If an entity has a current ratio of 1, it means it's current assets and liabilities are equal, and it likely has the ability to pay off short-term liabilities. Current ratios below one often signal risk to lenders, as current assets may be insufficient to pay back obligations. Lenders typically look for a ratio between 1 and 3; higher ratios could signal financial problems, as they may indicate that an organization is using its assets inefficiently or has been unable to obtain credit, accounting for low liabilities.

Interestingly, most of the rural utilities in all three categories have current ratios in the preferred range for the three years analyzed. This indicates a healthy balance between cash-producing assets, and debts and other liabilities that will be due in the coming year. Communities like King Cove and Unalaska with a ratio lower than 1 have relatively high debt, whereas those above 3 have significant assets and little debt. In each case, a lender would carefully scrutinize the reasons for each scenario.

Table 14: Current ratios by community

Category 3	**2012**	**2013**	**2014**	**Average**
AVEC	1.55	1.61	1.60	1.59
Cordova	1.70	1.76	1.88	1.78
Inside Passage	1.00	1.00	2.29	1.43
Dillingham; Aleknagik (Nushagak)	2.97	3.16	3.18	3.10
Unalaska	0.09	0.19	0.30	0.19
Category 2	**2012**	**2013**	**2014**	**Average**
Akutan	21.21	19.93	17.32	19.48
Chignik	3.53	3.45	2.37	3.12
King Cove	1.56	0.65	0.32	0.84
Naknek; S. Naknek; King Salmon	1.20	1.34	1.35	1.30
Category 1	**2012**	**2013**	**2014**	**Average**
Akhiok	No data	No data	No data	No data
Akiak	No data	No data	No data	No data
Diomede	No data	No data	No data	No data
Egegik	63.02	40.00	8.37	37.13
False Pass	287.34	164.44	245.12	232.30
Galena	1.00	1.84	1.01	1.28
Golovin	No data	No data	No data	No data
INN (Iliamna; Newhalen; Nondalton)	2.18	2.14	1.74	2.02
Koyukuk	2.24	No data	No data	2.24
Kwethluk	1.49	0.11	No data	0.80
Larsen Bay	No data	No data	No data	No data
Levelock	5.55	4.37	4.32	4.75
Middle Kuskokwim	1.16	1.11	1.12	1.13
Naterkaq Light Plant (City of Chefornak)	1.09	1.14	1.31	1.18
Pelican	0.38	0.92	12.86	4.72
Port Heiden	No data	No data	No data	No data
Ruby	No data	27.25	22.08	24.66
Takotna	-149.41	200.36	37.17	29.37
Port Alsworth	No data	No data	583.73	583.73
Tenakee Springs	158.04	78.77	208.52	148.44
White Mountain	No data	No data	No data	No data

Source: Municipal financial records, and co-op 990 forms

Key:

Green	= Ratios between 1-3, indicates healthy ratio
Yellow	= Ratios above 3, indicates low debt, possibly too many assets not being utilized
Red	= Ratios below 1, indicates high debt

Quick Ratio

Table 15: Average quick ratio, by category

Quick Ratio				
	2012	2013	2014	Overall
Category 3	1.26	1.32	1.63	1.40
Category 2	6.42	5.58	4.59	5.53
Category 1	29.67	42.16	91.77	54.54

Source: Municipal financial records, and co-op 990 forms

Related to the current ratio, the quick ratio is also called the "acid test" for financers as it can provide an even stronger indicator of an entity's immediate-term liquidity position. Since some current assets are more difficult or time intensive to convert to cash, such as inventory, the quick ratio focuses on cash, cash equivalents, marketable securities, and accounts payable, since these assets are cash or easily converted into cash on short notice. A borrower holding a sufficient quantity of these "quick assets" is likely to be liquid enough to repay debt service. Inventory (fuel in the case of rural utilities) may take much longer to sell, and is thus excluded from the quick ratio calculation, which is:

Quick Ratio= (Current Assets—Inventories)/Current Liabilities

For rural utilities, fuel is a large line item in their current assets, and one that often must be purchased and delivered during the short summer barge season, converting to cash slowly throughout the year. If a utility found itself in a cash flow or liquidity crunch, it most likely could not simply sell off fuel inventory to gain short-term cash. For this reason, the quick ratio is a valuable measure of the strength of non-fuel current assets.

Conventionally, lenders prefer to see a quick ratio of 1 or higher. As in the case of the current ratio, a high quick ratio may indicate inefficient allocation of financial resources. For this reason, the table highlights a "preferred" range of 1 to 3 for quick ratios, although more analysis would be needed to make definitive judgments.

Most communities in this analysis have liquidity ratios in this zone, indicating positive liquidity after accounting for fuel.

Table 16: Quick ratio by community

Category 3	2012	2013	2014	Average
AVEC	1.29	1.31	1.29	**1.29**
Cordova	1.67	1.72	1.84	**1.75**

Inside Passage	0.85	0.85	2.14	**1.28**
Dillingham; Aleknagik (Nushagak)	2.43	2.53	2.60	**2.52**
Unalaska	0.07	0.17	0.28	**0.17**
Category 2	**2012**	**2013**	**2014**	**Average**
Akutan	19.45	17.03	14.49	**16.99**
Chignik	3.53	3.45	2.37	**3.12**
King Cove	1.56	0.65	0.32	**0.84**
Naknek; S. Naknek; King Salmon	1.12	1.19	1.17	**1.16**
Category 1	**2012**	**2013**	**2014**	**Average**
Akhiok	No data	No data	No data	No data
Akiak	No data	No data	No data	No data
Diomede	No data	No data	No data	No data
Egegik	63.02	40.00	8.37	**37.13**
False Pass	273.48	153.96	233.02	**220.15**
Galena	0.31	1.27	0.52	**0.70**
Golovin	No data	No data	No data	No data
INN (Iliamna; Newhalen; Nondalton)	2.11	2.09	1.70	**1.97**
Koyukuk	1.49	No data	No data	**1.49**
Kwethluk	1.49	0.11	No data	**0.80**
Larsen Bay	No data	No data	No data	No data
Levelock	3.20	2.36	2.35	**2.64**
Middle Kuskokwim	1.05	1.01	1.03	**1.03**
Naterkaq Light Plant (City of Chefornak)	1.04	1.09	1.28	**1.14**
Pelican	0.24	0.68	10.53	**3.82**
Port Heiden	No data	No data	No data	No data
Ruby	No data	24.23	20.15	**22.19**
Takotna	-149.41	200.36	37.17	**29.37**
Port Alsworth	No data	No data	576.67	**576.44**
Tenakee Springs	158.04	78.77	208.52	**148.44**
White Mountain	No data	No data	No data	No data

Source: Municipal financial records, and co-op 990 forms

Key:

Green	= Ratios between 1-3, indicates healthy ratio
Yellow	= Ratios above 3, indicates low debt, possibly too many assets not being utilized
Red	= Ratios below 1, indicates high debt

Net Revenue Margin

Table 17: Average net revenue margin, by category

Net revenue margin				
	2012	2013	2014	Overall
Category 3	3%	8%	1%	4%
Category 2	9%	2%	19%	10%
Category 1	-10%	6%	8%	1%

Source: Municipal financial records, and co-op 990 forms

More self-explanatory than the other ratios, the net revenue margin in this case is calculated by subtracting expenses from revenues, and expressing the difference as a percentage. While the entities in this analysis are either municipalities or non-profits, and not expected to earn a profit, the ability of a borrower to keep costs in line with revenues remains an important consideration. Obviously taking a loan will require future payments of interest, and a utility that already struggles to meet expenses will not be a good credit risk.

Some nuances to this metric are that grant funds may appear on an income statement as a large increase in revenue, which may skew the picture. On the other side of the spectrum, utilities often experience sudden increases in expenses caused by fuel prices, which generally result in large operating losses for a given year. This occurred in 2012 and 2013 for many remote villages.

One interesting finding that emerges from the net revenue analysis is that category 2 and 3 villages, with their larger customer bases and more sophisticated management systems, show greater consistency in meeting revenues to expenditures. Most of these two groups remained positive or near zero for the three years covered. The operating losses that occurred were small.

Category 1 utilities by contrast, with fewer ratepayers and smaller operating budgets, show dramatic variation between each other, and from year to year. In some cases, these communities show operating margins over 80%, or lower than -100%. This is likely the result of several factors, such as large one-time inflows or outflows—grants or fuel spikes—and the fact that these entities operate on small budgets so even a modest movement in revenue or expenses may produce a large change when expressed as a percentage. Accounting inconsistencies and financial management are probable factors as well.

Table 18: Net revenue margin

Category 3	**2012**	**2013**	**2014**	Average
AVEC	11%	37%	7%	18%
Cordova	-2%	-2%	-2%	-2%
Inside Passage	2%	4%	1%	2%
Dillingham; Aleknagik (Nushagak)	-4%	0%	2%	-1%
Unalaska	8%	2%	-1%	3%
Category 2	**2012**	**2013**	**2014**	**Average**
Akutan	17%	-2%	65%	27%
Chignik	5%	-2%	-4%	-1%

King Cove	14%	9%	12%	12%
Naknek; S. Naknek; King Salmon	2%	3%	3%	2%
Category 1	**2012**	**2013**	**2014**	**Average**
Akhiok	71%	79%	67%	72%
Akiak	No data	-8%	28%	10%
Diomede	88%	90%	-131%	15%
Egegik	-50%	20%	30%	0%
Galena	13%	41%	71%	42%
Golovin	6%	3%	1%	3%
INN (Iliamna; Newhalen; Nondalton)	30%	18%	21%	23%
Koyukuk	-73%	0%	29%	-14%
Kwethluk	No data	No data	No data	No data
Larsen Bay	10%	73%	21%	35%
Levelock	-6%	-48%	-26%	-27%
Middle Kuskokwim	2%	-35%	-1%	-11%
Naterkaq Light Plant (City of Chefornak)	-14%	-37%	20%	-10%
Pelican	-143%	-76%	50%	-56%
Port Heiden	-161%	-45%	-12%	-73%
Ruby	16%	32%	20%	23%
Takotna	-18%	4%	-24%	-13%
Port Alsworth	-6%	3%	1%	-1%
Tenakee Springs	15%	No data	-8%	3%
White Mountain	42%	-6%	-10%	9%

Source: Municipal financial records, and co-op 990 forms

Key:

Green	= Ratios between 0 and 100%, indicates positive margin
Red	= Ratios below 0, indicates negative margin

Credit Analysis Conclusions

It is worth restating that this analysis provides an initial starting point for analyzing the creditworthiness of rural utilities. Before offering a loan, a deep dive into financial performance and operations management is necessary. However, some conclusions do emerge that offer some hope for rural utilities accessing credit.

First, the liquidity metrics—the current and quick ratios—appear relatively strong for most of the utilities studied. The balance between near-term, cash-producing assets and near-term liabilities is favorable. The current and quick ratios for utilities differ only in that the quick ratio excludes fuel inventory—a major expense item. Even when fuel is left out, the cash, cash equivalents, securities, and receivables are generally adequate to meet current liabilities. In only a few cases are the liabilities greater than the current or quick assets.

Interestingly, the communities with high debt relative to their current assets are larger category 2 and 3 communities, likely reflecting the fact that they have been more successful in obtaining debt, or less successful in getting grants with their larger revenues and more professional management structures. Communities with higher than preferred current or quick ratios, with far more liquid assets than needed to pay current liabilities, were spread across all three categories. These utilities are unburdened by debt, but this could be a signal that they have failed to access credit, have been seen as credit risks, or they have been more successful in getting grant funding. Grant funding could be paying for capital expenditures that would otherwise be covered through debt for larger utilities, making their liabilities appear low.

The net revenue margin analysis reflects some of the peculiarities of rural utility business in Alaska. Grants and fuel price spikes appear on income statements as dramatic increases or decreases to revenues or expenditures, more so for the smaller utilities than the larger ones, which appear better able to manage these swings, as noted earlier. Category 2 and 3 stayed mostly positive (more revenue than expenditures) and generally near zero. Smaller category 1 utilities had wild fluctuations, and these present credit risks and indicate possible cash flow issues at various times. Of the 19 category 1 utilities with data available, eight had average net revenue that was negative between 2012 and 2014.

To further gauge the creditworthiness of rural utilities, several approaches could be taken. These include:

- Using the income statements and balance sheets from the RCA filings to calculate ratios over a larger sample of utilities. This would improve the general validity of the observations with regard to financial benchmarks.
- Access the applications for the Power Project Loan Fund and Bulk Fuel Loan Program to gain a deeper understanding of the quality of credit applications. These applications are confidential and unfortunately were unavailable for this analysis.
- Calculate additional ratios and metrics to gain a more detailed picture of the financial performance. Some of this data could come from RCA filings, and may include cash ratios, days payable outstanding (which measures how timely the utility pays creditors), days receivable outstanding (how effectively it collects payment from customers), and cash flow measures.
- Cash flow analysis for the utilities would be especially useful in understanding how the radical up and down shifts in expenses and revenues impact the ability to make debt service payments.

Findings

Further break outs of data needed

Many of the municipal and 990 financials lack extensive breakouts within the revenue and expenditure categories. Due to the lack of organization within the financials, many communities have incomplete indicators or ratios. Some of this is due to the fact that many of the utilities have monies that are pooled with other community programs, so when money is received it is placed into a large fund, and monies are taken out as needed. This is problematic because it does not adequately allow the utilities to accurately demonstrate their financial standing to potential financing organizations.

For example, many banks and loan programs would consider the PCE subsidies a stable revenue source. However, most of the municipal and 990 records examined do not parse out the PCE revenue from the general revenues, or from the revenue garnered from general ratepayers. This makes it difficult to determine how dependent the utility is on PCE revenue. However, of the information available, 44% of the communities examined have PCE revenues that make up 20% or more of their annual revenues. This number in reality is likely larger due to the fact that the communities who rely most heavily on PCE are category 1 communities, and those were the communities who had the least amount of information available.

When examining non-fuel costs over a 6-year period, it was evident that many communities had non-fuel costs that varied wildly. The financial documents did not go in-depth breaking out these costs, so it is unclear what is leading to the variation. Non-fuel costs that grew steadily over time would be logical given the rising costs of personnel, maintenance materials, and inflation. More information on specific non-fuel costs would be helpful to determine a more accurate baseline for personnel costs, maintenance, and operations costs. In addition to shifting non-fuel costs, many utilities recorded no liabilities or "credits" in equity. Some of those same utilities that had no recorded liabilities had seemingly large cash reserves for the size and population of the utility. Without further break outs of the data available, it looks like they have an extremely high quick ratio, meaning they are highly liquid.

There was little information detailing the rate differentiation between residential and non-residential customers. It seems if there are different tariff structures, they are not included in the public financial documents. This is an area that warrants more research. It would be interesting to investigate how much rate differentiation would increase the revenues and financial stability of the utility.

Consistent and accurate filing

The municipal records and 990 forms were often inconsistent and or incomplete. The data from the 990s and municipal budgets were often not congruent with the PCE and Regulatory Commission of Alaska (RCA) data. For example, a vast majority of the communities did not specifically report receiving PCE subsidies as a revenue source. This is problematic because it makes it difficult to accurately assess the financial standing or "bankability" of a utility. It also means, even if the utility were determined to be creditworthy, they would most likely have to go through training and or advisement before their financial records would be acceptable for an outside financial institution.

The differences between the PCE data and the reported data could be due to different reporting periods, although municipal utilities are run on the same calendar as the PCE program. However, paperwork that is filed late could also account for some of the difference. Or it could be that the community is using some of the PCE revenue to pay back other state loans, like the bulk fuel loans, and therefore do not report the additional PCE monies that they actually received. They may be categorizing the PCE revenue in a non-logical place, or for some other reason not accounting for the PCE subsidies as revenue. Ultimately, an audit or accounting analysis would be needed to reconcile PCE amounts paid with line items reported on 990s or municipal financials.

In addition to the incomplete financial records there seem to be inconsistencies in the population statistics and the number of residential customers. This could be due to improper accounting at the utility level, not changing the status of someone who has been disconnected, or moved. Based on the line loss indicator however, it would seem that places that are recorded as being disconnected might be receiving power that is otherwise classified as line loss. This was also noticeable in the power sold versus the power generated indicators. Some communities reported sizeable differences between the amount of power sold and the amount of power generated; often reporting selling more power than was reported to be produced, which is why there are some negative ratios for the line loss indicator.

Appropriate tariff setting

Numerous communities, mainly the municipal run utilities, had depreciation or amortization listed as an expense on their financial documents. Depreciation ran the range from 0 to $.07, with most of the communities that are actually reporting, having around $.01 to $.02 listed for depreciation costs. However, many utilities, had a place for depreciation in their expenses, but had zero depreciation accounted for. This is concerning as it could mean these communities are not accounting for the depreciation of their infrastructure, and therefore not collecting funds to be set aside to repair and replace when necessary. It could also mean that the communities were given their current infrastructure through state grant programs, and therefore are not allowed to account for that depreciation in their PCE filings. The issue with not accounting for any depreciation is that generally means their financials are not taking eventual replacement of operating assets into account. If a generator breaks down and grant funding is unavailable, the community must either borrow or pay for replacement in another way, such as from a reserve fund. This further illustrates the issues many communities face with consistent and reliable accounting practices.

Future Research

In the course of conducting this analysis, the UACED team identified several areas worthy of further exploration that could shed more light on the subjects of bankability, benchmarks, and operational performance.

Reconciling PCE Data

As noted earlier, in many instances PCE funding could not be found on municipal or 990 financial documents. While any number of reasons could account for this, it is an important concern that could indicate a lack of strong financial management and make it difficult to obtain credit. A more in-depth financial analysis that compares 990s or municipal financials with RCA financials and PCE filings could point to specific discrepancies.

Engaging Utilities

The current analysis did not take into account many conversations with rural utility managers. A systematic process to interview utility managers could point to financial performance management issues that are not accounted for by financial statements. Focus groups could be another venue for tapping into the utility management perspective. In addition to gaining perspective on financials, this kind of engagement could be particularly useful in setting performance benchmarks that are realistic and logical to the utilities themselves.

Although it may be difficult to secure a high response rate, a survey of financial and operational management practices could also be a valuable exercise. A web-based survey using the PCE email list could be combined with a mail survey to generate responses about maintenance, accounting, benchmarks, and other topics of interest.

RCA Utility Financials

While this report delves into 990s and municipal financials, an additional source of financial information can be found in the RCA filings. These include balance sheets and income statements for rural utilities in a format that is consistent and readily comparable between communities. Although the quality of the reported information is uncertain, these documents could be used to calculate financial ratios across a larger sampling of utilities, and could be tested for validity and consistency against the other financial information sources.

Benchmarking

This report makes an initial attempt at establishing baselines for several indicators by calculating averages across the three categories of rural utilities. Averages, however, do not tell us what a “good” figure should be for each indicator. The indicators used in this report should be validated through conversations with rural utility managers, subject matter experts, and stakeholders.

Possible Actions and Recommendations

The first recommendation would be to establish a business advisor program through AEA or another entity. AEA is mandated to provide technical assistance to the utilities, and currently operates the Community Assistance program. A business advisor program, one that expands on the idea of the Rural Utility Business Advisor (RUBA) program, would differ somewhat in structure. RUBA is a state effort that provides training and technical assistance to communities facing water and wastewater management challenges. The program identifies communities with the greatest needs, and develops tailored work plans for addressing them, including on-site assistance and frequent assessments of progress.

Since many electric utilities lack the capacity and training to properly complete PCE compliance reporting, a program modeled on RUBA could provide valuable assistance. It could be funded (at least on a pilot basis) through grants from USDA Rural Development. There are a limited number of private consultants currently doing this type of work on a limited scale, and some of these entities could be engaged on a contractual basis to assist with compliance and reporting, operations, and financial management. Scaling up that work could be greatly beneficial to helping communities get their book in order, both in terms of accuracy and consistency. AEA’s existing Community Assistance program currently provides assistance to electric utilities, but the type of program proposed here would differ in terms of targeting communities in need, and developing work plans with accountability measures.

Another model for the delivery of technical assistance is the Alaska Small Business Development Center (SBDC). The SBDC employs business advisors in multiple locations around the state who provide one-on-one counseling to businesses on topics ranging from general management to financing to marketing. They also teach free or low-cost classes on a variety of business topics. Most advisors have business ownership experience on their resumes, and undertake a structured training program when they begin employment. A key strength of the SBDC is its emphasis on metrics that indicate success in assisting businesses. Each advisor is evaluated by the number of counseling hours performed, jobs created, dollar value of capital infusion (such as loans) and other areas. A program based on this model, which may overlap somewhat with a RUBA-type approach, would be able to demonstrate its value through systematic engagements and measurement of results.

Whatever the model, a technical assistance program of this sort may find its greatest traction if it works in concert with funding mechanisms such as the Power Project Loan Fund, Bulk Fuel Loan Program, or state grants to rural electric utilities. As a condition of receiving funding, utilities with financial or business management challenges could be asked to work with an advisor on a community-specific work plan with clear milestones and benchmarks. Ultimately, utilities could emerge with strong management systems, and possibly qualify for private sector loans in the future.

A further recommendation would be to further investigate the issue documented in this report of communities not reporting PCE revenues, and PCE filings not matching other financial statements reported to DCRA, RCA, or the IRS (for non-profits). The independent audits performed by accounting firms on utility financials often begin with a long disclaimer outlining inaccuracies and inconsistencies, this further illustrate inconsistencies. These issues should be investigated by AEA and RCA personnel who oversee PCE filings, as they could develop a flagging system that notes mismatches in financial reporting to: AEA, RCA, and others. Rather than emphasizing punitive measures, these flagged communities could be targeted for technical assistance.

Appendix A: Indicator tables by community

AVEC				
	2012	2013	2014	Average
Current ratio	1.55	1.61	1.60	1.59
Quick ratio	1.29	1.31	1.29	1.29
Operating Expenses (Total)	$43,985,302	$42,854,686	$52,096,502	$ 46,312,163
Annual Revenue	$49,569,607	$67,761,733	$56,090,269	$ 57,807,203
Number of Customers (Residential)	6,063	6,090	7,807	6,653
Power Generated (kWh-year)	78,369,042	78,420,438	119,440,914	92,076,798
Power Sold (kWh-year)	73,654,629	73,500,709	112,256,015	86,470,451
Effective electricity Rate	$ 0.22	$ 0.20	$ 0.20	$ 0.21
Fuel Costs/kWh Generated	$ 0.29	$ 0.28	$ 0.34	$ 0.30
Fuel Costs/Gallon ($-gal)	$ 4.16	$ 4.06	$ 4.74	$ 4.32
Electric Consumption per Capita	3,485	3,392	4,030	3,636
Generation Unit Cost	$ 0.56	$ 0.55	$ 0.44	$ 0.51
Line Loss Ratio	6%	6%	6%	6%
PCE as % of Revenue	26%	20%	30%	25%
Net revenue margin	11%	37%	7%	18%

Cordova				
	2012	2013	2014	Average
Current ratio	1.70	1.76	1.88	1.78
Quick ratio	1.67	1.72	1.84	1.75
Operating Expenses (Total)	$ 8,901,432	$ 8,757,988	$ 8,469,233	$ 8,709,551
Annual Revenue	$ 8,703,690	$ 8,553,443	$ 8,265,251	$ 8,507,461
Number of Customers (Residential)	933	772	746	817
Power Generated (kWh-year)	27,418,413	28,251,784	27,441,669	27,703,955
Power Sold (kWh-year)	25,039,947	25,779,565	25,738,351	25,519,288
Effective electricity Rate	$ 0.22	$ 0.25	$ 0.20	$ 0.23
Fuel Costs/kWh Generated	$ 0.10	$ 0.11	$ 0.07	$ 0.09
Fuel Costs/Gallon ($-gal)	$ 3.73	$ 3.74	$ 3.54	$ 3.67
Electric Consumption per Capita	11,687	12,342	11,839	11,956
Generation Unit Cost	$ 0.32	$ 0.31	$ 0.31	$ 0.31
Line Loss Ratio	9%	9%	6%	8%
PCE as % of Revenue	9%	8%	10%	9%
Net revenue margin	-2%	-2%	-2%	-2%

Inside Passage				
	2012	2013	2014	Average
Current ratio	1.00	1.00	2.29	1.43
Quick ratio	0.85	0.85	2.14	1.28
Operating Expenses (Total)	$ 6,591,700	$ 6,558,674	$12,135,984	$ 8,428,786
Annual Revenue	$ 6,711,854	$ 6,829,187	$12,305,765	$ 8,615,602
Number of Customers (Residential)	1,050	1,061	215	775
Power Generated (kWh-year)	11,516,124	11,171,247	11,221,871	11,303,081
Power Sold (kWh-year)	10,246,947	9,981,253	10,013,191	10,080,464
Effective electricity Rate	$ 0.21	$ 0.23	$ 0.22	$ 0.22
Fuel Costs/kWh Generated	$ 0.24	$ 0.25	$ 0.23	$ 0.24
Fuel Costs/Gallon ($-gal)	$ 3.98	$ 4.19	$ 3.90	$ 4.02
Electric Consumption per Capita	4,164	4,149	4,166	4,160
Generation Unit Cost	$ 0.57	$ 0.59	$ 1.08	$ 0.75
Line Loss Ratio	11%	11%	11%	11%
PCE as % of Revenue	31%	30%	15%	25%
Net revenue margin	2%	4%	1%	2%

Dillingham; Aleknagik (Nushagak)				
	2012	2013	2014	Average
Current ratio	2.97	3.16	3.18	3.10
Quick ratio	2.43	2.53	2.60	2.52
Operating Expenses (Total)	$13,780,577	$13,078,951	$13,056,471	$ 13,305,333
Annual Revenue	$13,281,657	$13,082,105	$13,319,928	$ 13,227,897
Number of Customers (Residential)	995	987	989	990
Power Generated (kWh-year)	19,277,850	19,168,300	18,956,000	19,134,050
Power Sold (kWh-year)	18,306,307	18,088,128	17,836,650	18,077,028
Effective electricity Rate	$ 0.17	$ 0.15	$ 0.17	$ 0.16
Fuel Costs/kWh Generated	$ 0.21	$ 0.26	$ 0.23	$ 0.23
Fuel Costs/Gallon ($-gal)	$ 3.07	$ 3.86	$ 3.48	$ 3.47
Electric Consumption per Capita	7,566	7,364	7,263	7,398
Generation Unit Cost	$ 0.71	$ 0.68	$ 0.69	$ 0.70
Line Loss Ratio	5%	6%	6%	6%
PCE as % of Revenue	9%	11%	10%	10%
Net revenue margin	-4%	0%	2%	-1%

Unalaska				
	2012	2013	2014	Average
Current ratio	0.09	0.19	0.30	0.19
Quick ratio	0.07	0.17	0.28	0.17
Operating Expenses (Total)	$16,764,878	$16,981,404	$18,947,447	$ 17,564,576
Annual Revenue	$18,295,210	$17,389,996	$18,825,315	$ 18,170,174
Number of Customers (Residential)	694	696	709	700
Power Generated (kWh-year)	44,932,348	44,773,777	48,097,173	45,934,433
Power Sold (kWh-year)	41,719,148	45,410,196	45,202,230	44,110,525
Effective electricity Rate	$ 0.27	$ 0.21	$ 0.23	$ 0.24
Fuel Costs/kWh Generated	$ 0.23	$ 0.22	$ 0.21	$ 0.22
Fuel Costs/Gallon ($-gal)	$ 3.60	$ 3.48	$ 3.30	$ 3.46
Electric Consumption per Capita	10,268	10,260	10,087	10,205
Generation Unit Cost	$ 0.37	$ 0.38	$ 0.39	$ 0.38
Line Loss Ratio	7%	-1%	6%	4%
PCE as % of Revenue	6%	6%	6%	6%
Net revenue margin	8%	2%	-1%	3%

Akutan				
	2012	2013	2014	Average
Current ratio	21.21	19.93	17.32	19.48
Quick ratio	19.45	17.03	14.49	16.99
Operating Expenses (Total)	$ 367,540	$ 518,267	$ 696,615	$ 527,474
Annual Revenue	$ 440,310	$ 510,257	$ 2,015,029	$ 988,532
Number of Customers (Residential)	41	40	41	41
Power Generated (kWh-year)	547,648	593,076	636,366	592,363
Power Sold (kWh-year)	492,422	508,041	517,287	505,917
Effective electricity Rate	$ 0.13	$ 0.14	$ 0.14	$ 0.14
Fuel Costs/kWh Generated	$ 0.30	$ 0.30	$ 0.26	$ 0.29
Fuel Costs/Gallon ($-gal)	$ 3.42	$ 4.06	$ 4.03	$ 3.84
Electric Consumption per Capita	533	570	575	560
Generation Unit Cost	$ 0.67	$ 0.87	$ 1.09	$ 0.88
Line Loss Ratio	11%	12%	14%	12%
PCE as % of Revenue	10%	8%	2%	7%
Net revenue margin	17%	-2%	65%	27%

Chignik				
	2012	2013	2014	Average
Current ratio	3.53	3.45	2.37	3.12
Quick ratio	3.53	3.45	2.37	3.12
Operating Expenses (Total)	$ 398,582	$ 458,446	$ 421,277	$ 426,102
Annual Revenue	$ 419,668	$ 447,895	$ 403,913	$ 423,825
Number of Customers (Residential)	57	61	65	61
Power Generated (kWh-year)	961,922	937,888	845,836	915,215
Power Sold (kWh-year)	859,517	825,754	731,094	805,455
Effective electricity Rate	$ 0.18	$ 0.21	$ 0.21	$ 0.20
Fuel Costs/kWh Generated	$ 0.25	$ 0.30	$ 0.28	$ 0.28
Fuel Costs/Gallon ($-gal)	$ 3.41	$ 3.93	$ 3.87	$ 3.74
Electric Consumption per Capita	10,571	9,195	9,295	9,687
Generation Unit Cost	$ 0.41	$ 0.49	$ 0.50	$ 0.47
Line Loss Ratio	11%	12%	14%	12%
PCE as % of Revenue	20%	18%	19%	19%
Net revenue margin	5%	-2%	-4%	-1%

King Cove				
	2012	2013	2014	Average
Current ratio	1.56	0.65	0.32	0.84
Quick ratio	1.56	0.65	0.32	0.84
Operating Expenses (Total)	$1,169,764	$ 1,296,732	$ 1,171,520	$ 1,212,672
Annual Revenue	$1,357,000	$ 1,428,500	$ 1,330,750	$ 1,372,083
Number of Customers (Residential)	155	190	193	179
Power Generated (kWh-year)	5,217,361	4,840,415	4,513,471	4,857,082
Power Sold (kWh-year)	4,256,670	4,090,353	3,697,617	4,014,880
Effective electricity Rate	$ 0.22	$ 0.22	$ 0.23	$ 0.22
Fuel Costs/kWh Generated	$ 0.11	$ 0.15	$ 0.12	$ 0.13
Fuel Costs/Gallon ($-gal)	$ 3.71	$ 3.83	$ 3.67	$ 3.74
Electric Consumption per Capita	5,562	5,106	4,687	5,118
Generation Unit Cost	$ 0.22	$ 0.27	$ 0.26	$ 0.25
Line Loss Ratio	18%	15%	18%	17%
PCE as % of Revenue	11%	9%	9%	10%
Net revenue margin	14%	9%	12%	12%

Naknek; S. Naknek; King Salmon				
	2012	2013	2014	Average
Current ratio	1.20	1.34	1.35	1.30
Quick ratio	1.12	1.19	1.17	1.16
Operating Expenses (Total)	$ 9,710,220	$ 9,929,276	$ 11,065,432	$ 10,234,976
Annual Revenue	$ 9,903,563	$ 10,237,560	$ 11,350,036	$ 10,497,053
Number of Customers (Residential)	749	808	738	765
Power Generated (kWh-year)	20,056,950	20,740,023	20,231,754	20,342,909
Power Sold (kWh-year)	18,126,732	18,584,664	18,506,758	18,406,051
Effective electricity Rate	$ 0.21	$ 0.19	$ 0.17	$ 0.19
Fuel Costs/kWh Generated	$ 0.22	$ 0.24	$ 0.22	$ 0.23
Fuel Costs/Gallon ($-gal)	$ 3.49	$ 3.61	$ 3.53	$ 3.54
Electric Consumption per Capita	20,117	20,039	20,498	20,218
Generation Unit Cost	$ 0.48	$ 0.48	$ 0.55	$ 0.50
Line Loss Ratio	10%	10%	9%	10%
PCE as % of Revenue	9%	10%	10%	10%
Net revenue margin	2%	3%	3%	2%

Akhiok				
	2012	2013	2014	Average
Current ratio	No data	No data	No data	No data
Quick ratio	No data	No data	No data	No data
Operating Expenses (Total)	$ 48,248	$ 40,429	$ 49,923	$ 46,200
Annual Revenue	$ 167,450	$ 189,600	$ 149,553	$ 168,868
Number of Customers (Residential)	No data	No data	22	22
Power Generated (kWh-year)	No data	No data	196,387	196,387
Power Sold (kWh-year)	No data	No data	177,922	177,922
Effective electricity Rate	No data	No data	$ 0.15	$ 0.15
Fuel Costs/kWh Generated	No data	No data	$ 0.48	$ 0.48
Fuel Costs/Gallon ($-gal)	No data	No data	$ 4.92	$ 4.92
Electric Consumption per Capita	No data	No data	2,257	2,257
Generation Unit Cost	No data	No data	$ 0.25	$ 0.25
Line Loss Ratio	No data	No data	9%	9%
PCE as % of Revenue	No data	No data	15%	15%
Net revenue margin	71%	79%	67%	72%

Akiak				
	2012	2013	2014	Average
Current ratio	No data	No data	No data	No data
Quick ratio	No data	No data	No data	No data
Operating Expenses (Total)	$ 450,596	$ 463,904	$304,552	$ 406,351
Annual Revenue	No data	$ 430,539	$420,354	$ 425,447
Number of Customers (Residential)	98	97	97	97
Power Generated (kWh-year)	1,175,714	1,188,049	890,820	1,084,861
Power Sold (kWh-year)	995,864	967,245	797,110	920,073
Effective electricity Rate	$ 0.23	$ 0.22	$ 0.19	$ 0.21
Fuel Costs/kWh Generated	$ 0.34	$ 0.30	No data	$ 0.32
Fuel Costs/Gallon ($-gal)	$ 4.34	$ 5.10	$ 5.25	$ 4.90
Electric Consumption per Capita	3,398	3,237	2,468	3,034
Generation Unit Cost	$ 0.38	$ 0.39	$ 0.34	$ 0.37
Line Loss Ratio	15%	19%	11%	15%
PCE as % of Revenue	No data	30%	27%	28%
Net revenue margin	No data	-8%	28%	10%

Diomede				
	2012	2013	2014	Average
Current ratio	No data	No data	No data	No data
Quick ratio	No data	No data	No data	No data
Operating Expenses (Total)	$ 19,755	$ 38,435	$855,915	$ 304,702
Annual Revenue	$ 162,237	$ 369,924	$369,924	$ 300,695
Number of Customers (Residential)	49	51	50	50
Power Generated (kWh-year)	445,006	513,695	210,662	389,788
Power Sold (kWh-year)	441,407	492,431	204,845	379,561
Effective electricity Rate	$ 0.13	$ 0.14	$ 0.14	$ 0.14
Fuel Costs/kWh Generated	$ 0.43	$ 0.45	No data	$ 0.44
Fuel Costs/Gallon ($-gal)	$ 4.68	$ 4.91	No data	$ 4.80
Electric Consumption per Capita	3,870	4,801	1,741	3,471
Generation Unit Cost	$ 0.04	$ 0.07	$ 4.06	$ 1.39
Line Loss Ratio	1%	4%	3%	3%
PCE as % of Revenue	43%	20%	8%	24%
Net revenue margin	88%	90%	-131%	15%

Egegik				
	2012	2013	2014	Average
Current ratio	63.02	40.00	8.37	37.13
Quick ratio	63.02	40.00	8.37	37.13
Operating Expenses (Total)	$ 750,000	$ 389,108	$388,231	$ 509,113
Annual Revenue	$ 500,000	$ 489,240	$555,783	$ 515,008
Number of Customers (Residential)	70	71	74	72
Power Generated (kWh-year)	618,450	606,950	650,903	625,434
Power Sold (kWh-year)	564,408	560,085	584,765	569,753
Effective electricity Rate	$ 0.24	$ 0.34	$ 0.33	$ 0.30
Fuel Costs/kWh Generated	$ 0.41	$ 0.42	$ 0.40	$ 0.41
Fuel Costs/Gallon ($-gal)	$ 4.43	$ 4.76	$ 4.61	$ 4.60
Electric Consumption per Capita	5,674	5,371	6,141	5,729
Generation Unit Cost	$ 1.21	$ 0.64	$ 0.60	$ 0.82
Line Loss Ratio	9%	8%	10%	9%
PCE as % of Revenue	26%	27%	21%	24%
Net revenue margin	-50%	20%	30%	0%

False Pass				
	2012	2013	2014	Average
Current ratio	287.34	164.43	245.12	232.30
Quick ratio	273.48	153.96	233.02	220.15
Operating Expenses (Total)	No data	No data	No data	No data
Annual Revenue	$ 167,625	$ 369,772	$434,770	$ 324,056
Number of Customers (Residential)	25	25	27	26
Power Generated (kWh-year)	531,143	711,450	778,559	673,717
Power Sold (kWh-year)	410,700	578,803	664,363	551,289
Effective electricity Rate	$ 0.15	$ 0.14	$ 0.14	$ 0.14
Fuel Costs/kWh Generated	$ 0.31	$ 0.28	$ 0.27	$ 0.29
Fuel Costs/Gallon ($-gal)	$ 3.45	$ 3.81	$ 3.51	$ 3.59
Electric Consumption per Capita	15,176	19,228	19,963	18,122
Generation Unit Cost	No data	No data	No data	No data
Line Loss Ratio	23%	19%	15%	19%
PCE as % of Revenue	13%	7%	7%	9%
Net revenue margin	No data	No data	No data	No data

Galena				
	2012	2013	2014	Average
Current ratio	17.54	2.14	1.96	7.22
Quick ratio	0.31	1.27	0.52	0.7
Operating Expenses (Total)	$1,616,999	$1,821,559	$ 841,971	$1,426,843
Annual Revenue	$1,863,950	$3,110,481	$2,902,729	$2,625,720
Number of Customers (Residential)	200	204	186	197
Power Generated (kWh-year)	6,012,673	5,630,437	5,852,965	5,832,025
Power Sold (kWh-year)	4,977,750	4,469,346	4,331,011	4,592,702
Effective electricity Rate	$ 0.31	$ 0.35	$ 0.30	$ 0.32
Fuel Costs/kWh Generated	$ 0.12	$ 0.28	$ 0.28	$ 0.23
Fuel Costs/Gallon ($-gal)	$ 1.54	$ 3.70	$ 3.67	$ 2.97
Electric Consumption per Capita	12,793	11,561	12,093	12,149
Generation Unit Cost	$ 0.27	$ 0.32	$ 0.14	$ 0.25
Line Loss Ratio	17%	21%	26%	21%
PCE as % of Revenue	8%	11%	10%	10%
Net revenue margin	13%	41%	71%	42%

Golovin				
	2012	2013	2014	Average
Current ratio	No data	No data	No data	No data
Quick ratio	No data	No data	No data	No data
Operating Expenses (Total)	$ 407,546	$ 432,414	$ 424,596	$ 421,519
Annual Revenue	$ 433,375	$ 445,922	$ 430,495	$ 436,597
Number of Customers (Residential)	55	53	56	55
Power Generated (kWh-year)	821,700	840,400	821,918	828,006
Power Sold (kWh-year)	709,585	753,245	769,830	744,220
Effective electricity Rate	$ 0.24	$ 0.27	$ 0.26	$ 0.26
Fuel Costs/kWh Generated	$ 0.31	$ 0.30	$ 0.29	$ 0.30
Fuel Costs/Gallon ($-gal)	$ 3.92	$ 3.82	$ 3.70	$ 3.81
Electric Consumption per Capita	5,267	4,915	4,751	4,978
Generation Unit Cost	$ 0.50	$ 0.51	$ 0.52	$ 0.51
Line Loss Ratio	14%	10%	6%	10%
PCE as % of Revenue	25%	24%	25%	25%
Net revenue margin	6%	3%	1%	3%

INN (Iliamna; Newhalen; Nondalton)				
	2012	2013	2014	Average
Current ratio	2.18	2.14	1.74	2.02
Quick ratio	2.11	2.09	1.70	1.97
Operating Expenses (Total)	$1,210,792	$1,262,378	$1,107,099	$1,193,423
Annual Revenue	$1,720,322	$1,534,761	$1,404,714	$1,553,266
Number of Customers (Residential)	196	212	215	208
Power Generated (kWh-year)	4,303,551	4,164,019	4,099,287	4,188,952
Power Sold (kWh-year)	3,132,281	3,306,215	3,211,086	3,216,527
Effective electricity Rate	$ 0.34	$ 0.41	$ 0.33	$ 0.36
Fuel Costs/kWh Generated	$ 0.01	$ 0.00	$ 0.01	$ 0.00
Fuel Costs/Gallon ($-gal)	$ 4.35	$ 4.67	$ 4.67	$ 4.56
Electric Consumption per Capita	9,295	8,730	8,950	8,992
Generation Unit Cost	$ 0.28	$ 0.30	$ 0.27	$ 0.28
Line Loss Ratio	27%	21%	22%	23%
PCE as % of Revenue	15%	11%	13%	13%
Net revenue margin	30%	18%	21%	23%

Koyukuk				
	2012	2013	2014	Average
Current ratio	2.24	No data	No data	2.24
Quick ratio	1.49	No data	No data	1.49
Operating Expenses (Total)	$ 254,150	$ 171,270	$ 193,312	$ 206,244
Annual Revenue	$ 147,000	$ 171,496	$ 274,000	$ 197,499
Number of Customers (Residential)	57	58	58	58
Power Generated (kWh-year)	335,430	299,407	287,133	307,323
Power Sold (kWh-year)	290,544	239,957	226,875	252,459
Effective electricity Rate	$ 0.55	$ 0.54	$ 0.46	$ 0.52
Fuel Costs/kWh Generated	$ 0.34	$ 0.43	$ 0.45	$ 0.41
Fuel Costs/Gallon ($-gal)	$ 3.41	$ 4.19	$ 4.14	$ 3.91
Electric Consumption per Capita	3,494	3,087	3,022	3,201
Generation Unit Cost	$ 0.76	$ 0.57	$ 0.67	$ 0.67
Line Loss Ratio	13%	20%	21%	18%
PCE as % of Revenue	20%	23%	18%	21%
Net revenue margin	-73%	0%	29%	-14%

Kwethluk				
	2012	2013	2014	Average
Current ratio	1.49	0.11	No data	0.80
Quick ratio	1.49	0.11	No data	0.80
Operating Expenses (Total)	No data	$ 50,429	$ 54,185	$ 52,307
Annual Revenue	No data	No data	No data	No data
Number of Customers (Residential)	176	180	183	180
Power Generated (kWh-year)	1,444,859	1,483,190	1,509,008	1,479,019
Power Sold (kWh-year)	1,199,257	1,248,217	1,294,217	1,247,230
Effective electricity Rate	$ 0.20	$ 0.20	$ 0.21	$ 0.20
Fuel Costs/kWh Generated	$ 0.28	$ 0.32	$ 0.33	$ 0.31
Fuel Costs/Gallon ($-gal)	$ 3.80	$ 4.37	$ 4.35	$ 4.17
Electric Consumption per Capita	2,004	2,002	2,009	2,005
Generation Unit Cost	No data	$ 0.03	$ 0.04	$ 0.03
Line Loss Ratio	17%	16%	14%	16%
PCE as % of Revenue	No data	No data	No data	No data
Net revenue margin	No data	No data	No data	No data

Levelock				
	2012	2013	2014	Average
Current ratio	5.55	4.37	4.32	4.75
Quick ratio	3.20	2.36	2.35	2.64
Operating Expenses (Total)	$ 414,008	$ 272,290	$ 245,760	$ 310,686
Annual Revenue	$ 390,062	$ 183,935	$ 195,429	$ 256,475
Number of Customers (Residential)	36	33	33	34
Power Generated (kWh-year)	482,532	456,881	466,860	468,758
Power Sold (kWh-year)	351,705	326,790	339,464	339,320
Effective electricity Rate	$ 0.20	$ 0.21	$ 0.27	$ 0.22
Fuel Costs/kWh Generated	$ 0.33	$ 0.38	$ 0.35	$ 0.36
Fuel Costs/Gallon ($-gal)	$ 4.07	$ 3.96	$ 4.14	$ 4.06
Electric Consumption per Capita	6,993	5,641	5,305	5,980
Generation Unit Cost	$ 0.86	$ 0.60	$ 0.53	$ 0.66
Line Loss Ratio	27%	28%	27%	28%
PCE as % of Revenue	16%	33%	6%	18%
Net revenue margin	-6%	-48%	-26%	-27%

Middle Kuskokwim				
	2012	2013	2014	Average
Current ratio	1.16	1.11	1.12	1.13
Quick ratio	1.05	1.01	1.03	1.03
Operating Expenses (Total)	$1,340,753	$1,394,925	$1,229,157	$1,321,612
Annual Revenue	$1,364,845	$1,029,933	$1,221,809	$1,205,529
Number of Customers (Residential)	131	132	124	129
Power Generated (kWh-year)	943,822	703,420	834,830	827,357
Power Sold (kWh-year)	940,826	951,371	799,966	897,388
Effective electricity Rate	$ 0.48	$ 0.19	$ 0.37	$ 0.35
Fuel Costs/kWh Generated	$ 0.45	$ 0.66	$ 0.50	$ 0.54
Fuel Costs/Gallon ($-gal)	$ 4.11	$ 4.45	$ 4.56	$ 4.37
Electric Consumption per Capita	2,445	1,776	2,238	2,153
Generation Unit Cost	$ 1.42	$ 1.98	$ 1.47	$ 1.63
Line Loss Ratio	0%	-35%	4%	-10%
PCE as % of Revenue	24%	31%	25%	27%
Net revenue margin	2%	-35%	-1%	-11%

Naterkaq Light Plant (City of Chefornak)				
	2012	2013	2014	Average
Current ratio	1.09	1.14	1.31	1.18
Quick ratio	1.04	1.09	1.28	1.14
Operating Expenses (Total)	$ 690,879	$ 876,655	$635,283	$ 734,272
Annual Revenue	$ 607,172	$ 638,673	$790,185	$ 678,677
Number of Customers (Residential)	96	101	104	100
Power Generated (kWh-year)	1,790,158	1,812,860	1,531,454	1,711,491
Power Sold (kWh-year)	1,196,601	1,026,057	1,287,937	1,170,198
Effective electricity Rate	$ 0.13	$ 0.20	$ 0.20	$ 0.18
Fuel Costs/kWh Generated	$ 0.32	$ 0.38	$ 0.51	$ 0.40
Fuel Costs/Gallon ($-gal)	$ 4.33	$ 5.21	$ 6.65	$ 5.40
Electric Consumption per Capita	4,283	4,148	3,529	3,987
Generation Unit Cost	$ 0.39	$ 0.48	$ 0.41	$ 0.43
Line Loss Ratio	33%	43%	16%	31%
PCE as % of Revenue	24%	29%	30%	28%
Net revenue margin	-14%	-37%	20%	-10%

Pelican				
	2012	2013	2014	Average
Current ratio	0.38	0.92	12.86	4.72
Quick ratio	0.24	0.68	10.53	3.82
Operating Expenses (Total)	$ 134,912	$ 263,195	$117,560	$ 171,889
Annual Revenue	$ 55,632	$ 149,592	$235,000	$ 146,741
Number of Customers (Residential)	69	63	65	65.67
Power Generated (kWh-year)	678,283	682,751	612,106	657,713
Power Sold (kWh-year)	584,703	594,906	451,319	543,643
Effective electricity Rate	$ 0.13	$ 0.14	$ 0.26	$ 0.18
Fuel Costs/kWh Generated	$ 0.38	$ 0.26	$ 0.07	$ 0.24
Fuel Costs/Gallon ($-gal)	$ 4.59	$ 4.50	$ 4.47	$ 4.52
Electric Consumption per Capita	7,708	8,226	7,465	7,799
Generation Unit Cost	$ 0.20	$ 0.39	$ 0.19	$ 0.26
Line Loss Ratio	14%	13%	26%	18%
PCE as % of Revenue	No data	65%	25%	45%
Net revenue margin	-143%	-76%	50%	-56%

Port Heiden				
	2012	2013	2014	Average
Current ratio	No data	No data	No data	No data
Quick ratio	No data	No data	No data	No data
Operating Expenses (Total)	$ 838,421	$ 716,531	$452,707	$ 669,220
Annual Revenue	$ 321,842	$ 493,129	$405,221	$ 406,731
Number of Customers (Residential)	49	52	52	51
Power Generated (kWh-year)	183,800	612,400	517,800	438,000
Power Sold (kWh-year)	642,759	617,819	537,481	599,353
Effective electricity Rate	$ 0.42	$ 0.42	$ 0.25	$ 0.37
Fuel Costs/kWh Generated	$ 1.37	$ 0.47	$ 0.44	$ 0.76
Fuel Costs/Gallon ($-gal)	$ 4.03	$ 4.67	$ 4.18	$ 4.29
Electric Consumption per Capita	1,802	6,063	4,210	4,025
Generation Unit Cost	$ 4.56	$ 1.17	$ 0.87	$ 2.20
Line Loss Ratio	-250%	-1%	-4%	-85%
PCE as % of Revenue	17%	14%	20%	17%
Net revenue margin	-161%	-45%	-12%	-73%

Ruby				
	2012	2013	2014	Average
Current ratio	No data	27.25	22.08	24.66
Quick ratio	No data	24.23	20.15	22.19
Operating Expenses (Total)	$ 353,511	$ 319,076	$292,816	$ 321,801
Annual Revenue	$ 420,583	$ 472,423	$366,217	$ 419,741
Number of Customers (Residential)	130	130	111	124
Power Generated (kWh-year)	697,593	666,842	684,313	682,916
Power Sold (kWh-year)	664,308	668,435	534,806	622,516
Effective electricity Rate	$ 0.44	$ 0.42	$ 0.45	$ 0.44
Fuel Costs/kWh Generated	$ 0.28	$ 0.31	$ 0.34	$ 0.31
Fuel Costs/Gallon ($-gal)	$ 4.09	$ 4.29	$ 4.36	$ 4.25
Electric Consumption per Capita	4,202	3,855	3,699	3,919
Generation Unit Cost	$ 0.51	$ 0.48	$ 0.43	$ 0.47
Line Loss Ratio	5%	0%	22%	9%
PCE as % of Revenue	29%	24%	31%	28%
Net revenue margin	16%	32%	20%	23%

Takotna				
	2012	2013	2014	Average
Current ratio	-149.41	200.36	37.17	29.37
Quick ratio	-149.41	200.36	37.17	29.37
Operating Expenses (Total)	$710,130	$675,889	$807,515	$ 731,178
Annual Revenue	$602,541	$703,048	$652,219	$ 652,603
Number of Customers (Residential)	19	24	25	23
Power Generated (kWh-year)	226,283	221,274	148,503	198,687
Power Sold (kWh-year)	174,268	185,223	176,425	178,639
Effective electricity Rate	$ 0.44	$ 0.43	$ 0.38	$ 0.42
Fuel Costs/kWh Generated	$ 0.45	$ 0.50	$ 0.55	$ 0.50
Fuel Costs/Gallon ($-gal)	$ 4.64	$ 5.19	$ 5.17	$ 5.00
Electric Consumption per Capita	4,352	4,516	2,802	3,890
Generation Unit Cost	$ 3.14	$ 3.05	$ 5.44	$ 3.88
Line Loss Ratio	23%	16%	-19%	7%
PCE as % of Revenue	9%	8%	8%	9%
Net revenue margin	-18%	4%	-24%	-13%

Port Alsworth				
	2012	2013	2014	Average
Current ratio	No data	No data	583.73	583.73
Quick ratio	No data	No data	576.64	576.64
Operating Expenses (Total)	$499,765	$482,571	$488,847	$ 490,394
Annual Revenue	$470,466	$495,282	$495,457	$ 487,068
Number of Customers (Residential)	64	67	75	69
Power Generated (kWh-year)	729,600	767,295	802,350	766,415
Power Sold (kWh-year)	665,385	702,062	732,477	699,975
Effective electricity Rate	$ 0.14	$ 0.20	$ 0.18	$ 0.17
Fuel Costs/kWh Generated	$ 0.44	$ 0.45	$ 0.41	$ 0.43
Fuel Costs/Gallon ($-gal)	$ 5.37	$ 5.36	$ 4.95	$ 5.23
Electric Consumption per Capita	4,589	4,919	4,804	4,771
Generation Unit Cost	$ 0.68	$ 0.63	$ 0.61	$ 0.64
Line Loss Ratio	9%	9%	9%	9%
PCE as % of Revenue	24%	23%	24%	24%
Net revenue margin	-6%	3%	1%	-1%

Tenakee Springs				
	2012	2013	2014	Average
Current ratio	158.04	78.77	208.52	148.44
Quick ratio	158.04	78.77	208.52	148.44
Operating Expenses (Total)	$237,300	No data	$261,500	$ 249,400
Annual Revenue	$278,380	No data	$241,597	$ 259,989
Number of Customers (Residential)	124	128	127	126
Power Generated (kWh-year)	421,770	427,102	372,864	407,245
Power Sold (kWh-year)	362,963	360,337	322,770	348,690
Effective electricity Rate	$ 0.29	$ 0.27	$ 0.31	$ 0.29
Fuel Costs/kWh Generated	$ 0.36	$ 0.36	$ 0.39	$ 0.37
Fuel Costs/Gallon ($-gal)	$ 4.60	$ 4.78	$ 4.61	$ 4.66
Electric Consumption per Capita	3,220	2,946	2,453	2,873
Generation Unit Cost	$ 0.56	No data	$ 0.70	$ 0.63
Line Loss Ratio	14%	16%	13%	14%
PCE as % of Revenue	37%	No data	38%	38%
Net revenue margin	15%	No data	-8%	3%

White Mountain				
	2012	2013	2014	Average
Current ratio	No data	No data	No data	No data
Quick ratio	No data	No data	No data	No data
Operating Expenses (Total)	$455,061	$494,810	$511,019	$ 486,963
Annual Revenue	$790,794	$465,000	$462,742	$ 572,845
Number of Customers (Residential)	63	67	70	67
Power Generated (kWh-year)	789,000	784,500	775,900	783,133
Power Sold (kWh-year)	708,944	704,941	699,130	704,338
Effective electricity Rate	$ 0.31	$ 0.31	$ 0.28	$ 0.29
Fuel Costs/kWh Generated	$ 0.26	$ 0.30	$ 0.32	$ 0.29
Fuel Costs/Gallon ($-gal)	$ 3.32	$ 3.59	$ 3.65	$ 3.52
Electric Consumption per Capita	4,153	3,942	4,127	4,074
Generation Unit Cost	$ 0.58	$ 0.63	$ 0.66	$ 0.62
Line Loss Ratio	10%	10%	10%	10%
PCE as % of Revenue	14%	23%	23%	20%
Net revenue margin	42%	-6%	-10%	9%