

Benton PUD

Financial Information

April 2018

- **Financial Policies**
 - Why are financial policies important?
 - Residential Rate Comparisons
- **Credit Ratings**
 - Why are credit ratings important?
 - Rating Agencies Credit Ratings
- **Cash & Investment Reserves**
 - Why are cash & investment reserves important?
 - How does power cost volatility affect cash & investment reserves?
 - What is the right level of cash & investment reserves for a utility?
 - Unrestricted Reserves (in millions)
 - How do Benton PUD reserves compare to other utilities?
 - Days Cash on Hand
- **Debt**
 - What is the right level of debt?
 - Historical/Projected Debt Ratio Compared to Benchmark
 - How does Benton PUD debt compare to other utilities?
 - Debt Per Customer
 - How does debt affect Benton PUD's obligations to bondholders?
- **Customer Per Employee**
 - Actual Annual Average For Years 2008-2017
- **Benton PUD Rates**
 - Residential Average Monthly Bill Comparison - 2003
 - Residential Average Monthly Bill Comparison - 2018

For questions related to any information contained in this document contact Keith Mercer at mercerk@bentonpud.org.

Financial Policies

Financial policies help a utility demonstrate fiscal stewardship by providing boundaries and guidelines to operate within. They establish both minimum and planning reserve level (liquidity) targets, parameters for debt, and various other guidelines, including risk management, investments, insurance, and the planning process. Financial policies help promote consistency from year to year which is especially important in times of fiscal stress. Having sound financial policies is considered a utility best practice and is important to the rating agencies that assign credit ratings.

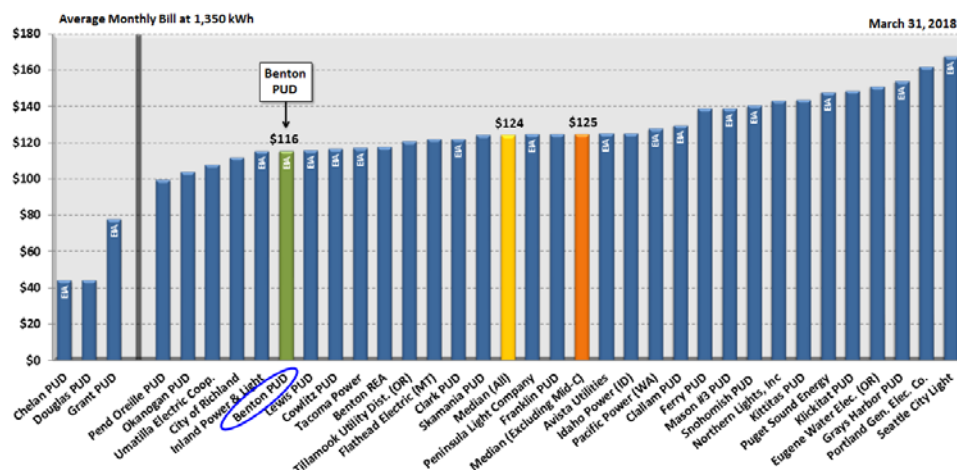
Why are financial policies important?

Over the long run, sound financial policies help rates remain low. Back in 2003, Benton PUD's rates were higher than most benchmark utilities. After developing a comprehensive set of financial policies and planning to those policies, Benton PUD's rates, or average monthly bills, have gradually come down in relation to other utilities in the region.

Benton PUD's average bills for residential customers have been below the median of benchmark utilities since 2005. This is also true for customers in other rate classes. The chart below shows comparative average monthly residential bills based on 1,350 kWh usage. Those utilities marked "EIA" are subject to the Energy Independence Act which requires utilities to spend more money on conservation and renewables, placing pressure on retail rates.

The average residential bill for Benton PUD has been at or below the median since 2005.

Residential Rate Comparisons



Source: Calculated by Benton PUD staff from other utilities' websites.

Note: Douglas, Chelan and Grant PUDs are shown separately on the chart as all three of these PUDs own their own dams.

Credit Ratings

Credit ratings are used by stakeholders to evaluate the credit worthiness of a utility. Stakeholders include bondholders, power counterparties and banks.

Why are credit ratings important?

Higher credit ratings imply a utility is well-run, has a strong financial condition, and is better able to navigate through volatile or adverse conditions. Lower credit ratings lead to higher borrowing costs, limited access to capital markets and less flexible contract terms with power counterparties. The chart below shows credit rating grades for the three major rating agencies - Moody's, Standard & Poor's (S&P), and Fitch Ratings. The median credit rating for public power utilities is "A+".

Benton PUD's rating has consistently been A or higher since 2007.

Rating Agencies Credit Ratings

Moody's	S & P	Fitch	
Aaa	AAA	AAA	Prime
Aa1	AA+	AA+	High grade
Aa2	AA	AA	
Aa3 ★	AA-	AA-	
A1	A+ ★	A+ ★	Upper medium grade
A2	A	A	Lower medium grade
A3	A-	A-	
Baa1	BBB+	BBB+	
Baa2	BBB	BBB	Non-investment grade speculative
Baa3	BBB-	BBB-	
Ba1	BB+	BB+	
Ba2	BB	BB	Highly speculative
Ba3	BB-	BB-	
B1	B+	B+	
B2	B	B	
B3	B-	B-	

★ Benton PUD's rating

Cash & Investment Reserves

Why are cash & investment reserves important?

Cash and investment reserves are important tools for being able to respond to risks and emergency events, manage operating needs, fund capital projects for community growth, and provide a reliable power supply to customers under potentially volatile hydro/price market conditions. Reserves are also used as a shock-absorber in the event of a sudden change in power costs. Reserves are drawn down at times to mitigate the need for sudden rate increases. Reserve levels are also monitored by rating agencies and levels that are too low could result in lower credit ratings.

Utilities provide an essential service. As such, utilities must ensure that they can effectively respond to many unplanned events including significant weather events, earthquakes, sudden changes in the market that impact the cost of power, or other events that impact utility operations.

How does power cost volatility affect cash & investment reserves?

Benton PUD receives most of its power from the Bonneville Power Administration (BPA). The rates charged by BPA are highly dependent on having significant snowpack in the mountains to generate sufficient hydroelectric power for the region. To the degree that this snowpack does not materialize in sufficient amounts, power costs can vary widely. For example, in 2015 the water flow through The Dalles Dam was 68% of the 55 year average (warmest year on record), while in 2016 it was 97% of average and in 2017 it was 137% of average. Snowpack and streamflows have a significant impact on the amount of energy produced from the river. Power needed to serve load in excess of the amount received from BPA must be purchased by the District. Wholesale prices can be unpredictable and vary greatly.

Net power costs are the single largest expenditure by Benton PUD representing about 60% of the District's 2018 budget. A sudden change in wholesale power costs (the cost Benton PUD pays for power) can result in a significant financial impact to Benton PUD and its customers.

Back in the early 2000's, Benton PUD and its customers were impacted when the West Coast Energy Crisis caused the wholesale power market to skyrocket with power trading at never-before-seen levels. 2001 was one of the worst water years on record forcing BPA and other utilities to purchase expensive power on the wholesale market. In a short amount of time, from 2000 to 2002, Benton PUD saw a 91% increase in power expense.

Benton PUD's reserves are intended to mitigate the impact of large increases in power costs.

Between 2000 and 2003, the average residential bill increased 64% while at the same time Benton PUD's debt increased and reserve levels dropped.

As a more recent example of volatility in the Northwest, cold weather in February 2014 caused wholesale power prices to rise to levels of about \$200/MWh. Typical prices are about \$25/MWh. While this event only lasted a couple of days and did not impact retail rates, it serves as an example of how volatile power markets can be.

Another example of volatility in energy markets happened in early 2014. Natural gas prices on the east coast reacted to severe winter weather by moving from \$4 - \$5/MMBtu to over \$100/MMBtu. While this did not directly affect power costs in the Northwest, it had a significant impact on consumer power bills in the east.

Strong reserves can be an important tool in being able to mitigate the financial effects of sustained changes in wholesale power prices both for Benton PUD and its customers.

What is the right level of cash & investment reserves for a utility?

Benton PUD's financial policies do not precisely define what level of reserves should be maintained and planned to for the future; however, they do define the minimum operating reserve level and provide guidance on factors to consider in establishing targeted reserve levels.

As mentioned earlier, reserves help Benton PUD respond to emergencies, provide stable rates, as well as maintain Benton PUD's credit rating. When reserves are higher than needed, Benton PUD has used excess reserves to lower retail rates, defer future rate actions, or defer future debt issuances.

One common metric to measure reserves is Days Cash on Hand (DCOH) which calculates the number of days a utility can cover its operating expenses. This measure has been developed by rating agencies to compare utilities of different sizes. Benton PUD has defined the minimum operating reserve level as 90 DCOH.

Benton PUD's Days Cash on Hand is below medians published by rating agencies for similarly rated utilities.

Currently, Benton PUD sets long term plans to keep reserves between 108 and 132 DCOH, or about 4 months of reserves. Based on the 2018 budget, this equates to about \$43 million.

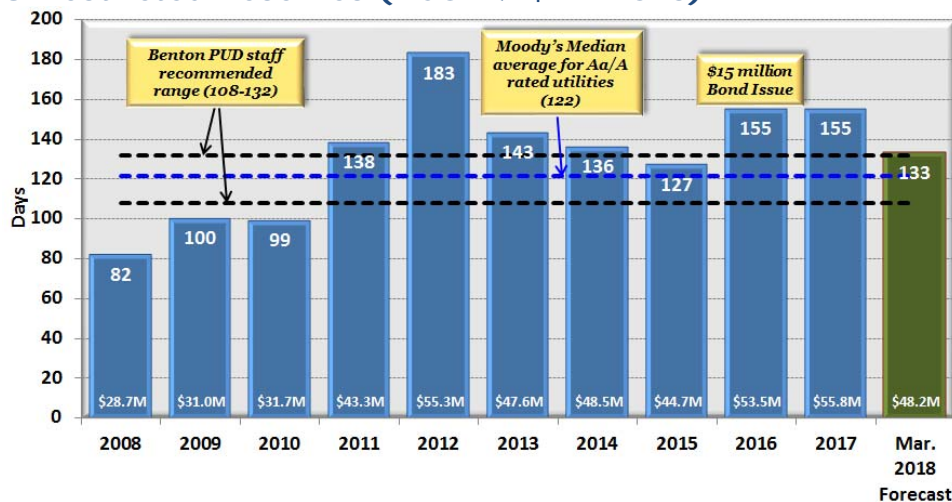
Why this level of reserves?

- First, rating agencies publish DCOH benchmarks for utilities. One such benchmark is the Moody's median for Aa/A rated utilities (see chart below). The most current benchmark is at 122 DCOH (within the Benton PUD's targeted range).
- Second, we compare our reserves to other PUDs in the state (see chart on page 7). The median for these utilities is 158, which is higher than Benton PUD's target.

While our DCOH target is lower than the PUD benchmark, the District also maintains a \$10 million line of credit to secure power counterparty contracts. This line of credit may also be used for other purposes. As such, it helps mitigate the need for higher reserve levels to match the benchmarks. Lines of credit are considered by some rating agencies in the District's overall liquidity evaluation.

In 2016, the District issued \$15 million in bonds to finance capital expenditures, which contributed to the nearly \$9 million increase in reserves between 2015 and 2016. The District has designated a portion of reserves for specific use, one of which is a Special Capital account to fund Transmission and Substation projects over the next several years. The Special Capital account had a balance of \$14.1 million at year-end 2017 and is included in the total year-end reserves of \$55.8 million. Looking ahead, using the March 2018 forecast, it is estimated Benton PUD's reserve level will be about \$48.2 million or 133 DCOH by the end of the year (see chart below). The reserves above the targeted range will help to lower and/or forego rate increases in future years.

Unrestricted Reserves (DCOH / \$ millions)



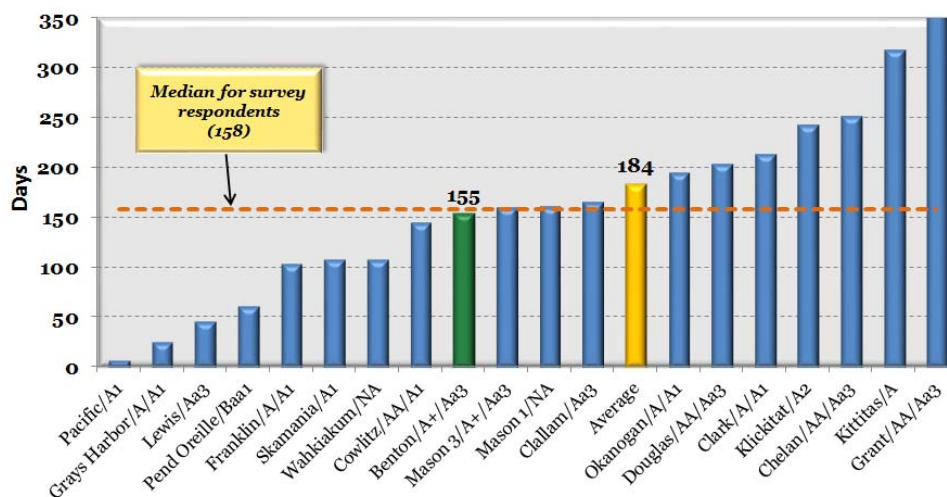
Source: Moody's Investors Service Public Power Electric Utility Medians and Methodology, June 2014

How do Benton PUD reserves compare to other utilities?

In addition to comparing reserve levels with rating agency medians, Benton PUD benchmarks with other utilities to ensure its reserve levels are comparable with utilities that have a similar business structure.

The following chart compares DCOH of Benton PUD to other Washington PUDs based on a survey published in July of 2017 using 2016 data (latest information available).

Days Cash on Hand (DCOH)



Source: WPUDA Source Book – July 2017

In 2016, Benton PUD’s reserve levels were at 155 DCOH, which was slightly below the median for other Washington PUDs. Historically, cash reserves have been used to “buy down” rate increases or even avoid rate increases. This practice has continued with the last rate action in October 2017. Rate increases were avoided between January 2012 and September 2015 because two of the best back-to-back water years on record contributed toward an increase in cash reserves. Cash reserves declined in 2013, 2014 and 2015 and as shown previously.

Debt

It takes a tremendous amount of capital system infrastructure to distribute energy to our customers. Utility systems are designed and constructed to serve customers over a long number of years. Ideally, the customer who benefits from a capital asset pays for it through electric rates. This concept is known as ratepayer equity.

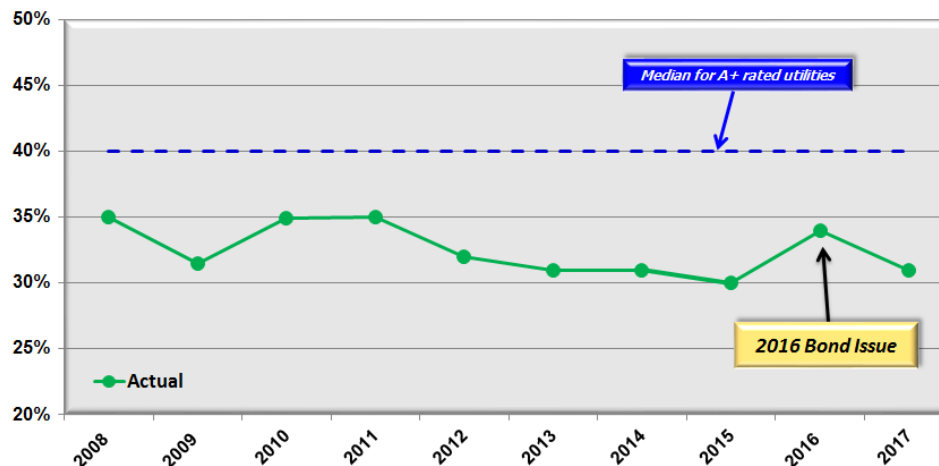
In order to accomplish ratepayer equity, most utilities finance long-lived assets by issuing tax-exempt bonds. This enables the cost of the asset to be recovered through retail rates over the life of the capital asset. If a utility's debt level is too low, it may indicate that today's ratepayer is paying for capital assets that will benefit future ratepayers. If a utility's debt level is too high, it may indicate just the opposite, that today's ratepayer may not be paying enough for the capital assets that are serving them.

What is the right level of debt?

Having the right amount of debt is a sound financial business practice and provides equity to our ratepayers. Benton PUD's financial policies set a ceiling on the amount of debt that Benton PUD can have outstanding by maintaining the debt ratio at 38% or less. Benton PUD had \$56.9 million in outstanding bonds at the end of 2017 with a debt ratio of 31%.

Benton PUD is below the median debt level for similarly rated utilities. This lower debt level provides future flexibility.

Historical Debt Ratio Compared To Benchmark



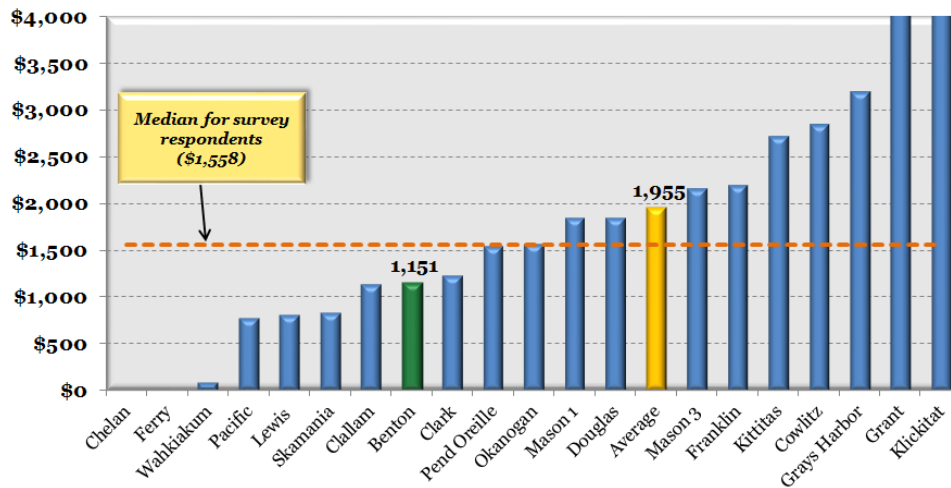
Source: Fitch Ratings, U.S. Public Power Peer Study – June 2016

How does Benton PUD debt compare to other utilities?

The following graph compares debt per customer of Benton PUD to other Washington PUDs based on a survey published in July of 2017 using 2016 data (latest information available). Benton PUD is well below the median and average of Washington PUDs. In 2016, the District issued \$15 million in bonds and the District's debt per customer increased to about \$1,151, which is still well below the median and average. This means that Benton PUD has been conservative in issuing debt, and should the need to issue debt arise, Benton PUD has adequate capacity to issue debt in the future.

Benton PUD's debt per customer of \$1,151 is below the median of \$1,558, indicating we have used debt responsibly.

Debt Per Customer



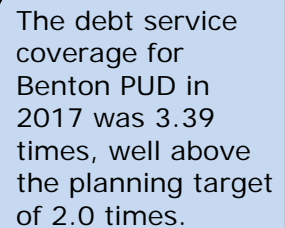
Source: WPUA Source Book – July 2017

How does debt affect Benton PUD's obligations to bondholders?

Bonds are issued with covenants (contractual commitments) that provide assurance to the bondholders that future revenue streams will enable the issuer to pay interest and principal back to the buyer in future years. One of the most important requirements in bond covenants is maintaining a ratio called debt service coverage (DSC). This covenant requires that Benton PUD has net revenues (revenues less most expenses) that are at least 1.25 times the amount of debt service payments made in that year. For example, if the total amount of payments made to bondholders in a year is \$6 million, then the net revenues must equal \$7.5 million (1.25 x \$6 million) or more. If this ratio is not maintained at 1.25 times or higher, Benton PUD would be considered to have violated its contractual commitment to bondholders, and the bonds would be considered in default and may be due immediately.

Because maintaining the DSC ratio is so critical, Benton PUD's financial policies require Benton PUD plan to achieve a ratio of at least 2.0 times. By establishing financial plans to achieve a ratio of at least 2.0 times, we provide a cushion in case our financial projections do not perform according to plan. Rating agencies also look at historical and future planned DSC ratios as they assign credit ratings. A higher DSC ratio contributes to a better credit rating which leads to reduced borrowing costs.

Benton PUD had a DSC ratio of 2.91 times in 2016 and 3.39 times in 2017.



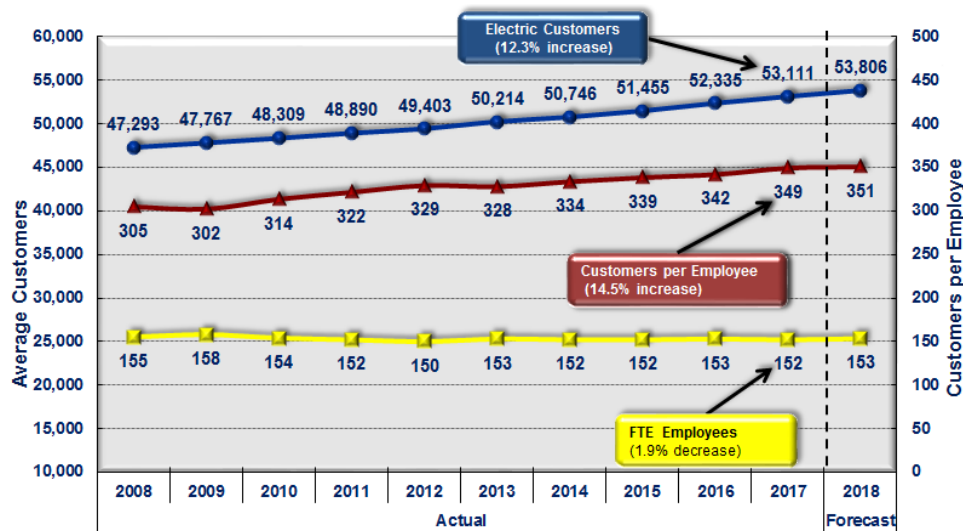
The debt service coverage for Benton PUD in 2017 was 3.39 times, well above the planning target of 2.0 times.

Customers Per Employee

Maintaining the financial health of Benton PUD is crucial and Benton PUD continues to strive to maximize value provided to customers. This can be done through benchmarking other metrics, such as the number of customers per employee. This metric measures the efficiency of staffing levels compared against a growing customer base. A higher ratio indicates Benton PUD is able to serve more customers with fewer employees. The following chart shows that since 2008, the number of customers has increased, while the number of employees has decreased, resulting in a 14.5% increase in the number of customers served per employee. This has been possible largely through the use of technology making Benton PUD operations more efficient.

Over the years, Benton PUD has found ways to use technology effectively to serve more customers per employee.

Actual Annual Average For Years 2008-2017

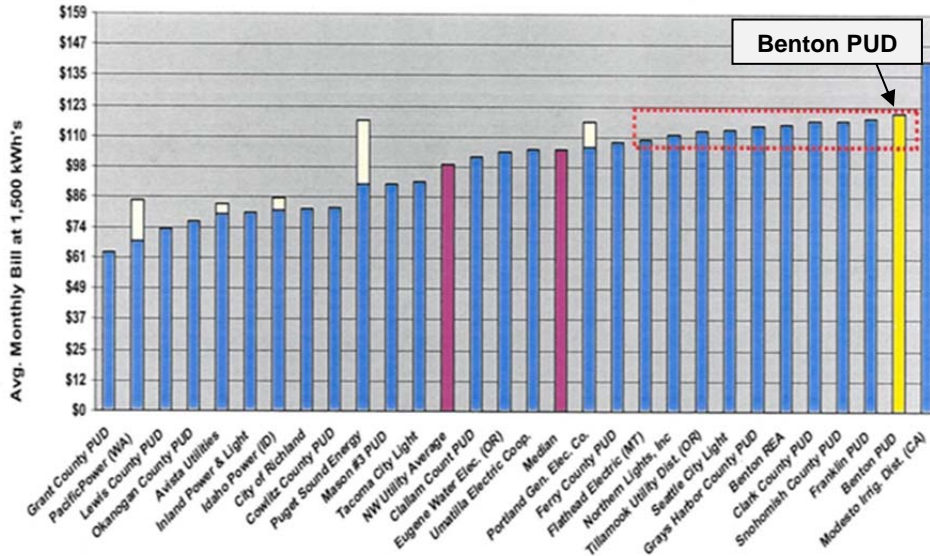


Note: American Public Power Association definition of a customer
 Actual results will typically be lower than budget due to attrition throughout the year

Benton PUD Rates

Over the years Benton PUD has dedicated itself to improving its rates while maintaining its financial condition. The chart below shows how its average bills compared to other utilities back in 2003.

Residential Average Monthly Bill Comparison – 2003



□ Residential Exchange Credit

Since that time, Benton PUD has been able to drive down its rates and increase its financial stability with conservative financial policies. Benton PUD average bills are now considerably lower than the average and the median.

Residential Average Monthly Bill Comparison – 2018

