MISSOURI RIVER® ENERGY SERVICES

Municipal Power Advantage®

CITY OF BARNESVILLE

Barnesville Municipal Utilities

The Benefits of Having a Municipal Electric Utility

July 2017

BARNESVILLE MUNICIPAL UTILITIES
MUNICIPAL POWER ADVANTAGE®
TABLE OF CONTENTS

This Municipal Power Advantage report was completed by Missouri River Energy Services (MRES) and its member, Barnesville Municipal Utilities (Barnesville). In completing this report, MRES has relied on the data and materials provided by Barnesville and others to be accurate, and has not independently verified their accuracy. The analysis, conclusions, and recommendations contained in this report constitute the opinions of MRES based on the data and materials provided.

MUNICIPAL POWER ADVANTAGE

EXECUTIVE SUMMARY

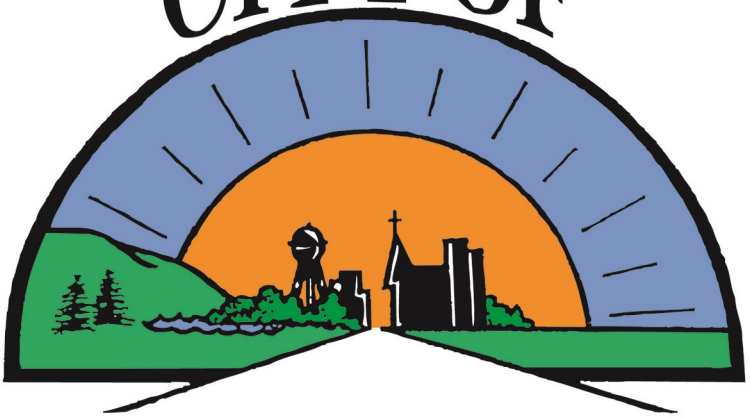
The Municipal Power Advantage (MPA) report provided by MRES discusses the financial and non-financial benefits the community of Barnesville, Minnesota, receives by having a municipally owned electric utility. For example, **the City of Barnesville (City) and the community received approximately $365,000 per year in financial benefits from the electric utility.** One of the benefits is Barnesville Municipal Utilities (Barnesville) makes an annual operating transfer to the City's General Fund. The cash transfer averaged $212,430 per year from 2014 to 2016. In addition, Barnesville provides donated electric service to the City, including several buildings and street lighting service, and also provides donated electric service to the water, sanitary sewer, and telephone/cable TV utilities. The total retail value of the donated electric service is estimated at $152,220 in 2017. Similar amounts are donated every year. In addition, Barnesville donated labor to the City and other utilities with an estimated value of $2,000 per year from 2014 to 2016. Many other benefits the electric utility provides the community are difficult to value financially and several are mentioned in this report.

Barnesville has a Western Area Power Administration (WAPA) power supply allocation, which supplies about 48 percent of its energy requirements. Barnesville receives its supplemental power requirements from MRES, whose wholesale rates are lower than the regional average rate. As a result, Barnesville's wholesale power supply and transmission total costs are projected to be 5.87 cents per kilowatt-hour (kWh) in 2017 compared to the estimated regional wholesale power supplier average cost of 7.07 cents per kWh. **This equates to a projected wholesale power cost savings of $300,000 in 2017, or $12 per 1,000 kWh of energy.**

Barnesville receives many other benefits as a member of MRES, which are further discussed in the report. **In summary, Barnesville's total financial benefits as a member of MRES and having a WAPA allocation are estimated to be $366,150 in 2017, or $306 for each residential and commercial customer.**

MRES appreciates the opportunity to prepare this study for Barnesville and would like to thank your staff for its valuable assistance.

CITY OF



BARNESVILLE

Municipal Power Advantage Report

The MPA report provided by MRES highlights the value and benefits of Barnesville Municipal Utilities, the municipally owned electric utility in Barnesville, Minnesota. The electric utility provides several benefits and supports the community in many ways beyond providing reliable power. Many of the benefits may not be known and understood by the customers, general public, and the members of the Barnesville City Council. Some of the benefits have a significant positive financial impact to the community, while other benefits are less easily measured, but are still impactful and valuable.

The goals of the MPA program and report are the following:

- To determine the value of the benefits the electric utility provides the city and community
- To develop a communication plan, including a presentation to the governing board
- To educate policymakers and customers about the financial and non-financial benefits of the electric utility
- To increase the public's awareness and improve its perception of the utility

Barnesville is one of approximately 2,000 public-power electric utilities operating in the United States today. Public power electric utilities include local municipal utilities, like Barnesville, and public power districts. Nebraska is unique in that it is served entirely by public power electric utilities. The local municipal electric utility is an outstanding asset to the community of Barnesville.

A Snapshot of Barnesville, Minnesota

Barnesville is located about 25 miles east of the Fargo-Moorhead metropolitan area along Interstate 94. Barnesville prides itself on being a full-service community with an excellent education system, beautiful parks, supportive economic development authority, and the Potato Days Festival in late August each year. Barnesville has had over 175 homes constructed since 2000, including 25 homes in the past three years. This family friendly place has a strong sense of community and high quality of life for approximately 2,637 people[1] who call Barnesville home.

Barnesville is very unique among municipal utilities across the United States in that all utility services except natural gas are municipally owned. Barnesville's utility services include electric, water, sanitary sewer, telecommunications, cable TV, internet, garbage, and a recycling center. Natural gas is provided by Xcel Energy. With municipally owned utilities, customers are the owners and elect or appoint the governing board members. Barnesville is governed by the mayor and members of the city council.

Wagner Park Campground

1. June 1, 2016 Minn. State Demographer's Office

BARNESVILLE MUNICIPAL ELECTRIC UTILITY

The electric utility was established in 1899 when the electric light plant was finished with an 80-horsepower engine. Today, the utility only provides local distribution services and serves approximately 1,050 residential customers and 125 commercial and large power customers. Barnesville's power supply is provided by WAPA under a fixed contract rate for delivery, and its supplemental power supply needs are provided by MRES. On January 8, 1973, Barnesville became the 30th member to join the Missouri Basin Municipal Power Agency, which operates as MRES today. Over the years, the electric utility has had several expansions and improvements to ensure a high level of reliability and excellent service for its customer-owners. The charges for services are based on the utility's operating costs and not based on shareholder profit expectations. Net income is also reinvested into infrastructure and equipment upgrades or placed into reserves for future expenditures rather than being paid out to shareholders who are expecting a return.

BENEFITS TO BARNESVILLE BY HAVING A LOCALLY OWNED ELECTRIC UTILITY

Tangible Financial Benefits

The City and its residents and businesses receive many benefits from being served by a public power system. One of the principal benefits includes lower wholesale power supply and transmission costs when compared to the average cost per kWh of 20 regional suppliers. Other financial benefits include the transfer to the General Fund; the value of donated energy usage to the City, including street lighting service, recreational facilities, and other utility funds; and donated labor.

Wholesale Power Supply and Transmission Service

Barnesville receives a fixed monthly power allocation from WAPA, which operates several hydroelectric plants along the Missouri River. In 2017, Barnesville is projected to purchase about 48 percent of its power requirements from WAPA. Barnesville receives the remaining power requirements from MRES. The utility has a long-term S-1 Power Sale Agreement (S-1) with MRES until 2057.

WAPA's firm power composite rate, which is cost-based, for the Pick-Sloan Missouri Basin Program-Eastern Divison, is 2.825 cents per kWh in 2017. The composite rate is the total of the demand and energy charges divided by the kWh purchased. Due to the drought-related costs and deficits from 2001 through 2009, WAPA gradually increased rates from an average composite rate of 1.4 cents in 2003 to a rate of 3.325 cents in 2010. WAPA's rates remained stable through 2016 while paying off the drought deficits. WAPA decreased its rates by 15 percent on January 1, 2017, to a composite rate of 2.825 cents per kWh. The rate

Ft. Randall Dam, South Dakota

decrease will lower Barnesville's WAPA costs by $58,550 in 2017. In April 2017, WAPA will begin its rate adjustment process to increase the base charge component, which includes normal operating and capital expenses, and reduce the drought-adder to zero as the drought deficit will be paid off by 2018. WAPA has indicated an overall 15 percentage decrease for 2018.

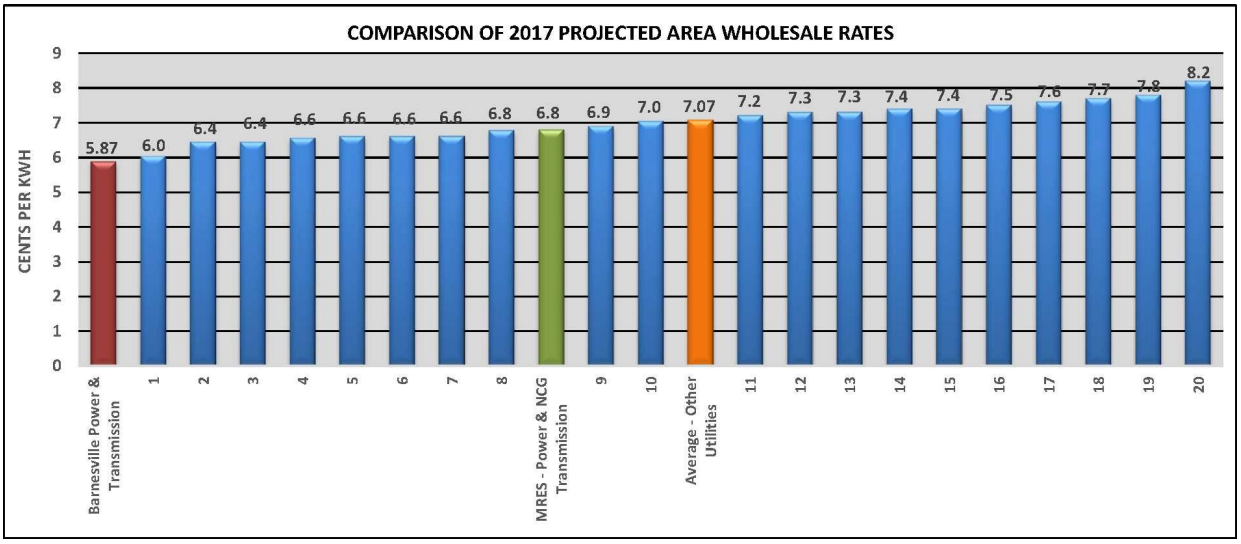
The MRES S-1 supplemental rates are split into power supply and transmission rate components. The power supply rates include four seasonal demand rates and a single energy rate. The average power supply composite rate is projected to be 5.87 cents in 2017, which includes a 3 percent increase. MRES is planning an additional 3 percent increase in 2018. As a result of WAPA joining the Southwest Power Pool (SPP) on October 1, 2015, the MRES members that are located in the Midcontinent Independent System Operator (MISO) market no longer take transmission service over the Integrated System. The MRES members located in MISO, including Barnesville, saw their MRES transmission rate decrease from $3.25 per kW-month in 2015 to zero on January 1, 2016. Barnesville is also charged a market capacity charge of $0.32 per kW-month in 2017, which is projected to decrease to zero in 2018.

Barnesville is part of the MRES Northern Cities Transmission Group (NCG), which consists of 13 members located in west-central Minnesota and eastern North Dakota and South Dakota. NCG provides transmission service from the WAPA outlet to the town gate. The rate is $4.75 per kW-month, or an average 1.17 cents per kWh purchased, in 2017.

Barnesville's blended wholesale power and transmission rate is projected to be 5.87 cents per kWh in 2017. The blended wholesale power rate is the sum of the costs from WAPA, MRES, and NCG divided by the total kWh purchased from both suppliers. Several factors contribute to the average cost per kWh including the MRES seasonal demand rates and when Barnesville purchases demand from MRES, the utility's monthly system load factor, and the percentage of energy purchased from WAPA compared to MRES each month.

As shown in the graph at the top of the next page, the 2017 average MRES S-1 rate for members in the MISO market and that take transmission service from NCG is 6.8 cents per kWh (green bar), or 3.8 percent lower than the average wholesale composite rate of 20 area power suppliers at 7.07 cents per kWh (orange bar). Meanwhile, Barnesville's blended cost is only 5.87 cents per kWh, which is the lowest cost in the comparison. Utilities have increased wholesale rates for a variety of reasons, and all have seen significant cost pressures.

Barnesville's Substation



Barnesville's Wholesale Power Cost Savings

The wholesale power cost savings between the average 2017 rate of 7.07 cents per kWh for the 20 area utilities and Barnesville's projected average rate of 5.87 cents per kWh is 1.2 cents per kWh. Barnesville is projected to purchase approximately 25,001,800 kWh in 2017 from WAPA and MRES. **Therefore, the total savings to Barnesville is projected to be $300,022 in 2017**, as calculated below. The savings is a result of the City's WAPA allocation and the S-1 supplemental power contract with MRES. For a typical residential customer using 1,000 kWh per month, the wholesale power cost savings reduces their electric bill by $12 per month based on 2017 data.

2017 Estimated Wholesale Power Cost Savings	
Regional Average Cost per kWh	$0.0707
Barnesville's 2017 Projected Cost per kWh	$0.0587
Cost Difference	$0.0120
Times kWh Purchased	25,001,800
2017 Estimated Savings	**$300,022**

Red Rock Hydroelectric Project near Pella, Iowa

Reduction in Purchased Power Requirements due to the Bright Energy Solutions Energy Efficiency Program

Barnesville actively participates in and promotes the Bright Energy Solutions (BES) energy efficiency program offered by MRES, which is discussed in more detail on pages 24 and 25 of this report. When Barnesville's residential and commercial customers install energy-efficient equipment, including appliances, lighting, and heating and cooling equipment that qualify for the BES program, Barnesville reduces the wholesale demand and energy purchases from MRES. From 2009 through 2016, the **cumulative purchased power energy savings, including transmission and distribution line losses, were estimated at 893,600 kWh, and the cumulative on-peak demand savings was estimated at 145.1 kilowatts (kW). In 2017, the estimated purchased power and transmission cost savings are $57,185,** based on the projects completed through 2016.

Transfers to the City of Barnesville's General Fund

The operating transfer to the City's General Fund, also known as a payment in lieu of taxes, is typically considered as a rate of return to the City for investing in the municipal electric utility. The transfer is based on $0.005 per kWh sold to the residential, general service, large power, dual fuel, and off-peak heating classes and excludes donated usage. The transfer policy provides financial stability to the electric utility and the City's general fund. The following table shows the annual transfer to the City from 2014 through 2016. The transfers as a percentage of operating revenues averaged 9.6 percent from 2014 to 2016. The average transfer as a percentage of revenues was 11.6 percent from 2011 through 2013.

Transfer to the City of Barnesville and the Transfer as a Percentage of Revenues

	2014	2015	2016
Transfer to the General Fund	$195,500	$220,000	$221,785
Operating Revenues	$2,243,848	$2,111,692	$2,286,727
Transfers as a Percentage	8.7%	10.4%	9.7%

Value of Donated Electric Service

Barnesville provides electric service to other utility funds including water, sanitary sewer, and the telephone, cable, and TV utility at no charge. The annual consumption of these utilities was 412,385 kWh, 327,995 kWh, and 294,751 kWh in 2014, 2015, and 2016, respectively. The retail value of the electric service decreased from $44,545 in 2014 to $32,101 in 2016 due to decreased usage. The donated electric usage results in lower operating expenses for these utilities, which is likely reflected in lower charges to customers for these services.

Barnesville also provides street lighting to the City at no charge. The cost of providing street lighting is $0.15 per kWh, which includes the cost of not only providing power, but also labor and materials to maintain and replace the street light components when needed. Street lighting consumed an average of about 313,800 kWh in 2014

and in 2015 and consumed 323,392 kWh in 2016. **Therefore, the value of street lighting at a rate of $0.15 per kWh equals $48,510 in 2016.** Similar amounts were saved in previous years. If the City were served by an investor-owned utility (IOU) or rural electric cooperative (REC), the City would pay this amount or more per year for street lighting service. Street lighting service is unique, because the utility provides both the power supply and incurs additional costs to maintain, repair, and replace the lights as necessary.

In addition to the donated street lighting service, Barnesville provided an average of 597,230 kWh annually from 2014 through 2016 in free electric service to the city hall building and other city and recreational facilities. The value of these donated electric services average is estimated at $65,323 per year from 2014 through 2016 using the general service rate shown in Appendix A.

Retail Value of Donated Electric Service				
	2014	2015	2016	Avg. 2014-2016
Water Utility	$12,124	$10,020	$8,258	$10,134
Sanitary Sewer Utility	$11,753	$9,465	$9,347	$10,188
Telephone, Cable, TV	$20,668	$16,326	$14,496	$17,164
Subtotal: Utility Funds	$44,545	$35,811	$32,101	$37,486
City's General Fund				
Street Lighting	$46,854	$47,279	$48,510	$47,547
City Hall & Facilities	$61,550	$61,044	$61,682	$61,425
Recreational Facilities	$3,511	$4,259	$3,923	$3,898
Subtotal: City Funds	$111,915	$112,582	$114,115	$112,870
Total Donated Electric Service	$156,460	$148,393	$146,216	$150,356

Value of Donated Labor

Barnesville donates labor to provide tree trimming services for other utilities at a value of $1,250 per year. The utility also provides labor to install and take down holiday lights, which has an annual value of $750 to the City's general fund.

Comparison of the Total Transfers and Value of Donations

Barnesville's total value of transfers and donations described above ranged between 15.8 percent to 17.5 percent, or **an average of 16.5 percent per year**, of the electric operating revenues from 2014 through 2016, as presented in the table on the following page. According to the American Public Power Association (APPA) report titled "Survey of Local Publicly Owned Electric Utilities Tax Payments and Contributions to State and Local Government", the average transfers, payments, and contributions by public power systems were 5.6 percent of operating revenues in 2014. MRES also monitors transfers and contributions of more than 70 regional municipal utilities, and the median percentage of transfers and contributions is currently 6 percent of operating revenues.

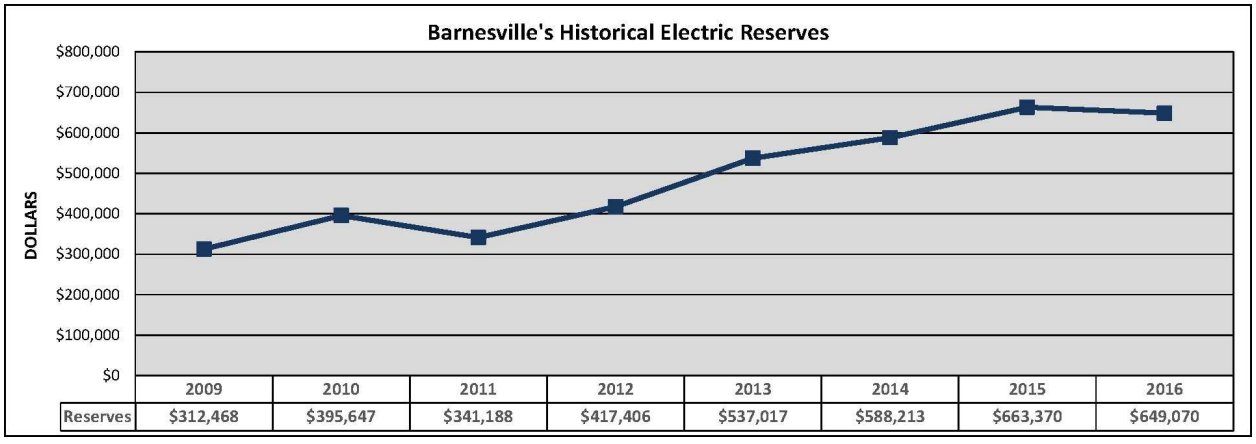
Total Transfers and Donations as a Percentage of Operating Revenues			
	2014	2015	2016
General Fund Transfer	$195,500	$220,000	$221,785
Donated Utility Usage	$44,545	$35,811	$32,101
Donated General Fund Usage	$111,915	$112,582	$114,115
Donated Labor	$2,000	$2,000	$2,000
Total Transfers, Donated Usage & Labor	$353,960	$370,393	$370,001
Electric Operating Revenues	$2,243,848	$2,111,692	$2,286,727
Transfer & Donations as a % of Revenues	15.8%	17.5%	16.2%

Competitiveness of Barnesville's Retail Rates

Each utility has unique revenue requirements that impact the competitiveness of its rates. The utility's rate competitiveness can fluctuate over time depending on its business operating cycles, donations, level of cash reserves, discounted and donated services and usage, and other expenditures that arise. During a business cycle in which the utility is spending higher than average amounts on major capital improvements and equipment replacements, retail rates may likely be higher than other regional utilities in order to pay for additional debt service or to rebuild reserves that were spent down to pay for the improvements.

Each utility's average wholesale power and transmission costs also greatly impact the competitiveness of the utility, since these costs are usually between 60 and 80 percent of the total operating expenses. As previously indicated, Barnesville's wholesale power and transmission costs are well below the regional wholesale supplier's average cost.

Other policies set forth by the utility's governing board can affect the competitiveness of retail rates. Barnesville increased its rates by 2.8 percent in July 2014 and rates have held stable since. Reserves have gradually increased from about $312,000 in 2009 to $649,000 in 2016, or 29 percent of operating revenues.



Barnesville's monthly customer bills were calculated based on the July 2014 rates, which are still in effect today, and a typical level of usage for each rate class. The rates are provided in Appendix A at the end of the report, and Appendix B includes the comparison graphs for each class that are summarized in the next table. The comparison graphs include the three IOUs in Minnesota, which are Minnesota Power, Otter Tail Power, and Xcel Energy, and Lake Region Electric Cooperative, the local REC that surrounds Barnesville.

As shown in the table below, Barnesville's residential customers' bills are 4 percent lower than the average bills of the Minnesota (Minn.) IOU's and REC. The general service customers are between 1 percent and 5 percent lower. Meanwhile, the eight largest large power customers have an average demand of 68 kW with a load factor of 52 percent. This group of customers pays about 12 percent less than the Minn. IOU/REC average bill.

Comparison of Barnesville's Bill and the Minn. IOU/REC Average Bill

Rate Class	Usage & Demand	Barnesville Bill	MN IOU/REC Average Bill	Barnesville less IOU/REC Avg.	% Difference
Residential	1,000 kWh	$114.25	$119.30	($5.05)	(4.2%)
General Service Single-phase	1,500 kWh	$169.25	$178.74	($9.49)	(5.3%)
General Service Three-phase	3,000 kWh	$328.00	$332.02	($4.01)	(1.2%)
Large Power	26,000 kWh 68 kW & 52% LF	$2,178.00	$2,484.00	($306.00)	(12.3%)

Barnesville's 2017 bills are more competitive for all classes when compared to the average Minn. IOU/REC bills in 2013 when the first MPA report was completed. Barnesville's rates have not increased since 2014 while the IOU's and Lake Region Cooperative have had rate increases since 2014. In the table at the top of the following page, the difference between Barnesville's bill and the IOU/REC average bill for each usage level by class was multiplied by the number of customers and 12 months to determine the estimated annual savings for the customers that are served by Barnesville. **The total savings is estimated at about $105,600 in 2017. The savings to a typical residential customer is estimated at $60.60 in 2017.** The savings that most of Barnesville's customers are receiving help keep their overall utility costs reasonable, which is money in their pockets that can be used for other priorities and expenses.

Retail rates need to recover the wholesale power and transmission service costs and also provide the utility revenues to cover local operating and maintenance costs. Local costs include investing in the distribution system to maintain a reliable power supply, along with metering and billing expenses. Local costs also consist of other administrative and general expenses and providing cash to maintain a sufficient reserve level. The balance and strategy of maintaining competitive electric rates and having adequate available reserves can be challenging. The city council has the decision-making and policy-setting abilities to determine and approve the best solutions for the betterment of the community.

Estimated 2017 Savings for Barnesville's Customers				
Rate Class	**Usage**	**Barnesville Savings per Month per Customer**	**Number of Customers**	**2016 Estimated Annual Savings**
Residential	1,000 kWh	$5.05	1,070	$64,842
General Service Single-phase	1,500 kWh	$9.49	90	$10,252
General Service Three-phase	3,000 kWh	$4.01	24	$1,156
Large Power	26,000 kWh 68 kW,52% LF	$306.00	8	$29,376
Total Savings for Barnesville's Customers Compared to the IOU/REC Average Bill				$105,626

New Roads in Del Acres Gilbertson Housing Development

Barnesville, Minn.

Intangible Benefits

Intangible benefits have a real value to Barnesville. Some of the benefits may not be quantifiable; therefore, MRES and the Barnesville staff estimated the value of some of these benefits. For example, the city council has control of the electric rates and the utility's policies and objectives, making them very responsive to the needs of Barnesville customers. Other benefits that cannot easily be measured include: access to tax-exempt financing, maintaining a high level of reliability, providing local employee salaries, purchasing supplies and services locally, providing support for economic development, achieving operational efficiencies by working with other city departments, providing local customer service, and being good stewards of the environment. The electric utility may provide many other benefits not included in this report.

Local Governance

MRES members are locally regulated either by the city council, a utility board of trustees, or a utility commission. The board or commission may be independent and the authoritative decision maker for the utility, or it may be an advisory board. Regardless of the form of governing body for the utility, the persons serving are either elected by or appointed by the same citizens served by the municipal electric utility. Therefore, the governing board is likely to have the best interests of the community and its citizens in mind when they make decisions regarding the electric utility, its operations, and future planning. In Barnesville, the utility is under the direction of the city council and mayor with advisement from the Telephone, Electric and Cable (TEC) Board, which consists of two council members. The council includes Mayor Gene Prim and the members include Dave Brown, Larry Davis, Jr., Brad Field, Don Goedtke, Jason Rick, and Betty Stromm. Jason Rick and Brad Field are appointed to the TEC Advisory Board.

Barnesville's city council governs the electric utility and also the city-owned water, sanitary sewer, cable TV, and telephone utility services. The council represents the customers when they make decisions on setting operating budgets, planning and funding capital improvement and equipment replacement plans, setting the general fund transfer level, and retail rate setting. The city council understands the impact of its decisions to the local community. Barnesville's City Council's governance provides transparency between the utility and the customer, and the council is also able to address customer concerns and changing utility needs in a timely manner.

The electric customers can easily reach out to their city council members to voice concerns or to provide other feedback about the utility. Customers also have an opportunity to provide input at the council meetings once a month. In contrast, a board of directors of an IOU may be more difficult to contact, and they may not always understand the local and customer impacts of their decisions, since the territory is typically large, and the board may be disconnected from the utility's customers. IOU boards also have to protect their shareholder interests in their decision-making process, so the best interest of customers may not be a top priority.

The relationship between the city council and the utility staff must remain strong, and both will need to work together during the changing times of the electric utility industry. Understanding both the city council's and the utility staff's goals and objectives will strengthen the local message to the community and quickly resolve any conflict. A council that is well-educated on the differences between operating an electric utility as a business entity and a city government that relies on taxes, transfers, donated services, and other funding resources are key parts in the success of both the utility and the city. It is the fiduciary responsibility of the city council to protect the utility assets.

Access to Tax-Exempt Financing

Municipal utilities have access to tax-exempt financing, which typically carries reduced interest rates, resulting in lower overall borrowing costs, depending on the credit quality of the borrowing utility. Tax-exempt bonds issued by utilities usually finance large infrastructure or generation projects that increase reliability and safety, among other benefits. The typical point spread between taxed and tax-exempt debt will vary based on credit quality. However, the increased cost for taxable bonds is typically between 200 and 300 basis points, or 2 to 3 percent. Barnesville currently does not have any outstanding debt issuances.

Bond rating agencies have provided high marks to MRES members due to their WAPA power supply allocation and long-term supplemental power contracts with MRES. Other strengths noted by the rating agencies are that municipal utilities have monopolies on their service territories and the governing boards have the ability to adjust rates quickly when needed.

Reliability

The first priority for most electric customers is reliability, followed closely by reasonable rates. Many factors impact reliability, including voltage, feeder length, the percentage of the distribution system being underground versus overhead, redundancy, conductor type and the age, along with the number of customers served by each feeder and transformer. Some outages are also caused by contractors, customers, or accidents, which are out of the control of the utility.

Reliability costs money and can impact rates. Long-term system improvement planning can reduce both the frequency and length of power outages. System planning also helps to stabilize retail rate increases and ensure reserves are available to fund the improvements. Investments in the system should also consider the cost and the incremental value of reliability the customers will receive.

Reliability reports can help the utility pinpoint sections of the system that need closer attention, including possible upgrades or replacements due to aging infrastructure. Reliability is typically measured by three industry standards, and the statistical trends over time can help the utility diagnose issues. The reliability standards are the following:

System Average Interruption Frequency Index (SAIFI) measures the average number of interruptions per customer during the reporting period.

SAIFI = (Total Number of Customer Interruptions / Total Number of Customers Served)

System Average Interruption Duration Index (SAIDI) measures the amount of time a customer is without power.

SAIDI = (Total of all Customer Interruption Durations / Total Number of Customers Served)

Customer Average Interruption Duration Index (CAIDI) measures the amount of time a customer can expect to be without power when they do lose power.

CAIDI = (Total of all Customer Interruption Durations / Total Number of Customers Interrupted)

The results of Barnesville's reliability standards for 2014 through 2016 and the three-year average are shown in the table below. Barnesville uses the ReliaTrak software to track outages, the cause of the outage, number of customers impacted, and the length of the outage. Outages are usually due to equipment failures or weather. For all three of the measures described above, a lower number means greater reliability.

Barnesville's Historical Reliability Standards

Standards	2014	2015	2016	Average 2014-2016	Average 2010-2012
SAIFI	0.186	0.002	0.066	0.085	0.137
SAIDI—Minutes	27.03	0.69	4.48	10.74	7.76
CAIDI— Minutes	145.19	296.00	68.02	169.74	56.71

The SAIFI index measures the probability of a customer experiencing an outage, and Barnesville's outage probability averaged 0.085, or 8.5 percent, from 2014 through 2016, which decreased from 13.7 percent from 2010 through 2012. The SAIDI average for the three years was 10.7 minutes per year, which results in **customers having power available 99.998 percent of the time**. CAIDI calculates the number of minutes a customer was without power when they did lose power. Barnesville's power restoration time that is shown in the CAIDI measurement increased from an average of 57 minutes from 2010 through 2012 to nearly 170 minutes from 2014 through 2016. In 2015, while the outage lasted for nearly 5 hours, it only impacted three customers. This outage increased the three-year average restoration time above the IOU average times.

Overall, Barnesville's customers experienced a higher level of reliability than most utility customers. When compared to Minnesota's IOU SAIDI index, Barnesville's customers are without power on average less than 11 minutes per year and the IOU customers are without power between 70 and 107 minutes per year. The Minnesota Public Utilities Board approves and reviews the reliability standards for IOUs.

On March 30, 2017, APPA awarded Barnesville a Certificate of Excellence in Reliability for "significantly outperforming the electric industry national average." APPA compiled the Energy Information Administration 2016 reliability data and compared Barnesville's data to the national average. The results showed Barnesville is in the top quartile of system outage duration for electric utilities. An email from APPA congratulating Barnesville and the certificate are shown in Appendix C.

Comparison of Barnesville's Reliability Standards to MN IOUs: 2013-2015 Data				
Standards	Barnesville 2014-2016	Xcel Energy MN 2013-2015	Otter Tail Power 2013-2015	Minnesota Power 2013-2015
SAIFI	0.085	0.98	0.76	1.09
SAIDI— Minutes	10.74	107.0	70.6	103.5
CAIDI— Minutes	169.74	139.8	71.5	94.9

Prevention of Outages

Preventive actions can go a long way in decreasing the frequency of outages and the length of each outage. Barnesville carries out many preventive actions throughout the year to increase reliability, resulting in high customer satisfaction. Barnesville has a tree-trimming program to help prevent limbs from falling onto the power lines and a vegetation management program to spray any voluntary vegetation and tree growth at the substation. The utility has installed lightning arresters and performs thermographic circuit inspections about every three years for preventive maintenance. The utility has approximately 50 percent of the distribution system underground, including the newer housing subdivisions, to prevent damage from severe storms. Barnesville continues to convert overhead service to underground as budget and time permits.

Communication about Planned Outages

Customer satisfaction and the relationship between Barnesville and its customers are strengthened by communication about planned outages. Barnesville notifies customers in advance of planned outages through a variety of outlets including the local television access channel, the monthly newsletter, email, the City's Facebook page and the City's blog that is posted on its website at www.BarnesvilleMN.com.

Otter Tail Power (OTP) Company is currently contracted by Barnesville Municipal Utilities to provide distribution maintenance services. The OTP distribution crew is responsive to outages as one crew member lives in Barnesville. When an outage occurs, OTP usually responds within an acceptable amount of time.

Local Employee Salaries

Economic studies have shown that local employee salaries circulate throughout the community several times, boosting the local economy. From 2014 to 2016, the total electric utility salaries paid to its administrative and customer accounts staff averaged $63,600 per year. A portion of these salaries is spent in Barnesville supporting local businesses. In addition to the local salaries, the cost of the OTP contract for distribution maintenance services averaged $97,750 per year from 2014 to 2016. Some of the salaries paid to the distribution crews also likely has a positive impact on Barnesville's economy.

Supplies and Services Purchased Locally

The electric utility purchases operating and maintenance supplies, fuel for trucks and equipment, professional services, advertising, and office supplies from the local business community. **Between 2014 and 2016, Barnesville spent an average of $48,760 per year in Barnesville for supplies, fuel, and professional services.** A breakdown of the purchases is shown at the top of the next page.

Supplies and Services Purchased Locally				
	2014	2015	2016	Average: 2014-2016
Operating Supplies & Fuel	$25,490	$25,490	$25,096	$25,359
Professional Services	$14,466	$14,718	$14,536	$14,573
Advertising, Other	$7,631	$11,198	$7,642	$8,824
Total	$47,587	$51,406	$47,274	$48,756

Economic Development Support

Barnesville collaborates with the Economic Development Authority (EDA) for economic development purposes and to support existing businesses in Barnesville. The electric utility partners with new and existing customers as businesses expand to help understand their infrastructure needs and project timelines to ensure service is available when required. Barnesville also provides information on the current rates and rate structures along with energy efficiency incentives through Bright Energy Solutions.

In recent years, Barnesville has had success in attracting new businesses and also new residents. In 2014, a $3.8 million Rothay Farmer's Co-op Fertilizer facility was built along with a Dollar General Store, bringing jobs and industry diversity. In 2016, The Purple Goose, an eatery and drink establishment, opened in a renovated historic building in downtown Barnesville.

In addition to business growth, Barnesville has seen significant residential housing growth too. Barnesville developed 34 single-family and 12 twin-home lots in the Del Acres Gilbertson 2nd Addition to prepare for housing growth. From 2014 through 2016, 25 new homes have been constructed in the development and over 175 homes have been built in Barnesville since 2000. Construction is nearly complete on a new five-unit townhome project called "Townhomes on Third".

Operational Efficiencies

Barnesville gains efficiencies through some integrated utility operations of the electric, water, sanitary sewer, cable TV, internet, telephone, and garbage utilities. The integrated operations primarily includes shared employees and benefits, utility billing and accounting software, office and shop building space, equipment and vehicles. Other City departments may also gain cost efficiencies as a result of having a locally owned electric utility in Barnesville; however, it is difficult to place a dollar value on all the efficiencies without a more thorough analysis of the integration between the electric utility and all the other city utilities and departments. One operational efficiency is having TEC Manager Guy Swenson manage the electric, telephone, cable, and internet utilities. In many communities, this may require several managers to operate all of these utilities.

Guy Swenson, TEC Manager

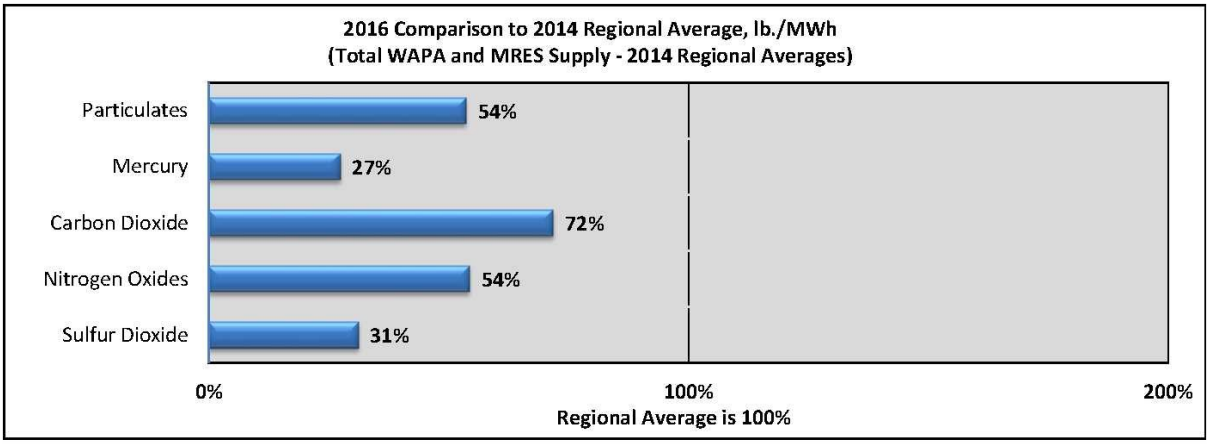
In 2015, Guy Swenson was awarded the prestigious APPA Larry Hobart Seven Hats Award at the Association's national conference. The award recognizes the outstanding efforts of utility managers serving smaller communities that have several responsibilities.

Customer Service

In today's age of technology, many IOUs have virtual customer service operations to reduce overhead and operating expenses. In Barnesville, the utility continues to have friendly and knowledgeable employees available to help customers pay their bills and answer questions regarding their service. Face-to-face interaction with Barnesville's utility customers also helps management become aware of any service issues and quickly resolve them. Barnesville offers customers the ability to pay online at the City's website or to set up auto pay.

Environmental Stewardship

Barnesville's purchased power supply emissions are substantially below the regional average emissions due to their WAPA hydropower allocation, along with the supplemental energy purchases from MRES, whose resource portfolio is environmentally sensitive. In 2017, Barnesville is projected to purchase 48 percent of its energy requirements from WAPA and 52 percent from MRES. The MRES generating resource portfolio includes coal, natural gas, wind, diesel/fuel oil, nuclear, and market purchases. MRES will be adding 36.4 megawatts (MW) of baseload hydropower to its portfolio when the RRHP near Pella, Iowa, is completed. The project is anticipated to be operational in 2019. The Laramie River Station (LRS) is a coal-fired baseload generating plant near Wheatland, Wyo., that is equipped with some of the most effective pollution control equipment available. With emission rates substantially below other coal-fired plants in the country, LRS is one of the most environmentally clean coal-generating plants in the United States. In 2016, MRES completed a one MW solar project in Pierre, S.D., which will help MRES determine the value of solar power in its resource mix. The following graph shows Barnesville's estimated emission levels are well below the regional average emission levels, .



BENEFITS OF BEING A MEMBER OF MISSOURI RIVER ENERGY SERVICES

MRES was formed in 1965, and Barnesville joined the organization in 1973. As a member of MRES, Barnesville enjoys many other services and benefits than just supplemental power supply. Some of the benefits and programs offered to Barnesville through MRES that may not otherwise be available, affordable, or would require additional staff, include power supply and transmission planning, the BES program, Minnesota Conservation Improvement Program (CIP) filings, legislative and preference power representation, electric rate studies, educational meetings and workshops, and other services for Barnesville's customers.

Power Supply and Transmission Planning

MRES provides all power supply requirements to Barnesville above their fixed WAPA allocation through the S-1 Power Sale Agreement. MRES continues to work hard to provide a diversified, cost-effective power supply portfolio to its members. The 24/7 operations center, located at the MRES headquarters, ensures adequate power supply for Barnesville based on its hourly energy requirements. MRES also provides transmission planning and represents the members' transmission interests on issues at regional and national industry meetings.

MRES updates Barnesville's short-term and long-term power supply forecast every year. The forecast is used to provide wholesale power cost projections that include WAPA and MRES costs at least annually and more often as requested by Barnesville. Barnesville can use this information during its budget process for the electric utility.

Bright Energy Solutions

BES is a unique portfolio of energy efficiency cash incentive programs that will help residential and business customers reduce their electric energy costs and operate more efficiently. The program is offered to Barnesville's residential and business customers. The incentives can change from year-to-year, and the current incentives and energy-saving tips can be found at www.brightenergysolutions.com.

Barnesville joined the BES program in 2009. **From 2009 through 2016, Barnesville's residential and business customers have received $55,249 in cash incentives for energy efficiency projects**. Currently, the residential program includes incentives for various Energy Star-Rated appliances, qualifying light bulbs, and heating and cooling equipment. Barnesville also has several programs available for its commercial customers including lighting (new and retrofits), heating and cooling, compressed air system efficiency, refrigeration, pumps and variable frequency drives, and custom programs.

Bright Energy Solutions®
Saving energy. Saving money.

The following table shows the annual and total incentives paid to Barnesville's customers through the BES program, the demand (kW) and energy (kWh) savings per year, and the cumulative savings. The cumulative demand savings through 2016 was 145.1 kW and the cumulative energy savings has been nearly 800,000 kWh. In addition to saving the customers money on their electric bills as a result of installing energy efficient equipment and appliances, the utility also reduces its wholesale power and transmission bills. Lastly, the utility provides the free *Bright Ideas* monthly BES e-newsletter for Barnesville's customers. The newsletter offers energy efficiency tips, new technologies, and information on current incentives available to Barnesville's customers that participate in the BES program.

Bright Energy Solutions Program® Results							
	2009-11	2012	2013	2014	2015	2016	Totals
Cash Incentives	$4,219	$8,990	$6,771	$8,585	$7,556	$19,129	$55,249
Annual kW Saved	5.1	21.7	19.4	30.1	19.6	49.2	145.1
Cumulative Annual kW Saved		26.8	46.3	76.3	95.9	145.1	
Annual kWh Saved	30,323	97,508	106,438	133,768	125,589	306,343	799,969
Annual kWh Saved as a % of Total kWh Sales	0.0%	0.4%	0.4%	0.5%	0.5%	1.3%	0.4%
Annual % kWh Saved with Load Management	0.4%	0.6%	0.7%	0.9%	1.8%	N/A	
MN CIP Savings Goal	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	

Minnesota Conservation Improvement Program (CIP) Filings

MRES assists our Minnesota members with their annual Minnesota CIP filing with the Division of Energy Resources (DER) within the Department of Commerce (DOC). MRES compiles all of the individual BES program results, along with any local program results, into a CIP filing on behalf of each Minnesota member, including Barnesville. The CIP filing is in response to the Next Generation Act of 2007 that was enacted by the Minnesota Legislature.

Presently, municipal utilities in Minnesota are required to report the performance of their CIP programs to the DER. These savings are expressed in terms of kWh reductions in average retail sales. This strategy is similar to other state statutes in that they track first-year savings only. Similar statutes in multiple states allowed MRES to develop methodologies that track program performance and fulfill that need. The DER monitors each utilities' conservation programs and annual achievements of meeting the 1.5 percent kWh savings goal based on their gross annual kWh sales.

As shown in the table above, Barnesville was close to meeting its goal in 2016. In 2016, the Barnesville SuperValu grocery store completed a commercial refrigeration project and new lighting fixtures were installed in the Ambulance building. In total, these two projects saved 165,000 kWh annually and 24 kW of peak demand. The MRES Minnesota members may or may not meet the savings goal each year, as it depends on their customers' ability and willingness to complete energy efficiency projects. **The reduced energy and demand will save Barnesville approximately $57,185 in wholesale power costs in 2017**.

In order to count on energy savings as a power supply resource, the MRES Energy Services Representative must have a thorough understanding of technology, energy savings associated with the energy efficiency measures, and meticulous record keeping. MRES documents each incentive paid to Barnesville's customers, records the savings in a verifiable savings database, requires a percentage of all projects to be inspected, and provides a variety of reports to each member based on their results. Presently, MRES submits reports the DER to be filed in aggregate with all municipal utilities in Minnesota. The process is time consuming and complex and is the driving reason that MRES offers the BES as a professional service for its members.

Legislative Representation

Public power utility staff and governing boards are expected to stay on top of the electric utility industry, including local, state, and federal legislative issues. MRES staff and lobbyists provide legislative support to Barnesville and its other members at all levels. MRES staff informs its members about relevant legislative issues through its website (www.mrenergy.com), newsletters, meetings, and email updates. Weekly updates are also provided to MRES members when the legislatures are in session. Barnesville is also a member of the APPA which lobbies, primarily at the federal level, on behalf of its public power member utilities.

Preference Power Representation

MRES protects and supports the equity interests of its members with WAPA. Over the past couple of years, MRES staff has been assisting the members to extend their Firm Electric Service (FES) contracts with WAPA. MRES reviewed Barnesville's FES contract to ensure it is in the best interest of the utility, and the utility signed the contract. The FES extends the WAPA hydropower supply contract from 2020 to 2050.

Bright Energy Solutions® Power Team Education Program

In 2014, MRES implemented a new education program for fifth-grade students who attend school in member communities. Barnesville is participating in the program for the 2016-2017 school year. Both the teachers and students in participating member communities have enjoyed working through the information. The program teaches students about balancing renewable and non-renewable energy resources, how electricity is produced from these resources, various forms of energy, measuring energy consumption and how it is billed, and everyday conservation at home and school. Each student receives a tool kit to bring home to install various items to increase his/her home's efficiency. The kit includes at-home activities to engage learning about energy efficiency and conservation for students and their parents. MRES pays for 50 percent of the cost of the program for members that participate. Barnesville is providing $1,863 this year to cover the remaining half of the program's cost.

Electric Rate Studies

MRES offers an electric rate study service that includes the member's five-year power forecast and cost projections, five-year revenue and reserve projections, cost-of-service analysis, retail rate design, and bill comparisons to those of regional utilities, along with benchmarking, and other member specific

recommendations. The report and presentation are also used as an educational tool to increase the governing board's and the public's knowledge about the rate-setting process. When the rate study service began in 1999, the MRES Board of Directors approved paying for 50 percent of the market cost of providing a rate study. Barnesville has completed two rate studies with MRES, most recently in 2013. Barnesville saved $10,500 by using Missouri River's rate study services instead of another consulting firm.

Educational Meetings and Workshops

Throughout the year, MRES offers several meetings and workshops to keep its members up-to-date on the electric utility industry, including current issues and new services and technologies. Many of the meetings are free or low-cost and are held either in Sioux Falls, S.D. or throughout the membership service territory to increase member participation by reducing their travel costs. The meetings also provide an opportunity to network among peers, which can result in valuable connections and information. The meetings and workshops include the following:

- APPA Legislative Rally in Washington, D.C., in March
- State legislative events in February and March
- Technology Days in April
- MRES® Annual Meeting in May
- MRES® Legal Seminar in August
- Leadership Academy in September
- MRES Area Meetings in October
- Special events during the year:
  - LRS tours
  - Compressed Air System Workshops
  - Key Accounts and Customer Service Workshops

Member Services Available to Barnesville's Customers

Over the years, the menu of services that MRES offers to the members' customers has grown, and received excellent remarks from the customers. The services available to Barnesville's customers include a key account representative, Questline services, Bright Ideas e-newsletter, and maintenance-testing programs such as infrared scanning, ultrasonic leak detection, and motor testing. Questline is a free technical assistance service that provides an online library with a database of technical business and engineering documents along with "Ask an Expert" hotline service to quickly and easily answer questions not found in the library. Meanwhile, the Bright Ideas e-newsletter and website provides information on energy efficiency tips for homes, an energy library to research topics, several calculation tools to analyze energy usage and savings, and information on BES incentives.

COMMUNICATION AND MARKETING STRATEGIES

Barnesville provides excellent and reliable electric service to its customers. Strategic communication suggestions are provided to enhance Barnesville's current public relations efforts. The suggestions will focus on informing Barnesville's customers about the value the utility brings to the community and general awareness of their electric utility. As customers better understand the value of the services and the programs the municipal utility provides, their loyalty and participation in the utility's programs will likely increase, along with their hometown pride. A transparent and strategic communications campaign may also build trust with policy makers, customers, local media, and utility employees.

To capture the attention of Barnesville's diverse customer segments, several communication strategies are recommended, including the use of traditional and social media. MRES, with the help of the utility, offers the opportunity to create unique, low-cost communication strategies that can have a significant impact by increasing the customer's and policy-maker's knowledge of the benefits provided by the electric utility.

Communication Strategies

The most effective communication strategies are created from the customer's perspective and incorporate benefits based on what motivates them to take action. The following action steps consist of ideas to reach out to customers and educate them about the benefits of their local municipally owned electric utility.

Communication Action Steps:

- **Community Presentations**:
  - ⇒ MRES will present the Barnesville Municipal Power Advantage report to the city council.
  - ⇒ The utility staff may use the MRES presentation and information from this report and present it to other civic and community groups in Barnesville including the Economic Development Authority, Main Street Program, Lions and other civic clubs, and to schools.

- **National Public Power Week**:
  - ⇒ Public Power Week is celebrated nationally the first full week in October. APPA provides several ideas for activities, videos, and brochures at its website www.publicpower.com.
  - ⇒ The utility can reach out to the schools within Barnesville's service territory and host an assembly, provide age-appropriate activities and worksheets about the electric utility, or visit classrooms.
  - ⇒ The utility can host an open house at the utility office and provide free LED light bulbs to customers along with other information about BES energy efficiency programs.
  - ⇒

- **Key Account Activities:**
  - ⇒ An MRES Energy Service Representative currently works with Barnesville staff to help support the utility-customer relationship, along with discussing available programs from MRES.
  - ⇒ Barnesville can continue to strengthen its relationship with large power customers by making regular (annual) on-site visits to better understand the customers' operations and how the utility can better serve them to meet their needs and goals.

- **Traditional Media**:
  - ⇒ Newsletter:
    - ♦ Barnesville's monthly newsletter called *Keeping You Connected* can provide relevant information to its customers. The utility can use this platform to educate its customers about current or upcoming capital projects, the benefits the utility provides to the community that are mentioned in this report, policy and retail rate changes, and state and national industry issues.
    - ♦ The newsletter can also include updates and details about the BES program and energy efficiency tips.
  - ⇒ Newspaper:
    - ♦ News Release: The utility can issue a news release sharing the benefits the utility provides to the City and its citizens and businesses. The news release could be similar to the Executive Summary.
    - ♦ Advertisements: The utility currently promotes the BES incentives through advertising in the local newspaper and has participated in the MRES advertising reimbursement program whereby MRES pays for 50 percent of the cost of the ad.
    - ♦ Articles: Barnesville could submit articles for the newspaper. In addition, the utility can continue to develop relations with the local newspaper editor and staff. Strong relationships of this nature increase the probability that the utility will be asked to provide its point of view when the newspaper writes an article about the utility.
  - ⇒ Radio: MRES offers reimbursement for 50 percent of the cost of ten 30-second spots on the local radio station. The utility can promote the BES rebates, energy efficiency tips, and the benefits of the municipally-owned electric utility through radio announcements on the local station. MRES also provides monthly scripts the utility can use for the radio spots.
  - ⇒ Brochure: MRES will create a brochure template that Barnesville can use to provide information to its customers about the utility. The brochure would include some of the advantages of having a municipal electric utility in Barnesville, the financial and non-financial benefits of the utility, BES information, contact information, and other appropriate information.

- **Social Media**:
  - ⇒ Websites:
    - ♦ The City of Barnesville's website, www.BarnesvilleMN.com, includes information about the electric utility, including the 2013 Municipal Power Advantage report and links to the MRES and BES websites. The website also includes information on other city utilities and services, economic development, and relocation information.
    - ♦ The BES website, www.brightenergysolutions.com, provides information about Barnesville's energy efficiency programs and incentives.
  - ⇒ Facebook and Twitter: Many utilities are connecting with their customers through social media, including Facebook and Twitter. The utility can use social media to provide alerts to its customers about planned and unplanned outages, energy efficiency tidbits, information about new or existing programs, and information from this report discussing the value of the utility.
  - ⇒ Email Messaging: Email messaging may be used for alerts such as a reminder of a planned outage or that utility bills are due on a certain date.
  - ⇒ Newsletters: Barnesville could take fuller advantage of the residential Bright Ideas e-newsletter and the Questline e-newsletter for business customers; both are provided by MRES. These newsletters provide energy information to customers free of charge and provide Barnesville with the opportunity to send customized messages to their participating customers.

- **Other Community Involvement Opportunities**:
  - ⇒ Utility booth at local festivals, including Potato Days
    - ♦ Barnesville could provide a booth with educational information and BES incentive information.
    - ♦ A short customer survey could be offered to gather customer input about specific issues or programs customers would like to see their utility offer.
    - ♦ Other activity ideas at the booth could include:
      - Impact of electric space heater demonstration
      - Vampire usage demonstration using popular home electronics
      - Electric safety demonstration using the Hazard Hamlet kit available from MRES
  - ⇒ Summer Movie Night: The utility can sponsor a family movie night at a local park a few times during the summer. It is suggested that the evening have pre-determined dates set on a regular basis. Prior to the movie starting, the utility can play YouTube videos, scroll information about the utility's programs, or have a safety demonstration for the kids.
  - ⇒ School Science Fair: The utility could sponsor and participate in the school science fair while bringing awareness to the students about Barnesville and also about the variety of careers in public power. Through sponsorship, the utility may also be able to set up a demonstration and/or booth to engage the students in learning more about the electric industry. Barnesville staff could also serve as judges at the science fair.

CONCLUSION

Barnesville Municipal Utilities provides many services and benefits to the citizens and businesses in the community. The Municipal Power Advantage report reminds customers and the city council of the significant financial and non-financial contributions the utility and staff provides to making Barnesville an excellent place to live and to do business. The city council, electric utility staff, and the community should continue to bring forth these extraordinary benefits and let them be known through consistent communication efforts using various platforms.

Barnesville Mayor and City Council

Top Row: Mayor Eugene Prim

2nd Row: Brad Field*, Don Goedtke, Betty Strom, Larry Davie, Jr., and Jason Rick*, and Dave Brown

***Serves on the TEC Advisory Board**

Guy Swenson, TEC Manager


BARNESVILLE
Welcomes You
POTATO DAYS
AUG 26 & 27, 2016


JOHN McGRATH PARK

Appendix A

BARNESVILLE'S RETAIL ELECTRIC RATES

Barnesville completed its most recent electric rate study, including a cost-of-service analysis, with MRES in 2013. At that time, Barnesville increased its rates by 2.8 percent in 2013 and 2014 to recover rising wholesale power supply and transmission costs along with increasing operating expenses, to fund capital improvements, and to meet the annual debt service obligation.

Rate Structure

The residential class has energy rates wherein the customers pay a higher rate per kWh for June through August usage to encourage efficient use of household energy, including air conditioning, during the months of higher wholesale power supply costs. In return, the residential customers pay a lower energy rate from September through May. The general service class consists of customers with a monthly peak demand of less than 20 kW, and then customers pay a customer charge based on the service provided by the utility along with seasonal energy rates. The large commercial class includes customers with a monthly peak demand of 20 kW or greater. These customers pay a seasonal demand rate based on their monthly peak demand along with a lower energy rate. The rates effective July 2014 are still current in 2017 and are shown on the next page.

Duel Fuel and Off-Peak Heating Rate Options

In addition to the standard rates for the classes, Barnesville offers a dual fuel rate and an off-peak rate option to its customers to help them save money on their total heating costs. The utility is able to reduce its wholesale power costs during peak demand times and pass a portion of those savings onto the customer participating in one of the programs through a lower energy rate.

The dual-fuel rate is available to all customers with a dual fuel heating system, including a heat pump, that is controlled by the utility's load management system. Customers who are on the dual-fuel program have their electric heating system interrupted and switched to a non-electric fuel source, such as propane or natural gas.

The off-peak rate is available for electric thermal storage (ETS) space heaters and various under-concrete slab heating systems. The off-peak customers are allowed to recharge the ETS or slab heating system during restricted hours, which are typically overnight, to avoid the system peak during the day.

Controlled Central Air Conditioning Credit

A credit of $5 per month from June through August is available to residential customers who choose to have the utility control their central air conditioner. The utility's load management system cycles the air conditioner during peak usage days in the summer months, which reduces the overall utility power costs.

Barnesville's Electric Utility Rates

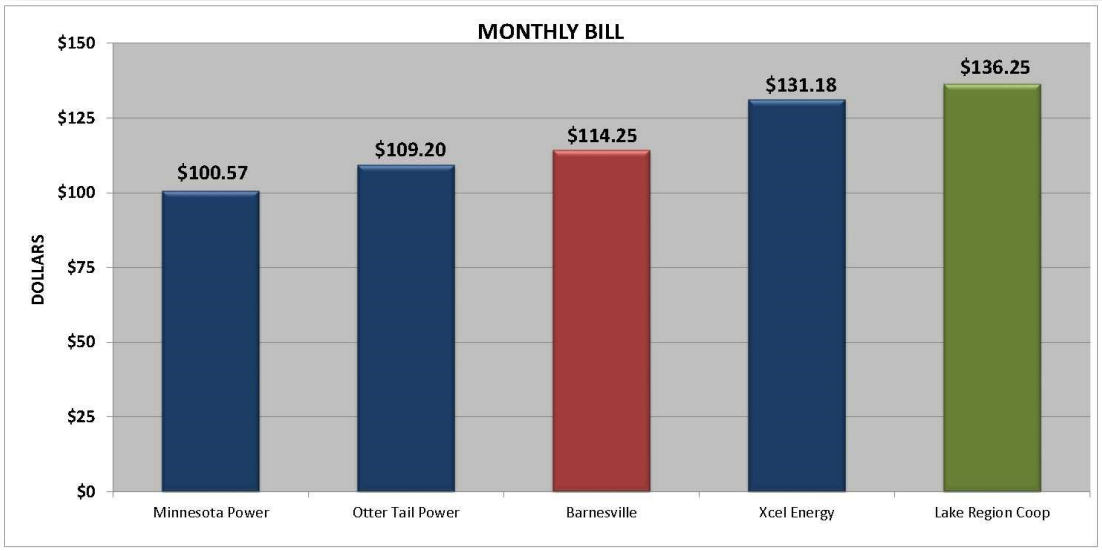
Customer Class	Rate Components	Rates
Residential	Customer Charge per Month	$14.00
	Energy Charge per kWh	
	June-August	0.113
	September-May	0.096
General Service (Under 20 kW)	Customer Charge per Month	
	Single-phase	17.00
	Three-phase	23.50
	Energy Charge per kWh	
	June-August	0.112
	September-May	0.098
Large Power (Over 20 kW)	Customer Charge per Month	38.00
	Demand Charge per kW	
	June-August	13.90
	September-May	10.30
	Energy Charge per kWh	0.053
Dual Fuel and Off-Peak Usage	Energy Charge per kWh	
	June-August	0.113
	September-May	0.047
Controlled Central Air Conditioner	Monthly Credit for June-August	5.00
Security Lighting	Monthly Charge:	12.25
	200 Watts or less	24.50
	Flood Light	

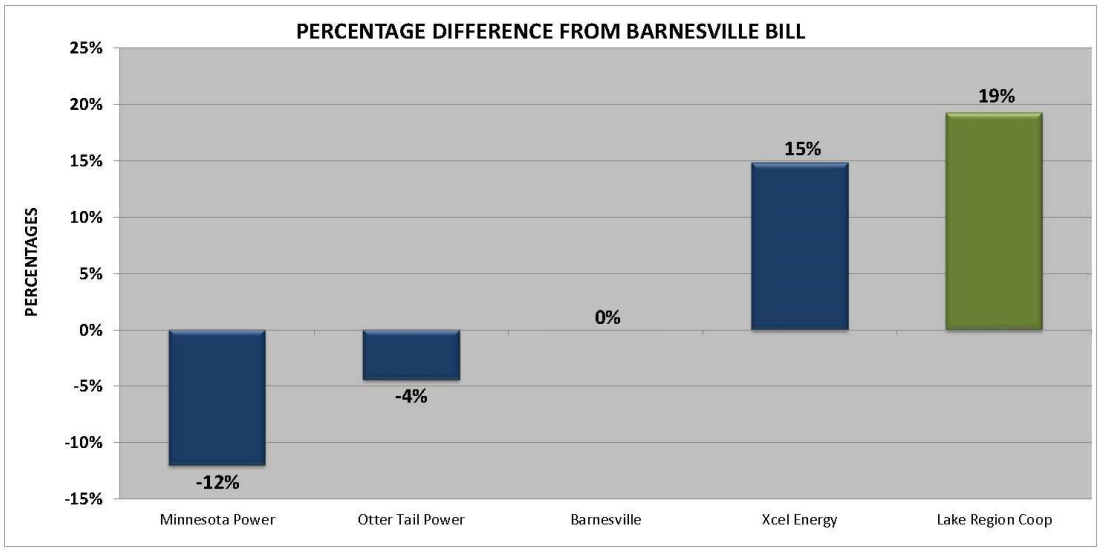
This page was intended to be blank.

Appendix B

Residential Bill

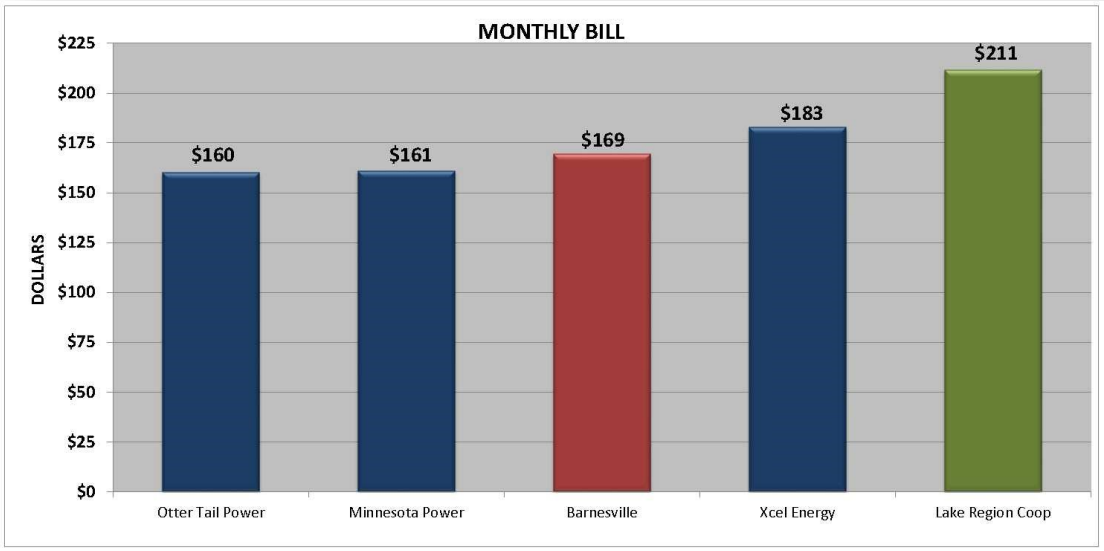
1,000 kWh per Month

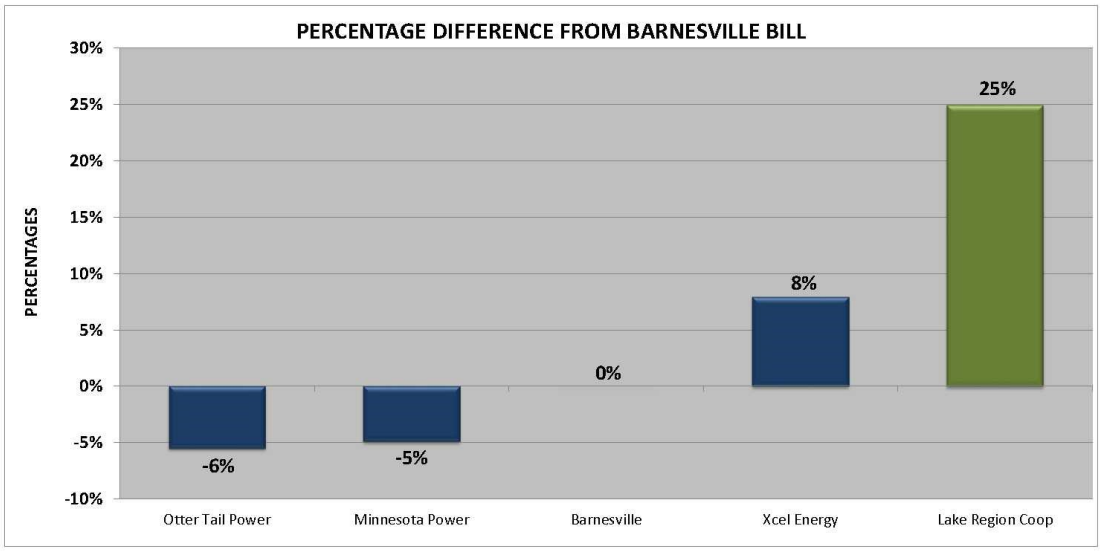




General Service Single-phase Bill

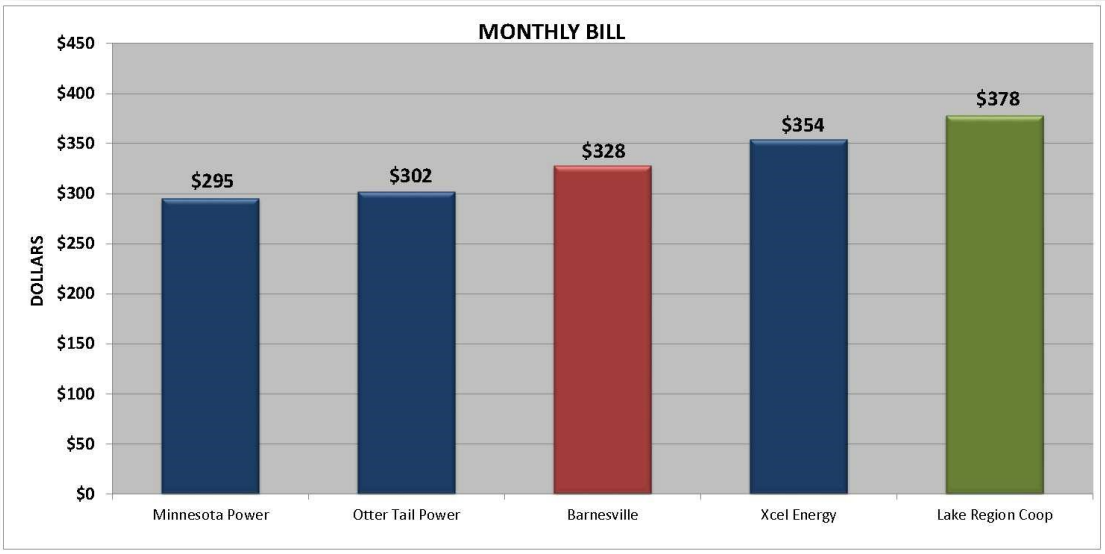
1,500 kWh per Month

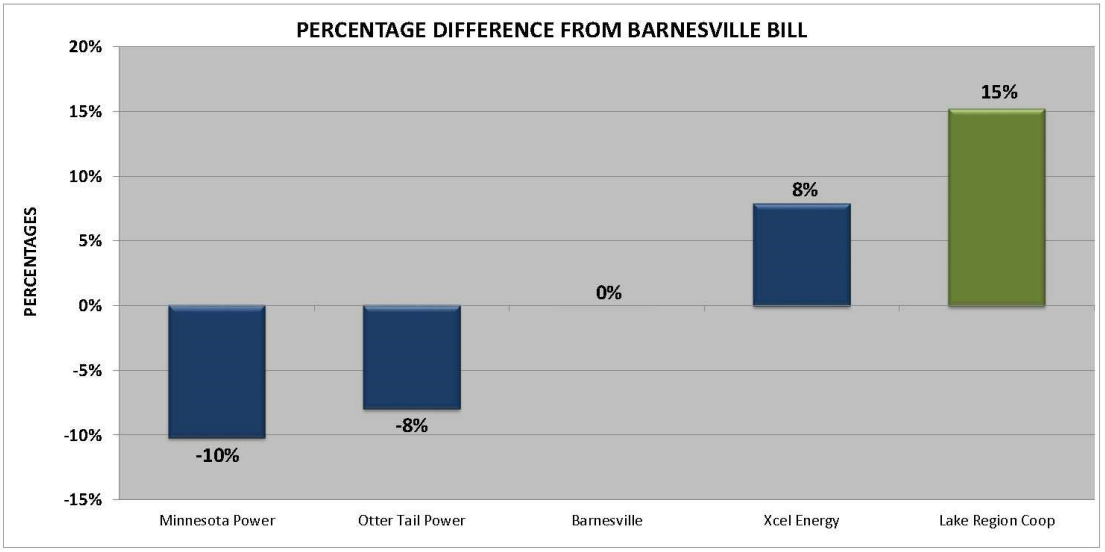




General Service Three-phase Bill

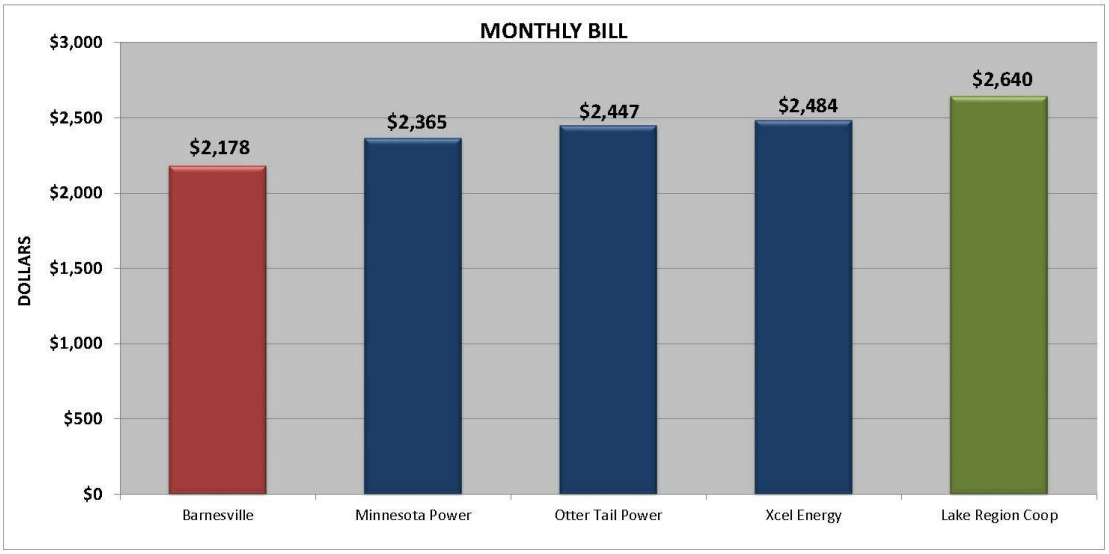
3,000 kWh per Month

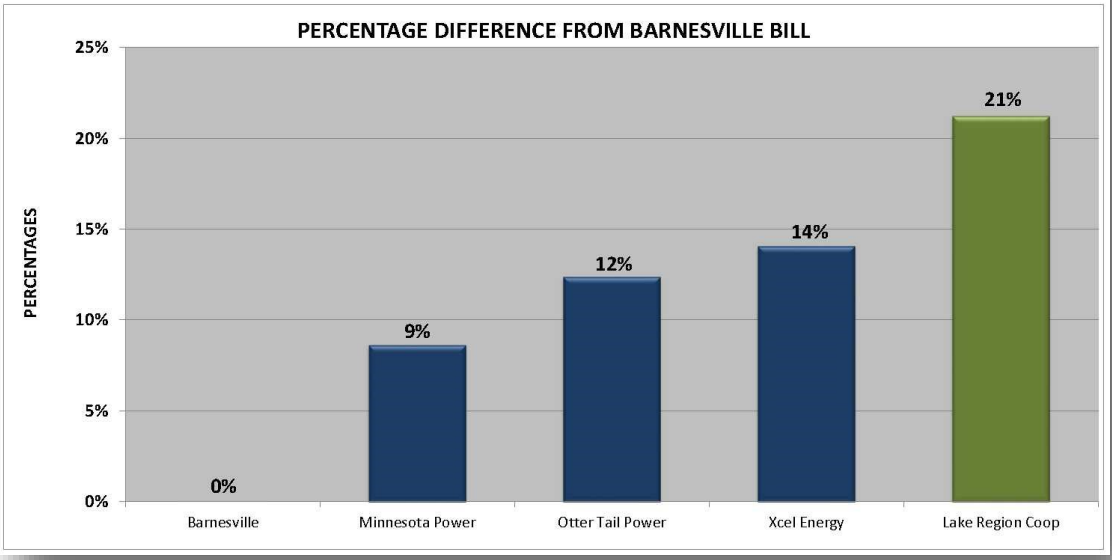




Large Power Bill

26,000 kWh, 68 kW, 52% Load Factor





This page was intended to be blank.

APPENDIX C

APPA Email to Barnesville on Reliability Award

Dear City of Barnesville,

Congratulations! The American Public Power Association would like to commend your utility for achieving exceptional electric reliability in 2016.

The Association has taken your utility's reliability data compiled through the eReliability Tracker Service and compared it to the top quartile of system outage duration from national reliability data collected by the Energy Information Administration. To formally celebrate your utility's accomplishment, we present to you the attached Certificate of Excellence.

To help share the news with your community, we have also provided a press release and a social media template, which you are welcome to customize and use to publicize this award.

Congratulations, again for your achievement. As always, feel free to contact our team with any questions at Reliability@PublicPower.org.

Best,

APPA's Reliability Team

Michael J. Hyland
Alex Hofmann
Tanzina Islam
Christina Ospina
Ethan Epstein

American Public Power Association
2451 Crystal Drive, Suite 1000
Arlington, VA 22202

reliability@publicpower.org
202-467-2924

AMERICAN PUBLIC POWER ASSOCIATION
Powering Strong Communities

AMERICAN PUBLIC POWER ASSOCIATION
Powering Strong Communities

Certificate of Excellence in Reliability

This is to acknowledge that

City of Barnesville

has achieved excellence in reliability by significantly outperforming the electric industry national average as reported by the Energy Information Administration.

eReliabilityTracker™

March 30, 2017
Date

Michael J. Hyland
Senior Vice President,
Engineering Services


Municipal Power
Advantage®


MISSOURI
RIVER®
ENERGY SERVICES