

# ***BRYAN MUNICIPAL UTILITIES***

***Reliable. Local. Yours.***



# 2019

RELIABLE

LOCAL

YOURS

# BMU MISSION STATEMENT

*Bryan Municipal Utilities is dedicated to providing reliable and responsive service while pursuing innovative solutions to create the best value for our customers.*



# Value of Community Owned

The City of Bryan receives electricity from Bryan Municipal Utilities, one of more than 2,000 public power utilities that provide electricity to more than 49 million people across the country.

There are many reasons why the City of Bryan continues to own and operate its own electric utility. Bryan Municipal Utilities has operated alongside our customers since 1892. Presently, the utility serves approximately 6,000 customers. Since its formation in 1906, the Board of Public Affairs has developed the policies that govern the utility's operation. The Board has focused on providing the residents and businesses of Bryan superior service at a reasonable cost. The birth and development of Bryan Municipal Utilities is a success story of which all Bryan citizens can be proud and has a long legacy of being dedicated to the betterment of the City. The enduring determination of Bryan's residents to own and operate their electric, water and communications utilities for the benefit of the community, and their wisdom in electing competent and dedicated citizens to oversee their investment, has been well rewarded with competitive rates and superior services for more than 127 years and ensures the community is well positioned to address the challenges of the 21st Century.

Bryan Municipal Utilities not only works for the City of Bryan, it is the City of Bryan. Citizens of the City of Bryan are included in the decision-making process. Knowing our community and its needs helps us keep homes, businesses, and public places powered year-round. Bryan Municipal Utilities is embedded into the fabric of the community and supports a range of community programs including community events, educational, and county facilities. Bryan Municipal Utilities returns to the community – through taxes, free utility service, and special services.

Another benefit you receive from Bryan Municipal Utilities not-for-profit business model is that the City of Bryan's electricity and water rates are lower than many neighboring utilities and are forecasted to continue to be stable. Bryan Municipal Utilities strong commitment to our community can also be seen in places you may not expect. In the past year, we: raised funds for the Bryan Good Neighbor Utility Fund and provided a donation for the City of Bryan tree planting program.

As a not-for-profit public power utility, our loyalty is to our customers – not stockholders. We take pride in our governance structure, with an elected Board of Public Affairs, comprised of local members, that has open meetings every first and third Tuesday at 5 p.m., at the Bryan Municipal Utilities office. Bryan Municipal Utilities will continue to provide cost-effective, reliable electricity, water and communications services.

We thank you for your support of public power  
– an American tradition that works!

## Board of Public Affairs

The Bryan Board of Public Affairs is a five-person board elected to oversee the operations of the community-owned utility. The Board keeps itself informed on a regular basis of utility services, financial position, and personnel.

The essential and enduring guiding principles for the BMU Board of Public Affairs and employees are:

- Integrity—doing the right thing in an honest, fair, and responsible way
- Dedication—committed to applying our knowledge, expertise and resources in a professional manner
- Service—providing reliable service at competitive rates
- Customer Focused—making our customers our primary focus every day
- Communication—providing clear and consistent communications in all we do

Central to Bryan Municipal Utilities' planning for the future is ensuring all efforts align with its enduring mission, vision, and values.



2020 Board Members  
Tom Sprow, Dick Long, Jim Salsbury,  
Annette Schreiner and Karen Ford

# Management Report

## EXECUTING OUR STRATEGY

In 2018, the Board unveiled their 5 year vision to continuously improve services to customers, maintain a skilled workforce, utilize industry best practices to maintain financial position, to leverage new technology to improve service to customers and we spent the last year executing on it.

## 2019: A YEAR OF ACHIEVEMENT

2019 was a strong year for Bryan Municipal Utilities and includes a story of resilience and fortitude. The BPA's primary role, alongside the developed strategy, was to maintain financial strength and long-term investments in assets. Last year proved that BMU can respond to challenges and deliver on the strategy to continue to return to the community owners. Upgrades to the City's infrastructure support the attraction and retention of business, which benefits everyone in the community.

## FOCUS ON THE ISSUES THAT MATTER

As utility and city leaders, we are committed to building a strong community and improving the lives of our citizens. Board members and BMU employees approach solving complex challenges by attending seminars and training, designed to help sharpen skills and knowledge. Benefit from engaging conversations with visionaries and experts exchange ideas and lessons learned with other public power leaders and policy makers.

Throughout 2019, Bryan Board of Public Affairs members and BMU employees traveled to the American Public Power Association's Conferences to attend training sessions on topics such as crisis communications, emergency response, cyber security, strategic challenges and trends, board governance, integrating new technologies, customer service, and engaging in best utility practices.

In February of 2019, Mayor Carrie Schlade and BMU representatives met with federal legislators in Washington, D.C. to discuss issues impacting local electric rates. As part of the annual American Public Power Association (APPA) Legislative Rally, City representatives received updates on legislative and regulatory issues affecting the electric utility industry and met with Congressman Bob Latta, Senator Rob Portman, and Senator Sherrod Brown. Topics of discussion with these legislators included local financial impacts of federal sequestration on Build America Bonds (BABs) and the increasing cost of electric transmission.

In May of 2019, BMU employees participated in The Ohio Municipal Electric Association Annual Legislative Day in Columbus. The day included face-to-face meetings with local legislators, Representative Jim Hoops and Senator Robert McColley, to discuss energy committee issues and renewable portfolio standards.

# Financial Highlights

## ELECTRIC DEPARTMENT

	2019	2018	Change	% Change
<b>Operations</b>				
Income	\$20,388,803	\$21,298,889	(\$910,086)	-4.3%
Expenses	16,971,859	18,370,299	(1,398,440)	-7.6%
Margin	\$3,416,944	\$2,928,590	\$488,354	16.7%
<b>Finance</b>				
Capital Improvements	\$0	\$620,339	(\$620,339)	-100.0%
Generator Maintenance Fund	23,779	26,066	(2,287)	-8.8%
Capital Improvements Reserve Fund	4,550,000	0	4,550,000	100.0%
<b>Total Fund Balances Available Dec. 31</b>	<b>\$17,099,613</b>	<b>\$15,463,728</b>	<b>\$1,635,885</b>	<b>10.6%</b>
<b>Total Meters</b>	<b>6,048</b>	<b>6,059</b>	<b>(11)</b>	<b>-0.2%</b>
<b>Total Metered kWh</b>	<b>183,567,581</b>	<b>191,625,089</b>	<b>(8,057,508)</b>	<b>-4.2%</b>
<b>Peak Demand (kilowatts)</b>	<b>37,533</b>	<b>39,783</b>	<b>(2,250)</b>	<b>-5.7%</b>

## WATER DEPARTMENT

<b>Operations</b>				
Income	\$2,353,208	\$2,186,977	\$166,231	7.6%
Expenses	1,692,051	1,575,959	116,092	7.4%
Margin	\$661,157	\$611,018	\$50,139	8.2%
<b>Finance</b>				
Capital Improvements	\$15,736	\$159,454	(\$143,718)	-90.1%
Debt Service	64,241	23,899	40,342	168.8%
420 Water Main Replacement Fund	0	202,893	(202,893)	-100.0%
410 Water Main Replacement Fund	16,905	0	16,905	100.0%
Capital Improvements Reserve Fund	980,000	150,000	830,000	553.3%
<b>Total Fund Balances Available Dec. 31</b>	<b>\$2,489,784</b>	<b>\$2,324,322</b>	<b>\$165,462</b>	<b>7.1%</b>
<b>Total Meters</b>	<b>3,867</b>	<b>3,878</b>	<b>(11)</b>	<b>-0.3%</b>
<b>Total Metered Gallons</b>	<b>331,628,356</b>	<b>351,139,633</b>	<b>(19,511,277)</b>	<b>-5.6%</b>

## COMMUNICATIONS DEPARTMENT

<b>Operations</b>				
Income	\$2,474,493	\$2,455,804	\$18,689	0.8%
Expenses	2,337,172	2,236,810	100,362	4.5%
Margin	\$137,321	\$218,994	(\$81,673)	-37.3%
<b>Finance</b>				
Capital Improvements	\$14,651	\$191,837	(\$177,186)	-92.4%
Capital Improvements Reserve Fund	55,000	125,858	(70,858)	-56.3%
<b>Total Fund Balances Available Dec. 31</b>	<b>\$2,365,617</b>	<b>\$2,343,634</b>	<b>\$21,983</b>	<b>0.9%</b>
<b>Total Customers</b>	<b>2,995</b>	<b>3,074</b>	<b>(79)</b>	<b>-2.6%</b>

# Electric Department

## A YEAR OF IMPROVEMENT

The Bryan Electric Department continued with system upgrades and improvements to both the City of Bryan's underground and overhead power systems in 2019. These upgrades not only improve the aesthetics of the neighborhoods, but also improve the dependability of the entire Electric System. The department also improved street lighting and upgraded several vehicles and equipment this last year. The equipment and vehicle upgrades will provide years of reliable use when working at our everyday projects, along with having dependable equipment performance during outage situations when the clock is running to get the vital power service back on for customers.

It is my pleasure to present the list of upgrades completed for the year ending 2019. These upgrades repeatedly increase the reliability and serviceability of our Electric System and only represent a portion of work that the Bryan Electric Department preforms year to year. Daily projects and duties that continually transpire day after day and the dedication of our knowledgeable employees keep the lights on for our customers. Our employees are the number one asset that keeps this operation moving forward every year at Bryan Municipal Utilities.

- AL SULLIVAN, ELECTRIC SUPERINTENDENT



# Since 1889

Today, Bryan Electric Department maintains more than 130 miles of electric lines—10 miles of 138,000 volt transmission line, 26 miles of 69,000 volt transmission line, and more than 100 miles of distribution lines. Approximately 222 million kW hours go through approximately 6,050 electric meters every year.

We are continually improving our electrical system by upgrading as we replace old poles, transformers, wood arms, and worn out wire.

### RELIABLE PUBLIC POWER

The American Public Power Association's RP3 designation, valid for three years, recognizes public power utilities that demonstrate proficiency in four key disciplines: reliability, safety, workforce development and system improvement. Criteria includes sound business practices and a utility-wide commitment to safe and reliable delivery of electricity. BMU joined more than 270 public power utilities nationwide that have achieved RP3 designation.

BMU first received Gold Level RP3 designation in 2006 and the Platinum-level in 2016. In 2019, for the first time, BMU achieved Diamond Level status—APPA's highest RP3 designation level. Electric, water and communications services provided in a safe and reliable manner is of critical importance to our local consumers and the RP3 designation is a testament to the combined efforts of the Bryan Board of Public Affairs and BMU employees. We take a lot of pride in the work we do for our community and the Diamond level certification is recognized as being among the 'best of the best' on a national level.

### OVERHEAD PROJECTS

A 69 kV ductile iron pole line materials bid was completed and awarded. Crews worked on a pole line rebuild and a new recloser and primary metering installation in the 900 Block of East Perry Street. Other Projects include new poles in the 100 Block of North & South Lebanon Street, a new service road installed in the industrial Park for future pole line access, secondary service pole replacements in the 800 Block of East Maple Street, and temporary overhead power installed to Schlachter Investments in the Bryan Industrial Park.

### STREETLIGHT IMPROVEMENT

Historical Acorn Lights were placed in the 100 Block of North Lynn Street, and 200 Block of South Main Street. Black truss style lights were installed in the City of Bryan parking lot by the Bryan Eagles, as well as in the 200 Block of South Walnut Street, and Bryan Industrial Park North along Johnson Way and West Bement Street.

### UNDERGROUND PROJECTS

Underground single phase primary was relocated in Ford's Addition West of Bryan, and an overhead to underground primary conversion project was done on County Road 12. Existing underground primary and secondary cable was replaced on Lawndale Drive and Bellaire Avenue and a new secondary service was converted from overhead to underground at the Bryan Bowling Alley. Additional project include an underground primary and secondary replacement project was completed on Fairview Drive, a new 3 phase primary service was constructed for an expansion Daavlin Corporation. Additionally a circuit tie was installed in the East Village Subdivision, an overhead conversion project was completed on County Road 12 by Quarry Estates and a new 3 phase service was extended to an additional Norstrum Laboratories warehouse being built on East Mulberry Street from Trevitt Street.

### COMMITMENT TO RENEWABLE

In 2007, Bryan Board of Public Affairs set a goal to derive 20 percent of the city's power from renewable energy sources by 2015. This commitment continued in 2012, as new benchmarks to diversify its power supply with renewable energy was increased to 25 percent by 2020. To meet these renewable resource standards, Bryan Municipal Utilities has invested in a 2 megawatt solar array, the Auglaize Hydroelectric facility located on the Auglaize River, joint participation in hydroelectric plants such as the New York Power Authority Hydro project, the Belleville Hydroelectric facility and hydroelectric plants along the Ohio River Watershed; Cannelton, Smithland, Willow Island, Meldahl and Greenup. Additional renewable resources secured through power contracts includes the EDI Landfill Gas Project that includes power delivered from three landfills through 2021 and the Blue Creek Wind Project that includes power delivered through 2022.

This transition to a more diverse, asset-based, environmentally friendly power supply portfolio was accomplished between 2011 and 2020 without significant changes in power supply costs. 28.94% of the City of Bryan power supply was from renewable sources in 2019.

# Electric Financials

## ELECTRIC INCOME & EXPENSES

Operating Income:		
	Charges for Services	\$19,636,231
	Other Operating Income	205,579
<b>Total Operating Income</b>		<b>\$19,841,810</b>
Other Income:		
	Interest Income	\$320,391
	Other Miscellaneous Income	226,602
<b>Total Other Income</b>		<b>\$546,993</b>
<b>Total Income</b>		<b>\$20,388,803</b>
Operating Expenses:		
	Purchase Power	\$10,006,023
	Power Plant Operations	1,384,351
	Solar Lease	607,648
	Distribution Operations	1,897,278
	Billing and Accounting	306,699
	Customer Service and Administration	1,023,927
	Maintenance	96,509
	Board of Public Affairs	45,204
	Electric Communications	355,696
	Hydroelectric Plant Operations	501,756
<b>Total Operating Expenses</b>		<b>\$16,225,091</b>
Other Expenses:		
	Kilowatt Hour Tax to State of Ohio	\$68,359
	Kilowatt Hour Tax to General Fund	678,409
<b>Total Other Expenses</b>		<b>\$746,768</b>
<b>Total Expenses</b>		<b>\$16,971,859</b>
<b>Balance Available for Capital Improvements and Debt Service</b>		<b>\$3,416,944</b>
<b>Total Capital Improvements</b>		<b>\$0</b>
AMPGS Fees		\$0
Transfer to Generator Maintenance Fund		\$23,779
Transfer to Electric Capital Improvement Fund		4,550,000
<b>Total Expenses</b>		<b>\$21,545,638</b>

## CAPITAL RESERVE FUND INCOME AND EXPENSES

<b>Beginning Balance 1/1/2019</b>		<b>\$3,562,721</b>
<b>Transfer Income:</b>		<b>\$4,550,000</b>
<b>Other Income:</b>	Land Sale	\$21,158
	Other Miscellaneous Income	1,057
<b>Total Other Income</b>		<b>\$22,215</b>
<b>Total Income</b>		<b>\$4,572,215</b>
<b>Capital Expenses:</b>		
	Power Plant	\$747,281
	Electric Distribution	827,252
	Electric Utility Office	8,648
	Electric Clerks Office	4,489
	Electric Communications	210,114
<b>Total Capital Improvements</b>		<b>\$1,797,784</b>
<b>Ending Balance 12/31/2019</b>		<b>\$6,337,152</b>

## UTILITY FUND TRANSACTIONS AND BALANCES

	Balance			Balance	
	Dec. 31, 2018	Income	Expenditures	Capital	Dec. 31, 2019
Electric Fund	\$11,483,370	\$20,388,803	\$21,545,638	\$0	\$10,326,535*
Electric Capital Improvement Fund	3,562,721	4,572,215	0	1,797,784	6,337,152
Utility Deposit Fund	166,785	37,933	33,818	0	170,900
Generator Maintenance Fund	250,851	23,779	9,605	0	265,025
<b>TOTAL</b>	<b>\$15,463,727</b>	<b>\$25,022,730</b>	<b>\$21,589,061</b>	<b>\$1,797,784</b>	<b>\$17,099,612</b>

\* \$23,779 transferred to Generator Maintenance Fund

\* \$4.55 million transferred to Electric Capital Improvement Fund

## METER COUNT

	Meters
Residential	5,049
Commercial	707
Industrial	58
Unbilled Services	235
<b>Total Meters</b>	<b>6,049</b>



# Water Department

## PREPARING FOR THE FUTURE

Public water systems are in need of constant maintenance and improvements to keep them in good working order to deliver a continuous supply of safe drinking water. This year saw many projects completed.



### WATER TOWER INSPECTIONS

The Bryan Water Tower on West Mulberry Street was taken out of service for a washout and detailed interior and exterior inspection. This 400,000 gallon tower has served the City since 1946 to provide storage for fire protection as well as to prevent pumps from having to run continuously.

### WELL PUMP CONVERSION

This year well #3 was converted from a vertical turbine pump to a submersible pump. The submersible pump will be more economical to maintain and quicker to replace, if needed. Well #7 received an upgrade to its SCADA control system as well this last year.



### LABORATORY ANALYSTS

Water treatment plant employees are certified bacteriological laboratory analysts. The laboratory analyzed more than 450 samples for bacteria this in 2019. Additionally, analysts tested for disinfection by-products, volatile organics, lead, copper, nitrates, radiological, and inorganics. All testing met or exceeded Ohio Environmental Protection Agency guidelines.



### WATER MAIN REPLACEMENTS

A new 12 inch PVC water main was constructed on Townline Road from West High Street to Center Street. This 4,379 foot project replaced six inch and eight inch cast iron pipe and seven new fire hydrants, greatly improving fire protection in the project area as well as eliminating a hydraulic bottleneck in the water transmission loop around Bryan.

New water main was installed for a planned extension and joint City project of West Bement Street and the construction of Johnson Drive, located at the east edge of Bryan Industrial Park North. This project consisted of 125 feet of eight inch and 1657 feet of 12 inch PVC water main along with five new fire hydrants. The extension now provides a loop to deliver water to these areas, improving water service and fire fighting reliability, and providing water capacity for future growth.

Bryan's water system consists of more than seventy miles of underground pipeline, two water towers, seven wells, more than 2,000 vales, 575 fire hydrants, nearly 4,000 service connections and a water treatment plant.

Bryan has always been famous for its water. In fact, there were once so many flowing artesian wells in Bryan that it became known as "Fountain City" soon after its founding in 1840. The Water Department has provided water service to the citizens of Bryan since 1892.

Today we supply an average of 1.5 million gallons of safe drinking water every day. Nearly 70 miles of underground pipe deliver water to more than 3,800 homes and businesses. Each year our water crews replace about 4,000 feet of main line to keep the distribution system in good condition. Additionally, department personnel inspect and flow all fire hydrants annually and repair problems promptly.

# Since 1892

### MOCK EMERGENCY DISASTER DRILL

BMU staff participated in a day long mock emergency disaster drill. Local emergency planning commissions, Bryan Fire Department, The Red Cross and others played a part in this exercise. Drills like this are mandated and necessary to prepare for emergency conditions should they arise.



### FILTER REHABILITATION

We contracted to have one of the pressure filters taken out of service for a detailed inspection. The filters have been in service since 1973 with very little performance issues, but it was found the filter needed a major rehabilitation and the project was completed in early 2020.



- NORM ECHLER, WATER SUPERINTENDENT

# Water Financials

## WATER INCOME & EXPENSES

Operating Income	
Charges for Services	\$2,263,222
Other Operating Income	<u>6,895</u>
<b>Total Operating Income</b>	<b>\$2,270,117</b>
Other Income	
Interest Income	\$47,855
Other Miscellaneous Income	<u>35,236</u>
<b>Total Other Income</b>	<b>\$83,091</b>
<b>Total Income</b>	<b><u>\$2,353,208</u></b>
Operating Expenses	
Supply and Distribution	\$1,257,062
Billing and Accounting	111,205
Customer Service and Administration	312,434
Interest on S. Walnut/E South St Project	6,333
Interest on Townline Rd Project	<u>5,017</u>
<b>Total Operating Expenses</b>	<b>\$1,692,051</b>
<b>Total Expenses</b>	<b><u>\$1,692,051</u></b>
<b>Balance Available for Capital Improvements &amp; Debt Service</b>	<b>\$661,157</b>
Capital Improvements	
Supply and Distribution	<u>\$15,736</u>
<b>Total Capital Improvements</b>	<b>\$15,736</b>
Debt Service- S. Walnut/E South St Project	
Balance - January 1, 2019	\$231,250
Principal Payment	<u>48,840</u>
Balance - December 31, 2019	\$182,410
Debt Service- Townline Rd. Project	
Beginning Balance (w/Loan Origination fees)	\$353,337
Principal Payment	<u>15,401</u>
Balance - December 31, 2019	\$337,936
Transfer to 410 Bement/Brunicardi St. Project	\$16,905
Transfer to 525 Water Capital Improvement Fund	\$980,000
<b>Total Expenses</b>	<b><u>\$2,768,933</u></b>

## CAPITAL RESERVE FUND INCOME AND EXPENSES

### Water Capital Reserve Fund Income and Expenses

<b>Beginning Balance 1/1/2019</b>	<b>\$150,000</b>
<b>Transfer Income</b>	<b>\$980,000</b>
<b>Loan Proceeds: Townline Rd Project</b>	<b>\$351,939</b>
Capital Expenses:	
Supply and Distribution	\$744,723
Water Utility Office	8,648
Water Clerks Office	<u>1,496</u>
<b>Total Capital Improvements</b>	<b>\$754,867</b>
<b>Ending Balance 12/31/2019</b>	<b><u>\$727,072</u></b>

## UTILITY FUND TRANSACTIONS AND BALANCES

	Balance Dec. 31, 2018	Income	Expenditures	Capital	Debt Service	Balance Dec. 31, 2019
Water Fund	\$2,007,536	\$2,353,208	\$1,692,051	\$15,736	\$64,241	\$1,591,811
Water Capital Improvement Fund	150,000	1,331,939	0	754,867	0	727,072
Utility Deposit Fund	166,786	37,932	33,817	0	0	170,901
<b>TOTAL</b>	<b>\$2,324,322</b>	<b>\$3,723,079</b>	<b>\$1,725,868</b>	<b>\$770,603</b>	<b>\$64,241</b>	<b>\$2,489,784</b>

\* \$16,905 transferred to 410 Joint Bement St/Brunicardi Way Project

\* \$980,000 transferred to Water Capital Improvement Fund

\*\*\$351,939 Townline Rd. Loan Proceeds to Water Capital Improvement Fund

## METER COUNT

Residential	Meters	3,239
Commercial & Industrial		601
City of Bryan (Unbilled Service)		<u>27</u>
<b>Total Meters</b>		<b>3,867</b>





# Communications Department

## A YEAR OF UPGRADES

The Communications industry is rapidly changing, and the expectations and desires of the customers are changing. BMU continues to work toward meeting the needs of our customers, and also to provide a secure network for our critical infrastructure for all of our departments within BMU and the City of Bryan.

We have a very good team in the department, and each one is dedicated to delivering the best services possible to each of our customers. They come into work each day, searching for a way to improve the technology experience of our customers.

Our team works hard each day to provide the best level of service available to each of you, and consider ourselves fortunate to serve you, our customers. We strive to continue to deliver better products and services, as we are your local and home town provider of cable, internet, and fiber optic services.

We deeply appreciate the support of our customers, and hope to have an even better year in 2020 together.

- JOE FERRELL, COMMUNICATIONS SUPERINTENDENT

In 2019, the Communications Department continued to operate within the City of Bryan and Williams County to deliver excellent service to customers. These services include Cable Television, Internet, and Fiber Network services.

On our cable TV system, we maintained our existing channel lineup, which includes both Basic and Extended Basic service, as well as our Digital Basic and HD tiers of service. We continue to pass through many additional programs from our broadcast stations at no charge to our customers. With the ever increasing fees set by our programmers, it is a constant challenge to keep the programming rates as low as possible for our customers.

In 2019, we completed a large communications tower project in order to provide better service for some of our broadcast stations from Toledo.

One of the significant projects that were completed in early 2019 was the upgrade to our cable internet system. This upgrade increased the bandwidth available to our customers, as well as greatly improving their existing service. We installed new routing equipment for the cable modems, and a new large circuit that provides our capacity from the outside world for our internet use. We changed out outdated cable modems in our system, and installed new equipment that would allow us to deliver a better product to the customers.

We now offer our normal High Speed internet service, as well as our new Enhanced internet service. We plan to continue the practice of constantly seeking ways to improve our service, and to meet the customers' demand for the ever increasing need for more bandwidth.

The department also completed the upgrade of a new storage area network for the company, which retains our main files and information for BMU. We also installed a security camera system for the company, as well as completed the upgrade of our Bryan Street Hub, which is an important component of the network for BMU and the City of Bryan.

The department completed several fiber and network projects in 2019, including Spangler Candy and several projects throughout Williams County on our fiber network.

A large fiber route was constructed around the city that will provide service and communications to our electrical substations, as well as many other customers in Bryan.

We worked on the engineering and design for a new fiber project in the Bryan Industrial Park, which will provide future fiber network service to the businesses in this area.



# Since 1998

Communications services were added in 1998 in response to community support for a new cable television system and more opportunities for high-speed data transfers. Bryan Communications Department hybrid fiber coaxial system includes fiber optic loops around the city and coaxial cable to homes and businesses. The system allows us to deliver cable television, Internet, and high-speed data to our customers.

The Communications Department maintains over 50 miles of underground fiber optic lines. Our system is one of the most fiber-rich systems in the U.S. We have 54 fiber nodes with standby battery backup, each serving 80 to 120 homes. The average customer is within a block of a fiber connection. This results in greater bandwidth and more reliability.

Our communications system supports economic development in Bryan and helps keep our city in the list of top 100 small communities in the U.S. Our system is one Bryan can be proud of and use for high-speed access to worldwide communications, education and entertainment. We view our full-service communications utility as another way to serve the citizens of Bryan, and we'll operate it as we have our electric and water departments over the last 100 years, with low rates and good service.

# Communication Financials

## COMMUNICATIONS INCOME & EXPENSES

Operating Income:	
Charges for Services	\$2,374,372
Other Operating Income	43,453
<b>Total Operating Income</b>	<b>\$2,417,825</b>
Other Income:	
Interest Income	\$44,674
Other Miscellaneous Income	11,994
<b>Total Other Income</b>	<b>\$56,668</b>
<b>Total Income</b>	<b>\$2,474,493</b>
Operating Expenses:	
Supply and Distribution	\$2,248,642
Billing and Accounting	88,530
<b>Total Operating Expenses</b>	<b>\$2,337,172</b>
<b>Total Expenses</b>	<b>\$2,337,172</b>
<b>Balance Available for Capital Improvements &amp; Debt Service</b>	<b>\$137,321</b>
Capital Improvements	
Supply and Distribution	\$14,651
Billing and Accounting	0
<b>Total Capital Improvements</b>	<b>\$14,651</b>
Transfer to Communications Capital Improvement Fund	\$55,000
<b>Total Expenses</b>	<b>\$2,406,823</b>

## COMMUNICATIONS CAPITAL RESERVE FUND INCOME AND EXPENSES

Beginning Balance 1/1/2019	\$125,858
Transfer Income:	\$55,000
Capital Expenses:	
Communications	\$100,688
Clerks Office	0
<b>Total Capital Improvements</b>	<b>\$100,688</b>
<b>Ending Balance 12/31/2019</b>	<b>\$80,170</b>

## COMMUNICATION UTILITY FUND TRANSACTIONS AND BALANCES

	Balance Dec. 31, 2018	Income	Expenditures	Capital	Balance Dec. 31, 2019
Communications Fund	\$2,217,776	\$2,474,493	\$2,337,172	\$14,651	\$2,285,446*
Communications Capital Fund	125,858	55,000	0	100,688	80,170
<b>TOTAL</b>	<b>\$2,343,634</b>	<b>\$2,529,493</b>	<b>\$2,337,172</b>	<b>\$115,339</b>	<b>\$2,365,617</b>

\* \$55,000 transferred to Communications Capital Improvement Fund

## CUSTOMER COUNTS

	Cable TV	Internet	Fiber
Residential	1308	1524	0
Commercial/Industrial	Totalled Above	89	25
Unbilled Services	21	15	13
<b>Total</b>	<b>1329</b>	<b>1628</b>	<b>38</b>



# Power Production

## AUGLAIZE HYDROELECTRIC PLANT

The Auglaize facility's total generation in 2019 became the 2nd highest output since 1996, pushing out last year's record, with northwest Ohio having a very rainy spring. Auglaize topped out at 12,116,973 mWh, (megawatt hours) for the calendar year 2019. As you may remember in 2018, all of the Auglaize Hydro generators were approved as renewable energy generating units which provided BMU with additional REC's (renewal energy credits) to sell on the market totaling \$67,329. The Auglaize facility also ran during the peak shaving time frames providing an additional \$97,139 of savings.

The Auglaize facilities concrete dam crest was repaired in the fall of 2019. A portion of the concrete had worn away resulting in about 30 feet of concrete that had to be replaced. Exterior preventive maintenance on the flood gates and the related flood gate operational equipment was serviced and found to be in great shape for the future.

The Auglaize facilities electrical breakers and switch gear were on the docket to be inspected. No issues were found, keeping us in good electrical condition for future generation.

BMU's power plant employees conducted inspections on the Auglaize facility hydro generators. Inspections were completed on the runners and bearings of the generators that are under water most of the year.

Generator #3 had developed a "thumping" sound and upon a more detailed investigation into the generator's runner, the wicket gate was determined to be causing the sound. This procedure is very physically demanding as the wicket gates are 30 feet below the generators, there are 16 gates that are 3 feet high, 1 ½ feet wide and weigh about 50 pounds each. Each gate is secured to the runner housing by a 3 foot long pin that is 1 ½ inch thick solid steel. This operation requires many different types of lifting technics to disassemble and reassemble. During the disassembling, 3 pins were discovered to have broken about a foot inside of the gates. Power plant employees replaced all the pins, assuring that all the pins were of sufficient integrity and would keep the generator operational in the future.



## POWER PLANT

Power plant employees were focused this year on keeping the substations reliable by making sure that each IED (intelligent electric device) had its program backed up on the power plant computer system. These devices provide protection to the Bryan electrical grid so when an event happens it reacts quickly to prevent further damage to the system. Daggett Substation experienced a lightning strike during one of the storms this past summer making the automatic transformer tap changer malfunction for the 34.5 kV infrastructure. A vendor was aided in providing all the expertise and parts required to repair and calibrate, assuring that we keep reliable power to our customers. Lorntz Substation's 138 kV transformer and breakers along with the protective relays were due for their 5 year testing. All tested well and the protective relays performed as they are designed to continue providing Bryan with good reliable safe guards. Power plant employees continued to maintain our facilities by putting a fresh coat of paint on Lorntz and Baker Substation control buildings along with cleaning the interiors and exteriors of each substation.



The power plant and electric departments completed the engineering for the new substation on Industrial drive with the support of the engineering firm, GPD Group of Akron, Ohio. This new substation will aid the utility in shortening feeder runs and providing multiple paths for the flow of electricity. This will aid in providing a reliable source of electricity for our industrial customers, minimizing the effects of adverse weather conditions on the feeders. Also, this reduction in feeder length will give BMU the ability to feed customers electricity from different substations avoiding long power outages, if there was a system event.

BMU's system monitoring software has two servers and two back up power supplies to prevent the system from losing any data or control of the electrical or water systems city wide. One of the servers was replaced this year, along with both back up power supplies. The aged back up power supplies would only function for a few minutes during power outages resulting in a loss of data, hindering the ability to track and reset system faults quickly.

The power plant's Westinghouse Lorntz generator experienced a couple of events this year resulting in one of the summer's CP (coincident peak) not being met. During the summer, all of the 5 CP peaks are averaged, therefore, it did not affect BMU significantly. This disappointment seemed very peculiar, as we had just run a maintenance run the previous week. During start up the generator would not achieve ignition. After a significant time of troubleshooting, it was determined that the ignitors were thermally breaking down when the ignition transformers were on resulting in the ignition voltage becoming grounded. We also replaced the exhaust stack expansion joint material that had broken down with age to prevent the high exhaust temperatures from melting wires and negatively impacting our CP runs in the foreseeable future.

The power plant employees continue to be successful during the peak shaving opportunities that have occurred in 2019. AEP's high transmission 1CP (Coincident Peak) occurred on January 31, 2019 between the hours of 7-8 a.m. The power plant was able to operate the generators to 39,338 MW (megawatts) during that time frame saving the utility \$3,247,636 of transmission cost. The Bryan Solar field aided with \$12,188 transmission savings. In addition to the transmission cost, the capacity peaks are an average of the 5 highest peaks (CP's) during the calendar year for PJM, (Pennsylvania-New Jersey-Maryland), the regional transmission organization. The power plant generators were operational during these CP's along with the Bryan Solar Field and the Auglaize facility netting a \$1,057,643 savings on the utilities capacity charges. These savings will total \$4.4 million in 2020, a result of the combined efforts of Bryan's local energy conservation and generation. BMU's solar field also contributed to generation and providing Renewable Energy Credit sales of \$36,923.

- JIM CORESSEL, POWER PRODUCTION SUPERINTENDENT

# Power Supply

Since 2006, BMU has undertaken a strategic effort with additional power resources located in four states. The effort was to reduce market exposure and meet the renewable resources goal of 25 percent. The City of Bryan participates in a number of power supply projects that assist in providing reliable energy and other benefits to the community and its citizen-owners. The power supply is a mixture of long term take or pay purchase contracts and joint project ventures. The Projects include: AMP Fremont Energy Center (AFEC), a natural gas combined cycle facility that provides energy and capacity benefits and is in Fremont, Ohio. AFEC provides Bryan an intermediate power source.

Blue Creek Wind Farm, a wind farm in Van Wert, Ohio that helps diversify the pool of resources providing power to the City. The clean, renewable power is provided through a ten-year Power Purchase Agreement.

Landfill Gas Energy, located in northeastern Ohio, is a mixture of gases produced by decomposing garbage and collected by a series of pipes for use in diesel generator units (landfill gas-to-energy sites directly reduce greenhouse gas emissions).

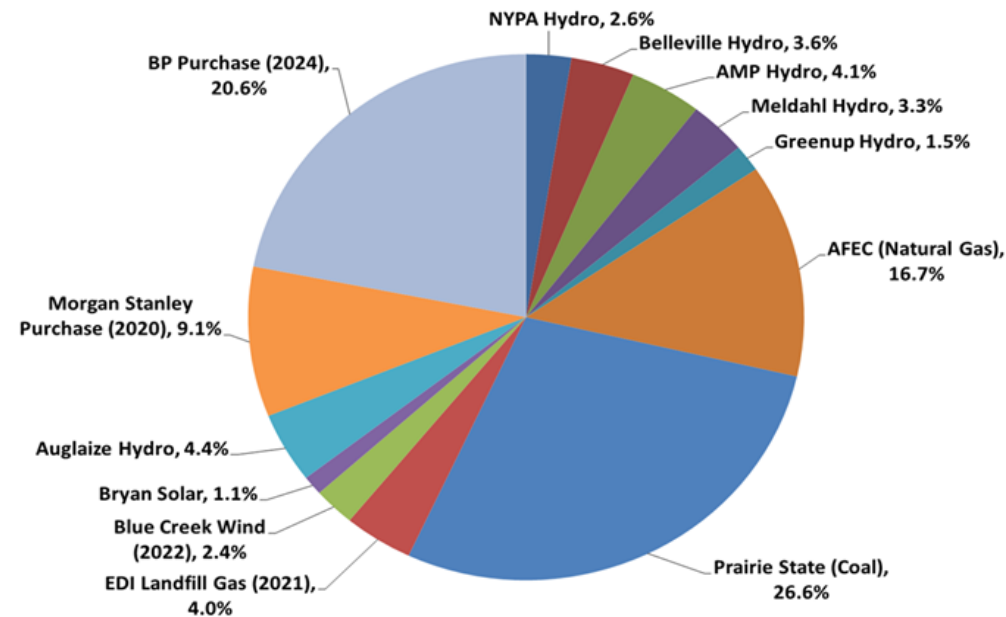
Meldahl Hydro facility and Greenup Hydro facility, which includes a portion of the run-of-the-river hydroelectric generating facility at the Captain Anthony Meldahl Dam on the Ohio River and a portion of the existing generating facility at the Greenup Dam, also on the Ohio River. New York Power Authority (NYPA), providing hydroelectricity generated by the Niagara and St. Lawrence rivers. OMEGA JV5, a joint venture that operates a 42-MW hydroelectric plant on the Ohio River and has back-up generation sources located throughout Ohio.

AMP Phase 1 Hydroelectric Project includes three run-of-the-river generating facilities located at the Cannelton, Smithland and Willow Island dams on the Ohio River.

The Prairie State Energy Campus, in southern Illinois, a 1,600-MW state-of-the-art, Best Available Control Technology (BACT) supercritical mine-mouth coal plant and adjacent coal mine.

The remaining power supply is provided by the City of Bryan or contracts to fulfill any remaining requirements.

**Projected Bryan Municipal Utilities 2020 Power Supply Resources**



# Production Data

## POWER PRODUCTION

Gross Kilowatt Hours Generated by Power Plant	2,359,362
Gross Kilowatt Hours Generated by Auglaize Hydro	12,116,973
Gross Kilowatt Hours Generated by Solar Field	2,556,250
<b>Total Gross Kilowatt Hours Generated</b>	<b>17,032,585</b>

Kilowatt Hours Purchased:	
Belleville Hydroelectric Project (JV5)	8,319,100
New York Power Authority (NYPA)	7,401,040
AMP Fremont Energy Center (AFEC)	36,432,423
Prairie State Energy Campus	59,728,262
Blue Creek Wind Farm	5,117,879
Landfill Gas	8,000
BP Remaining Requirements	42,798,257
Meldahl Hydroelectric Project	6,367,111
Greenup Hydroelectric Project	3,394,484
AMP Hydroelectric Projects (CSW)	7,066,765
Morgan Stanley	20,148,000

<b>Total of Gross Kilowatt Hours Purchased</b>	<b>205,533,321</b>
<b>Gross Generated and Purchased Kilowatt Hours</b>	<b>222,565,906</b>

Kilowatt Hours Used:	
Customer Metered Kilowatt Hours	183,567,581
OMEG Kilowatt Hours Sold	24,704,471
Auglaize Kilowatt Hours Sold	1,253,052
Power Plant Use	1,159,450
Kilowatt Hour Line Loss (5.34%)	11,881,352
<b>Total Metered and Line Loss</b>	<b>222,565,906</b>

## WATER PRODUCTION

	Gallons Used
Residential	130,197,628
Commercial & Industrial	178,165,372
City of Bryan (Unbilled Service)	23,265,356
<b>Total Metered</b>	<b>331,628,356</b>
Bulk Water & Hydrant Water (Billed)	357,246
Filter Backwash/Production Water	2,598,400
Hydrant Flushing	5,500,000
Other	1,500,000
<b>Total Other Water Use</b>	<b>9,955,646</b>
Line Losses (26.4%)	122,348,998
<b>Total Water Production</b>	<b>463,933,000</b>

# Five Year Summary

## ELECTRIC DEPARTMENT

	2019	2018	2017	2016	2015
Income	\$20,388,803	\$21,298,889	\$24,272,615	\$21,599,614	\$20,355,168
Expenditures	16,971,859	18,370,299	21,934,861	19,055,666	18,030,435
Margin	\$3,416,944	\$2,928,590	\$2,337,754	\$2,543,948	\$2,324,733
Capital Improvements	0	620,339	880,125	434,064	2,276,666
Fund Transfers Out	4,573,779	26,066	4,515,170	22,010	10,890
Fund Balance Dec. 31	\$10,326,534	\$11,483,370	\$9,201,185	\$12,258,726	\$10,170,852
<b>Meters</b>					
Residential	5,049	5,062	5,054	5,069	5,061
Commercial	707	706	705	697	700
Industrial	58	57	58	58	56
Unbilled Services	235	234	234	233	232
End of Year Total Meters	6,049	6,059	6,051	6,057	6,049
<b>kWh Used</b>					
Residential	46,209,590	48,568,070	43,691,480	46,665,280	47,607,070
Commercial	24,689,213	26,231,622	25,805,790	27,037,855	29,024,771
Industrial	105,540,919	110,366,910	107,964,046	108,107,254	107,251,672
Unbilled Services	7,127,859	6,458,487	6,463,859	6,514,652	6,250,112
Total kWh	183,567,581	191,625,089	183,925,175	188,325,041	190,133,625
Peak Demand (kilowatts)	37,533	39,783	39,210	41,020	40,770

## WATER DEPARTMENT

	2019	2018	2017	2016	2015
Income	\$2,353,208	\$2,186,977	\$2,046,686	\$1,967,302	\$1,871,650
Expenditures	1,692,051	1,575,959	1,480,161	1,501,585	1,457,472
Margin	\$661,157	\$611,018	\$566,525	\$465,717	\$414,178
Capital Improvements	15,736	159,454	294,722	242,561	284,911
Fund Transfers Out	996,905	352,893	0	0	0
Debt Service	64,241	23,899	0	0	0
Fund Balance Dec. 31	\$1,591,811	\$2,007,536	\$1,932,764	\$1,660,961	\$1,437,805
<b>Meters</b>					
Residential	3,239	3,238	3,230	3,237	3,263
Commercial and Industrial	601	609	609	608	612
Unbilled Services	27	31	31	30	30
End of Year Total Meters	3,867	3,878	3,870	3,875	3,905
<b>Gallons Used</b>					
Residential	130,197,628	136,831,640	137,779,356	140,258,228	144,068,540
Commercial and Industrial	178,165,372	190,389,936	174,217,428	184,980,400	212,489,596
Unbilled Services	23,265,356	23,918,057	33,177,095	33,424,145	30,938,535
Total Gallons	331,628,356	351,139,633	345,173,879	358,662,773	387,496,671

## COMMUNICATIONS DEPARTMENT

	2019	2018	2017	2016	2015
Income	\$2,474,493	\$2,455,804	\$2,559,285	\$2,608,305	\$2,495,181
Expenditures	2,337,172	2,236,810	2,007,239	1,981,378	1,918,958
Margin	\$137,321	\$218,994	\$552,046	\$626,927	\$576,223
Capital Improvements	14,651	191,837	49,969	49,056	15,357
Fund Transfers Out	55,000	125,858	0	0	0
Debt Service	0	0	0	294,642	350,000
Fund Balance Dec. 31	\$2,285,446	\$2,217,776	\$2,316,477	\$1,814,400	\$1,531,171
<b>Customers</b>					
Cable TV Billed Services	1,308	1,446	1,490	1,568	1,650
Cable TV Unbilled Services	21	20	21	19	18
Total Cable TV Customers	1,329	1,466	1,511	1,587	1,668
Internet Residential	1,524	1,455	1,495	1,241	1,418
Internet Commercial/Industrial	89	99	97	109	101
Internet Unbilled Services	15	15	15	16	15
Total Internet Customers	1,628	1,569	1,607	1,366	1,534
Fiber Commercial/Industrial	25	25	24	23	23
Fiber Unbilled Services	13	14	16	16	15
Total Fiber Customers	38	39	40	39	38
End of Year Total Customers	2,995	3,074	3,158	2,992	3,240



2019 Public Power Week Open House



# Engineering Department

The BMU Engineering Department plays a key role in assisting all Departments at Bryan Municipal Utilities and provides administration of utility projects from conception to completion. The BMU Engineering Department acquires data and performs survey and stake out work using our highly accurate (GPS) Geographic Positioning Systems. Our department manages and maintains BMU's robust Geographic Information System (GIS) which contains very accurate records of Bryan utilities. These records greatly improve customer service, project planning, and asset management.



The daily activities undertaken with the perspective of providing quality services that are responsive to the needs of our customers include:

- Design plans, specifications, plan approvals and estimates in accordance with each Department's capital improvement plan.
  - Highlights of a few projects designed for 2019 capital replacement plan
    - Fairview Drive Underground Electric Replacement
    - Townline Road Water Main Replacement
    - North Industrial Park Water Main
- Manages the protection of underground and overhead utilities from investigating utility damages to managing and updating records of locating services. In 2019, the Department oversaw the completion of 1,968 regular locates and 23 after business hours utility emergency locates
- Prepares and manages competitive bidding and quotations for projects
- Construction and contractor oversight for projects and/or work completed in City of Bryan right of ways and easements for BMU projects
- Furnishing of plans and information as requested by contractors, engineers, and customers
- Plan review for public and private projects involving utilities
- Updating records and drawings of water, electric, and communications utilities and final as built utility plans to be maintained and used for future generations
- Manages BMU joint use proposals and pole contacts.
- Preparation of departmental reports, studies, maps, and other items of interest for the administration, BPA, and the public



The improvements and daily tasks make the community safer, better equipped in providing essential communications, electric and water utilities and make the City of Bryan more attractive for development. BMU has a great team in Engineering who strives every day to become more efficient and achieve better results. The Department prides themselves on responsive and high-quality customer service. Managing Bryan's utility infrastructure is a very important responsibility that the Department is honored to be entrusted with. The Department is proud of the accomplishments in 2019 and look forward to continued improvements in 2020.

- NATHAN GARDNER, ENGINEERING SUPERVISOR

# Unbilled Utility Service

	Electricity	Water	Communications
Street and Security Lights	\$88,780	\$0	\$0
Utility Departments, Building & Facilities	227,895	16,861	72,469
Parks, Pools & Other Recreational Areas	51,652	24,269	0
Bryan Community Center	7,507	535	1,581
Municipal Departments, Buildings & Facilities	380,790	60,422	101,375
County Miscellaneous Facilities	2,330	0	7,140
Traffic Signals	12,894	0	0
Bryan City Schools	2,695	0	24,194
Day in the Park, Jubilee, Christmas Lights	1,842	366	0
Bard Fountain	5,526	479	0
Other	0	0	11,655
<b>Unbilled Utilities</b>	<b>\$781,911</b>	<b>\$102,932</b>	<b>\$218,414</b>

## ELECTRIC DEPARTMENT

Maintenance Services (Labor & Equip.) Provided		
Street Light Installation and Maintenance		\$157,915
All Other City Services and Civic Organizations		32,745
<b>Total Unbilled Maintenance (Labor) Provided including Equipment</b>		<b>\$190,660</b>
Materials Provided		
New Street Lights and Replacements		\$145,282
All Other City Services & Civic Organizations		2,253
<b>Total Unbilled Materials Provided</b>		<b>\$147,535</b>
<b>Total Labor and Materials Provided</b>		<b>\$338,195</b>
<b>TOTAL UNBILLED LABOR, MATERIALS and ELECTRICITY</b>		<b>\$1,120,106</b>

## WATER DEPARTMENT

Maintenance Services (Labor) Provided		
Installation and Services to City Facilities		\$10,918
Installation and Maintenance of Fire Hydrants		37,500
Equipment		4,862
<b>Total Unbilled Maintenance (Labor) Provided including Equipment</b>		<b>\$53,280</b>
Materials Provided		
New Fire Hydrants and Replacements		45,000
<b>Total Unbilled Materials Provided</b>		<b>\$45,000</b>
<b>Total Labor and Materials Provided</b>		<b>\$98,280</b>
<b>TOTAL UNBILLED LABOR, MATERIALS, and WATER</b>		<b>\$201,212</b>

## COMMUNICATIONS DEPARTMENT

<b>Total Unbilled Maintenance (Labor) Provided including Equipment</b>	<b>\$0</b>
<b>Total Unbilled Materials Provided</b>	<b>\$0</b>
<b>Total Unbilled Labor and Materials Provided</b>	<b>\$0</b>
<b>TOTAL UNBILLED LABOR, MATERIALS, AND COMMUNICATIONS</b>	<b>\$218,414</b>
<b>TOTAL UNBILLED UTILITY SERVICES</b>	<b>\$1,539,732</b>



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American Public Power Association