

11/7/2016



# Electric Department Budget

*As Proposed for 2017 by Jeffrey Stonehill, Borough Manager*



The Borough of Chambersburg

# Electric Department Budget

*As Proposed for 2017*

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The Chambersburg Electric Department serves approximately 11,300 electric customers in South Central Pennsylvania covering a service territory of about 6.5 square miles in the Borough of Chambersburg (BOC). Chambersburg's electric customers, unlike many modern regions in the country, are still composed of a diverse, healthy and traditional mix of residential, commercial, institutional, and industrial facilities. Its electrical load in both summer and winter are nearly the same. However, the predominant peak occurred in past years during the extremely cold winter months at approximately 64 Megawatts. To put this in perspective that is approximately the equivalent of 64,000 - 1,000 Watt hair dryers all running at the same time; or, almost 6 of those hairdryers for every customer in the Borough. The Borough obviously then has to plan ahead to have more energy and power available to meet the higher forecasted peak demands, while also trying to keep costs to a minimum.

The availability of electricity to the Borough of Chambersburg began sometime after the Franklin Electric Company applied for a Charter to furnish electric current on August 29, 1874. It is uncertain how long this firm remained in business. The Cumberland Valley Railroad Company constructed a portable electric light plant located on a railcar in 1883. In 1884, this device lighted arc lamps around the Public Square for the Centennial and lighted the grounds for a baseball game which was played at night.

On November 29, 1889, the Borough placed a contract for installing an Electric Light Plant to light the streets of the Borough in the amount of \$9,757. This street lighting system was operated from dark until twelve o'clock midnight. It was not operated on moonlit nights. In 1891, the Borough went into the commercial phase of supplying "current" to consumers. The Borough installed its first steam driven generators in 1893. The high voltage distribution system naturally grew over the years as radial spokes emanated from the power plant located at the hub of the Borough. This system became the central driving force for commerce as local industries embraced electrically driven machines. Rates were \$0.12 per kilowatt hour in 1901, \$0.06 in 1935 and averaged \$0.0842 in 2008. About 8 million kilowatt hours were generated in 1935. In 2008, the total billed kilowatt hours were 303,299,213 of which approximately 15%, or approximately 38 million kilowatt hours, were generated by our generation facilities.

Dissatisfied persons within the Borough sought to restrain the Borough from producing electricity in its early years. Fortunately, the courts dismissed the suit. For the first fifty years of operation, all electricity distributed by the Department was produced within the Borough by its own generating equipment which was added as needed. During World War II, generators were unavailable to meet increased generation demands by the local industries producing for the war effort. Thus, a 69 kV transmission line was constructed from South Penn, later West Penn, Power Company lines to augment the Borough's generation. After the war-related restrictions were lifted, Chambersburg began to invest in needed generating equipment into the 1960s with the addition of steam turbines and later two dual-fueled diesel/gas engines.

The decision to cease the Borough's steam-driven generation operations was made in 1975 because of the age of the equipment and new environmental requirements for burning coal. Most of the electricity was then purchased at wholesale from West Penn Power. The transmission system and distribution substations were expanded over the next thirty years to meet an ever-increasing customer load.

During the past decades, the Department continued to add to and upgrade the substations and distribution system. During that time a new 3.2 megawatt dual-fuel generator was added to the two existing dual-fuel units, which increased the Borough's generating capacity to 7.5 megawatts. The Department also upgraded to state-of-the-art control systems and installed a Supervisory Control and

Data Acquisition (“SCADA”) system network. During this time, the Borough has been developing and installing a Borough-wide Geographical Information System (GIS) to combine utility maps, customer service records and numerous data files into a single geographical reference system. The Department has been instrumental in installing a fiber optic cable system among the various substations and various Borough facilities located throughout the Borough. This installation expanded in 2013 by entering into a fiber optic sharing agreement with Franklin County. Our fiber backbone will now be used to support the infrastructure of government organizations, our computer networks and someday soon our telephone systems.

It has been another successful year for our Wartsila constructed power plant at Orchard Park, including our four eighteen-cylinder, 8,086 horsepower engines that generates 5.82 megawatts each. The \$19.9 million project, which included the construction of an adjoining substation and other system improvements, became operational in 2003. As a result of the new plant, the Borough had joined the Pennsylvania, New Jersey and Maryland (PJM) Interconnection, a regional power grid and Chambersburg is now able to purchase and sell electricity on that grid.

In 2012, the Borough embarked on a new phase of both wholesale power purchasing and generation. In 2009, Council agreed with staff’s proposal to halt work and spending on the landfill gas project as it was being conceived of at the time. The project was originally intended to be a high-BTU refinery to be built and operated at the Scotland Landfill site by the Borough and/or a refined gas pipeline to the Borough for mixing and consumption at Orchard Park Generating Station. The conclusion of staff’s analysis was to give up direct negotiations for development with the landfill owner (IESI, Blue Ridge), the costly development process, and to wait and see if a third party developer would contact the Borough with a more economically viable “extension cord” power project that they were willing to develop. This was the only remaining project concept that would be considered going forward. As was somewhat expected, in 2010, a third party, PPL Renewable Energy, contacted the Borough to solicit interest in a power-only project involving their development of the Scotland Landfill site. The Borough’s role in the development of this project was the ambitious plan to build the “extension cord”, which was completed on time.

In late 2012, early 2013, a PPL Renewable Energy 6.4-megawatt methane-to-electricity power generation system opened at the Blue Ridge Landfill. The landfill provides 3.2 million cubic feet of methane gas from the 268-acre facility to power four Caterpillar engine generators. The generators will power the equivalent of approximately 3,500 homes. Methane-to-energy systems at landfills have a dual benefit for the environment - they generate electricity from renewable fuel while also eliminating emissions of methane, a gas which may contribute to global climate change. The plant prevents the equivalent of 33,000 tons of carbon dioxide emissions each year.

Chambersburg now acquires the full output of the electricity under a Purchased Power Agreement (PPA) for the initial 10-year term, 2013-2022, at a fixed price of \$63/MWh for the entire term with no additional delivery or congestion fees as the connection is made to a substation within Chambersburg’s power system. Since the power is delivered behind the Borough’s electric meter, the Borough’s capacity or demand charges are less thereby lowering the net cost of the renewable power purchases to more nearly \$58/MWh. In addition, there is the potential for the owner to invest in two future generation units over an extended term and sell more power to the Borough further reducing our capacity payments to the PJM.

The electric energy produced from this landmark facility represents an approximate 15%-18% savings from our previous requirements contract with DTE but only for a 10%-16% slice of the Borough’s overall electricity needs.

As you recall, the Borough’s long standing power supply agreement with DTE Energy expired on December 31, 2012 and the Electric Department has entered into new lower cost wholesale power supply agreements starting in 2013. The cost of wholesale energy generally remains favorable during this time for future power procurement. Electricity is a commodity, bought, sold, and traded hour to hour. As a result of the new market variability, in 2010 Pennsylvania adopted a change to the Borough Code to allow the 35 municipal electric systems to acquire energy in a different manner than years past. Specifically,

energy can be negotiated and bought without the cumbersome and untenable sealed bid process used to buy most large items by the Borough. In light of these changes, Chambersburg with its consultant GDS Associates of Marietta, Georgia, has developed a Power Supply Master Plan, which Town Council adopted on May 14, 2012.

In light of those challenging planning objectives, the Borough Electric strategy team developed a power supply portfolio approach and comprehensive plan which was adopted by Council a few years ago, which specifically spelled out a procurement strategy for fulfillment of the Borough's future contract power needs. The Council-adopted power purchase "team" approach limits our emotional buying through purchasing various size, term, and delivery paths of blocks up to just two times per year. In 2015, both spring and fall, it was recommended to look at purchasing longer term and larger blocks due to the highly favorable pricing outlook that we are seeing even out to 2023. There is proposed to be only one power bid and purchase in 2016, having previously stocked up on more than the "plan" containing plenty of short, mid, and long term PPA's to date.

Presently, in planning years 2016-2023, the Borough will enjoy 20 low-cost power purchase agreements (PPA or PPA's) including the award winning PPL Renewable Energy/Talen Energy, recently re-named Energy Power Partners landfill gas to electricity plant. The sustainable/renewable power from the landfill gas to power plant, a supply block of about 6 MW, comes to Chambersburg on the Borough-owned "Extension Cord", helping Chambersburg attain an approximate 17% annual renewable energy mark in 2014, a level that only a handful of electric utilities, cities, or even States could match. The multiple sources of electric energy coming in, coupled with the sale of Chambersburg's own generation to PJM, significantly reduces the Borough's vulnerabilities and price swings like the 2007 to 2012 time period and those that we saw with the one supplier.



Borough Electric Department About 1900

*Chambersburg Power Supply Portfolio 2013-2023*

What follows is the complete Electric PPA Summary since the spring purchases of 2016:

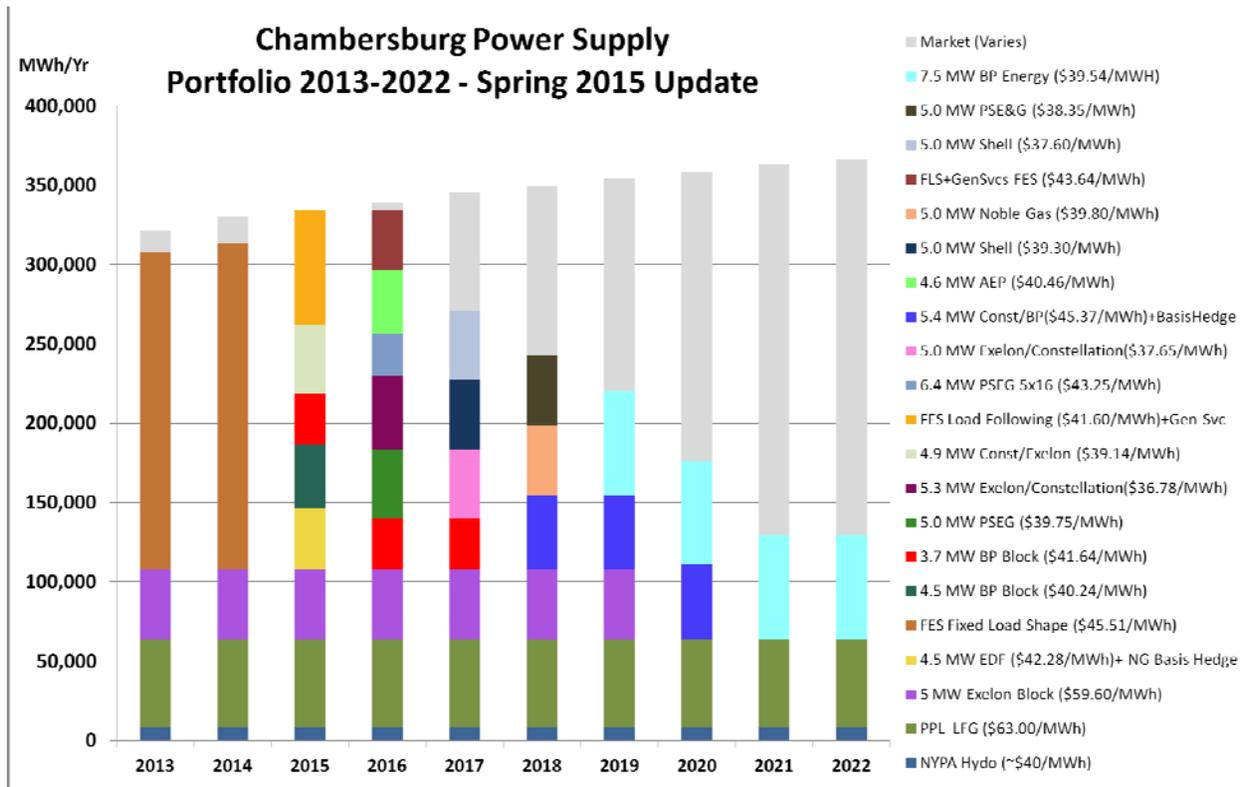
Wholesale Power Supplier	Megawatts	\$/MWh	Term (Yrs)	Start	Ends
PPL/Talen/Energy Power Partners	6.1	\$63.00	10	2013	2022
Exelon	5	\$59.60	7	2013	2019
First Energy Solutions(FES)	Fixed Load Shape	\$45.51	2	2013	2014
EDF Trading	4.5	\$42.28	1	2015	2015
BP Energy	4.5	\$40.24	1	2015	2015
BP Energy	3.7	\$41.64	3	2015	2017
Exelon/Constellation	4.9	\$39.14	1	2015	2015
PSE&G	5	\$39.75	1	2016	2016
FES Energy + Gen Services	Load Following	\$41.60	1	2015	2015
PSE&G	6.4MW 5x16	\$43.25	1	2016	2016
Exelon/Constellation	5.3 MW 7x24	\$36.78	1	2016	2016
Exelon/Constellation	5.0 MW 7x24	\$37.65	1	2017	2017
Constellation Energy/BP Basis Hedge	5.4 MW 7x24	\$45.37	3	2018	2020
Basis Hedge (EDF Trading)	4.5 MW 7x24	\$1.09cr	1	2015	2015
AEP Energy	4.6 MW 7x24	\$40.46	1	2016	2016
Shell Energy	5.0 MW 7x24	\$39.30	1	2018	2018
Noble Gas	5.0 MW 7x24	\$39.80	1	2018	2018
FES Energy Solutions + Gen Services	Fixed Load Shape	\$43.64	1	2016	2016
Shell Energy	5.0 MW 7x24	\$37.60	1	2017	2017
PSE&G	5.0 MW 7x24	\$38.35	1	2018	2018
BP Energy	7.5 MW 7x24	\$39.54	4	2019	2022
BP Energy	6.0 MW 5x16	\$38.71	1	2017	2017
EDF	1.5 MW 7x24	\$32.60	1	2018	2018
Noble	5.0 MW 7x24	\$32.34	2	2019	2020
Noble	10.0 MW 7x24	\$32.74	3	2021	2023
EDF	Fixed Load Shape	\$41.86	1	2017	2017
BP Energy	4.0 MW 5x16	\$39.34	1	2018	2018

As one can see, the recent spring 2016 power purchases were intended to fill various supply needs from 2017 out to 2023. The mix of energy products under consideration for the fall purchases might exceed the strategic plan guidelines for short, medium, and long term power needs so the team might decide to forego the second or fall procurement power purchases. Observing the chart below, the reasonable fixed price load following products acquired in the short years reduce the Borough's cost exposure to spiking market prices in summer and winter peak times when the Borough's load purchases are also at their highest. The Landfill Gas Plant, being a base loaded resource, also conveniently reduces capacity and energy purchases from the outside suppliers year-round, as well as at peak times. Further, Chambersburg's generation assets sold to PJM during these peak times can sometimes bring healthy sales revenues back to the Electric Department, lowering power supply costs and ultimately the rates that

customers would pay. In November 2016, staff is not ruling out requesting of Council permission for proper Borough officials to execute PPA's at "not to exceed" prices for purchasing the optimum mix of short, medium, and long term blocks power or a load following product for the ever-growing electric portfolio.

The Chambersburg Electric Department, partnering with many local entities, is continuing to use its competitive rates, industrial, commercial, and residential expertise, to continue to attract, grow, educate and keep local industries strong, while helping create local higher-paying jobs and help boost the still-sluggish real estate markets.

A simple summary bar-chart of the portfolio of power products secured to date follows:



The Chambersburg Electric Department continues successful procurement of future power as it also looks forward to the other utility challenges of the future.

*Electric Department*



The Chambersburg Electric Department, while building character, competence, and collaboration, will provide to our customers' valuable energy products and services that are safe, reliable, and competitively priced. The Electric Department will produce economic and other benefits to the Borough, its citizens, its customers, and employees, while operating in a professional and courteous manner within a structure of local accountability and local control

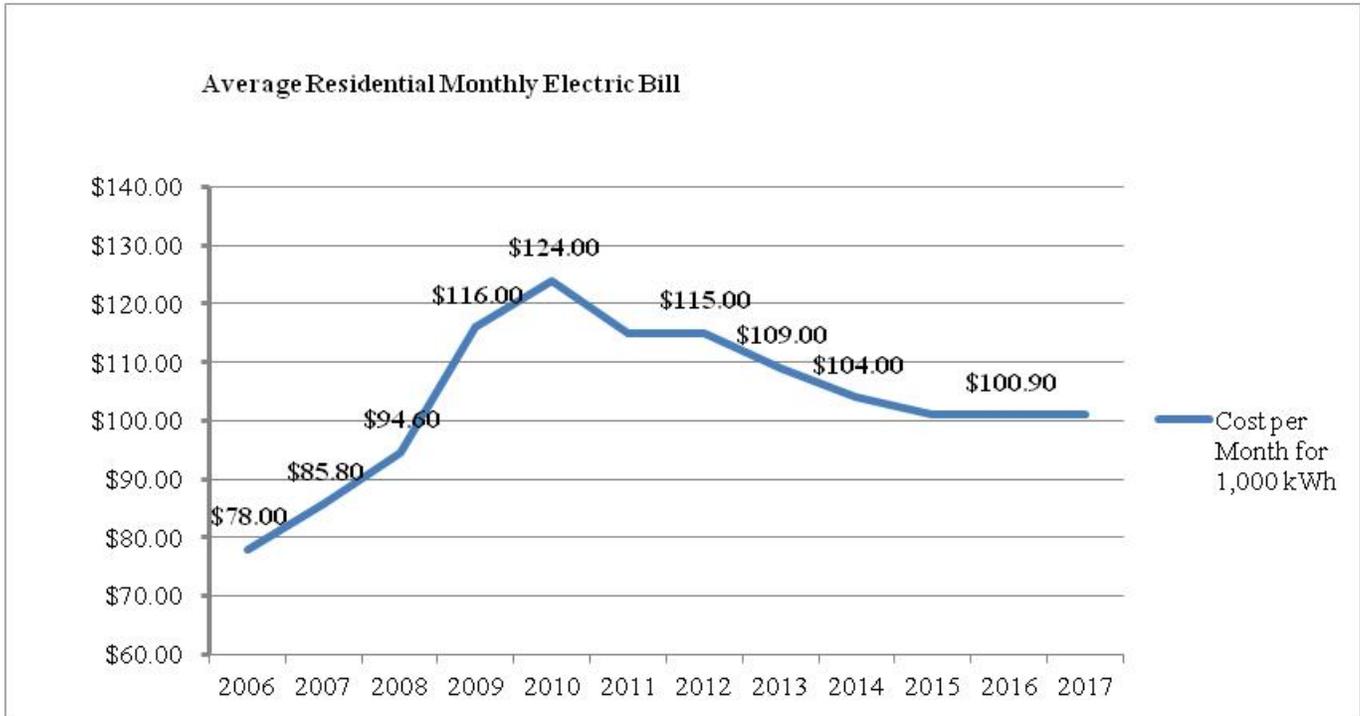
Department Head: Ronald Pezon, PE, CEM, CSDP, CDSM

	2015 Actual	2016 Budget	2017 Budget
Revenue	\$31,461,997	\$30,553,800	\$30,937,420
Expenses	\$30,073,625	\$30,553,800	\$30,937,420
Excess (Deficit)	\$1,388,372 Surplus	- Balanced -	- Balanced -

*Finances: Residential Rates*

<u>Year</u>	<u>Total Elec. Bill (1,000 kWh)</u>	<u>\$/month Effect</u>
<b>2012</b>	<b>\$114.73</b>	<b>\$0 (under '12)</b>
=====Energy Portfolio Implemented=====		
<b>May 2013</b>	<b>\$109.48</b>	<b>-\$5.25 (4.6%)</b>
<b>Nov 2013</b>	<b>\$104.23</b>	<b>-\$10.50 (9.2%)</b>
<b>Nov 2014</b>	<b>\$100.90</b>	<b>-\$13.83 (12.1%)</b>
<b>Base Rates Changed (Ordinance 135-15, November 2014)</b>		
<b>2015-2017 Actual and Expectation</b>		
	<b>\$100.90</b>	<b>\$0.00 (0%)</b>

**The 2017 Budget includes no electric rate increase.** The holding of the rate for another year follows three straight rate decreases in 2013 and 2014.



**Finances:**

- Successfully manage the proposed \$31.4 million budget while keeping the Power Supply Adjustment (PSA) at zero (\$0/kWh) at least until September 2017.
- After years of replenishing capital reserves to what is considered a healthy level by council and staff, proposed in the 2017 budget cycle is a monthly transfer from operating to capital that is intended to just maintain capital reserves at a level required to keep up with the aging and infrastructure improvements. Operating and capital reserves are financial stabilizers during potential times of emergencies and severe storm/equipment damage.

**Operations:**

- Power Supply Portfolio – Investigate and integrate economical new traditional and renewable energy sources.
- Appropriately maintain operating, dispatch costs, and offer prices to increase generation sales and net revenue values from the Pennsylvania Jersey Maryland Interconnection LLC (PJM).
- Continue efforts to revise and improve the First Energy/West Penn Power transmission interconnection agreements.
- Operate and maintain Borough-owned generation, transmission, substation, and distribution facilities with integrity and in accordance with generally accepted and best electric utility practices.

**General Utility:**

- Continue to develop the workforce culture of safety to achieve yet another year of good safety performance.
- Begin implementation of the \$3.7 MPO-allocated traffic signal improvement/upgrade project
- Determine path of action and timing for repair or demolition of old power plant stacks on Second Street.
- Through operational excellence, acquire and celebrate the 4<sup>th</sup> Reliable Public Power Provider Award (RP3).

### *Looking Forward to 2017*

- Enjoy among the lowest, stable electric rates in the eastern United States
- Watch for movement in Legislation that would yield an unfavorable ruling against the Borough’s existing or possible new generation sources
- Study, evaluate, and balance the installation of dependable more traditional sources of power with those of renewable energy projects that have the potential to bring real economic values to the Borough and its customers
- Provide strategic energy and demand management education for the various applicable customer classes
- Improve the energy efficiency of Borough-Owned facilities through the Borough’s Energy Committee
- Realize benefits of strategic old-meter testing/replacements and a small scalable automated metering infrastructure pilot demonstration
- Research and development using existing hand held meter reading devices and integrate future billing software
- Focus on furthering sustainable economic development, industrial job retention and creation.
- Grow to become a world-class model of a thriving community for industry, commerce, institutions, residential living, and where its people and community feel matter most.

### *Major Accomplishments*

With all of the challenges, Chambersburg Electric has logged some successes so far this year.

<b>2016 Year to Date (through September ‘16)</b>	
Meters set or changed	97
Services Replaced	83
New/Temp Services	102
Street Light/Signals Re-lamped	312
Non Pay After Hour Turn On	240
Transformers Install/Replaced	32
Poles Installed	36
UG Cable Installed (feet)	7836
OH Cable installed (feet)	3504

- The Borough Electric Department received 5-year operating clean-air permit renewals from the PA DEP for both the Falling Spring Generating Station (FSGS) and the Orchard Park Generation Station (OPGS).
- Maintained and upgraded as required the transmission, substation, and distribution facilities for efficiency and reliability
- Upgraded the engine control system and installed upgraded new style fuel injectors on the OPGS Unit #11.
- Successfully negotiated more power supply products to further complete the sustainable forward-looking portfolio energy procurement approach
- Operating under the third American Public Power Association (APPA) RP3 Award 2014-2017, at the Platinum Level for honorable electric utility progress in Safety, Reliability, Workforce Development, and System Improvements. Submitted in 2016 an application for a fourth 2018-2020 RP3 Award.

*2017 Goals*

- **Budget:** The proposed 2017 budget is balanced and will meet the Department’s financial targets.
- **Financial:** Operating and Capital Reserve funds are projected to be sufficient to cover expenses and contribute towards future capital needs.
- **Rates:** There are no rate changes proposed at this time for 2017.
- **Power:** Continue systematically purchasing blocks, load following power supply products, considering various traditional and renewable power purchase agreements for the portfolio 2017-2023 and beyond.
- **Investment:** Proposed Capital Budget of about \$1.6 Million for long term reliability.

*2017 Rates*

On September 8, 2014, Chambersburg Borough’s Town Council approved a recommendation of the Electric Department to lower rates and to update the Borough’s local rate tariffs in November 2014. That was the third rate reduction in a row for Chambersburg electricity customers since the successful implementation of the portfolio approach to purchasing power blocks for its customers. The portfolio has successfully stabilized electric rates and all things remaining the same, will into the foreseeable future. The Borough’s “all-in”, all-customer’s cost per kWh is down from 10.5 ¢/kWh in 2012 to 9.1 ¢/kWh (“billing unit”)

**RATES: Borough-wide Customer Average Overall Rates 2013-17**

<b>Changes From the Energy Portfolio Implementation of 2013</b>		
<b>Year</b>	<b>Overall Ave \$/kWh</b>	<b>Yr Under/Over Yr Change</b>
2012	0.10500	Base
2013	0.10000	- 4.8%
2014	0.09370	- 6.3%
2015	0.09083	-3.1%
2016	0.09140	+0.63% (est. Sep.’ 16)
2017	0.09140 (9.1¢/kWh “all-in”)	0.0% Proposed

The Borough has had another successful year building a low cost wholesale electricity portfolio of about 20 suppliers from now through 2023. Further, in 2016 the Borough-owned power plants have been running more and bringing additional revenues back to the Borough. The revenues obtained from running the Borough’s generators and selling the energy to the electric grid (PJM) are used to help keep electric rates as low and as stable as possible. The US-EPA (Project of the Year 2013) award winning Blue Ridge Landfill gas to energy plant, in its fourth successful commercial year and continues to provide low cost clean renewable/sustainable energy for all of our customers and is the major contributor to the 17% annual recycled or green/renewable energy in Chambersburg.

The portfolio of energy products has provided great rate stability in recent years. In 2017, the average cost per kWh should still be around 9.1 cents per kWh which is among the lowest in the State. What follows is a brief history of the average residential electric rate for a typical customer using 1,000 “units” or 1,000 kWh per month.

**RATES: Average Total Electric Bill (1,000 kWh/Month) For a Residential Customer by Year\***

<b>PSA Change</b>	<b>Total Elec. Bill</b>	<b>\$/month Effect</b>
2012 PSA	\$114.73	\$0 (under '12)
2013 May PSA	\$109.48	-\$5.25 (-4.6%)
2013 November PSA	\$104.23	- \$10.50 (-9.2%)
2014 November Base Rates**	\$100.90	- \$13.83 (-12.1%)
November 2015	\$100.90	No change
2016	\$100.90	No change
2017	\$100.90	<b>No change forecasted</b>

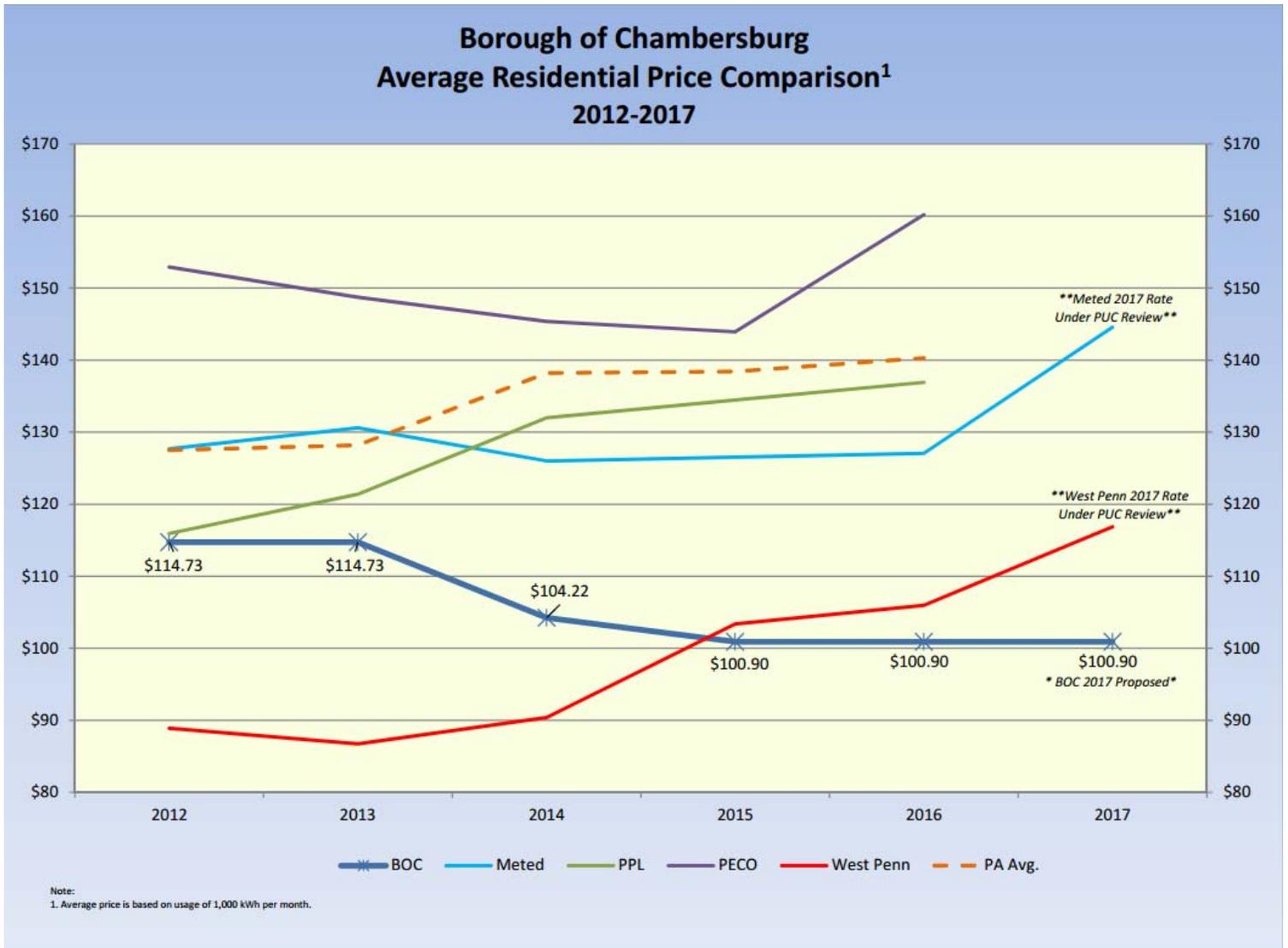
\*Typical results for a residential customer using an average 1,000 kWh/month, your monthly use and results may be different.

\*\* Rate "maintenance" occurred which reset the historic (high) fluctuating PSA back to zero, PSA=\$0/kWh. The PSA is a mechanism for the Borough to collect or refund mostly electric power supply costs between the times when the Borough updates its base rates and by Ordinance to ensure close revenue collections to the costs for each customer class.

So how does this compare to the surrounding other Public Power and Investor Owned utility bills you might ask? From the Pennsylvania Municipal Electric Association (PMEA-Utility Engineers) electric rate research this year we learned that in September 2016 a typical West Penn Power (WPP) residential bill for those living around (some inside) Chambersburg for a customer using an average of 1,000 kWh/Month is (WPP) \$120.30/month or \$0.1203/kWh while the same customer on the Chambersburg electric system would be (BOC) \$100.90/month or \$0.1009/kWh under the Borough's Domestic Rate 201. In this recent monthly cost comparison, WPP is about 19.2% more expensive than Chambersburg Electric which translates to about \$233 more per year for the average WPP customer.

The WPP rates were shown using Utility Engineer's acquired data have gone from \$112.40/month on average in 2015 to the 120.30/month in 2016 or a recent 7% increase. Utilities outside of Chambersburg have been raising rates recently and being justified to the PA Public Utility Commission for aging transmission and distribution infrastructure and improvements. Chambersburg, unlike many "for profit" entities has been maintaining and upgrading its electric facilities all along as can be observed in the annual capital and operating budgets.

What follows is a graph showing how the relatively stable electric department residential monthly bill stacks up against our immediate neighbor West Penn Power, other major electric utilities in the State, and with the State average monthly bill.



What does this all mean to us? Chambersburg's average residential customer using 1,000 kWh per month now pays about 16.1% less than a typical WPP (same usage) residential customer. Falling below the average WPP residential price is about a ten-year milestone achievement for the Electric Department.

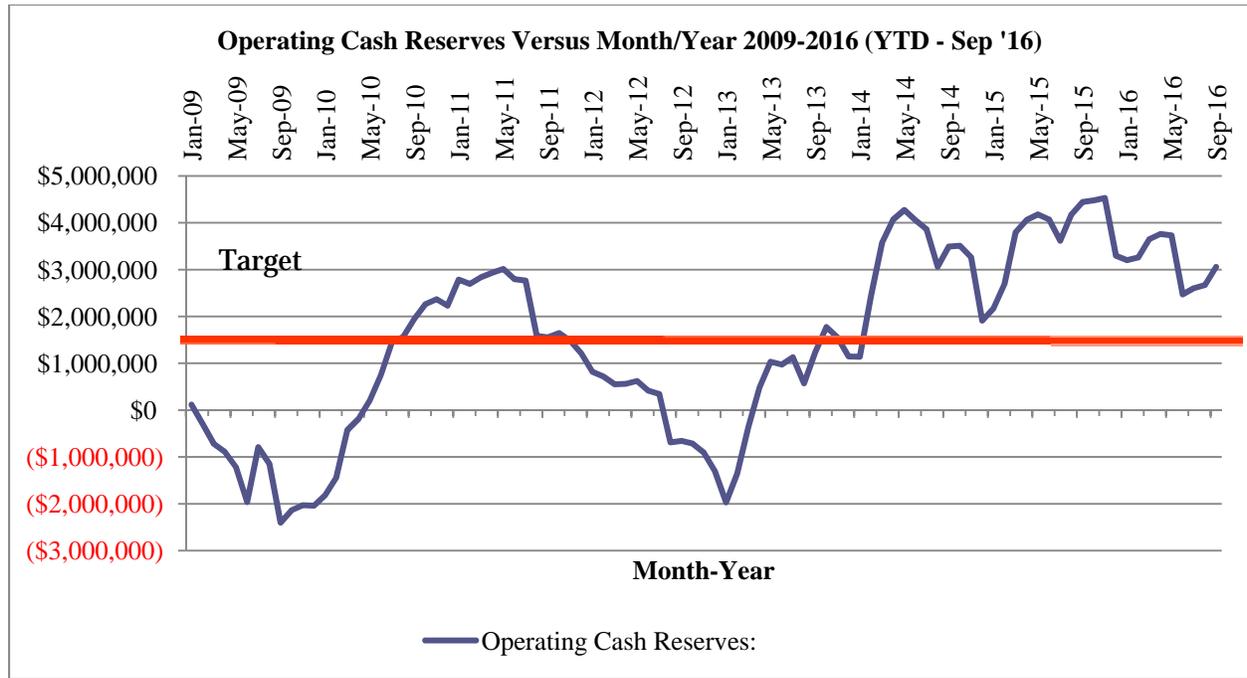
The Borough shops for you, but if we were to compare only the “shopping” components as of this writing, the lowest, fixed price, 12-month “Price to Compare” available outside the Borough, as found on the internet today, for transmission and generation services is estimated at about 6¢/kWh, whereas the Borough was tracking at about 5.5¢ per kWh through the same time period. Variable power shopping rates available outside the Borough appear a bit lower on the surface initially, but then those outside utility customers who choose to shop “variable” carry the full risk of short term pricing volatilities. Outside the Borough, many utility customers, who are customers of the investor-owned utilities, chose variable rate deals. Those “deals” can sometimes result in very high bills, as observed in the recent extreme cold winters. Shopping for power is complex and “deals” are not often as good as they originally appear. The Borough shops on behalf of our customers for fixed and load following power supply

portfolio products, and is directly responsible for maintaining long term stable electric rates; no matter the weather extremes. We shop for power on behalf of our customers.

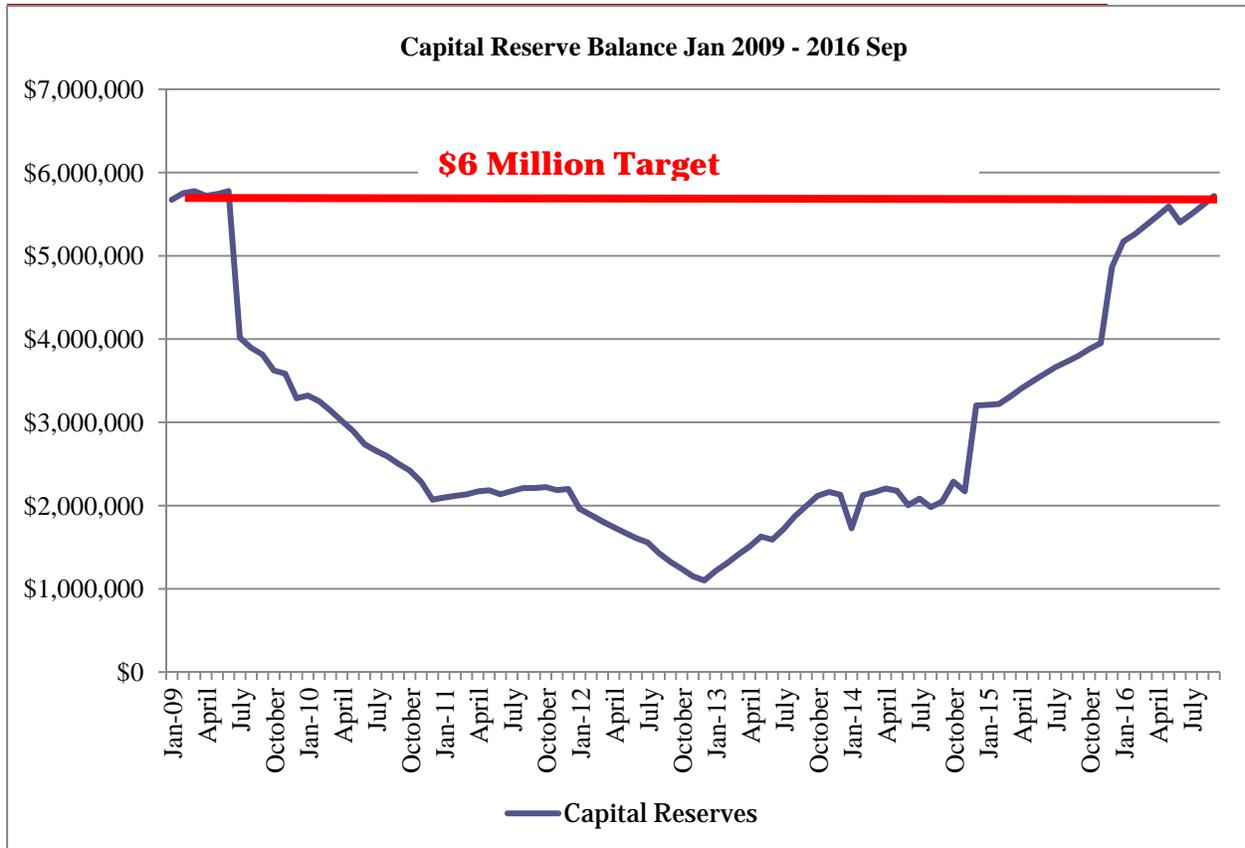
#WeShop4U is a marketing “hash tag” developed to make this point.

*Financial items for 2017:*

- Operating Cash Balances are stabilizing, are planned, expected to be stable into 2017 and likely until the September 2017 updated Power Supply Adjustment (PSA) recommendation to Council. See the first graph below.
- Capital Reserves have also stabilized in the 2015 to 2016 time period, and is planned to be, and expected to be stable into 2017. See the second graph below.
- A recurring 2017 monthly Operating Cash transfer into the Capital Reserve Fund to just cover the aging infrastructure and capital improvement costs, are recommended to maintain the two forecasted annual fund needs, and to balance the funds nearly at the year-end targets.

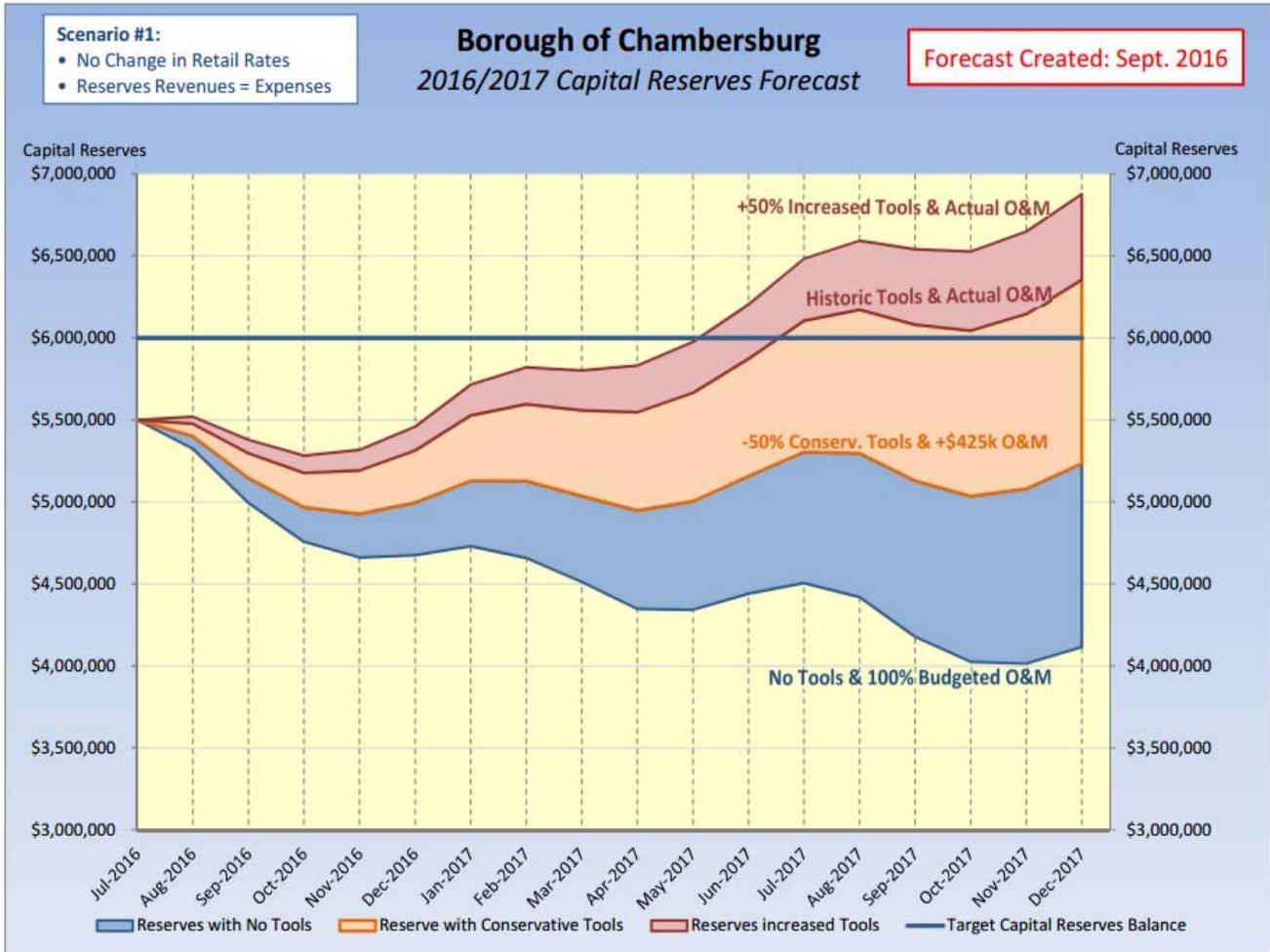


Goal: To rebuild the capital reserve balance back towards the \$6 million mark using the Borough’s generation assets or hedging “tools”.



The Financial Goal: The goal, now that the Department has re-established stability in the Operating and Capital Reserve Funds, is to manage revenues and expenses well so, going forward, we nearly always hit our fund balance targets.

Many factors determine how well we can balance our operating and capital/emergency cash reserves; however, none is as significant as how well the generation assets perform in a planning year. The generation assets and their attributed revenues in a given year are called financial “Tools”. The PSA shown on electric bills (presently \$0.00/kWh) is used to adjust overall rate collections to a reasonable comparison with those of the power supply costs. The following graph shows the wide range of possible capital reserve balances around the target at the conclusion of the 2016-2017 PSA adjustment period, which typically ends each August, for the Councils’ Annual Electric Department Presentation. “No tools” or a worst-case scenario shown in blue below is the least Borough-owned generation revenue extreme while hitting the budget targets, while the “-50% conserve. Tools” in orange is a measure indicating a downturn in Tools revenue with an increase in operating and maintenance (O&M) costs over budget. The lower end of the “Historic Tools” section in the brick red color is a reasonable forecast of the department landing near the \$6 million target going into 2017 using the proposed O&M/Capital budgets and PJM generation revenue recoveries. Unexpected changes in revenues or expenses will ultimately dictate where this forecast lands, and whether the PSA needs to be adjusted fall 2017 upward, or downward to maintain a healthy electric department.



201607 RPT PSA Monitoring CSS 11559  
9/7/2016



Goal: to conduct normal business operations while stabilizing power supply costs, rate fluctuations, and cost collections through base rates and the PSA.

*Proposed Capital and Operations Highlights:*

**The 2017 Budget includes \$1,606,200 in Capital Project spending (Down 16% from that proposed for 2016):**

- Re-conductor old overhead distribution lines in the north, west, and south to reduce the number of nuisance momentary and extended interruptions that customers have been experiencing lately.
- Extend a new underground feeder along Orchard Drive to the Park Substation for eventually upgrading the distribution facilities in the area, raise the voltage, and to pick up the load with more reliable facilities in the south and east parts of Chambersburg.
- Extend feeders to form additional tie-lines in support of our “repair and restore” service restoration program.
- Upgrade the Unit 5 and 6 generator output interconnections at the Grant Street Substation.
- Perform one engine control upgrade (Unit #7) at the Falling Spring Generating Station.
- Upgrade/Replace two aged transmission substation circuit breakers for reduced maintenance costs and improved reliability in a heavily loaded part of town.
- Purchase new wire reels/racks, re-wind deteriorated wooden stock reels and build a wire storage facility near the utilities service center to protect hundreds of thousands of dollars worth of previously purchased electric conductor assets.
- New meters, transformers, devices, electric distribution and various other pieces of delivery equipment.
- Upgrade the failing and obsolete electric radio communication systems.



*Reliable Public Power Provider Program from the APPA (RP3)*

Goal: To earn, year after year, the RP3 designation from the American Public Power Association (APPA) and work toward overall continuous improvement goals for the mutual benefit of Chambersburg and its residents.



The RP3 program recognizes utilities that demonstrate high proficiency in reliability, safety, work force development and system improvement. Criteria within each of the four RP3 areas are based upon sound business practices and recognized industry best practices.

**RP3 Designation:** Chambersburg is one of 219 of the nation’s more than 2,000 public power utilities to earn Reliable Public Power Provider (RP3) recognition from the American Public Power Association for providing consumers with the highest degree of reliable and safe electric service. Chambersburg is one of only two out of the 35 municipal electric utilities in Pennsylvania to have acquired the RP3 award status.

*Largest Customers (in \$ order)*

Hundreds of customer success stories are the natural out-falling of these types of over-arching quality objectives. What follows is a list of the Borough’s top 25 customers who are still thriving in Chambersburg.

1	TB Woods HV Melting, Foundry/Fabrication	14	Edge Rubber
2	Chambersburg Hospital – Main & North Coldbrook	15	Weis Market - Wayne Ave
3	Ventura Foods LLC	16	Ozburn-Hessey Logistics
4	Borough of Chambersburg WWTP 1 and 2	17	Menno Haven Inc Scotland Ave.
5	Chambersburg Cold Storage	18	BJ’s Wholesale Club
6	Knouse Foods	19	BOC Orchard Park Gen-Station
7	Chambersburg Health Services – Norland	20	Giant Market – Wayne Ave
8	Menno Haven <i>total</i> (PennHall, Manor, Renn, Nurs, Scotland)	21	Target
9	Wilson College	22	Chambersburg Area Middle School-South
10	TST/Impresso Inc.	23	Century Link
11	Chambersburg Area Senior High	24	Borough Street Lighting
12	Catch-up Logistics	25	HCR/Manor Care
13	Giant Market – Norland		

Expected to continue in 2017, the electric department and power procurement team is negotiating with First Energy and West Penn Power to streamline existing generation and new energy project interconnections. A major accomplishment for 2017 would be to reach a new contractual understanding about service territory and interconnection with our wires companies; First Energy and West Penn Power.

The Electric Department thanks its customers for selecting Chambersburg to be your home and/or place of business.



**2015 Borough Of Chambersburg Electric Department**  
Updated: 8/24/2015

**Budgeted (FTE's): 24**

*Payment In Lieu Of Gross Receipts Taxes (PILOT)*

As you know, the Borough Electric Department makes a tax-like contribution to the General Government operations of the Borough. If the Electric Department were an investor owned electric utility, licensed for operation in Pennsylvania, the Electric Department would pay “taxes” to the Commonwealth of Pennsylvania. In its current legal format, the Chambersburg Electric Department is not licensed by Pennsylvania, it is exempt from most Public Utility Commission rules, regulations, and tariffs, and is exempt from paying taxes.

Please find enclosed the proposed 2015 Chambersburg PILOT Tax Return form.

	2015 Actual	2016 Actual	2017 Budget
PILOT	\$1,100,000	\$1,100,000	\$1,250,000

**Borough of Chambersburg Finance Department  
Electric Gross Receipts Tax  
For Tax Year: 2017**

BOC Acct #	Source of Gross Receipts	Total Budgeted Gross Receipts	Total Taxable PA Receipts
	Utility Plant & Allowance		
	Revenues - Electric Plant Leased to Others		
20010/20018/20020/20021	Other Utility Operating Income	481,000	\$481,000
20015	Revenues - Merchandise & Jobbing	52,700	
	Revenues - Nonutility Operations		
	Nonoperating Rental Income		
20019/20024	Interest & Dividend Income	31,500	
20016/20017	Miscellaneous Nonoperating Income	521,600	
	Gain/Loss on Disposition of Property		
20011	Residential/Commercial/Industrial Sales	29,615,000	29,615,000
	Public Street & Highway Lighting		0
	Other Sales to Public Authorities		0
	Sales to Railroads & Railways		0
20012	Sales for Resale	0	0
	Interdepartmental Sales		
	Other Sales, Nonmajor Only		0
	Provision for Rate Refunds		0
	Forfeited Discounts		0
20022	Miscellaneous Service Revenues	500	500
	Sales of Water and Water Power		0
20023	Rent from Electric Property	33,200	33,200
	Interdepartmental Rents		
20013	Other Electric Revenues	30,000	
	Revenues from Transmission of Electricity of Others		0
	Regional Transmission Service Revenues		0
20014/20025/20026	Miscellaneous Revenues	171,920	171,920
20027	All Other Sources	0	0
	<b>Totals of each column</b>	<b>\$30,937,420</b>	<b>\$30,301,620</b>
	<b>Tax at the rate of 59 mills Gross Receipts Tax</b>		<b>\$1,787,796</b>
	<b>Town Council Adopted Multiplier</b>		<b>69.9185%</b>
	<b>Payment in Lieu of Gross Receipts Tax</b>		<b>\$1,250,000</b>

11/7/2016



# Gas Department Budget

*As Proposed for 2017 by Jeffrey Stonehill, Borough Manager*



The Borough of Chambersburg

# Gas Department Budget

*As Proposed for 2017*

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The Chambersburg Gas Company was started on April 4, 1856 when the Pennsylvania Legislature, by special grant, authorized the construction and operation of a gas system. It was a private enterprise, manufacturing and distributing gas until 1946. In December 1946, the Borough of Chambersburg purchased the gas utility and became the second of only two municipal gas operations within the Commonwealth of Pennsylvania, (Philadelphia being the other). Because of Pennsylvania Legislative action, the Philadelphia Gas Works has come under PUC jurisdiction. This now leaves Chambersburg as the only true, municipal gas system in the State of Pennsylvania.

Throughout its history, Chambersburg's gas system has made changes in its operation to remain competitive and in business while others have failed, been bought out, or mismanaged to the point of large public scrutiny. This again is one of those times where we need to position ourselves to remain competitive and retain the ability to give our customers a reliable, cost effective and safe gas system.

Chambersburg delivers the lowest cost gas in Pennsylvania, while operating the safest system. In 2015, the Borough delivered 1,158,543 DTH of gas to our customers; this was a 10% decrease from 2014, primarily due to lower space heating needs and decreased sales to the Borough Power Plants.

In 2016, the Borough replaced over  $\frac{3}{4}$  miles of old gas mains and services as the Department worked aggressively to replace lines before future paving; this includes replacements on Cumberland Ave., Highland Ave., King St. and Park Ave.

The highly successful Gas Conversion Financing Program has over 350 homes participating with a total value \$1.5 million in 0% interest loans. The Borough of Chambersburg's Main Street Energy Efficiency Financing Program is an on-bill financing program designed to improve energy efficiency for customers by providing low-cost financing to residential homeowners for the purchase and installation of high efficiency natural gas appliances to replace non-gas units.

Funds are available for residential homeowners where natural gas service is available for the purchase and installation of natural gas ENERGY STAR residential appliances – natural gas furnaces, natural gas tank-less water heaters, and certain tank water heaters.

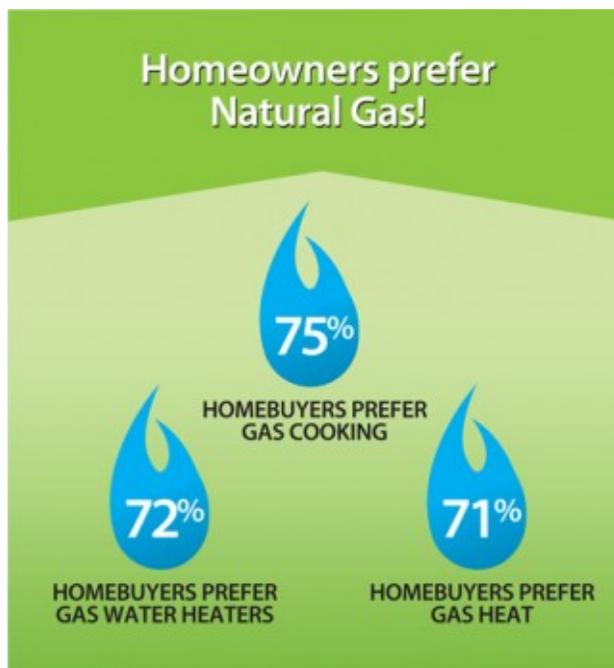
In large part due to the success of the loan program, the Borough received our second Marketing Excellence Award from the Municipal Gas Authority of Georgia for outstanding customer growth.



The Main Street Energy Efficiency Financing Program is a municipal service for citizens and customers located within the natural gas service areas of the Borough-owned natural gas distribution system.

*Structure & Requirements of Loan for Chambersburg program:*

- Maximum loan amount - \$5,000
- Maximum loan term – 60 months
- Loans will carry a 0% interest rate
- Each loan will carry a \$3.00 per month administrative fee
- Loans require 24 month good utility bill payment history
- Loan repayments will be added to customer's monthly utility bill



Because of the tremendous success participating in the Main Street Energy Efficiency Financing Program, the Borough is now expanding the program to include Commercial properties, specifically benefitting smaller commercial entities. The Gas Department will make available up to \$200,000 per year for the program.

With Borough natural gas costing customers about ¼ the price of oil or electric, significant energy savings are achieved by converting to gas. Unfortunately, small businesses often struggle to afford the up-front costs associated with converting less efficient non-gas appliances to more efficient natural gas units. The Commercial program will aid those customers in affording the conversion to more efficient and environmentally friendly gas units.

We are pleased to expand the Energy Efficiency Financing Program to small businesses in the Borough. Staff understands that upfront costs can be burdensome and this is an avenue to relieve some of the upfront costs and manage payment of appliances that will ultimately save small businesses money on their monthly utility bills.

### *Structure & Requirements of Loan for Commercial Properties*

- Maximum loan amount - \$10,000
- Loans are available for natural gas furnaces, boilers, water heaters and cooking appliances for commercial properties to replace non-gas units
- Maximum loan term – 60 months
- Loans will carry a 0% interest rate
- Each loan will carry a \$5.00 per month administrative fee
- Loan repayments will be added to customer's monthly utility bill



A long term initiative to explore the building of a Compressed Natural Gas (CNG) filling station has remained in a holding pattern. On June 23, 2014, Town Council authorized Sunoco Inc. ("Sunoco") to take over the Borough's CNG station development activities. CNG station development is a challenging endeavor, requiring a delicate balance of financing, property development and fueling commitments for a successful project. An important Redevelopment Assistance Capital Program Application deadline was met on August 20, 2014. Because site acquisition was a key component of that grant program, the Borough determined that it was in the best interest of the Borough to authorize Sunoco to take over development functions at that time. The Borough was notified that Sunoco had been awarded a \$591,502 Alternative & Clean Energy (ACE) grant from the Commonwealth Financing Authority (CFA). The grant will be directed toward the development of the Compressed Natural Gas (CNG) Refueling Station within the Borough – a project that the Borough and Sunoco have been actively collaborating on since Spring 2014.

Sunoco has worked through most of the land development plans and approvals, but the ground-breaking expected in the spring of 2016 has been delayed. Due to low diesel and gasoline prices in the region, many potential customers have delayed converting vehicles to CNG. This has caused Sunoco to wait for the station start-up until market conditions improve.

The proposed site is an industrial zoned parcel on S. Main Street US11, just south of Orchard Drive, already owned by Sunoco. Other than assisting with this grant from the CFA, the Borough of Chambersburg will not be contributing any funds towards the construction of this privately developed fueling center.

Although we have been unable yet to convert any of the Borough's fleet to CNG fuel vehicles, this all may change in 2018, once Sunoco is successful in opening the fueling station in the Borough.

A privately owned station was not the original objective of our CNG project. Originally, we envisioned building our own fueling station. But over time, it has become clear that a public-private partnership, such as the one with Sunoco, may be a more realistic way to get a station built. Regardless, the Chambersburg Gas Department will be the gas provider to the CNG fueling station. Therefore, it makes sense that the Gas Department would encourage this project's development, expending time and money to build interest over the last two years.

In addition, the Borough continues to replace old gas mains and services:

- Replaced 15 miles out of 24 miles of Cast Iron (CI) main since 2000, much faster pace than most gas utilities
- Prioritizing replacements ahead of re-paving and based on risk assessments
- Spending about \$700,000 per year on old pipe replacement – recommend similar level in 2017
- Gas leaks continue to trend lower and less serious compared to previous years



*APGA System Operational Achievement Recognition (SOAR) Award*

The System Operational Achievement Recognition (SOAR) award was developed by the American Public Gas Association to recognize system wide excellence in; System Integrity, System Improvement, Employee Safety and Workforce Development.

Chambersburg was awarded SOAR at the Silver level in the first year of the award – the second highest possible level; only four systems achieved Gold.

SOAR has been awarded to only 34 systems out of 1,000 public gas systems in the US.

Being Town Council President means working hard on issues of public gas.



*Chambersburg Town Council President accepted the award from the APGA*



*Gas Safety*

The safety of Chambersburg gas customers and Chambersburg employees is our top priority. To that end, the Gas Department has strong programs in leak detection, corrosion prevention, public education, and employee training.

There have been zero reportable gas safety incidents in over 25 years, and we believe that no system is safer in Pennsylvania. That being said, safety requires a culture of detail and an attitude of vigilance. We not only need to keep the infrastructure in top working order, but we need employees committed to safety.

The Chambersburg Gas Department is proud to be a winner of the 2016 APGA Safety Award. This is the third straight year Chambersburg has been presented this award.

This year, the Gas Department worked with the new Borough safety inspector and safety educator, to protect the Borough from potential liability, but also to ensure the culture of safety continues.

Finally, the Chambersburg Gas Department is proud to assist the Chambersburg Fire Department with the purchasing of CO detectors for customers' protection from this dangerous odorless gas that can be a byproduct of malfunctioning heating systems. We have been sponsoring this program for the past three years, and intend to continue these purchases indefinitely.



- APGA has over 700 members in 36 states and is the only not-for-profit trade organization that represents America's publicly owned natural gas local distribution companies (LDCs). APGA represents the interests of public gas before Congress, federal agencies and other energy-related stakeholders by developing regulatory and legislative policies that further the goals of our members. In addition, APGA organizes meetings, seminars, and workshops with a specific goal to improve the reliability, operational efficiency, and regulatory environment in which public gas systems operate. Through APGA membership, public gas systems are kept informed about new developments in technology, safety, public policy, operations, and the global markets that could affect the communities and consumers they serve. Our members are owned by, and accountable to, the citizens they serve. They include:
  - Municipal gas distribution systems
  - Public utility districts
  - County districts and other public agencies that have natural gas distribution facilities.
- APGA Membership includes: representation on Capitol Hill and the full APGA staff at our service for all Federal gas issues, networking opportunities with fellow public gas professionals, the opportunity to get involved at the highest levels of public gas, and educational opportunities to improve our operations.
- In May 2016, Council President Allen Coffman, Jon Mason and John Leary met with Rep. Shuster, and the staff for Sens. Toomey and Casey, to lobby for important national gas issues on behalf of Chambersburg and the APGA.
- Council President Allen Coffman actively serves on the APGA Public Gas Policy Council, providing an invaluable voice to gas issues at the national level
- Assistant Superintendent, Jon Mason, is a leader on the APGA Operations and Safety Committee and represents public gas at the national level on the prestigious Plastic Pipeline Data Collection Committee
- Superintendent, John Leary serves on the APGA Board of Directors and the Board of Directors for the APGA Research Foundation, and is active in the Regulatory, Legislative, Gas Supply and Nominating committees



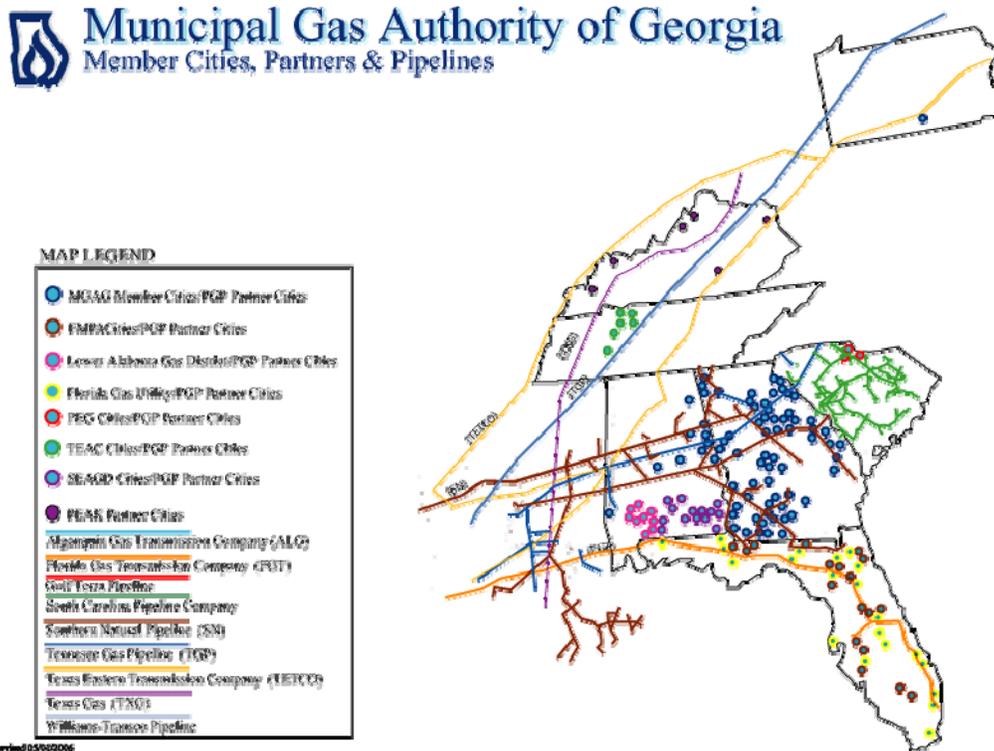
**American Public  
Gas Association**

*Membership with the Municipal Gas Authority of Georgia*

The Municipal Gas Authority of Georgia (the Gas Authority) is the largest non-profit natural gas joint action agency in the United States, serving 79 Members in Georgia, Alabama, Florida, Pennsylvania and Tennessee who meet the gas needs of approximately 245,000 customers.

MGAG meets our full natural gas supply requirements and provides scheduling services for gas delivery. They provide system rate design assistance, marketing assistance, and regulatory assistance.

We are officially the northernmost outpost of the great State of Georgia.

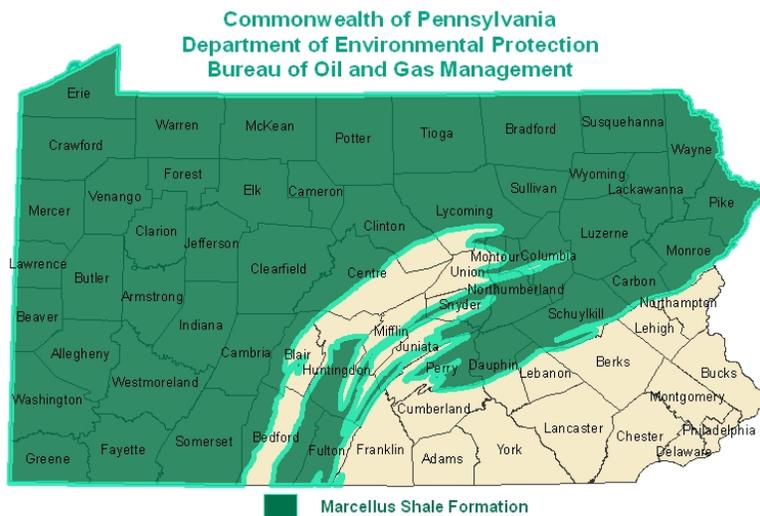
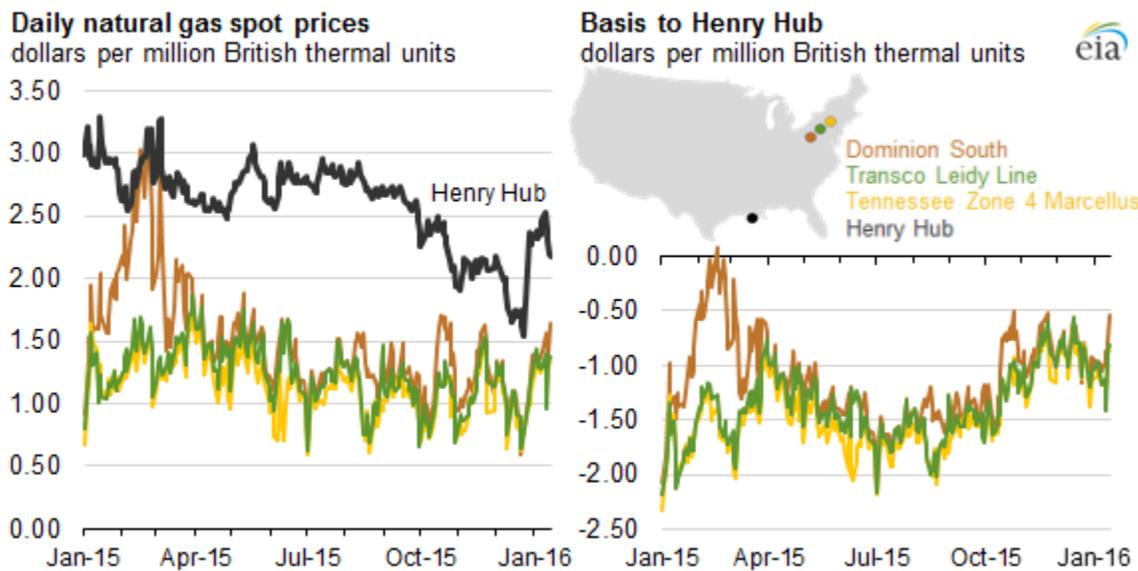


*Price of Wholesale Natural Gas*

Historically, wholesale prices in Pennsylvania were about \$0.50 per DTH higher than Nymex/Henry Hub in Louisiana. However, the increase in Marcellus production has caused wholesale prices in Pennsylvania to drop precipitously – over the past year the Pennsylvania price has been about \$1.00 lower than Henry Hub.

According to the Federal Energy Information Agency (EIA), “Marcellus prices remain low... natural gas spot prices in the Marcellus region, among the lowest in the country.”

Over the past six years, the Chambersburg Gas Department has been increasing the amount of gas purchased from Marcellus because of price availability. Beginning in 2014, we worked with MGAG to make Marcellus gas our main supply point, further helping reduce our customer’s gas costs; eliminating Henry Hub as our price point.



*Opportunities to Encourage Chambersburg Co-Generation and Combined Heat & Power (CHP)*

According to Katelyn Ferral of the Pittsburgh Tribune, the Pennsylvania Public Utility Commission met with industry experts about how “Pennsylvania can benefit from combined electricity and thermal energy technology, called cogeneration.” And Commission Chairman Robert Powelson said “While the energy industry and policy makers are focused on the Marcellus shale boom, cogeneration should be on its radar.

He added “The commission hopes to share ideas with the state Legislature, make internal changes and consider better financial incentives to encourage companies to invest in Pennsylvania projects.

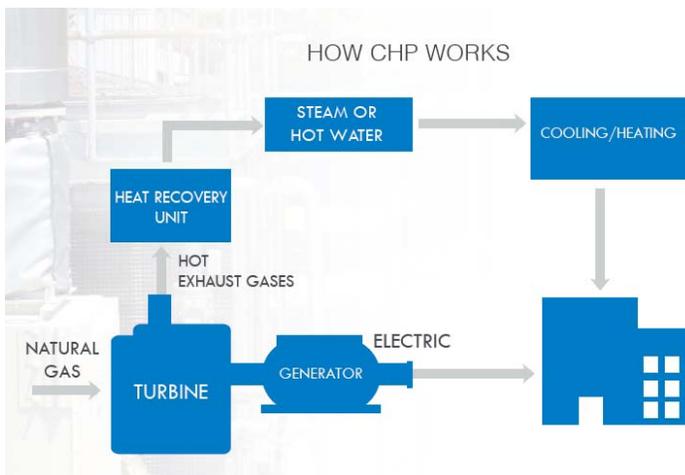
That would be on top of the 150 combined heat and power units operating statewide, according to the commission, including eight in Pittsburgh. Duquesne University has utilized the technology with its Combined Heat and Power Facility.”

New Jersey, Maryland, Connecticut and New York have developed tax credits and grants for businesses to invest in combined heat and power projects, which require large initial investments. Expensive infrastructure costs often are the biggest challenge for companies looking to utilize the technology, panelists said.

Pennsylvania has grants for such projects, but utility companies say the process should be more transparent, streamlined and stable. The federal government offers tax incentives, but those breaks, established through legislation, are set to expire in 2016.

The technology would help the state deliver gas from Marcellus shale to the market, by lowering connection costs and allowing gas trapped in pipes to be used in new ways, said Richard Sweetser, senior technical adviser for the federal Department of Energy. “We have a lot of trapped shale gas in certain parts of the commonwealth,” Sweetser said, because the supply has outpaced the infrastructure needed to take it to markets.

It would be in the best interest of the Borough to be proactive in developing CHP projects in Chambersburg to harness low natural gas costs and keep encourage economic development in our community.



The Philadelphia Gas Works (PGW) is cutting its annual carbon footprint in half and creating annual savings of around \$130,000 with microturbine technology. CHP systems use microturbines to combine both thermal and electric energy into one integrated system that radically increases energy efficiency (from about 49% to up to 80% energy output) - capturing lost heat and using it to create thermal energy with almost one-third less fuel.



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*Gas Department*

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The Chambersburg Gas Department will provide our customers with prompt, professional service; a reliable and safe system with reasonable and stable rates. We exist to generate benefits for the community we serve.

Department Head: John Leary

	2015 Actual	2016 Budget	2017 Budget
Revenue	\$7,760,633	\$8,502,200	\$7,580,100
Expenses	\$7,314,180	\$8,502,200	\$7,580,100
Excess (Deficit)	\$446,453 Surplus	- Balanced -	- Balanced -

The Chambersburg Gas Department has had a strong financial performance in 2016, and we anticipate continued good performance in 2017. The system's 2015 total gas sales were down 10% vs. 2014; mostly due to warmer weather than the previous year, as well as decreased use of the Borough Power Plants.

Chambersburg residents' gas prices were 54% lower than local private gas companies: lowest in Pennsylvania: an average residential bill of \$440 for the past twelve months vs. \$954 at average local private utility rates as approved by the Pennsylvania Public Utilities Commission.

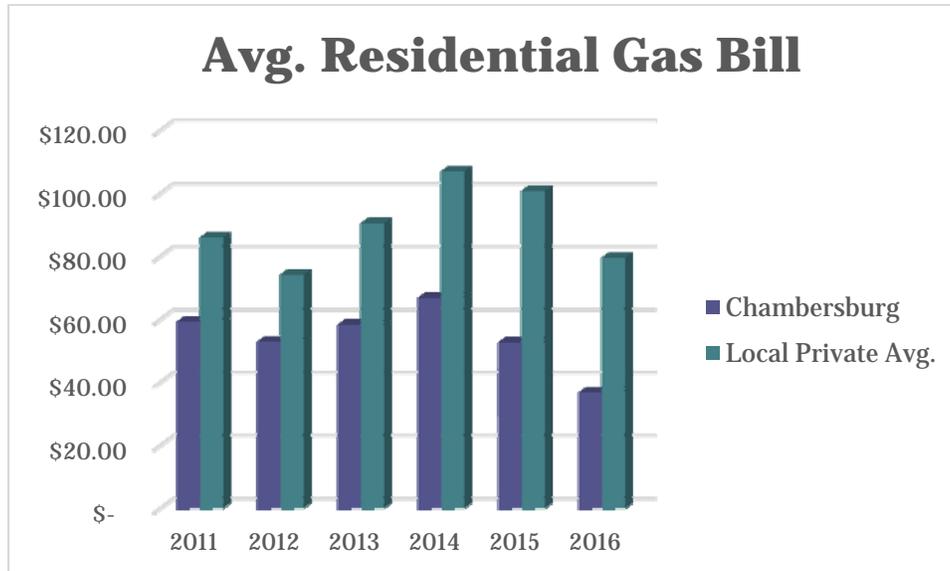
The Gas Supply cost is a direct pass through to customers of the cost for gas delivered to Chambersburg. The Gas Supply rate is \$0.96 per hundred cubic feet (CCF). To account for fluctuations in monthly gas costs, the Purchased Gas Adjustment (PGA) factor is added. The PGA is the same for all customer classes. The PGA is currently a credit, -\$0.65. The Gas Distribution Rate varies by customer class. Our largest class of customers, Residential Heat, pays a distribution rate of \$0.1664 per CCF. The Monthly Charge also varies by customer class. Residential Heat customers pay \$8.70 per month.



2017 Rates

Month	Avg Units CCF	Local Base Rate	Local PGA Adjustment	Local Customer Charge	Total Bill	Total Cost Per Unit
Oct-15	46	1.1264	-0.69669	\$8.70	\$28	\$0.61884
Nov-15	90	1.1264	-0.69291	\$8.70	\$48	\$0.53016
Dec-15	119	1.1264	-0.61009	\$8.70	\$70	\$0.58942
Jan-16	162	1.1264	-0.67187	\$8.70	\$82	\$0.50823
Feb-16	120	1.1264	-0.65082	\$8.70	\$66	\$0.54808
Mar-16	72	1.1264	-0.69992	\$8.70	\$39	\$0.54731
Apr-16	40	1.1264	-0.66622	\$8.70	\$27	\$0.67768
May-16	20	1.1264	-0.68697	\$8.70	\$17	\$0.87443
Jun-16	12	1.1264	-0.66141	\$8.70	\$14	\$1.18999
Jul-16	12	1.1264	-0.62876	\$8.70	\$15	\$1.22264
Aug-16	11	1.1264	-0.67889	\$8.70	\$14	\$1.23842
Sep-16	22	1.1264	-0.67587	\$8.70	\$19	\$0.84598

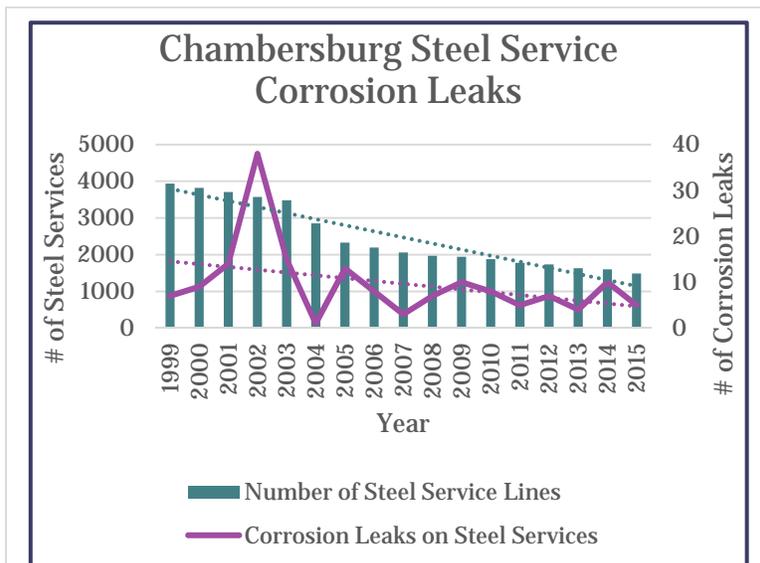
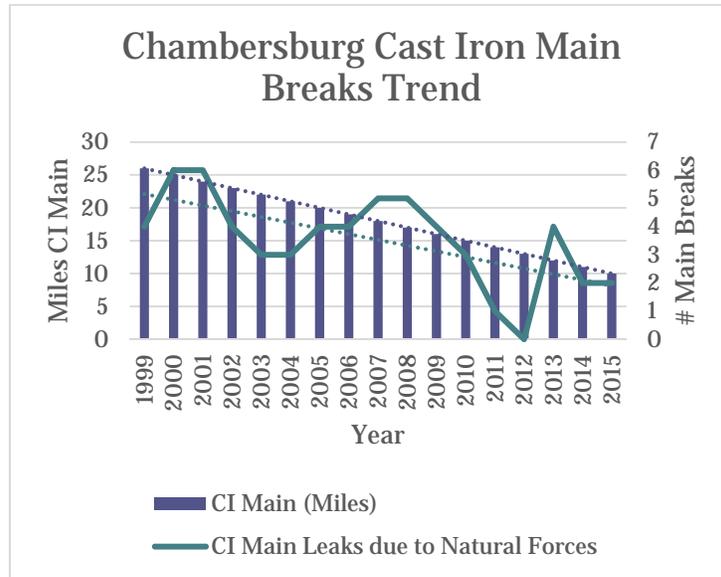
**This budget contains no increase in the retail rate for natural gas. The Borough’s retail rates have three components; Gas Supply, Gas Distribution and the Monthly Charge. Gas is sold in hundred cubic feet (ccf) units.**



Chambersburg is proud to boast some of the lowest retail natural gas rates available. This fact is a boom to the economic development in the community as well as a contributing factor to lower unemployment, higher salaries, and a lower cost of living.

Natural gas system safety is regulated by the Federal government. We continue to implement safety and operational changes including substantial replacement of older underground cast iron and steel piping with plastic. As seen by the following charts, this replacement has led to a significant reduction trend in gas leaks. In addition, regular and aggressive upgrades and preventive maintenance schedules have prevented any reportable gas safety incidents in Chambersburg for over 25 years.

In recognition of Chambersburg’s outstanding safety record, we were awarded the APGA Gas Safety Award for the third straight year.



The Gas Department is actively searching for additional ways to market natural gas. The cost of line extension is often prohibitive, so the Gas Department is only able to expand into a few new neighborhoods. One way we have expanded sales has been through a low cost loan program for Residential customers from our municipal consortium, the Municipal Gas Authority of Georgia. As a major non-Georgia member, Chambersburg has taken full advantage of this program to convert oil-based appliances to clean, safe and affordable natural gas.

We are proud to now begin a similar program to provide low cost loans to Commercial customers. This program is specifically tailored to small businesses, providing an affordable way to allow them to convert to more efficient and cleaner natural gas. Businesses are expected to see energy cost savings immediately, which will pay for the loan and additional cost savings. We believe supporting small businesses in Chambersburg helps create jobs and provides a strong backbone to the community.

So, 2017 will appear very similar in many respects to 2015 and 2016. We don't anticipate any significant changes and no rate increases.

**Major items for 2017:**

- Staff is recommending no gas retail rate change.
- The proposed budget includes \$1,364,000 in capital improvements to the Gas Department infrastructure; including the replacement of old gas mains and services and some expansion of gas service to new areas and customers.
- The proposed budget reserves approximately \$1,500,000 for future capital improvements to the distribution system.
- The proposed budget includes the same number of employees.

*2016/2017 Stanley Avenue (Stouffer Ave. to Brandon Drive) and Brandon Drive Gas Expansion Project*

It is anticipated that the work of the Gas Department to extend gas mains to this important neighborhood will continue in 2017. From time to time, the Borough works to gauge the interest in home owners to switch to natural gas. If sufficient quantities express interest, gas main extensions projects are scheduled. In new neighborhoods, developers cannot be required to extend gas mains, although we take the opportunity of every new proposal to encourage such expansion be included in new projects. Numerous residents of neighborhoods where the developer declined gas are now asking for gas, but it usually just isn't feasible at such a later timeframe. It is much more economical to provide gas to a neighborhood during initial construction than after the completion of roadways.

**2015 LARGEST BOROUGH GAS CUSTOMERS (IN \$ ORDER)**

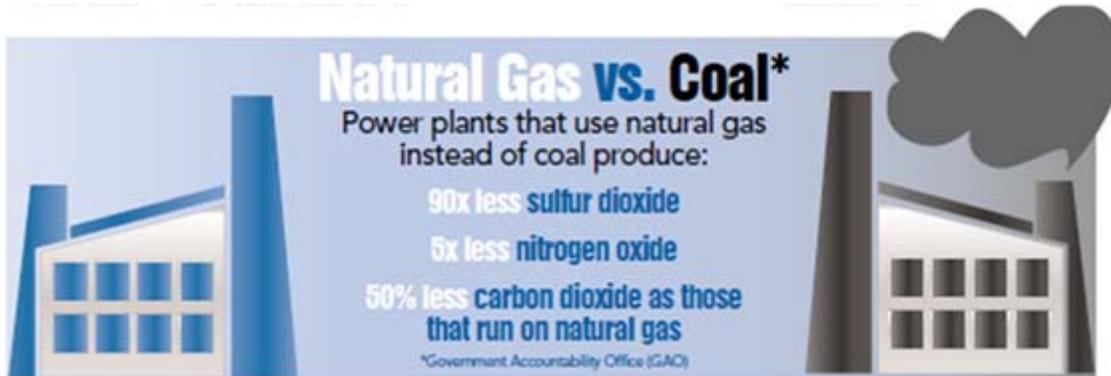
CUSTOMER NAME	TOTAL UNITS (CCF)	TOTAL AMT (\$)
CHAMBERSBURG HOSPITAL	1,085,246	\$ 569,641
T B WOODS INCORPORATED	737,012	\$ 303,508
KNOUSE FOODS CO-OP INC	783,156	\$ 286,608
VENTURA FOODS LLC	560,510	\$ 231,758
CHAMBERSBURG AREA SENIOR HIGH	434,554	\$ 219,894
WILSON COLLEGE	244,425	\$ 126,839
MENNO HAVEN, INCLUDING PENN HALL	225,163	\$ 104,221
STAPLES DISTRIBUTION CENTER	222,926	\$ 102,530
ORCHARD PARK GENERATING STATION	275,760	\$ 69,868
BWISE MANUFACTURING LLC	85,099	\$ 43,414
CATCH-UP LOGISTICS	76,957	\$ 39,568
SUNSET INDUSTRIAL APPLICATION	51,940	\$ 37,474
TST / IMPRESO INC	55,217	\$ 31,981
FRANKLIN STORAGE LP	52,786	\$ 30,818
CAMS - NORTH	46,527	\$ 26,787
GIANT FOOD WAYNE AVE	47,720	\$ 25,181
SHOOK HOME	46,153	\$ 25,178

*2017 Department Goals*

- Continue to have zero reportable gas safety incidents
- Zero lost time injuries to employees
- Replace a minimum of ¾ mile of CI gas mains
- Add 100 new gas customers
- Extend gas mains to new areas (Stanley Ave./Brandon Drive)
- Continue to make large financial contributions to Borough operations to help keep taxes and all utility rates low

*Environmental Benefits of Natural Gas*

Natural gas is safe, clean, reliable and affordable. It is also a domestic energy source, helping to power our economy and increase America's energy security.



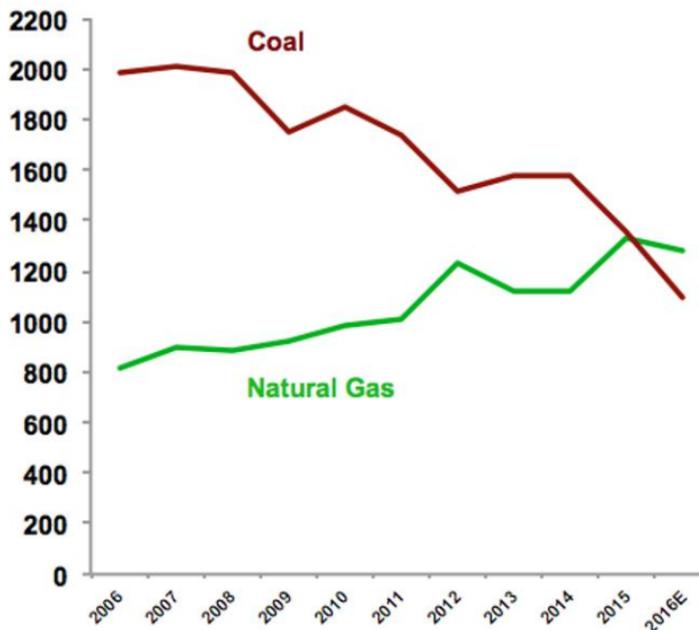
**Emission Levels**  
 - Pounds per Billion Btu of Energy Input

Pollutant	Natural Gas	Oil	Coal
Carbon Dioxide	117,000	164,000	208,000
Carbon Monoxide	40	33	208
Nitrogen Oxides	92	448	457
Sulfur Dioxide	1	1,122	2,591
Particulates	7	84	2,744
Mercury	0.000	0.007	0.016

Source: EIA – Natural Gas Issues and Trends 1998

**U.S. Gas Power vs. Coal Power**

**TWh of Electricity**



**Gas this year will supply 35% of U.S. electricity, compared to 30% for coal.**

**This is a dramatic reversal, considering that in the mid-2000s coal accounted for over 50% of U.S. electricity and gas was under 20%.**

*Payment In Lieu Of Gross Receipts Taxes (PILOT)*

As you know, the Borough Gas Department makes a tax-like contribution to the General Government operations of the Borough. If the Gas Department were an investor owned electric utility, licensed for operation in Pennsylvania, the Gas Department would pay “taxes” to the Commonwealth of Pennsylvania. In its current legal format, the Chambersburg Gas Department is not licensed by Pennsylvania, it is exempt from most Public Utility Commission rules, regulations, and tariffs, and is exempt from paying taxes.

Please find enclosed the proposed 2016 Chambersburg PILOT Tax Return form.

	2015 Actual	2016 Actual	2017 Budget
PILOT	\$410,000	\$415,000	\$514,000

**Borough of Chambersburg Finance Department  
Gas Gross Receipts Tax  
For Tax Year: 2017**

BOC Acct #	Source of Gross Receipts	Total Budgeted Gross Receipts	Total Taxable PA Receipts
	Utility Plant & Allowance		
	Revenues - Gas Refinery Plant Leased to Others		
30012/30018/30020/30021	Other Utility Operating Income	350,000	\$350,000
30015	Revenues - Merchandise & Jobbing	7,500	
	Revenues - Nonutility Operations		
	Nonoperating Rental Income		
30019/30024	Interest & Dividend Income	28,500	
30014/30016/30017/30027	Miscellaneous Nonoperating Income	607,000	
	Gain/Loss on Disposition of Property		
30011/30026	Residential/Commercial/Industrial Sales	6,571,600	6,571,600
30028	Other Sales to Public Authorities		0
	Sales to Railroads & Railways		0
	Sales for Resale		0
	Interdepartmental Sales		
	Other Sales, Nonmajor Only		0
	Provision for Rate Refunds		0
	Forfeited Discounts		0
30022	Miscellaneous Service Revenues	0	0
	Sales of Water and Water Power		0
	Rent from Gas Property		0
	Interdepartmental Rents		
30013	Other Gas Revenues	15,000	
	Revenues from Transmission of Electricity of Others		0
	Regional Distribution Service Revenues		0
30025	Miscellaneous Revenues	500	500
	All Other Sources		0
<b>Totals of each column</b>		<b>\$7,580,100</b>	<b>\$6,922,100</b>
<b>Tax at the rate of 59 mills Gross Receipts Tax</b>			<b>\$408,404</b>
<b>Town Council Adopted Multiplier</b>			<b>125.8558%</b>
<b>Payment in Lieu of Gross Receipts Tax</b>			<b>\$514,000</b>