
Utility Usage

(2015 - 2020)

July 28, 2020



Contents

1. Executive Summary
2. Introduction & Background
3. Water / Sewage
4. Natural Gas
5. Electricity (Facilities)
6. Electricity (Streetlighting)
7. Conclusion

Executive Summary

As part of the Sustainable Brookhaven strategy and approved commitments for 2020, the City of Brookhaven reviewed its utility usage over the last five years to identify benchmarks and create realistic goals to reduce water and energy usage in government facilities.

Four areas reviewed include water and sewage, natural gas, electricity for facilities, and electricity for streetlighting. Total expenditures have averaged \$670,000 per year, with streetlight electricity accounting for approximately 63% (\$438,114) of total utility costs.

Opportunities to improve efficiency include adding more water sensors in park irrigation systems, switching to LED streetlighting, and encouraging staff to reduce electricity usage at facilities.

2020 Budget: Sustainable Brookhaven Initiative

ESTABLISH BASELINE FOR ENERGY AND WATER USAGE IN GOVERNMENT FACILITIES

- In order for Brookhaven to move the needle on its environmental impact, it must first conduct water and energy audits to identify its current usage.
- Once audits have been completed, government facilities can implement recommendations for more efficient usage.
- In 2020, the City will apply sustainability standard indexes to measure its performance and set goals for increasing its energy and water efficiency.

Utilities

WATER / SEWAGE

Includes water and sewer at City facilities, also park irrigation



NATURAL GAS

Used to heat facilities



ELECTRICITY





Distinction between what is used to power facilities and what is used for streetlighting



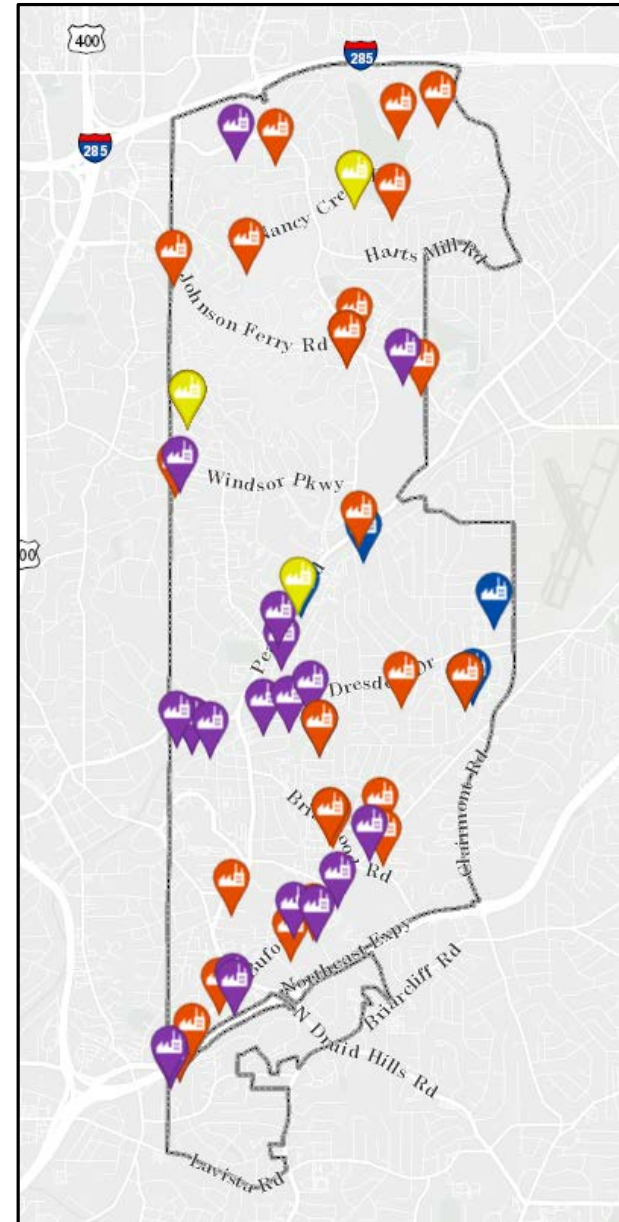
- Two different funding sources

Meter Locations

[Link to map](#)

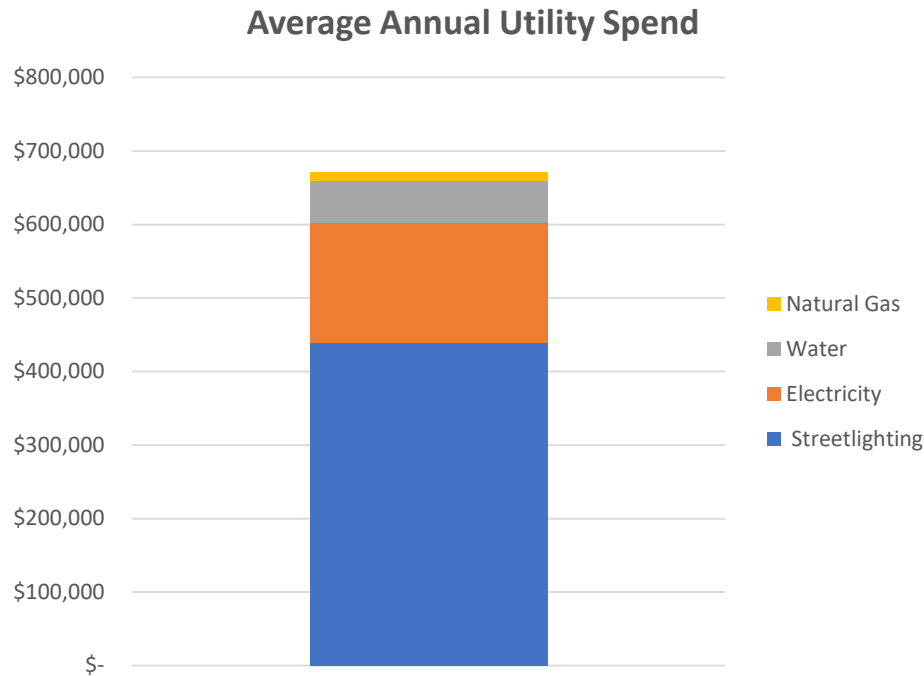
-  Electricity
-  Natural Gas
-  Water / Sewage
-  Street Lighting

Currently no utility meters represented in LaVista Park



Utility Expense: Total

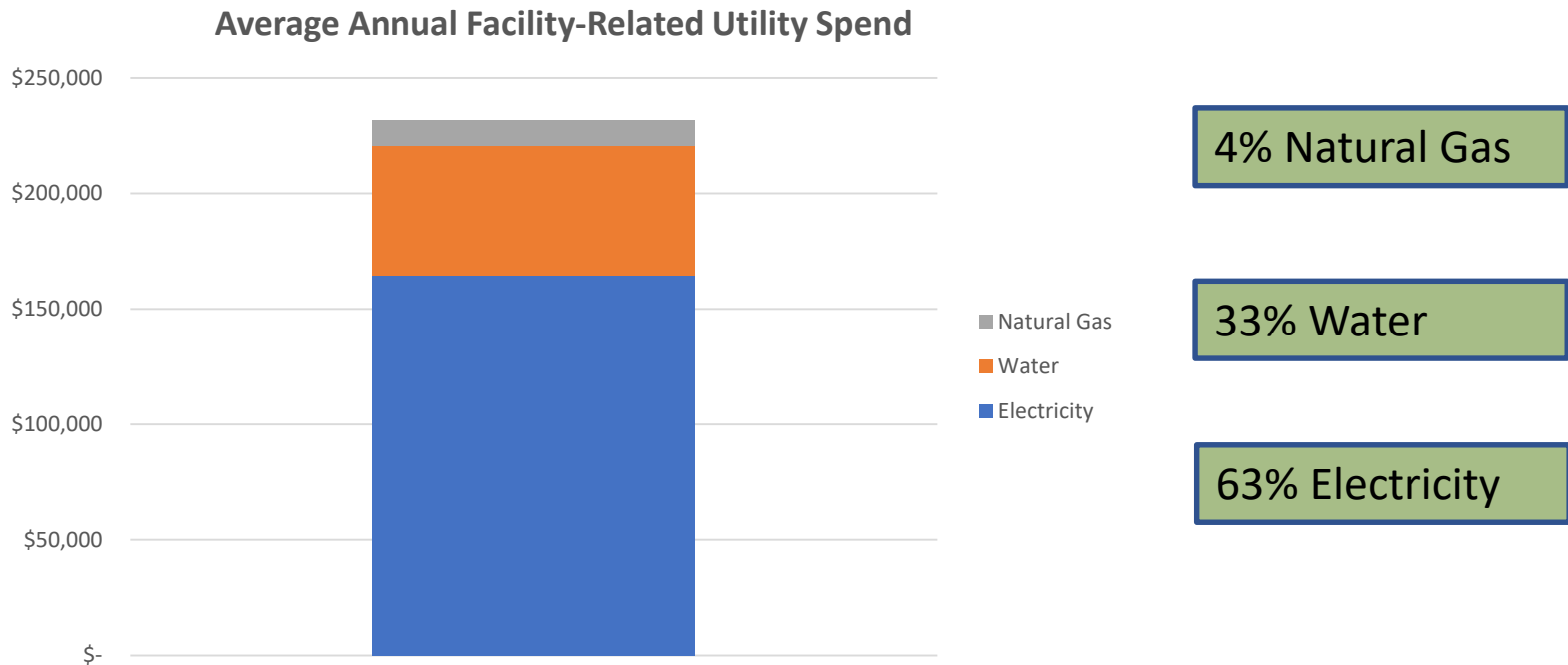
On average, the City spends approximately **\$670,000** on water, natural gas, and electricity for facilities and streetlighting.



63% of utility cost is streetlighting

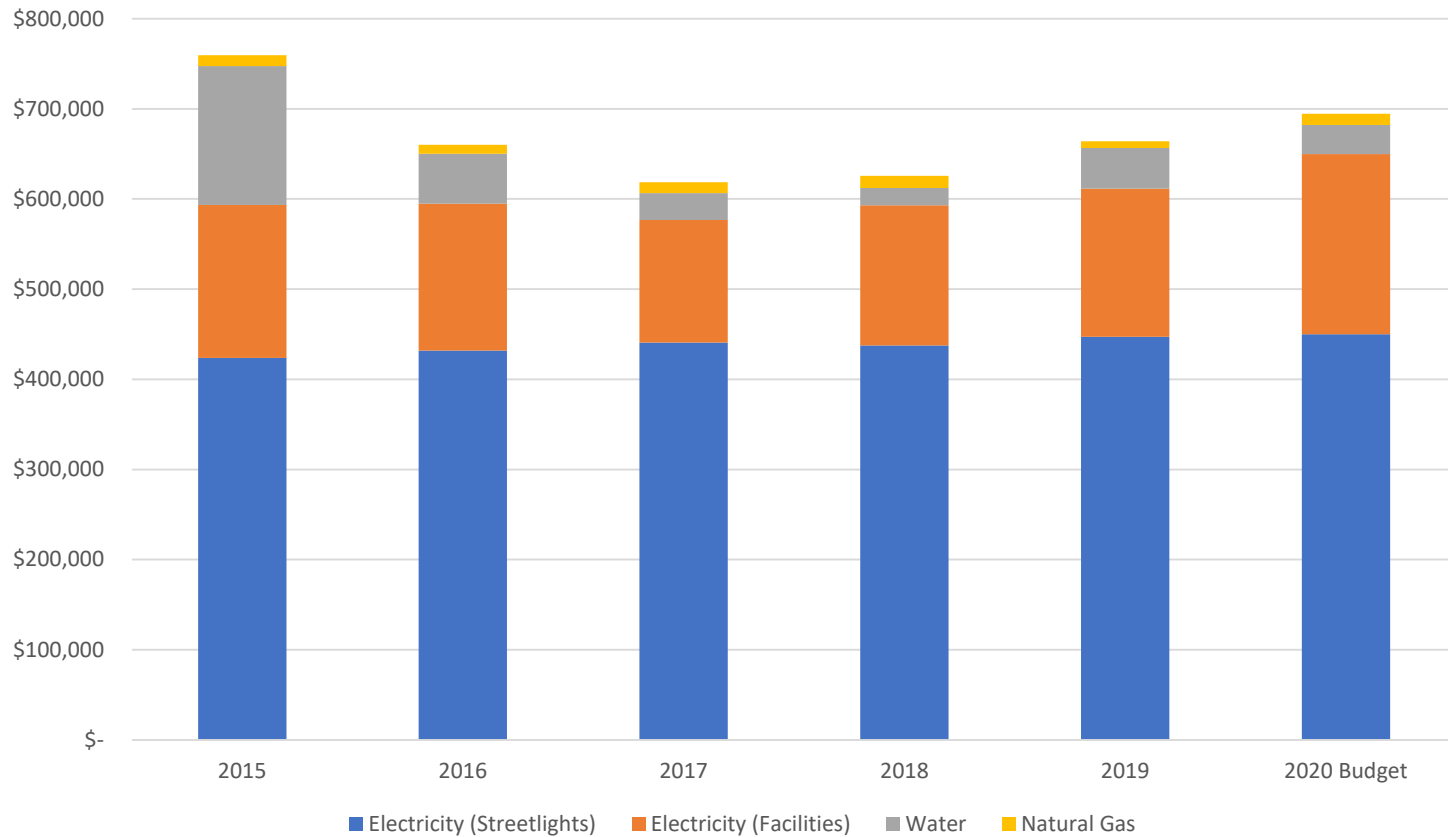
Utility Expense: Facilities

Average: **\$231,886** annually on utilities for facility operations



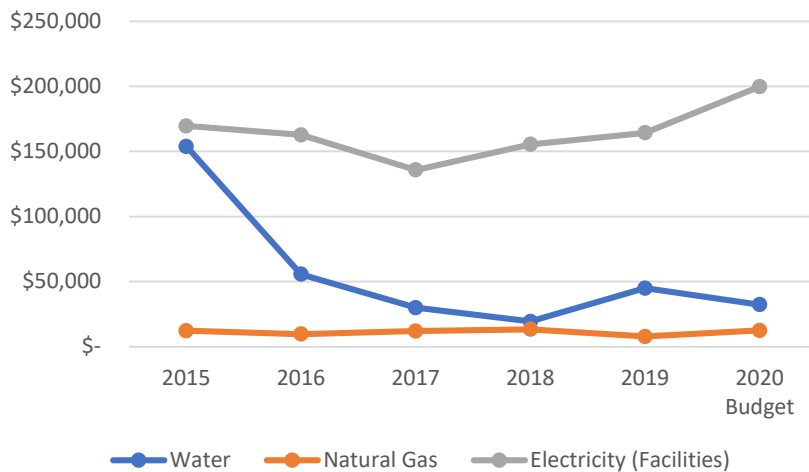
Utility Expense: Total

Total Yearly Utility Expenditures

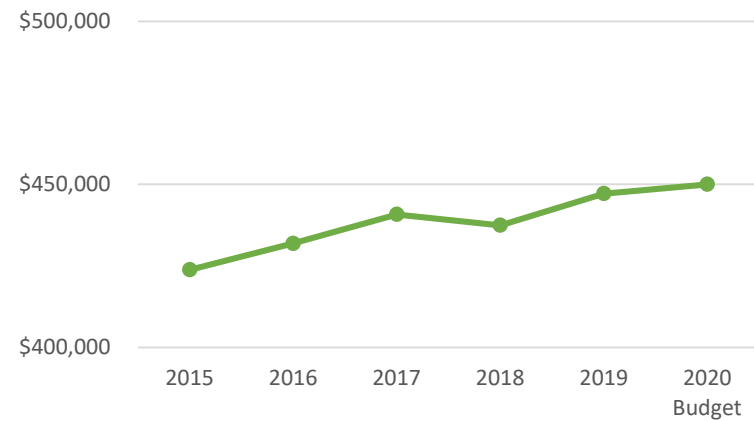


Utility Expense: Total

Utilities Expenditures for Facilities

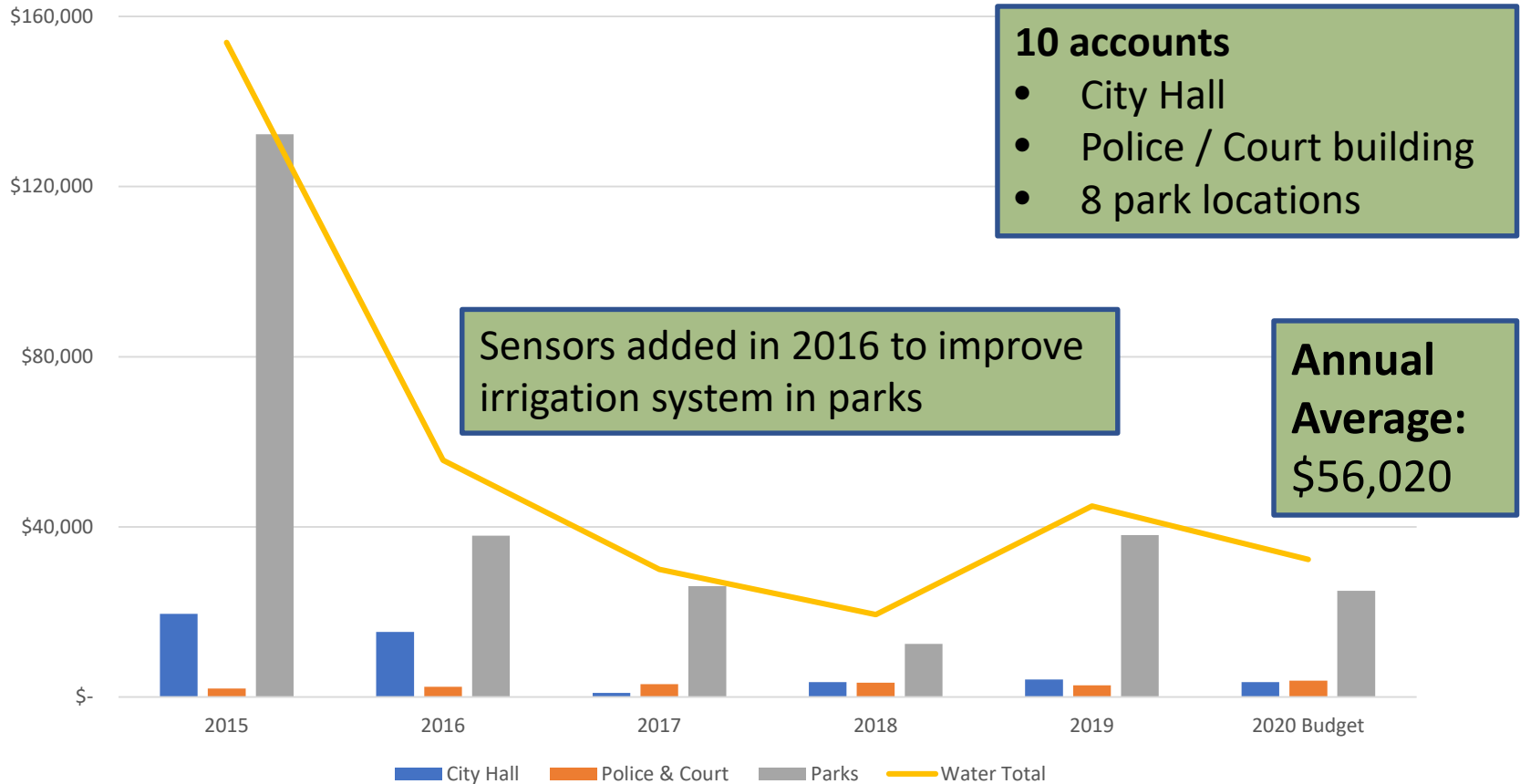


Streetlight Electricity Expenditures



Water / Sewage

Yearly Water / Sewage Expenditures



Water / Sewage

- **NOT INCLUDED:**

Murphey Candler Park
Briarwood Park
Brookhaven Park



These accounts
need to be
transferred to City
of Brookhaven.

- Figure uses adjusted numbers to account for solid waste removal (trash collection, dumpster roll-offs) expenses that were paid for from Water / Sewage budget line item until 2019.

Water / Sewage: 2020

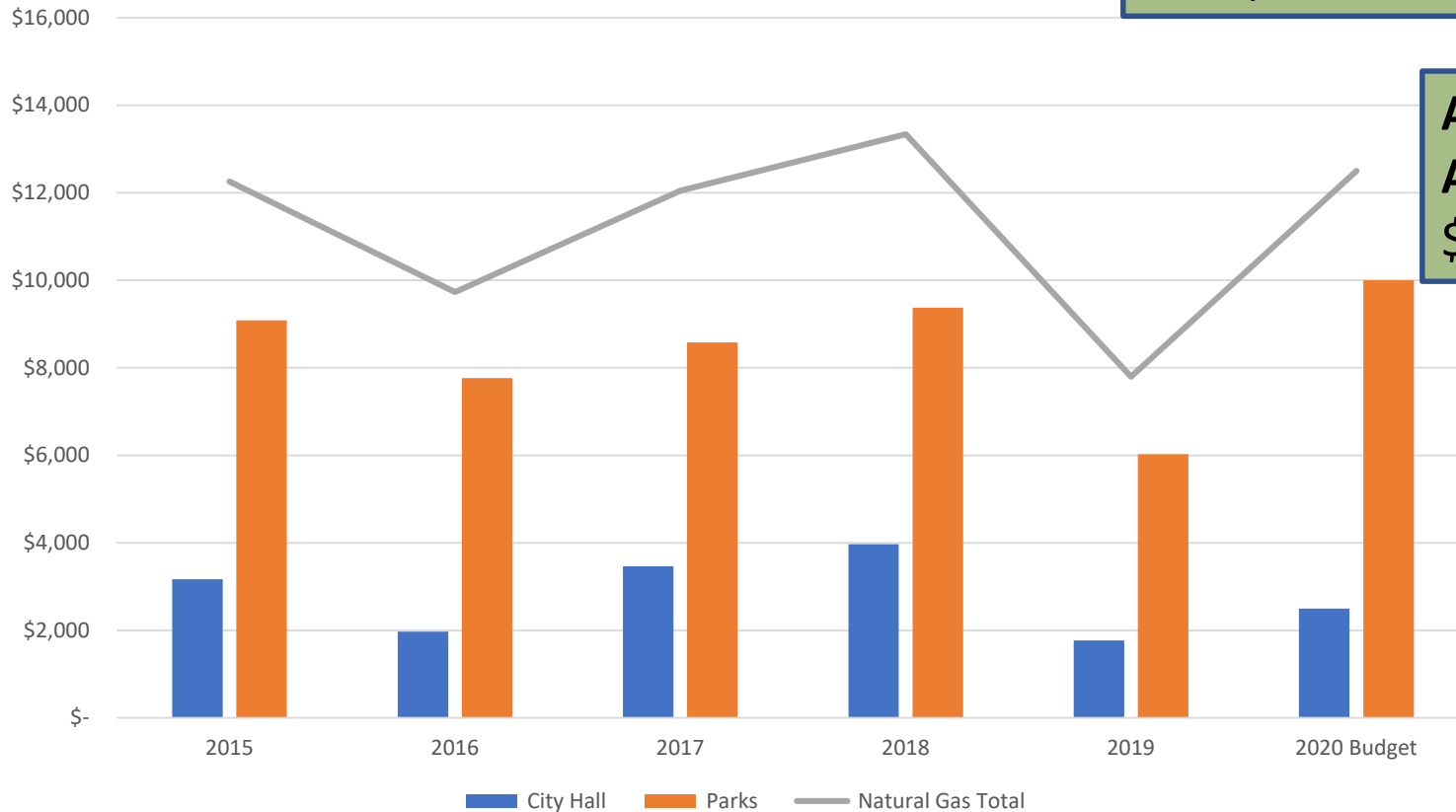
	Total Budget	Q1 & Q2 Expenditures	Percent of Total Budget
City Hall	\$3,500.00	\$767.33	22%
Police & Court	\$3,840.00	\$4,413.92	115%
Parks	\$25,000.00	\$7,367.74	29%
TOTAL	\$32,340.00	\$12,548.99	39%

Natural Gas

Yearly Natural Gas Expenditures

4 accounts

- City Hall
- 3 park locations



**Annual
Average:
\$11,278**

Natural Gas

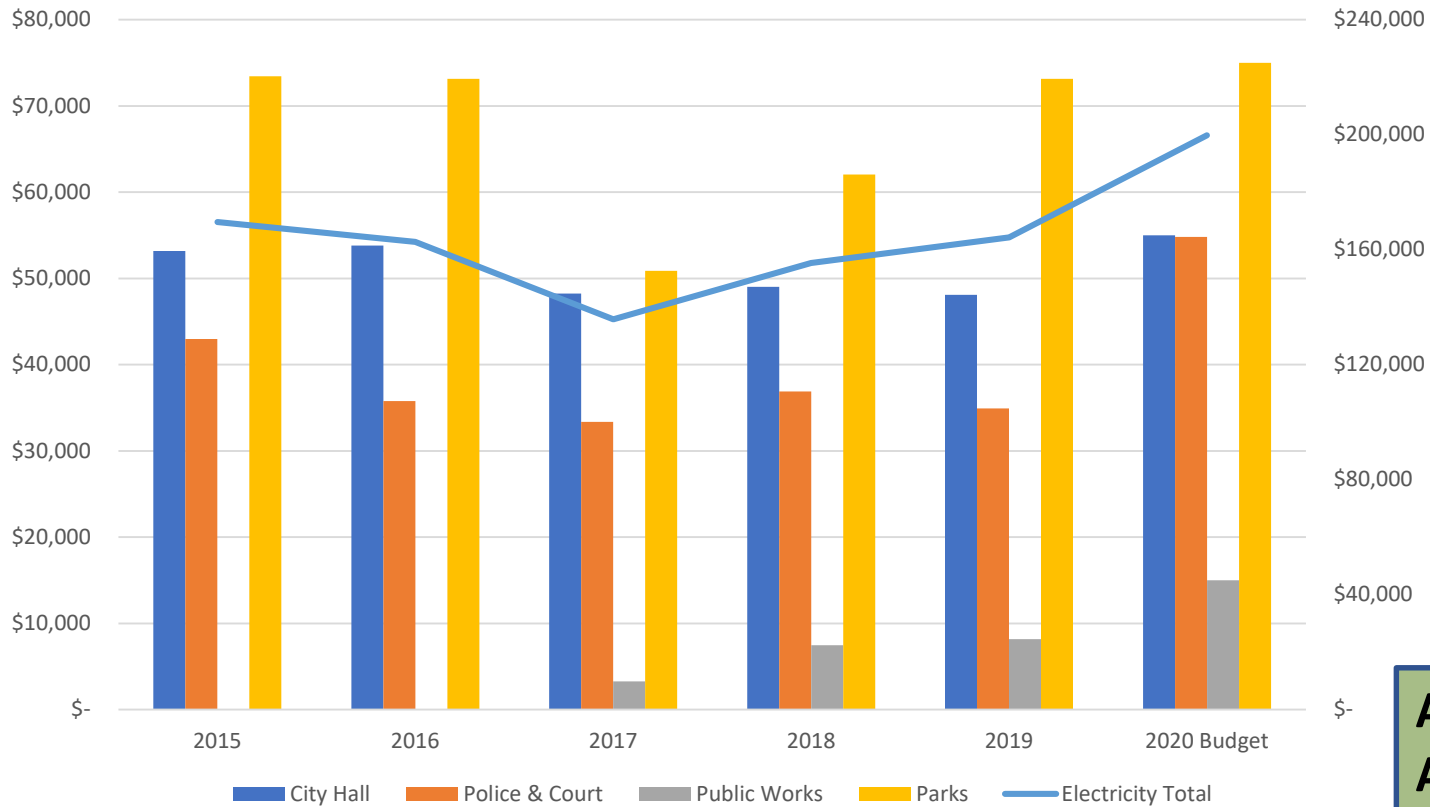
- Provider changed from Gas South to Scana in 2018.
- Brookhaven joined Georgia Municipal Association (GMA) natural gas program when it became a city, signing the contract on December 13, 2013.
 - It is a common practice to participate in a pool to provide the best value contract.
 - Business is bid periodically between all marketers in the State of Georgia.
 - GMA representatives evaluate the program and extend up to four one-year terms.

Natural Gas: 2020

	Total Budget	Q1 & Q2 Expenditures	Percent of Total Budget
City Hall	\$2,500.00	\$950.86	38%
Parks	\$10,000.00	\$3,319.46	33%
TOTAL	\$12,500.00	\$4,270.32	34%

Electricity: Facilities

Yearly Electricity Expenditures for Facilities



**Annual
Average:
\$164,588**

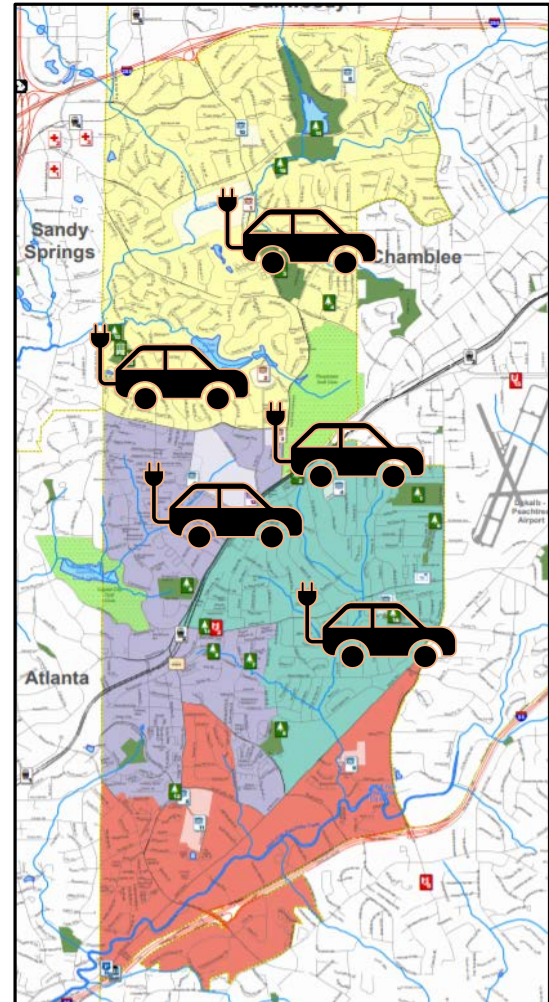
Electricity: Facilities

- Presently defined as **38 accounts**
 - Sometimes have temporary accounts (for example, construction or events in the parks)
 - **Includes** accounts charged to the General Fund
 - **Excludes** accounts charged to the Streetlighting Fund
- Includes **13 electric vehicle (EV) charging ports** in park and City Hall locations (*See next slide for details*)
- City Hall has undergone **LED** light transitioning
- Blackburn Park tennis courts will transition to **LED** in 2020
- New Public Safety Building designed with a **geothermal** energy system (opening in 2020)

Electricity (Charging Stations): 2020

- **7** stations at **5** locations
- **13** vehicles can charge simultaneously
- **3,000+** sessions since June 2019
 - Free for public use
- **2.15** MWh monthly average of electricity dispensed
 - Avoided **11,860** kg greenhouse gas emissions
 - Like planting **304** trees
- Approx. cost to City: **\$268/month***

*Cost calculated based on \$0.12 per kWh

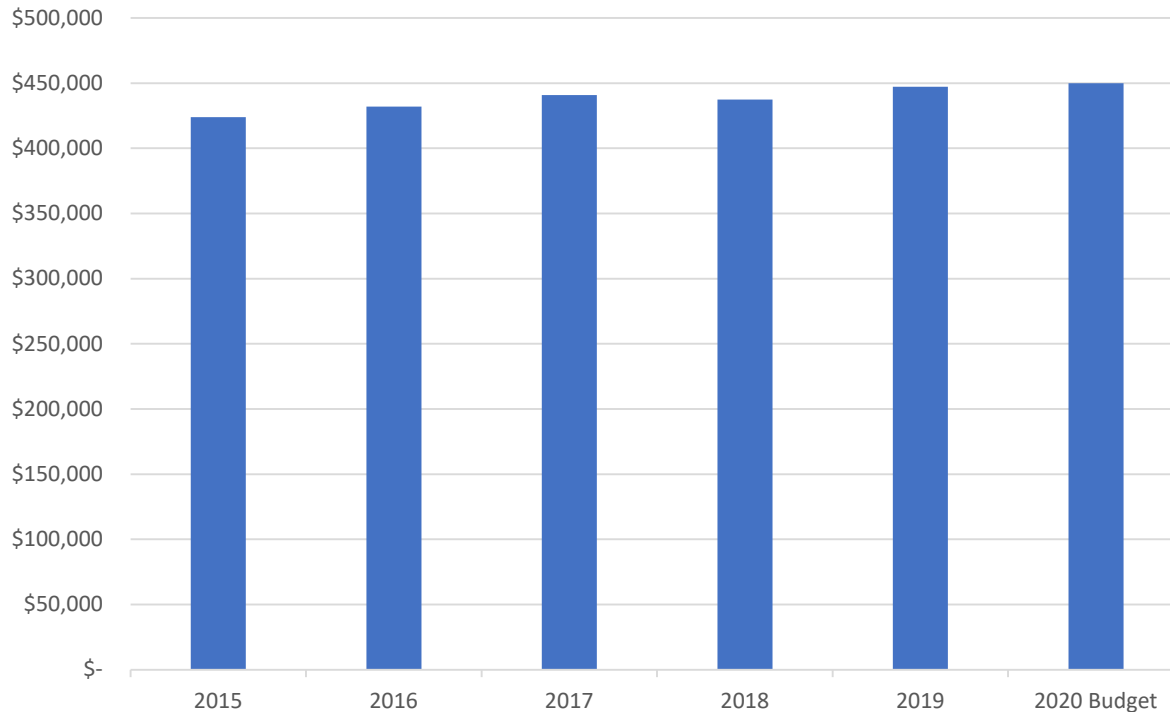


Electricity (Facilities): 2020

	Total Budget	Q1 & Q2 Expenditures	Percent of Total Budget
City Hall	\$55,000.00	\$25,049.48	46%
Police	\$54,800.00	\$16,232.71	30%
Public Works	\$15,000.00	\$3,692.66	25%
Parks	\$75,000.00	\$42,691.64	57%
TOTAL	\$199,800.00	\$87,666.49	44%

Electricity: Streetlighting

Yearly Electricity Expenditures for Streetlighting



**Annual
Average:
\$438,541**

- Includes 21 accounts charged to Streetlighting Fund

Streetlighting Restricted Fund

- Established to facilitate the installation, maintenance and operation of streetlights within the public right-of-way.
- The revenues of the fund are collected from the annual Streetlight Special Assessment Fee which is billed and collected through the property tax bill.
- The streetlight fee is assessed based on a unit rate per right-of-way frontage foot.
- The streets in the City with streetlights are divided into 145 streetlight districts with each district having its own rate based on the cost of the streetlights and the length of the streets within the district.

Streetlighting Restricted Fund

- The rates range from \$0.40 per frontage foot to \$2.12 per frontage foot.
- The assessment and the fund is managed by the Public Works Department.
- The installation and maintenance of the streetlights is performed by the Georgia Power Company, which owns the lights, and is billed to the City, along with the cost of power, on a monthly basis as part of an established lease fee for each light.
- [Link to budget document](#) → 3rd page
- 2015 Streetlighting expenditures represented here came from the Public Works operating budget.

Electricity (Streetlighting): 2020

	Total Budget	Q1 & Q2 Expenditures	Percent of Total Budget
Streetlighting Fund	\$450,000.00	\$196,320.02	44%

Conclusion

- The City's annual utility usage and expenditures will increase as it continues to grow.
- Since incorporation, the City continues to discover accounts to be transferred from DeKalb County.
 - This will require some budget reallocation.
- Electricity expenses will drop as energy-efficient changes are implemented, such as LED lighting on streetlights and around facilities. (Note: as the City fleet transitions to electric vehicles, electricity expenses will increase.)
- We will continue to look for efficiencies across all utility categories.

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