REPORT | April 2020

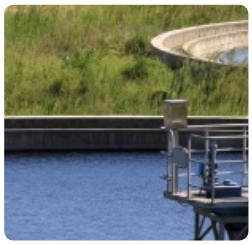
LAFAYETTE UTILITIES SYSTEM

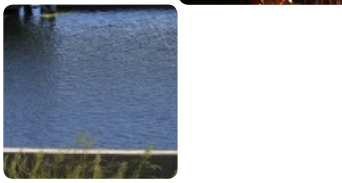
Lafayette
CONSOLIDATED GOVERNMENT

CONSULTING ENGINEER'S COMPREHENSIVE ANNUAL REPORT

Lafayette Utilities System

Lafayette, Louisiana





PREPARED BY:

NewGen Strategies & Solutions

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NewGen Strategies & Solutions

NewGen Strategies & Solutions, LLC, (NewGen) role as Consulting Engineer, has prepared the attached comprehensive annual report on the Utilities and Communications Systems for fiscal year 2019. Copies of the report shall be placed on file with the Chief Operating Officer by LCG and shall be open to inspection by any Owners of any of the Utility or Communications System Bonds. NewGen was supported by subcontractors and specific subject matter experts in the preparation of and analysis included in the report.
Our partners in this effort included:

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EXECUTIVE SUMMARY

Introduction

Governance

Since 1996, the Lafayette City-Parish Consolidated Government (Lafayette Consolidated Government or LCG) governed the City of Lafayette, Louisiana (City or Lafayette) and the Lafayette Parish (the Parish), collectively the City-Parish. LCG includes a Mayor-President and nine City-Parish Council members (the City-Parish Council), elected by the Parish to four-year terms of office. The creation of LCG was enabled by the 1992 electorate and is defined in the Home Rule Charter (Charter). The information included in this report is primarily related to Fiscal Year (FY) 2019 during which the LCG governance structure was in place. However, in January 2020, a new Home Rule Charter went into effect modifying the governance of the City and Parish. Additional information on the governance structure currently in place for the City and Parish is included below.

The City owns the Lafayette Utilities System (LUS or Utilities System), which includes the Electric System, the Water System, and the Wastewater System. Upon consolidation of the City and Parish governing authorities into LCG, it was specifically recognized that the Charter should accommodate for the governing of the Utilities System, which is a City utility system. As a result, the Charter created the Lafayette Public Utilities Authority (LPUA) as the governing authority of LUS. The Charter further provides that City-Parish Council members whose districts include 60% or more of citizens residing within City boundaries also serve as LPUA members. LPUA was the governing body of the Utilities and Communications Systems during FY 2019 and the data included in this report.

The City owns the Communications System, often branded as LUS Fiber. Prior to October 31, 2018, the Utilities Director also managed the Communications System. In September 2018, with the adoption of the 2019 Budget, the City-Parish Council approved the creation of a Communications System Director to be appointed by the Mayor-President.

As of November 1, 2018, Teles Fremin, the prior Chief Communications Engineer, served as the Interim Communications System Director. On October 14, 2019, the Mayor-President appointed the Communications Support Services Administrator, Kayla Miles, to the Interim Communications System Director.

As of November 1, 2018, Jeff Stewart, the prior Engineering and Power Production Division Manager, served as the Interim Utilities Director. On October 14, 2019, the Mayor-President appointed the LCG Chief Administrative Officer, Lowell Duhon, to LUS Interim Director.

Prior to November 1, 2018, LPUA was also the governing authority of the Communications System. As of November 1, 2018, LCG is the governing authority of the Communications System.

The City-Parish Council is also the governing authority of the Lafayette Public Power Authority (LPPA). LPPA is a political subdivision of the State of Louisiana and was created in 1976 to finance electric generating facilities in order to provide power to the City's Electric

System. LPPA provides the output of these generating facilities via a "take or pay" wholesale power agreement with the Utilities System.

In December 2018, the citizens of Lafayette voted to amend the Charter to replace the City-Parish Council with two separate five-person councils: The City Council and the Parish Council. The changes were implemented on January 6, 2020. With the implementation of the new Home Rule Charter, the City Council replaces the LPUA and LCG as the governing authority for the Utilities System, the Communications System, and LPPA.

Bond Ordinances Requirements

As of October 31, 2019, the City issued and is servicing debt related to Utilities System Utilities Revenue Bonds (Series 2010, 2012, 2017 and 2019), Communications System Communications Revenue Bonds (Series 2012 and 2015), and LPPA Bonds (Series 2012 and 2015). The Series 2019 Bonds first debt service was due November 1, 2019 (FY 2020). The Series 2010 Bonds will be fully redeemed by the proceeds of the Series 2017 Bonds on November 1, 2020.

As required in the Utilities System General Bond Ordinance and the Communications System General Bond Ordinance (collectively the Bond Ordinances), a Consulting Engineer shall provide engineering counsel to LCG in connection with the operations of the Utilities System and Communications System, advise on rate revisions, and prepare an annual comprehensive report (e.g. the Consulting Engineer's Comprehensive Annual Report or Report). The Report shall address a number of covenants and continuing disclosures included in the Bond Ordinances such as the condition and operations of the systems, general accounting, and financial compliance, as well as overall financial and operational performance of the Utilities System and Communications System.

This Report was prepared by NewGen Strategies and Solutions, LLC (NewGen) and covers the FY 2019 (November 1, 2018 to October 31, 2019). The contents of this Report are intended to provide engineering and management information to bond holders, LUS, LUS Fiber, LCG, and interested parties. It is our understanding that LCG places copies of this Report on file with the Chief Operating Officer, Bond Fund Trustee, LUS, LUS Fiber, and others. Appendices A, B, C, and D include a comprehensive list and summary of the continuing disclosures and updated financial and operational performance for the Utilities System, Communications System, and LPPA, as required in the Bond Ordinances.

In preparation of this Report, NewGen relied on information provided by LCG, LUS, LUS Fiber, LPPA, and Cleco Corporate Holdings, LLC (Cleco). NewGen supplemented this information with physical observations of LUS and LUS Fiber's properties and facilities, in addition to interviews with LUS and LUS Fiber management and staff, LCG personnel, and Cleco personnel. NewGen's field investigations were conducted in early March 2020. NewGen's analyses, conclusions, and opinions relied on independent review of information provided to us by others in the form of audits, reports, budgets, projections, and interviews as disclosed in this Report. NewGen has not independently verified the accuracy of information provided and assumed that information provided is accurate and representative of the financial and operating condition of the Utilities System and Communications System. These investigations and interviews were combined with financial and performance metrics to provide the basis for our findings and conclusions.

Utilities System Overall Performance

LUS served 68,495 electric customers, 58,316 water customers, and 45,623 wastewater customers in 2019. Customer growth on the Utilities System is stable, with observed customer growth averaging 1.2% per year since 2015.

LUS generated a total of $233 million of revenues in 2019, with the majority of the revenue ($180 million) from the electric services. 2019 revenues were approximately 0.7% lower than 2018, with the electric revenues 0.5% lower. The water and wastewater revenues decreased by 1.7% and 1.1%, respectively, from the previous year. The decrease in revenues was primarily driven by decreased sales. The debt service coverage ratio (DSCR) for the Utilities System remains strong at 3.5 for the combined Electric, Water, and Wastewater Systems. The Utilities System consistently exceeds the minimum coverage requirement of 1.0 required by the Bond Ordinances.

The Utilities System 2019 revenues and expenses were both lower than originally projected in the 2019 Budget. The Utilities System collected $233 million in operating and miscellaneous revenues compared to the budgeted $254 million. The difference is attributable to lower water sales, lower wastewater collection, lower energy sales, and lower purchased power costs. Operations and Maintenance (O&M) expenses were lower than budgeted primarily due to lower personnel salaries. Other Income & Expenses were lower than the budgeted amount due to lower spending on normal capital and special equipment. Overall, the cash available for capital was higher than the budgeted amount.

Rates for the Electric, Water, and Wastewater Systems remain competitive for residential and commercial customers. In fact, LUS' residential electric rates are lower than average for the region and residential and commercial water rates are among the lowest in the state.

Communications System Overall Performance

The Communications System served over 20,000 customers in 2019. Communications System customer growth continues at a compound annual rate of 5.6% since 2015.

The Communications System revenues increased to $41 million in 2019, up 6.7% from 2018. The DSCR for the Communications System improved to 2.1. The minimum DSCR requirement for the Communications System is 1.0.

The Communications System's revenue performance was aligned with the 2019 Budget. The Communications System collected $41 million in operating and miscellaneous revenues in 2019, as compared to the budgeted $42 million. Operating expenses were under budget at $21.4 million, as compared to the budgeted $22.7 million. Other Income & Expenses were close to the budgeted amount. Overall, the cash available for capital was slightly above the budgeted amount. The Communications System's actual financial performance was close to budget and it exceeded DSCR requirements and continued to increase its net revenues.

The Communications System offers Internet service packages that are of significantly higher quality (e.g., higher speeds) at lower prices when compared to local competitors. The Communications System has a competitive advantage in Internet services within the City; however, another telecommunications service provider is installing fiber in and around the City with plans to compete with LUS Fiber. Although the provider is deploying a fiber network,

they are not aggressively marketing services and the customer service provided is not comparable to LUS Fiber.

Status of Interim Directors at the Utilities and Communications Systems

Although the Utilities and Communications Systems have performed satisfactorily over this period as shown by their strong financial indicators such as competitive rates, debt service coverage ratios, capital investments and customer growth, there are a number of challenges facing the Utilities and Communications Systems. If these challenges are not addressed in a timely manner with the appropriate management team, expertise and experience, it may present a risk to the continued financial strength and the long-term efficient and effective operations at these enterprises. These challenges include:

- Extended period of time without the leadership, direction and direct utility experience of a permanent Director for the Utilities and Communications Systems. As of the date of this Report, Utilities and Communications Systems are approaching two years with interim directors following the retirement of Terry Huval in July of 2018.
- Recent events have placed multiple senior managers at Utilities and Communications Systems on administrative leave, resulting in an immediate reduction of institutional knowledge critical to the effective operation of the Utility systems.
- The Communications System operates in a highly competitive business environment for customers and staff. Per the bond covenants, if the Communications System is unable to meet debt service payments, the Utilities System is obligated to make those payments to the bond holders. The current Communications System debt service obligation is $9.5 Million. In addition, the Communications System pays LUS approximately $2 Million per year to repay various loans for startup and asset related costs. If this $11.5 Million total cost per year currently covered by the Communications System is eliminated, it equates to more than a 5% rate increase to all LUS customers (e.g., Water, Wastewater, Electric and Water Wholesale Systems). Thus, further ensuring the continued performance, customer growth, expansions, and profitable operation of the Communication System is critical to the financial health of the combined Utilities and Communications Systems and related financial contributions to the City and LCG.
- Current and upcoming strategic capital and operating decisions required to ensure the Utilities and Communication Systems' long-term operational and financial performance. Upcoming capital decisions are expected to exceed $200 to $300 Million related to the Electric System's power supply strategy given the results of the ongoing Integrated Resource Plan (IRP). In addition, there are likely increased Wastewater System capital and operational investments required to address environmental compliance requirements for the 2018 U.S. EPA administrative order and subsequent Capacity, Management, Operations, and Maintenance (CMOM) program.
- Eminent retirement of the current Water and Wastewater System manager requiring important succession planning and recruiting activities.

- Implications to operations and performance related to the discussions of possible small to larger scale consolidation or reorganization of staff at the Utilities and Communications Systems with LCG staff.

As a result, NewGen recommends the Mayor-President and Administration begin a formal selection process to fill the vacant permanent Director positions at the Utilities and Communications Systems. While historical financial performance has remained strong and adequate to meet outstanding debt requirements, NewGen is concerned that without highly qualified, permanent Directors with pertinent experience specific to their respective utility systems, it will erode the operational effectiveness, strong financial performance, high reliability, and competitive retail rates seen with the Utilities and Communications Systems. This concern is heightened given the recent attrition of experienced senior employees, critical to the ongoing and successful operations of the Utilities and Communications Systems.

General Findings and Recommendations

Based upon our information and assumptions relied upon, as included in this Report, our general findings and recommendations for the Utilities System and Communications System include:

- In September 2018, with the adoption of the 2019 Budget, the City-Parish Council approved the separation of Directors for the Utilities System and the creation of a Communications System Director to be appointed by the Mayor-President.
- On October 14, 2019, the Mayor-President appointed the LCG Chief Administrative Officer, Lowell Duhon, as the Interim Utilities Director. Prior to October 14, 2019, Jeff Stewart, the Engineering and Power Production Division Manager, served as the Interim Utilities Director.
- On October 14, 2019, the Mayor-President appointed the LUS Fiber Support Services Administrator, Kayla Miles, to the Interim Communications System Director. Prior to October 14, 2019, Teles Fremin, the prior Chief Communications Engineer, served as the Interim Communications System Director.
- While the Consulting Engineer must approve of the selection of the Utilities Director, LCG's legal representation determined there is no requirement for the Consulting Engineer to approve the Interim Directors.
- In response to the proposal by NextGEN Utility Systems for a management contract for the Utilities System, on November 5, 2018, City-Parish Council passed a resolution (R-070-2018) that stated it will "oppose any proposal for the possible, sale, lease, third party management agreement, partnership, or disposition, in whole or in substantial part, of the City of Lafayette Utilities System, at this time." This resolution was in addition to the existing Charter that states LPUA "shall not sell, lease, or in any manner dispose of the utility system or any substantial part thereof without approval by a majority vote of the qualified electors residing within the boundaries of the City of Lafayette voting in an election called for that purpose."
- On December 8, 2018, voters of the Parish and the City ratified amendments to the Charter (the "Charter Amendments"), which provides the rules of governance for the City and the Parish. In 2019, the City-Parish Council consisted of nine (9) members and

acted as the governing authority for the City and the Parish. Pursuant to the Charter Amendments, the nine (9) member City-Parish Council was replaced by the new Lafayette City Council consisting of five (5) members who are serving as the governing authority for the City (City Council) and the new "Lafayette Parish Council" consisting of five (5) members who are serving as the governing authority for the Parish (Parish Council). Furthermore, the City Council and the Parish Council, jointly, shall serve as the governing authority for LCG. The Mayor-President will remain a part of LCG, together with the City Council and the Parish Council. The City Council will replace LPUA as the governing authority for LUS and LPPA. The Mayor-President will continue to appoint the Director of Utilities and Communications, with such appointment subject to ratification by the new City Council.

Utilities System Findings and Recommendations

Based upon our information and assumptions relied upon, as included in this Report, our findings and recommendations for the Utilities System include:

- Based on our visual observation and review of the Utilities System, we find the Utilities System to be in generally good condition and maintained properly in accordance with prudent utility and industry practices.
- Revenues from the Utilities System were sufficient to meet all financial obligations including operating expenses, LUS and LPPA debt service, capital improvements, in lieu of tax (ILOT) payments, and required reserves. LUS' Electric System operating, expense, debt, revenue, and related ratios reflect a financially stable and healthy utility that is currently offering competitive, lower than market average rates. The Utilities System reached a combined 3.5 DSCR. The Utilities System minimum DSCR is 1.0.
- In general, attracting staff can be an issue for LUS and all municipally-owned utilities across the United States (U.S.) in certain positions such as engineering and operators. LUS is also constrained by civil service policies and therefore lags the competition (such as investor-owned utilities) in salaries. Compared with the regional oil and gas industry and competing investor-owned utilities, LUS' advantages come down to job stability, location, quality of life, and home time. Opportunities to adjust compensation of competitive positions within the Utilities and Communications Systems should be pursued to attract and retain proper levels and expert staff. In addition, the system for progressive promotion of engineering staff commensurate with experience should be redesigned or improved upon.
- Historically, the Utilities System capital improvement program (CIP) was sufficient to sustain and improve the integrity and reliability of the system.

Electric System

- The Doc Bonin Units 2 and 3 were retired April 1, 2017, as approved by Midcontinent Independent System Operator (MISO). The Curtis Rodemacher Plant was retired in June 2000. The generating stations remain retired with LUS performing routine maintenance, upkeep, and site monitoring. In anticipation of the cost associated with fully decommissioning the Curtis Rodemacher plant, LUS should establish a decommissioning reserve to cover the future costs of dismantling the plant.

Decommissioning efforts at Doc Bonin are in progress and currently on budget. To date, the four Doc Bonin fuel oil tanks and associated piping were removed and all contaminated soil under the tanks was removed.

- LUS initiated a Request for Proposal to select a consultant to perform an IRP, which is evaluating overall power supply options, including plans for potentially replacing or repowering the Doc Bonin Plant and a long-term strategy for Rodemacher Unit 2. The previously recommended project to install natural gas fired reciprocating engines at the Doc Bonin site, which was included in the 2018 Budget, was placed on hold pending the result of the new IRP. In addition, the IRP is evaluating the Coal Combustion Residue Rule and Effluent Limitation Guidelines to determine compliance and associated costs which will impact long-term decisions for Rodemacher Unit 2. An outcome studied in the IRP will be retiring Rodemacher Unit 2 from burning coal, whether by conversion to natural gas or retiring the unit entirely. Further analyses are required, along with detailed review of U.S. Environmental Protection Agency's (EPA) timing of submitting compliance documents.
- LUS' Electric System is highly reliable with reliability indices (i.e. SAIDI/SAIFI/CAIDI/MAIFI) at or below the national averages for electric utilities, and significantly better than regional utility performance.
- The organizational structure and management in the Electric System engineering and operations areas continue to facilitate staff empowerment, offer employees additional responsibilities, and encourage career growth.
- There were no major staffing needs or issues in the Electric System in 2019; however, certain vacancies remain or are more difficult to fill positions that are competitive in the broader labor market. While LUS was successful in filling targeted positions within the Utilities System, vacancies remain for certain engineering positions budgeted for the utility. In addition, all of the metering technicians will be eligible for retirement in the near future, which will require a proactive approach in 2020. The Electric System is actively looking to fill remaining vacancies and continues to ensure the delivery of safe, reliable, and low-cost power at current staffing levels.
- Electric System revenue collection mechanisms are misaligned with the cost structure. While approximately 48% of LUS' costs are fixed over the five-year average, only 15% of revenues are collected through fixed charges. Approximately 85% of retail revenues are recovered through variable rates. Although this misalignment was historically common in the industry, many utilities are pursuing strategies that improve the collection of fixed cost through rates. These strategies reflect market trends where end users become increasingly interested in renewable energy alternatives and energy conservation. Historically LUS customers' interest in renewable energy alternatives and energy conservation was limited, but this could change over time. Therefore, we recommend that in future rate proceedings, LUS improve fixed cost recovery mechanisms in its Electric System rate structure.

Water System

- While total water production remains stable, the retail and wholesale water sales decreased in 2019 by 4.0% and 3.8%, respectively. Based on the last five years of data, the wholesale customers' percentage of total water produced has leveled off between

28% to 30%. Continued coordination with wholesale customers and adequate planning for improvements to the LUS system and the wholesale customers' systems is necessary to protect the interests of retail customers.

- The City of Broussard and the City of Scott extended their current Wholesale Water contract with LUS. The City of Broussard and the City of Scott are now under contract until 2038.
- Although staffing levels were not reported to be an issue, a succession plan should be implemented to ensure knowledgeable operators and maintenance personnel are developed for the Water and Wastewater Systems. Several key management personnel and certified operators can or will retire within the next five years. LUS should develop a succession plan to ensure the continued operation of the water/wastewater operations with as much operational continuity as possible, with as little loss of institutional knowledge as possible. LUS reports that staffing levels are reviewed annually, and that a program of screening and cross-training to identify individuals that exhibit technical proficiency and leadership skills is in place.
- The AMI deployment for the Water System had experienced a relatively high level of malfunctions and meter failures. Honeywell replaced all meter modules in an effort to resolve performance problems. As of January 2018, the meters were replaced, the project reached completion, and the meters are now under warranty. However, as of the end of FY 2019, meters are still failing and, if under warranty, being replaced.
- Commercial and residential development and redevelopment appears to be improving, which could cause a strain on LUS' system. LUS is seeing an increase in formerly single home properties being turned into multi-home developments, i.e. apartments/ townhomes. This may cause some localized issues as the current infrastructure connecting to these properties may not be adequate to handle the increase in water usage. However, at the time of this Report, it is unknown the extent and length of the impact the COVID-19 crisis may have on commercial and residential development in Lafayette and the Water System.
- In February 2019, North Water Plant (NWP) experienced an accidental release of approximately 2,500 pounds of hydrated lime. As lime was being transferred from a storage silo to a feed silo, a gauging cap was inadvertently left off, allowing for the release. Since lime covered nearby homes, residents were evacuated as a precaution, but were allowed to return the following day. There was no disruption of service to customers. Roads and homes were washed, and the lime was removed by vacuum. Road drains were sealed to minimize any environmental impacts.

Wastewater System

- In May 2018, the EPA issued an administrative order based on a 2017 audit of the Wastewater System. The administrative order requires implementation of a CMOM Program that includes inspecting 10% of its collection system each year and addressing defects within three years of discovery. This required LUS to increase the frequency of its inspection of the collection system and will require additional funding to address sewer repairs. LUS submitted the required documents to EPA in February 2020, ahead of the May 1, 2020 deadline. LUS' initial findings indicate more repairs needed than first expected. Budgeting for repairs has been incorporated into the O&M budget, with

significant increases, so LUS will comply with the CMOM program's three-year timeframe for any repairs.

- Biosolids disposal continues to be a near-term issue that LUS must address as one of the lessors of the land cancelled an agreement, and as additional outlying package treatment plants are integrated with the Wastewater System. Although LUS is actively searching for new landowners to replace the capacity reductions from 2017, LUS should continue to evaluate sludge treatment and disposal options such as:
  - Continuing to treat sludge to Class B standards versus Class A standards.
  - Continuing sludge disposal on leased land versus purchased land; third-party sales as a disposal option; or a combination of all three.
- Until such time as sludge treatment and sludge disposal options can be clarified, the current lease agreements for land necessary for sludge disposal land applications should be reviewed and updated to reflect long-term leases that will mitigate risk for LUS and ensure that sufficient surface acreage is available to meet long-term sludge disposal requirements.
- Existing collection and transmission infrastructure necessary to assimilate outlying wastewater package plants into the Wastewater System, and to accommodate the flow from expected population growth is currently insufficient to properly handle such growth. LUS plans an update to the Wastewater Master Plan sometime in the near future that will identify collection system capacity improvements projects, wastewater treatment system capacity improvements, regulatory compliance projects, and system O&M projects for a minimum 20-year planning period. Such planning will enable LUS to update and supplement the existing CIP. Commercial and residential development and redevelopment, particularly in the downtown area, appears to be improving with the economy, which could cause a strain on LUS' system. LUS is seeing an increase in formerly single home properties being turned into multi-home developments, i.e. apartments/townhomes. This may cause some localized issues as the current infrastructure connecting to these properties may not be adequate to handle the increase in water usage and wastewater generation. However, at the time of this Report, it is unknown the extent and length of the impact the COVID-19 crisis may have on commercial and residential development in Lafayette and the Water System.

Communications System Findings and Recommendations

Based upon our information and assumptions relied upon, as included in this Report, our findings and recommendations for the Communications System include:

- Staffing issues continue to be at risk for Communications System due to the extremely competitive nature of the business and the potential for employees to make significantly greater salaries in the marketplace. Other issues include performance recognition, overtime, and personnel being at the top of a category with no further advancement potential. Communications System has been working to fill several engineering positions for over one year without success due to salary limitations.
- At the current customer levels, the Communications System generates sufficient revenues to meet O&M expense, annual debt service, capital improvements,

inter-utility loan payments, imputed taxes, and all other financial obligations. The financial performance of the Communications System improved in 2019. The Communications System credit rating from Moody's was also increased in 2019 from A3 to A2.

- LUS Fiber attained franchise status in November 2017 to offer communications service throughout the Parish, including the City of Broussard, City of Youngsville, Carencro, and unincorporated areas in the Parish. LUS Fiber is continuing to build out targeted areas at the rate of one to one-and-a-half miles per month of combined underground and overhead installations, including distribution and access routes.
- Utilities System Residual Balance Available for Communications Debt Service was sufficient to meet Communications System debt service if a Credit Event occurred in 2019. The 2019 Utilities System Residual Balance achieved a coverage ratio of 3.8 as compared to the Communications System debt obligations.
- Per self-disclosures in the 2017 Attest Audit, in 2018 LUS Fiber reimbursed LUS for multiple wastewater lift stations in which LUS Fiber provided service but LUS never utilized the services. Following the 2018 LUS Fiber repayment to LUS, the LCG Mayor-President initiated an internal audit of all LUS Fiber services to LUS. The results of the internal audit were published in December 2019 and presented to the City-Parish Council. As a result of the internal audit two letters were sent to the LPSC regarding self-reporting of potential violations of the Fair Competition Act and the compliance audit for 2017. As of the date of this report, the LPSC has not stated their intent to open a regulatory proceeding regarding the payments through 2017 for LUS Fiber services to LUS wastewater lift stations, nor the additional 2019 self-reported potential violations included in the two letters to the LPSC. As the LPSC is currently considering the potential to consolidate the two issues documented in 2017 and 2019, and their intent to open a regulatory proceeding, the 2018 Attest Audit is not complete.
- Subsequent to the letters to the LPSC from the Mayor-President in December 2019, the newly elected Mayor-President Josh Guillory placed several staff of LUS and LUS Fiber on administrative leave in February of 2020. Mayor-President placed the staff on administrative leave due to concerns of potential criminal activity and deletion of records. The Mayor-President requested the Louisiana State Police investigate the matter. Immediately after notifying the State Police, the District Attorney for the 15th Judicial District Court also notified LCG that the office would be evaluating the accusations and examining evidence. As of the date of this report, the Louisiana State Police have declined to begin investigating and have deferred to the District Attorney's evaluation of the issue. The District Attorney continues to evaluate and examine the accusation and evidence; however, has not determined if they will recommend or proceed with a formal investigation.

Additional detail and description regarding the findings and recommendations for the Utilities and Communications Systems can be found within each section of the Report.

Revenue Bond History and Ratings

LUS, LPPA, and LUS Fiber have a long and successful history of repaying bond holders. The following table lists the historical and outstanding Bonds since 1949.

Table ES-1
Utilities System, LPPA and Communications System Bond Summary

Date Issued	Retired/ Outstanding	Authorized Amount	Application of Proceeds
Utilities System			
1949 – 1958	Retired	$18,000,000	Steam-electric generating plant improvements and extensions to the Utilities System
1962 –1965	Retired	$12,500,000	Improvements and extensions to the Utilities System
1966 – 1969	Retired	$19,800,000	Addition to electric generation, water and wastewater treatment capacity, and extensions and improvements
1973 – 1976	Retired	$39,000,000	Addition to electric generation capacity and extensions, as well as additions and improvements to the Utilities System
1978 – 1981	Retired	$26,000,000	Additions to the electric transmission system, and extensions and improvements to the electric, water distribution, and wastewater collection systems
1983 – 1996	Retired	$40,400,000	Additions, extensions, and improvements to the Utilities System, and acquisition of electric distribution customers
1996	Retired	$23,831,885	Louisiana Department of Environmental Quality debt. The Series 1996 Bonds matured on November 1, 2017.
2004	Retired	$183,990,000	Addition to electric generation capacity and extensions, and wastewater improvements. The Series 2004 Bonds matured on November 1, 2014.
2010	Outstanding	$86,080,000	Improvements to the Electric System to alleviate the Acadian Load Pocket, development of AMI to benefit the Electric and Water Systems, and collection improvements for the Wastewater System. The Series 2010 Bonds will mature on November 1, 2020.
2012	Outstanding	$153,960,000	Advanced refunding of a portion of 2004 Bonds, Reserve Fund
2017	Outstanding	$59,465,000	Majority refunding of 2010 Bonds
2019	Outstanding	$58,065,000	Additions, extensions, and improvements to the Utilities System. The first payment was November 1, 2019.
Lafayette Public Power Authority			
1977	Retired	$100,000,000	Finance the initial construction of Rodemacher Unit 2
1980	Retired	$40,000,000	Continued construction of Rodemacher Unit 2
1981	Retired	$43,200,000	Continued construction of Rodemacher Unit 2
1982	Retired	$14,000,000	Continued construction of Rodemacher Unit 2
1987	Retired	$88,045,000	Refunded the 1980 bonds and 1985 bonds
1993	Retired	$112,525,000	Refunded the 1977 bonds, 1980 bonds, and 1987 bonds
1996	Retired	$50,910,000	Refunded the 1987 bonds
2002	Retired	$30,340,000	Refunded 1996 bonds
2003	Retired	$61,210,000	Refunded 1993 bonds

Table ES-1
Utilities System, LPPA and Communications System Bond Summary

Date Issued	Retired/ Outstanding	Authorized Amount	Application of Proceeds
2007	Retired	$34,045,000	Purchase of two aluminum rail car trains and other improvements to Rodemacher Unit 2
2012	Outstanding	$65,100,000	Installation of Mercury and Air Toxic Standard (MATS) equipment, Selective Non-Catalytic Reduction (SNCR), and other improvements to Rodemacher Unit 2
2015	Outstanding	$29,035,000	Refunded $28,325,000 million of the 2007 Bonds
Communications System			
2007	Retired	$110,405,000	Creation of the Communications System to provide retail telephone, cable television (CATV), and Internet service to the residents of the City
2012	Outstanding	$14,595,000	Improvements to the Communications System to provide retail telephone, CATV, and Internet service to the residents of the City
2015	Outstanding	$91,600,000	Refunded $96,855,000 of the Series 2007 Bonds

Source: Official Statements

The most recent bond ratings for debt issuances are included below.

The rating agencies typically review LUS and the City's credit rating with each debt issue. If the City or LUS has not recently issued debt (e.g. within a two-year period) the agencies will perform a review and surveillance of the City and LUS' performance to update their credit ratings.

Table ES-2
Recent Bond Ratings

Bond Type	S&P Date of Rating or Affirmation	S&P Rating (1)	Moody's Date of Rating or Affirmation	Moody's Rating (2)
LUS: Utilities Revenue Bonds 2019	4/8/2019	AA-	4/9/2019	A1
LPPA: Electric Revenue Refunding Bonds 2015	4/8/2019	AA-	4/9/2019	A1
Communications System: Revenue Refunding Bonds 2015	4/8/2019	A+	4/9/2019	A2

Source: https://www.lafayettebonds.com/lafayette-la-investor-relations-la/bonds/i1763#anchor-bond-ratings

(1) S&P ratings scale: highest: 'AAA', lowest 'D'; '+' and '-' are used to rate relative standing within a rating category (e.g. AA+ or B-).

(2) Moody's ratings scale: highest 'AAA', lowest 'C'; '1', '2', and '3', 1 is high, 3 is low, are used to rate relative standing within a rating category (e.g. Aa1 or A3).

SECTION 1
SCOPE OF REVIEW

The Lafayette Utilities System (LUS) Electric, Water, and Wastewater Systems (collectively the Utilities System) General Bond Ordinance and Communications System General Bond Ordinance (collectively, the Bond Ordinances) set forth specific duties and responsibilities of the Consulting Engineer, which include advising LUS on its appointment of a Chief Operating Officer, providing continuous engineering counsel to the Lafayette City-Parish Consolidated Government (Lafayette Consolidated Government or LCG) in connection with operations of the Utilities System and Communications System, advising on rate revisions, and preparing an annual comprehensive report (specifically, this Consulting Engineer's Comprehensive Annual Report or Report) on the operations of LUS and LUS Fiber after the close of each fiscal year (FY).

On February 16, 2015, LCG retained NewGen Strategies and Solutions, LLC (NewGen) as the LUS and LUS Fiber Consulting Engineer. This section of our Report describes the responsibilities of the Consulting Engineer with respect to the development of a Comprehensive Annual Report for the Utilities System and Communications System. Although the responsibilities of the Consulting Engineer have historically not changed, the analyses undertaken by NewGen in the performance of our due diligence review of LUS and LUS Fiber are different from prior reviews conducted by other firms. Therefore, the organization, content, conclusions, and recommendations contained within this Report may differ from those included in reports prior to 2014.

LCG operates on a FY, beginning November 1st and ending on October 31st of the following year. Unless otherwise stated, all data in this Report is presented on an FY basis.

1.1 Requirements of Bond Ordinances

Utilities System and Communications System outstanding bonds, shown in Table ES-1, are governed by nearly identical Bond Ordinances. The Utilities System is governed by Article VII-Covenants of the Issuer of the Utilities System General Bond Ordinance. The Communications System is governed by Article VIII-General Covenants of the Issuer of the Communications System General Bond Ordinance. The Consulting Engineer is governed by Article VIII-Consulting Engineer of the Utilities System General Bond Ordinance and Article IX-Consulting Engineer of the Communications System General Bond Ordinance. These articles are pertinent to the content of this Report. A summary of each article is as follows:

Utilities System – Article VII-General Covenants of the Issuer

Article VII of the Utilities System General Bond Ordinance list 12 covenants of LUS (Issuer), as follows:

- Section 7.1 – Operation Covenant where, among other things, the Issuer agrees to operate the Utilities System in a businesslike manner.

- Section 7.2 – Maintenance of Utilities System, Disposition where, among other things, the Issuer agrees to maintain the Utilities System and all parts thereof in good condition and will operate the same in an efficient and economical manner.
- Section 7.3 – No Competitive Facilities, The Issuer shall not hereafter construct, acquire, or operate any plants, structures, facilities, or properties, which will provide like services of the utility system in the Issuer and the areas currently served by the respective systems in competition with and not as part of the Utilities System unless such construction, acquisition, or operation, in the judgement of the Issuer, does not materially impair the ability of the Issuer to comply with Section 5.1.
- Section 7.4 – Obligation to Connect Sewerage Users where, among other things, the Issuer agrees to require every owner, tenant, or occupant of each lot or parcel of land to connect with the Utilities system and to cease to use any other method for the disposal of sewage, sewage water, or other polluting matter.
- Section 7.5 – No Free Service where, among other things, the Issuer will not permit free water, electricity, or sewage service to be supplied by the Utilities System.
- Section 7.6 – Operating Budget where, among other things, before the first day of each FY the Governing Body shall prepare, approve, and adopt in the manner prescribed by law….a detailed budget of the Revenues, Bond Service Requirement,…and Cost of Operations and Maintenance (O&M) for the next succeeding FY.
- Section 7.7 – Rate Covenant where, among other things, the Issuer will fix, charge, and collects such rates, rentals, fees, and charges for the use of and for the services and products provided by the Utilities System. The Issuer shall maintain a 1.0 DSCR.
- Section 7.8 – Books and Records where, among other things, the Issuer shall keep separately identifiable financial books, records, accounts, and data concerning the operation of the Utilities System.
- Section 7.9 – Reports and Annual Audits where, among other things, the Issuer shall require that an annual audit of the accounts and records with respect to the Utilities System be completed as soon as reasonably practicable at the end of the FY by a qualified independent certified public accountant.
- Section 7.10 – Insurance and Condemnation Awards where, among other things, the Issuer shall carry adequate fire, windstorm, explosion, and other hazard insurance on the components of the Utilities System. The Issuer may, upon appropriate authorization by its Governing Body, self-insure against such risks on a sound actuarial basis.
- Section 7.11 – Enforcement of Collections where, among other things, the Issuer will diligently enforce and collect the fees, rates, rentals, and other charges for the use of the products, services, and facilities of the Utilities System.
- Section 7.12 – Additions to Utilities System where, among other things, the Issuer may add to the Utilities System any facilities or equipment purchased, acquired, or constructed for the purpose of improving or renovating any element of the then-existing Utilities System.

Utilities System – Article VIII-Consulting Engineer

Article VIII of the Utilities System General Bond Ordinance lists three requirements of the Consulting Engineer as follows:

- Section 8.1 – Consulting Engineer, where the Issuer shall retain a Consulting Engineer for the purpose of providing the Issuer immediate and continuous counsel and advice regarding the Utilities System. It shall be the further duty of the Consulting Engineer to advise the Issuer in its appointment of a Chief Operating Officer of the Utilities System and the Issuer agrees that it will not appoint anyone as Chief Operating Officer that has not been approved by the Consulting Engineer.
- Section 8.2 – Comprehensive Annual Report, where the Consulting Engineer shall prepare within 180 days after the close of each FY a comprehensive report… upon the operations of the Communications System and the Utilities System during the preceding year, the maintenance of the properties, the efficiency of the management of the property, the proper and adequate keeping of books of account and record, the adherence to budget and budgetary control provisions, the adherence to all the provisions of the Ordinance, and all other things having a bearing upon the efficient and profitable operations of the Communications System and the Utilities System, and shall include whatever criticism of any phase of the operation of the Communications System and the Utilities System the Consulting Engineer may deem proper, and such recommendation as to changes in operation and the making of repairs, renewals, replacements, extensions, betterments, and improvements as the Consulting Engineer may deem proper including recommended changes in organization, pay scales, and risk management practices. Copies of such report shall be placed on file with the Chief Operating Officer and shall be open to inspection by any Owners of any of the Bonds. Such report shall also contain the Consulting Engineer's recommendations as to personnel practices and policy and his analysis of the ability of the Utilities System to function in the present and forecasted environments.
- Section 8.3 – Recommendation as to Rate Revision, where it shall further be the duty of the Consulting Engineer to advise the Issuer as to any revision of rates and charges, and the Issuer agrees to make no downward revision in it rates and charges for services (except fuel adjustment charges), which are not approved by the Consulting Engineer.

Communications System – Article VIII-General Covenants of the Issuer

Article VIII of the Communications System General Bond Ordinance list 9 covenants of the Issuer, as follows:

- Section 8.1 – Operation Covenant where, among other things, the Issuer agrees to operate the Communications System and Utilities System in a businesslike manner.
- Section 8.2 – Maintenance of Communications System, Disposition where, among other things, the Issuer agrees to maintain the Communications System and Utilities System and all parts thereof in good condition and will operate the same in an efficient and economical manner.
- Section 8.3 – Operating Budget where, among other things, before the first day of each FY the Governing Body shall prepare, approve, and adopt in the manner prescribed by

law….a detailed budget of the Revenues, Bond Service Requirement,…and Cost of O&M for the next succeeding FY.

- Section 8.4 – Rate Covenant where, among other things, the Issuer will fix, charge, and collects such rates, rentals, fees, and charges for the use of and for the services and products provided by the Communications System. The Issuer shall maintain a 1.0 DSCR. Should there be a Credit Event, the Issuer will fix, charge, and collects such rates, rentals, fees, and charges for the use of and for the services and products provided by the Utilities System to provide sufficient revenues to pay the Communications System debt service.
- Section 8.5 – Books and Records where, among other things, the Issuer shall keep separately identifiable financial books, records, accounts, and data concerning the operation of the Communications System.
- Section 8.6 – Reports and Annual Audits where, among other things, the Issuer shall require that an annual audit of the accounts and records with respect to the Communications System and Utilities System be completed as soon as reasonably practicable at the end of the FY by a qualified independent certified public accountant.
- Section 8.7 – Insurance and Condemnation Awards where, among other things, the Issuer shall carry adequate fire, windstorm, explosion, and other hazard insurance on the components of the Communications System and Utilities System. The Issuer may, upon appropriate authorization by its Governing Body, self-insure against such risks on a sound actuarial basis.
- Section 8.8 – Enforcement of Collections where, among other things, the Issuer will diligently enforce and collect the fees, rates, rentals, and other charges for the use of the products, services, and facilities of the Communications System and Utilities System.
- Section 8.9 – No Free Service where, among other things, the Issuer will not permit free service to be supplied by the Communications System and Utilities System.

Communications System – Article IX-Consulting Engineer

Article IX of the Communications System General Bond Ordinance lists two requirements of the Consulting Engineer as follows:

- Section 9.1 – Consulting Engineer. The Issuer shall retain a Consulting Engineer for the purpose of providing the Issuer immediate and continuous counsel and advice regarding the Communications System and the Utilities System.
- Section 9.2 – Comprehensive Annual Report, where the Consulting Engineer shall prepare within 180 days after the close of each FY a comprehensive report… upon the operations of the Communications System and the Utilities System during the preceding year, the maintenance of the properties, the efficiency of the management of the property, the proper and adequate keeping of books of account and record, the adherence to budget and budgetary control provisions, the adherence to all the provisions of the Ordinance, and all other things having a bearing upon the efficient and profitable operations of the Communications System and the Utilities System, and shall include whatever criticism of any phase of the operation of the Communications System

and the Utilities System the Consulting Engineer may deem proper, and such recommendation as to changes in operation and the making of repairs, renewals, replacements, extensions, betterments, and improvements as the Consulting Engineer may deem proper including recommended changes in organization, pay scales, and risk management practices. Copies of such report shall be placed on file with the Chief Operating Officer and shall be open to inspection by any Owners of any of the Bonds. Such report shall also contain the Consulting Engineer's recommendations as to personnel practices and policy and his analysis of the ability of the Utilities System to function in the present and forecasted environments.

Purpose of this Report

The purpose of the Report is to fulfill the Utilities System General Bond Ordinance Article VIII and the Communications System General Bond Ordinance Article IX as described above and to comply with Electronic Municipal Market Access (EMMA) reporting requirements. EMMA is a resource for investors and is operated by the Municipal Securities Rulemaking Board (MSRB). The MSRB is a primary regulator of municipal markets. The MSRB establishes rules that securities firms, banks, and municipal advisors must follow when engaging in municipal securities transactions and advising investors and state and local governments. Section 8 – Continuing Disclosures with Appendix A – Continuing Disclosures-Utilities System, Appendix B – Continuing Disclosures-Lafayette Public Power Authority (LPPA), Appendix C – Continuing Disclosures- Communications System, and Appendix D – Financial and Statistical Data meet the EMMA reporting requirement.

1.2 Report Organization

Outstanding debt obligations are supported by two distinct revenue pledges. The Utilities System's revenues are pledged to meet debt service obligations associated with the Utilities System Series 2010, 2012, 2017, and 2019 Bonds. Communications System revenues are pledged to meet debt service obligations associated with the Communications System Series 2012 and 2015 Bonds. Given these two distinct pledges, we have organized our Report as follows:

- Section 1 – Scope of Review, as presented within this section.
- Section 2 – Governance, Organization, Management, and Revenue Pledge describes LUS' organizational structure and management team, which oversees the operation of the Utilities System and Communications System including the governance and shared services provided by LCG.
- Section 3 – Utilities System provides an overview of the combined electric, water, and wastewater operations that comprise the Utilities System including historical financial performance.
- Section 4 – Electric System provides an in-depth review of Electric System operations, system condition, rate comparisons, performance benchmarking, and financial performance and contribution to the Utilities System revenue pledge.
- Section 5 – Water System provides an in-depth review of Water System operations, system condition, rate comparisons, and financial performance and contribution to the Utilities System revenue pledge.

- Section 6 – Wastewater System provides an in-depth review of Wastewater System operations, system condition, rate comparisons, and financial performance and contribution to the Utilities System revenue pledge.
- Section 7 – Communications System provides an in-depth review of the LUS Fiber Internet, telephone, and cables businesses including an assessment of market share, service offerings, price competitiveness, and financial performance in support of the Communications System revenue pledge.
- Section 8 – Continuing Disclosure provides an overview of EMMA and the required continuing disclosures, with Appendices A, B, and C providing updated financial information in a format similar to that presented in official statements of outstanding bond issues of the Utilities System, Communications System, and LPPA.

SECTION 2
GOVERNANCE, ORGANIZATION, MANAGEMENT, AND REVENUE PLEDGE

The Lafayette Parish (the Parish) electorate and the City of Lafayette, Louisiana (City or Lafayette) adopted the Home Rule Charter (Charter) to consolidate the City and Parish governmental functions as of 1996. The Charter defined the LCG departmental structure. LCG manages and operates the Utilities System and Communications System through its departmental structure. The Utilities Department is responsible for the Utilities System while the Communications Department is responsible for the Communications System management and operations. However, other LCG departments provide vital functions to LUS operations, including the Office of Finance and Management, the Department of Information Services and Technology, and the Legal Department. The City owns the Utilities System and Communications System's assets. LCG operates on a FY, beginning November 1st and ending on October 31st of the following year. Unless otherwise stated, all data in this Report is presented on an FY basis. While LUS was governed under the 1996 Home Rule Charter during the FY 2019 period, in January 2020, a new Home Rule Charter was implemented which modified the governance structure. Additional information on these changes are discussed later in this section.

In September 2018, with the adoption of the 2019 Budget, the City-Parish Council approved the separation of Directors for the Utilities System and the Communications System. The creation of a separate Communications System Director became effective November 1, 2018.

The City-Parish Council is also the governing authority of the LPPA. LPPA is a political subdivision of the State of Louisiana and was created in 1976 to finance electric generating facilities in order to provide power to the City's Electric System. LPPA provides the output of these generating facilities via a "take or pay" wholesale power agreement with the Utilities System.

In December 2018, the citizens of Lafayette voted to amend the Charter to replace the City-Parish Council with two separate five-person councils: the City Council and the Parish Council. The changes were implemented on January 6, 2020. With the implementation, the City Council replaces the LPUA and LCG as the governing authority for the Utilities System, the Communications System, and LPPA.

In November 2018, and in response to the NextGEN Utility Systems (NextGEN) proposal to manage the Utilities System, the City-Parish Council passed a resolution (R-070-2018) that stated it will "oppose any proposal for the possible, sale, lease, third party management agreement, partnership, or disposition, in whole or in substantial part, of the City of Lafayette Utilities System, at this time." This resolution was in addition to the existing Charter that states LPUA "shall not sell, lease, or in any manner dispose of the utility system or any substantial part thereof without approval by a majority vote of the qualified electors residing within the boundaries of the City of Lafayette voting in an election called for that purpose."

2.1 Governance

Governance Structure for 2019

LCG includes a Mayor-President and nine City-Parish Council members (City-Parish Council), elected by the Parish to four-year terms of office. During 2019, City-Parish Council members were as follows:

Table 2-1
LCG City-Parish-Council Members

	City-Parish Council Members for Term 2016 – 2019
Mayor – President	Joel Robideaux
District 1	Kevin Naquin
District 2	Jay Castille
District 3	Patrick Lewis
District 4	Kenneth P. Boudreaux
District 5	Jared Bellard
District 6	Bruce Conque
District 7	Nanette Cook
District 8	Liz Hebert
District 9	William G. Theriot

Source: LCG website

In addition to being the governing authority for the City and Parish of Lafayette, the City-Parish Council is also the governing authority of LPPA. LPPA is a political subdivision specifically created for the purpose of financing electric generating facilities to provide power to the City's Electric System. LPPA then provides the output of these generating facilities by way of wholesale power sales to the LCG.

The City is the owner of the Electric System (including generation, transmission, and distribution facilities), the Water System (including supply, treatment, distribution, and storage facilities), and the Wastewater System (including wastewater collection and treatment facilities) (collectively, the Utilities System), as well as the Communications System. Upon consolidation of the City and Parish governing authorities into LCG, it was specifically recognized that the Charter should accommodate for the governing of LUS, which is a City utility system. As a result, the Charter created the LPUA as the governing authority of the Utilities Department. The Charter further provides that the City-Parish Council members whose districts include 60% or more of citizens residing within City boundaries also serve as LPUA members.

The Mayor-President and Chief Administrative Officer supervise the administration of all departments, offices, and agencies of LCG, except as may otherwise be provided by the Charter. Certain departments of LCG are involved in day-to-day support of management and operation of LUS. The Communications System consists of a separate Communications Services Enterprise Fund with a distinct set of accounts, funds, and bond pledge. The Electric

System, Water System, and Wastewater System are financed by the Utilities System revenue bonds. The Communications System is financed by the Communications System revenue bonds.

The Communications System offers an array of services in the competitive wholesale and retail markets including fiber leases, wholesale broadband, and retail customer services. The Communications System offered a new streaming service, connecTV, in 2019. In the retail market, the Communications System offers the "triple play" of services. The "triple play" is a common term in the industry that refers to cable television (CATV), telephone, and Internet services. Additional internet content streaming services are now offered as well. The backbone of the system includes a 70-mile fiber backbone with direct connections to national, major Tier 1 broadband providers. The retail portion of the Communications System includes over 800 miles of overhead and underground fiber lines along City streets, along with associated equipment. The system also consists of a major headend facility, including satellite dishes and electronics, along with backup power and connection to at least three long haul connections with major Internet carriers.

Governance Structure Beginning in 2020

On December 8, 2018, voters of the Parish and the City ratified amendments to the Charter (the "Charter Amendments"), which provides the rules of governance for the City and the Parish. In 2019, the City-Parish Council consisted of nine (9) members and acted as the governing authority for the City and the Parish. Pursuant to the Charter Amendments, the nine (9) member City-Parish Council was replaced by the new Lafayette City Council consisting of five (5) members who are serving as the governing authority for the City (City Council) and the new "Lafayette Parish Council" consisting of five (5) members who are serving as the governing authority for the Parish (Parish Council). Furthermore, the City Council and the Parish Council, jointly, shall serve as the governing authority for LCG. The Mayor-President will remain a part of LCG, together with the City Council and the Parish Council.

The organizational structure of the City and Parish Councils will not affect the City's obligation or ability to repay the Bonds or other outstanding revenue bonds of the Utilities System or Communications System.

The City Council will replace LPUA as the governing authority for LUS and LPPA. The Mayor-President will continue to appoint the Director of Utilities and Communications, with such appointment subject to ratification by the new City Council. Certain services provided by LCG to the City and Parish will still be shared. These include, but not limited to finance, accounting, administration, human resources (HR), legal, insurance, and information-technology (IT).

2.2 Operating and Capital Budgeting

Every spring, the budgeting process begins with each LCG department preparing their proposed operating and capital budget. By the end of July, LCG's administration presents a proposed budget to the City-Parish Council for consideration. The City-Parish Council then holds a series of budget review meetings where changes may be considered to the proposed budget. Per the Charter requirements, the budget must be presented to the City-Parish

Council at least 90 days prior to the beginning of each FY and adopted no later than the second to last regular meeting of the FY. A final budget is typically adopted in late September.

The operating portion of the budget contains projections of revenues and expenses. Each division within LUS and LUS Fiber estimate their expenses for the upcoming FY and submits their estimates to LUS and LUS Fiber management. LUS and LUS Fiber management then compile each divisions' projections and submits the document to LCG.

Each year, the Utilities System and Communications System develop a five-year capital improvement program (CIP). The CIP is reviewed, updated, and budgeted annually.

Organization

The organizational structure as of October 31, 2019 of LCG, LUS, LUS Fiber, LPPA, LPUA, and the Utilities System is shown in Figure 2-1. As of January 6, 2020, the organizational structure changed so that the Utilities System, Communications System, and LPPA will be managed by the City Council rather than the LPUA and/or the consolidated City-Parish Council.

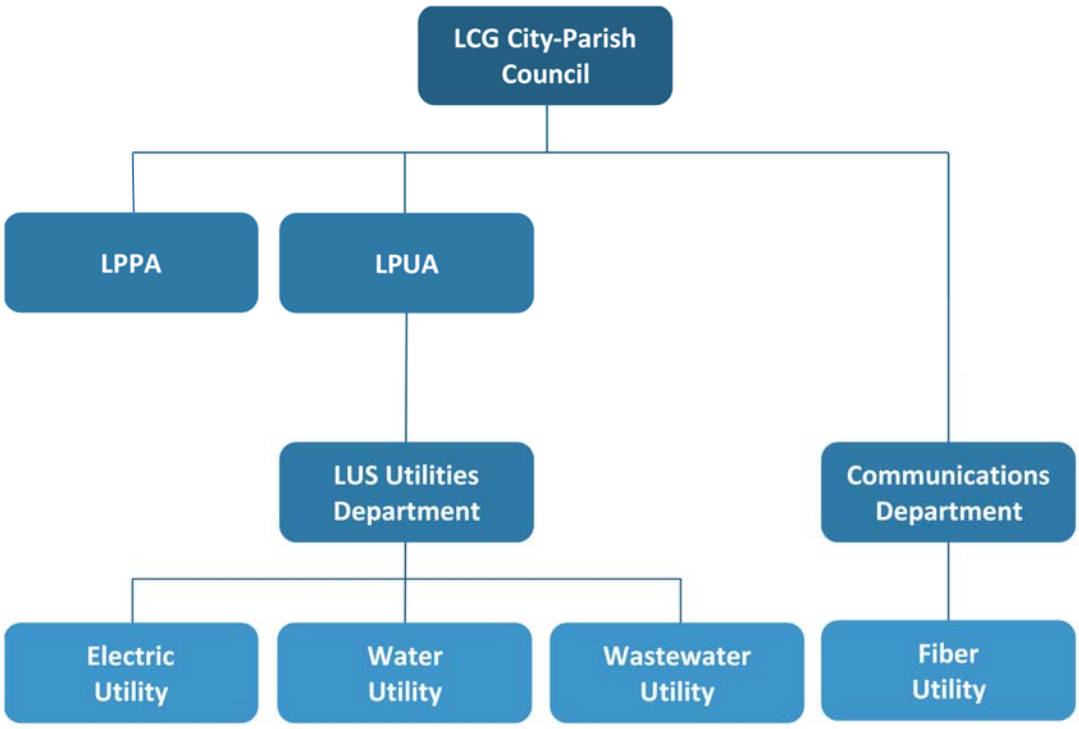


Figure 2-1: LCG Organizational Chart as of October 31, 2019

2.3 Shared Services

LCG provides numerous services to various City-Parish departments including the Utilities Department. The costs of these services are shared by the various departments through an allocation process that is updated periodically. During 2019, the Utilities Department received services from LCG in the areas of accounting, payroll, budgeting, legal, printing, insurance,

healthcare, IT, HR, facility maintenance, vehicle maintenance, purchasing, and civil service activities.

2.4 Insurance

The Risk Management Division within the Department of Finance is the insurance company for LCG. The Risk Management Division's function is to protect City resources by minimizing risks and stabilizing insurance costs in an economical manner that preserves assets and protects against accidents or loss. The LCG Insurance Company provides coverage in the following areas: Group Health/Life, Property & Casualty Claims, Safety/Loss Control, and City-Parish-Nurse Wellness.

The Group Health/Life Section is self-insured and self-administered. LCG has a flex funded plan for life insurance. LCG also has Flexible Spending Accounts and retirement preparation.

The Property & Casualty Claims section is self-insured and self-administered for all lines of coverage including auto and general liability, error and omissions, and property. Workers Compensation was self-insured and self-administered until September 1, 2015. Since September 1, 2015, workers' compensation was handled by a third-party administrator.

The Safety/Loss Control section identifies potential risks to LCG employees and makes recommendations on eliminating or decreasing these risks. This section reviews all job-related injuries and vehicle accidents, facilitates safety meetings, conducts job site inspections, inspects LCG property, and oversees the Safety Award Program.

The City-Parish Nurse/Wellness section is responsible for the health and well-being of LCG employees including physicals, health screens, and vaccinations. This section also sees employees for job related injuries and oversees the Hazardous Materials and Lead Abatement medical surveillance program.

The Communications System has its own insurance policy related to auto liability and workers' compensation. The data provided in Table 2-2 for the Communications system does not include any payments or recoveries related to auto liability and workers' compensation.

According to the LCG Risk and Insurance Manager, Ms. Suzanne Siner, LCG is in compliance with Governmental Accounting Standards Board 10, Reporting for Risk Financing and Related Issues for public entities. Table 2-2 shows five years of historical insurance-related expenditures and recoveries from the Risk Management Fund for the Utilities System and Communications System. In the case that another party caused the accident or injury, the Recovery shown in Table 2-2 represents money received from the responsible party.

Table 2-2
Utilities System and Communications System
Insurance Transactions

Transactions	2015	2016	2017	2018	2019
Utilities System					
Payments [1]	$841,623	$1,669,926	$1,877,879	$591,520	$803,662
Recovery	501,349	25,317	113,451	21,322	222,171
Net Transactions	$340,274	$1,644,609	$1,764,428	$570,199	$581,491
Communications System					
Payments	$2,615	$4,733	$8,412	$14,299	$1,193
Recovery	0	5,000	0	1,051	0
Net Transactions	$2,615	($267)	$8,412	$13,248	$1,193

Source: LCG
(1) The 2016 increase in Utilities System payments was due to an increase in workers' compensation benefits.

2.5 Legal

LUS Fiber Services to LUS

Louisiana Public Service Commission (LPSC) Rules require the Communications System to have an attest engagement audit performed on an annual basis by an independent certified public accountant. The attest audit expresses an opinion as to whether or not the Communications System, processes, and procedures applied, comply with the Act and the LPSC Rules. Communications System obtains and files such attest audit reports with the LPSC annually for each FY of its operations.

In April 2018, the Utilities System self-reported that it paid for services from the Communications System but had not fully utilized these services. The Utilities System reported that there were approximately 101 sewer lift stations for which fiber was run to; however, the Wastewater Division's efforts to complete connections for these services did not keep pace with Fiber construction, resulting in only 37 of the lift stations being fully connected. This resulted in the Utilities System paying $1,259,855 since 2012 for services not provided. In addition, the Utilities System terminated service at 25 locations, but did not update the contract, resulting in $274,882 being paid to Communications System for services not used. The Utilities System was reimbursed by Communications System for the above charges.

Following the 2018 Communications System repayment to the Utilities System, the LCG Mayor-President initiated an internal audit of all Communications System services to the Utilities System. The results of the internal audit were published in December 2019 and presented to the City-Parish Council. As a result of the internal audit two letters were sent to the LPSC regarding self-reporting of potential violations of the Fair Competition Act and in relation to the compliance audit for 2017. As of the date of this report, the LPSC has not stated their intent to open a regulatory proceeding regarding the payments through 2017 for Communications System services to the Utilities System wastewater lift stations, nor the additional 2019 self-reported potential violations included in the two letters to the LPSC. As

the LPSC is currently considering the potential to consolidate the two issues documented in 2017 and 2019, and their intent to open a regulatory proceeding, the 2018 Attest Audit is not complete.

Subsequent to the letters to the LPSC from the Mayor-President in December 2019, the newly elected Mayor-President Josh Guillory placed several staff of the Utilities System and Communications System on administrative leave in February of 2020. Mayor-President placed the staff on administrative leave due to concerns of potential criminal activity and deletion of records. The Mayor-President requested the Louisiana State Police investigate the matter. Immediately after notifying the State Police, the District Attorney for the 15th Judicial District Court also notified LCG that the office would be evaluating the accusations and examining evidence. As of the date of this report, the Louisiana State Police have declined to begin investigating and have deferred to the District Attorney's evaluation of the issue. The District Attorney continues to evaluate and examine the accusation and evidence; however, has not determined if they will recommend or proceed with a formal investigation.

LCG and In Lieu of Tax

In June 2016 a class action lawsuit was filed against LCG, which challenges the validity of the LCG's collection of in lieu of tax (ILOT) payments from LUS. More specifically, this suit alleges that the City wrongfully collected ILOT payments from LUS of over $400 million dollars since 1976. LUS makes an ILOT payment to the City annually, which is common, and an industry practice for municipal owned utilities. Plaintiffs claim these payments were a disguised ad valorem tax assessed upon LUS' customers in violation of Louisiana Law. LCG and LUS have denied all of the plaintiffs' allegations and maintain these claims are wholly without merit. The lawsuit was dismissed on August 8, 2019; however, the decision was appealed, and a hearing will likely be held by the end of 2020.

LCG and J. Boone Development

In July 2017, a lawsuit was filed by J. Boone Development, LLC against LCG that challenged the validity of LUS and a related LPUA resolution to charge contribution in aid of construction fees, which recover costs associated with the construction of new water infrastructure to serve new customer(s) and the related increased demand for treated water imposed by the new customer(s). The new J. Boone Development is located in the City of Milton and required additional infrastructure to meet the increased demand for water. LUS provides wholesale water to the City of Milton and required additional infrastructure to serve the new, increased customer demands the development imposed on the system. On October 30, 2017, the lawsuit was dismissed; however, the plaintiff appealed the decision to the Supreme Court. On December 17, 2018 the State Supreme Court denied the appeal.

North Water Treatment Plant Lime Spill

In February 2019, LUS experienced an accidental release of approximately 2,500 pounds of hydrated lime at the North Water Treatment Plant. As lime was being transferred from a storage silo to a feed silo, a gauging cap was inadvertently left off, allowing for the release. Most of the lime remained within the plant facility, but some was released into the air surrounding the plant. Neighboring residents were evacuated as a precaution but were allowed to return the following day. There was no disruption of service to customers. The lime

was removed by vacuum, and roads and homes were washed. Road drains were temporarily sealed to minimize any environmental impacts. Lime is not toxic; it can cause irritation, particularly if inhaled, though the exposure in this incident was not extensive. LUS voluntarily provided reimbursement for any residents displaced by the evacuation or affected by the spill. This included reimbursement for lodging, food, and medical expenses. Total reimbursed costs were less than $20,000. In addition, LUS settled 21 claims and rejected three claims, for a total of approximately $20,000. Suit was timely filed on four claims, which remain outstanding, but the statute of limitations has expired for further claims. There are no other outstanding issues associated with the spill.

2.6 Emergency Event Reimbursements

Local governments and certain type of non-profit organizations are eligible to receive reimbursements for natural disasters such as hurricanes, flooding, tornadoes and other events. LUS is eligible to receive reimbursement from the Federal Emergency Management Agency (FEMA) and the Louisiana State Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP).

When a natural disaster occurs, LUS organizes, performs, and pays for the prompt restoration of utility service and clean up. Often, this includes hiring and paying contractors. After the event, LUS submits receipts and invoices to FEMA for reimbursement. The GOHSEP acts as the auditor and approves expenses eligible for reimbursement.

Hurricane Gustav, 2008

Hurricane Gustav made landfall September 1, 2008 near Cocodrie, Louisiana (located southwest of the City). Lafayette Parish sustained major damage as a result of the strong winds and rainfall associated with the storm. Approximately 40% of LUS' retail electric customers lost power during the storm; however, all services were restored within a 72-hour time frame.

When Hurricane Gustav hit, LUS hired a contractor, J.W. Didado, to assist with the utility restoration and clean-up. LUS paid J.W. Didado approximately $1 million. Other utilities also paid J.W. Didado at the same time, and because of anomalies in the reimbursement documentation, GOHSEP conducted an in-depth analysis. GOHSEP, through their auditing process, filed an audit report on March 9, 2016[1] stating that approximately $660,000 of LUS' expenses are eligible for reimbursement. The report states that certain expenses were ineligible costs (mobilization, demobilization, and standby time) and overbilled labor and equipment. LUS is cooperating with GOSHEP/FEMA.

The Report recommends that LUS should implement a method to identify the use of contractors by multiple sub grantees during the same time periods. LUS recorded a deferred debit on the balance sheet of $1,868,215. As of October 31, 2019, LUS is awaiting reimbursement of $693,178.

Hurricane Isaac, 2012

Hurricane Isaac hit southern Louisiana in August 2012. LUS experienced the effects of Hurricane Isaac, creating numerous outages over a 24-hour period. Weather conditions

[1] https://app.lla.state.la.us/PublicReports.nsf/C0311DFB1DB3B89486257F76006ED36D/$FILE/0000D4AB.pdf

contributed to an increase in lightning and tree related outages, which affected customer outages.

The claim is currently being processed by GOHSEP. LUS recorded a deferred debit on the balance sheet of $182,218. As of October 31, 2019, LUS is awaiting reimbursement of $160,309.

Flooding of 2016

In August 2016, southern Louisiana experienced major flooding, which impacted LUS' Utilities and Communications Systems operations. The Water, Wastewater, and Communications Systems experienced only minor disruptions in service and minimal damage to system infrastructure. The Communications System did not experience any major outages or disruptions in service.

The Water System experienced flooding at the South Water Plant (SWP), due to flood water rising past the elevation of the wells' sanitary seals. The SWP was shut down for a brief period so that testing could determine if the well water was affected by flood waters. Testing showed that the water was safe, and the Water System was able to meet demand even under the flood conditions. However, this event prompted many repairs and rehabilitation efforts at the plant. Updates implemented at the SWP include FEMA recommended steel shipping doors to prevent water entering filter gallery, building rehabilitation, and roof repair.

LUS recorded a deferred debit on the balance sheet of $630,364. The claim is currently being processed by GOHSEP. During 2019, LUS was reimbursed $497,611. As of October 31, 2019, LUS is awaiting reimbursement of $132,753.

Hurricane Barry, 2019

In July 2019, Hurricane Barry made landfall in Louisiana which impacted the Utilities System. As a result of the storm, there were approximately 5,000 homes affected by the storm. Within two days, LUS was back to normal operations. LUS recorded a deferred debit on the balance sheet of $1,031,267. The claim is currently being processed by GOHSEP. As of October 31, 2019, LUS is awaiting reimbursement of $1,031,267. Communications System experienced no major outages as part of Hurricane Barry. However, there were repairs needed of several access cables to restore service to several hundred customers in addition to power supply failures. Communications System returned to normal operation within three days. As of October 31, 2019, Communications System is awaiting reimbursement of $21,032.

2.7 Service Territory

The Utilities System serves electric, water, and wastewater customers primarily within the City limits. The Utilities System also serves certain electric, water, and wastewater customers residing in the Parish but outside the City limits. Currently, LUS serves 68,495 electric accounts, 58,316 water accounts, and 45,623 wastewater accounts.

LCG has franchise agreements and streetlighting agreements to provide the City of Broussard and the City of Youngsville street lighting service and new residential and commercial developments.

LCG entered into a contract with the local rural electric cooperative, Southwest Louisiana Electric Membership Corporation (SLEMCO), in 2004 defining an "area of influence" surrounding the City limits in which LUS may acquire up to 3,104 SLEMCO electric customers and serve these new electric customers. The contract specifies the amount of the payment to be made by LUS to SLEMCO for any acquired customers. The 15-year contract expired September 2019; however, negotiations are ongoing.

LUS serves retail water customers inside and outside the City limits while providing wholesale water for other parish water distribution companies.

LUS serves wastewater customers inside and outside the City limits. In addition, LUS serves localized (e.g., residential subdivision) packaged wastewater treatment systems.

Communications System services are generally offered within the City limits but have expanded to new subdivisions outside the City. At the end of 2019, the Communications System served approximately 34 wholesale accounts and over 20,000 retail accounts with CATV, telephone, or Internet, or some combination of the three. The Communications System continues to show notable positive growth each year. Communications System attained franchise status in November 2017 throughout the Parish and offers communications service to the City of Broussard, City of Youngsville, Carencro and unincorporated areas in the Parish. Communications System is continuing to build out targeted areas.

2.8 Management and Organization

The Utilities Director is appointed by the Mayor-President. The Utilities Director is subject to approval by LPUA. Through the end of 2018, the Utilities Director also managed the Communications System.

Beginning November 1, 2018, the Mayor-President appoints the Directors of the Utilities System and Communications System, but such appointments will be subject to ratification by the new City Council rather than the LPUA. The Consulting Engineer must approve the Utilities Director.

As a department of LCG, the Utilities System is managed and operated in accordance with the Charter and provisions of the current Utilities System General Bond Ordinance. The "Flow of Funds" set forth in the General Bond Ordinance specifies how to treat revenues and related margins resulting from LUS operations. Available margins, once O&M expenses were paid, are first required to meet debt service and reserve fund obligations, then a formula is applied to determine amounts for capital improvements and replacements funding, and the payment amount to the City's General Fund as ILOT. LPUA approves the LUS budgets and issues debt as approved by the Mayor-President and City-Parish Council. As January 2020, the City Council assumed LPUA's responsibilities with respect to the Utilities System, in addition to approval of rates.

As a department of LCG, the Communications System is managed and operated in accordance with the Charter and provisions of the current Communications System General Bond Ordinance. The "Flow of Funds" set forth in the General Bond Ordinance specifies how to treat revenues and related margins resulting from Communications System operations. Available margins, once O&M expenses were paid, are first required to meet debt service and reserve fund obligations, then a formula is applied to determine amounts for capital improvements and replacements funding, and the Imputed taxes. LPUA approves the Communications

System budgets, and issues debt as approved by the Mayor-President and City-Parish Council. As of January 2020, the City Council assumed LPUA's responsibilities with respect to the Communications System.

Utilities System Organizational Structure

The Utilities Director is responsible for the management and operations of LUS, consistent with the provision of services to LUS from other LCG departments mentioned above. The Charter gives specific direction to duties of the Utilities Director to oversee and manage the following:

- Production and distribution of electricity;
- Water production, treatment, and distribution;
- Sewerage collection, treatment, and disposal;
- Utility engineering services;
- Supervision of contract construction work for the Utilities System;
- Maintaining utility equipment in cooperation with the central garage;
- Reading of utility meters; and
- Other such activities as may be directed by the Mayor-President as necessary or incidental to the operation of the Utilities System.

The current Interim Utilities Director is Mr. Lowell Duhon. Mr. Duhon graduated from the University of Louisiana at Lafayette with a B.S. and master's in business administration. Prior to serving as the Interim Utilities Director, Mr. Duhon was the Chief Administrative Officer of LCG. Prior to LCG, Mr. Duhon has experience as a Financial Consultant.

Prior to October of 2019, the Interim Utilities Director was Mr. Jeffrey Stewart. Mr. Stewart graduated from the Louisiana State University with a Bachelor of Science in Electrical Engineering, is a registered Professional Engineer in Louisiana and was appointed as Interim Utilities Director in July 2018. Mr. Stewart has been an employee of LUS for 18 years. Prior to July 2018, the Utilities Director was Mr. Terry Huval.

The Utilities System has eight functional areas reporting to the Utilities Director. These functional areas include Support Services, Customer Service, Environmental Compliance, Power Production, Electric Operations, Water Operations, Wastewater Operations, and Engineering as shown below.

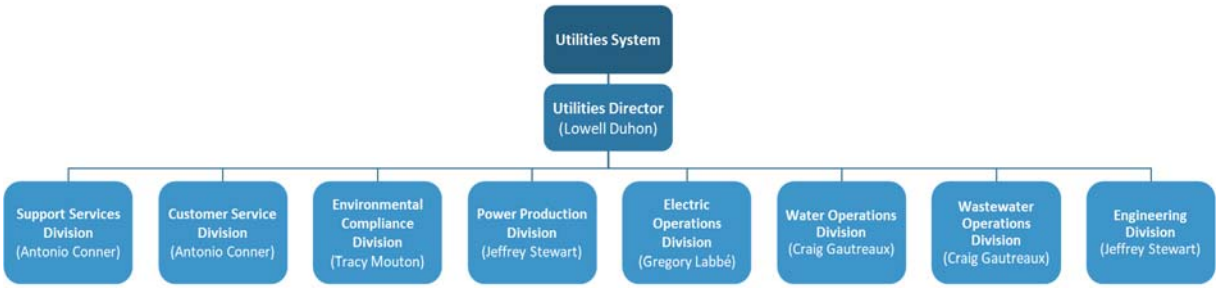


Figure 2-2: Utilities System Organizational Chart as of October 31, 2019

Division managers reporting to the Interim Utilities Director in 2019 include (Customer Service has Utilities System and Communications System management responsibilities):

- ***Jeffrey Stewart*** – *Engineering & Power Supply Manager, Power Production Manager*

  Mr. Stewart has over 18 years of experience at LUS and continues to serve as the Engineering & Power Supply Manager. In this position, Mr. Stewart is responsible for the supervision of all day-to-day engineering activities including Civil Engineering, Power Marketing, System Engineering and Substation Engineering, Network Engineering, Environmental Compliance associated with power generation, and the Primary Authorized Officer for NERC Compliance.

- ***Antonio Conner*** – *Customer & Support Services Manager*

  Mr. Conner has over 16 years of experience in the business administration and accounting fields. His previous experience encompasses various private entities and for over the past 11 years worked for the Utilities System in a financial reporting capacity. He holds a Bachelor of Science in Business Administration degree and a Master of Business Administration degree from the University of Louisiana at Lafayette. He is responsible for various support and customer service functions within the Utilities Department including financial monitoring and planning, rates, revenue assurance, employee development, meter services, utility conservation, customer service, business support services, and administration support services

- ***Tracy Mouton*** – *Environmental Compliance Manager*

  Ms. Mouton worked in the environmental field with the Utilities System for 26 years, serving as the Environmental Compliance Manager since July 2016. Her education includes a Bachelor of Science in Biology with a minor in chemistry from Jackson State University in Jackson, Mississippi. Ms. Mouton is responsible for ensuring environmental compliance of all LUS business operations associated with water and wastewater operations.

- ***Gregory A. Labbé*** – *Electric Operations Manager*

  Mr. Labbé worked with LUS for 34 years and held several positions in the Electric Operations Section. Mr. Labbé is responsible for the day-to-day operation of the electric transmission and distribution system including Transmission and Distribution Operations, Field Operations, Energy Control, Substations and Communication, Facilities Management, and the Warehouse. Mr. Labbé is a graduate of T.H. Harris Technical School in Opelousas, Louisiana.

- ***Craig Gautreaux*** – *Water and Wastewater Operations Manager*

  Mr. Gautreaux has 35 years of experience in the civil engineering and wastewater operations industry (5 years with University of Louisiana-Lafayette, 5 years with a private consulting firm, and 30 years with the Utilities System). He has a Master's degree in civil engineering. Mr. Gautreaux is responsible for the day-to-day operation of the Water and Wastewater Systems including Water Production, Water Distribution Operations, Wastewater Treatment, and Wastewater Collection.

Utilities System Staffing

The Manning tables are contained in the *LCG Adopted Operating and Five-Year Capital Improvement Budget FY 2018-2019* (2019 Budget) and the *LCG Adopted Operating and Five-Year Capital Improvement Budget FY 2019-2020* (2020 Budget). Table 2-3 shows the budgeted number of employees contained in the 2019 and 2020 Budgets. The table also shows the numbers of employees as of the end of the FY. As shown, the Utilities System is understaffed by 41 people. The understaffing is in each of the three utilities, Electric, Water, and Wastewater.

Table 2-3
Utilities System
Manning Table

	Personnel		
Utilities System	October 31, 2019	2019 Budget	2020 Budget
Director's Office	2	2	2
Support Services (1)	18	22	28
Customer Service	41	44	44
Environmental Compliance	16	17	17
Power Production	30	35	35
Electric Operations	83	94	94
Water Operations	64	67	61
Wastewater Operations	90	98	98
Engineering	75	81	81
Total Utilities System	419	460	460

Source: 2019 Budget, 2020 Budget, LUS Organizational Chart
(1) A foreman, repairman, and Water Meter Technicians moved from Water Operations to Support Services

The presentation of data in the above tables varies from the tables provided in previous years' reports. Prior to 2018, the table showed only the current and projected budgeted employees. The table did not reflect any current under- or over-staffing.

Communications System Organization Structure

Since October 14, 2019, the Interim Communications System Director is Ms. Kayla Miles. Ms. Miles graduated from the University of Louisiana at Lafayette with a B.A. in Public Relations. Prior to serving as the Interim Communications System Director, Ms. Miles was the Communications Support Services Administrator for Communications System.

From November 1, 2018 through October 14, 2019, the Interim Communications System Director was Ms. Teles Fremin. Ms. Fremin graduated from the University of Louisiana at Lafayette with a Bachelor of Science in Electrical Engineering, is a registered Professional Engineer in Louisiana and was appointed as Interim Communications Director in November 2018. Ms. Fremin has been an employee of LUS for 18 years.

From July 2018 through November 1, 2018, the LUS Utilities Director was also the Communications Director, Mr. Jeffrey Stewart.

Prior to July 2018, the Utilities Director was Mr. Terry Huval. Upon Mr. Huval's resignation and retirement, Mr. Jeffrey Stewart was appointed the Interim Utilities Director.

Since November 1, 2018, the Communications Director is responsible for the Communications System operations and management. Communications System employees and facilities will be organized separately from Utilities System operations; however, several services such as accounting, customer service and reporting functions were shared among the Communications System and Utilities System. In accordance with the requirement to maintain separate Utilities System and Communications System funds, all costs associated with these services are accounted for separately.

The Communications System employs approximately 77 employees, reporting to 5 functional areas: Administration and Support, Operations, Warehouse, Business Support Services, and Engineering as shown below. Figure 2-3 represents the organizational responsibilities and positions as of October 31, 2019.

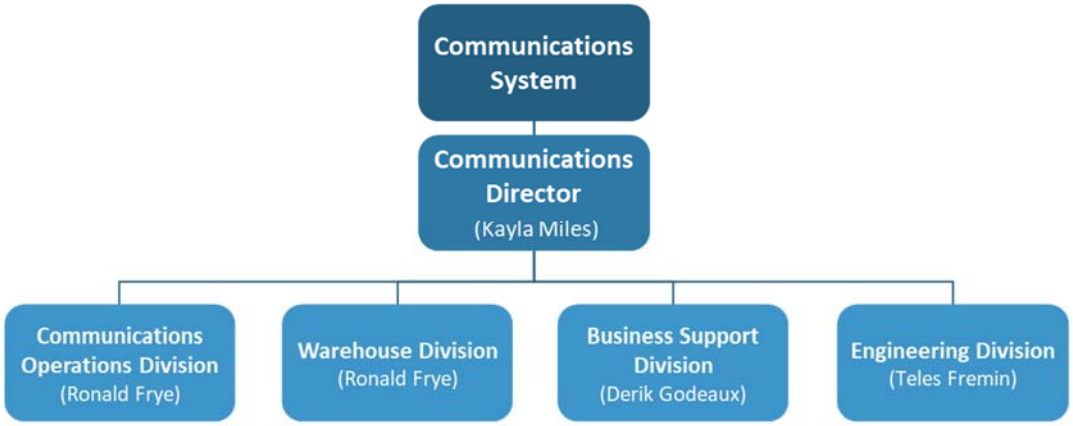


Figure 2-3: Communications System Organizational Chart as of October 31, 2019

Division managers reporting to the Communications System Director include (each of these Division managers have both Utilities System and Communications System management responsibilities):

- ***Kayla Miles-Brookes*** – *Interim Director of Communications*

  Ms. Miles-Brooks has a B.S. in Public Relations from the University of Louisiana at Lafayette and a background marketing and public relations, business development, and customer support. She is responsible for overseeing all matters regarding Communications System.

- ***Teles Fremin*** – *Chief Communications Engineer*

  Ms. Fremin has over 18 years of experience in the public utility industry and telecommunications industry. She is a Professional Engineer and has her Bachelor of Science in Electrical Engineering from the University of Louisiana at Lafayette. Ms. Fremin is responsible for all day-to-day system component operations and all engineering tasks and responsibilities.

- ***Ronald Frye*** – *Communications Field Operations Supervisor*

  Mr. Frye has over 25 years of experience in the Communications Operations and the Construction Field. He is responsible for the Communication System operations including maintenance and operation of the Communications System outside plant, installations, and warehouse operations.

- ***Derik Godeaux*** – *Interim Communications Support Services Administrator*

  Mr. Godeaux has a B.S. in Finance and a Master's in Business Administration with 9 years of experience in finance and business administration. He is responsible for overseeing business operations, which include sales and marketing, finance, and regulatory matters.

Communications System Staffing

As indicated in the Manning table below, the Communications System is understaffed in each functional area by a total of 15 personnel.

Table 2-4
Communications System
Manning Table

	Personnel		
Communications System	October 31, 2019	2019 Budget	2020 Budget
Administration & Support	1	2	2
Operations	33	37	37
Warehouse	2	3	3
Business Support Services	11	14	13
Engineering	15	21	22
Total Communications System	62	77	77

Source: 2019 Budget, 2020 Budget, LUS Organizational Chart

Pay Scale Review

The Utilities Department annually administers employee performance reviews and salary planning. Salary adjustments take effect on November 1st of each year, with changes being realized during the first full pay period of the new Fiscal Year. Compensation parameters are associated with the job titles and job descriptions, which specify skill and responsibility levels of various employees. Both Utilities System and Communications System's employees are compensated under the same job description and pay scale matrix. To benchmark the Utilities Department compensation against readily available industry data, NewGen reviews compensation parameters pertaining to the job descriptions listed below.

- Electric Utility
  - Chief Electrical Engineer
  - Electrical Engineer III

  - Power Plant Technician
- Water and Wastewater Utility
  - Water/Wastewater Operations Manager
  - Water Plant/Waste Plant Operator
- Communications System
  - Fiber Optics Technicians
  - Programmer Analyst
  - Applications Support Specialist
  - Systems Analyst

Our review indicates that the competitiveness of LUS' compensation for Electric System positions vary by position, with some positions aligned with market compensation levels and some below. The Chief Electrical Engineer and Power Plant Technician position appear below market median compensation levels, while the Electrical Engineer III competitiveness appears aligned with the benchmarking sources. These results align with recent salary competitiveness issues LUS experienced in pursuing electric linemen and engineering staffing vacancies in the past. For the two Water and Wastewater Utility positions reviewed, current compensation also appears to be below the market compensation values from the benchmarking sources.

The salary benchmarking for the Communications System indicates three of the four positions are below the market median compensation levels. Fiber Optics Technicians, Programmer Analyst, and Systems Analysts are all below market median. Applications Support Specialists appear aligned with the market median data. The Communications System's Internet, telephone, and CATV service markets are competitive. National telecommunications firms such as Cox Communications, Dish, and AT&T each offer services within the City limits. As the Communications System continues to grow and mature, the marketability of key staff will increase accordingly, giving these employees alternative employment options with competitive service providers within the Parish. The Communications compensation program must recognize this competitive reality with key Communications System positions and structure compensation packages that retain these key employees and expertise to support the sustainability of the enterprise and value provided to LCG.

Our review did not take into consideration other benefits commonly included in a compensation comparison such as retirement plans, healthcare benefits, and paid vacation. Also, it is important to note that observed employee turnover was low within the Utilities Department. The low turnover rate may illustrate qualitative and non-salary benefits associated with LUS positions that may hold a material value to many employees and/or applicants.

SECTION 3
UTILITIES SYSTEM

3.1 System Descriptions

LUS operates Electric, Water, and Wastewater Systems. The Electric System operates power generation, transmission, distribution, and customer assets. The Water System includes raw water treatment plants, distribution system, and customer assets. The Wastewater System includes sewage treatment plants, collection piping, and customer assets.

Customers

LUS serves customers primarily within the City limits. Each utility system provides services to certain customers outside of the City limits and wholesale customers. LUS has franchise agreements with the City of Broussard and the City of Youngsville, which allows LUS to serve electric customers in those cities. During 2019, LUS served 68,495 electric customers, 58,316 water customers, and 45,623 wastewater customers. Combined LUS' customer growth since 2015 averaged 1.2% per year. Table 3-1 includes the historical customers served by each utility.

Table 3-1
Utilities System
Historical Number of Customers

FY	Electric	Water (1)	Wastewater
2015	65,847	55,109	43,521
2016	66,325	55,851	44,269
2017	66,860	56,302	44,830
2018	67,243	56,564	45,019
2019	68,495	58,316	45,623

Source: LUS Financial and Operating Statements
(1) Water customers include retail and wholesale.

Historical Revenues

LUS generated a total of $233,374,132 of operating and other revenues in 2019 comprised of $179,965,886 from electric services, $21,369,475 from water services, and $32,038,772 from wastewater services. 2019 revenues were approximately 0.7% lower than 2018, with the electric revenues 0.5% lower. Water and wastewater revenues decreased by 1.7% and 1.1%, respectively, from the previous year. The decrease in revenues is driven by lower sales volumes for each utility. Table 3-2 includes historical revenues for each utility service.

Table 3-2
Utilities System
Historical Operating and Other Revenues

FY	Electric Revenues (1)	Water Revenues (2)	Wastewater Revenues (3)	Total Revenues
2015	$182,044,163	$18,284,817	$29,119,216	$229,448,195
2016	$174,354,151	$18,593,541	$29,144,574	$222,092,266
2017	$176,060,504	$19,822,196	$30,790,307	$226,673,006
2018	$180,955,690	$21,736,544	$32,379,226	$235,071,461
2019	$179,965,886	$21,369,475	$32,038,772	$233,374,132

Source: LUS Financial and Operating Statements
(1) Electric Revenues include revenue from base rates, fuel charges, interest income, and other miscellaneous revenues.
(2) Water Revenues include revenue from rates, interest income, and other miscellaneous revenues.
(3) Wastewater Revenues include revenue from rates, interest income, and other miscellaneous revenues.

Historical Utilities Debt Service Coverage Ratio

Utilities System debt service for years 2015 through 2019 include the Series 1996 Bonds, Series 2010 Bonds, Series 2012 Bonds, and Series 2017 Bonds. The Series 2019 Bonds were issued in 2019; however, the first debt service was due November 1, 2019 (FY 2020). The Series 1996 Bonds final payment was November 1, 2017 (FY 2018). Table 3-3 shows historical debt service and the associated DSCR. In each year since 2015, the DSCR exceeded the minimum coverage requirement of 1.0 required by the Bond Ordinances.

Table 3-3
Utilities System
Historical Debt Service Coverage

FY	Operating Revenues (1)	Operating Expenses (2)	Net Available Revenues	Debt Service (3)	Debt Service Coverage Ratio
2015	$229,448,195	$160,672,843	$68,775,352	$22,924,293	3.0
2016	$222,092,266	$158,750,451	$63,341,815	$22,925,238	2.8
2017	$226,673,006	$165,998,482	$60,674,525	$21,341,835	2.8
2018	$235,071,461	$164,165,246	$70,906,215	$21,427,905	3.3
2019	$233,374,132	$152,839,402	$80,534,731	$22,732,925	3.5

Source: LUS Financial and Operating Statements
(1) Operating Revenues Include interest income and other miscellaneous income.
(2) Operating Expenses include O&M and other expenses such as customer service, and administrative and general (A&G) costs. Operating expenses do not include ILOT, normal capital, special equipment, and other miscellaneous expenses.
(3) Debt Service was prepared on a cash basis for the below table and includes the Series 1996 Bonds, Series 2010 Bonds, Series 2012 Bonds and Series 2019 Bonds. The Series 2019 Bonds first debt service was due November 1, 2019 (FY 2020). The Series 2010 Bonds will be fully redeemed by the proceeds of the Series 2017 Bonds on November 1, 2020.

3.2 Rate Adjustments

LPUA regulates the rates and charges for the Utilities System. Current rates are described in the LCG Code of Ordinances, Article III – Rates and Charges, Division 1 – Generally. The Electric System rate structure includes base rates (customer charge and commodity charge) and a monthly Fuel Charge (FC) (Schedule FC).

The Utilities Director monitors and manages the FC on a month-to-month basis to properly and adequately recover all eligible costs. The FC collects revenues to pay for the following expense items: Midcontinent Independent System Operator (MISO) market purchases less market sales, transmission associated with purchased power, capacity and energy contracts, the Renewable Energy Credits (REC) contract, LPPA fuel and fuel handling costs, LPPA rail car debt service, LPPA Mercury and Air Toxic Standard (MATS) debt service, LPPA MATS O&M, LPPA reagents, LUS fuel costs, hydroelectric purchased power contract, and The Energy Authority (TEA) costs.

LUS completed a rate study in 2016, which showed that the rates for the Electric, Water, and Wastewater Systems were each insufficiently recovering revenues to recover costs. As a result, rates for the Electric, Water, and Wastewater Systems increased November 1, 2016 and November 1, 2017. The rates implemented in 2017 and 2018 were designed to collect sufficient revenues to meet all operating costs, debt service coverage requirements, ILOT requirements, maintain reserves, and fund capital expenses through 2021. As approved by LPUA, the Electric System base rates increased 6.0% (2.8% total) in each 2017 and 2018. The Water System rates increased by 7.4% in 2017 and 7.2% in 2018. The Wastewater System rates increased by 6.1% in 2017 and 5.7% in 2018. The actual increase in revenues from the rate increases can vary depending on weather and system growth. Table 3-4 below provides the historical rate increases approved by the LPUA.

Table 3-4
Utilities System
Historical Rate Adjustments

	2015	2016	2017	2018 (1)	2019
Electric Retail (2)	0%	0%	2.8%	2.8%	0%
Water Retail	0%	0%	7.4%	7.2%	0%
Wastewater Retail	0%	0%	6.1%	5.7%	0%

Source: NewGen Electric Cost of Service and Rate Study
(1) The rate adjustments reflect projected revenue increases.
(2) The electric base rates were approved to increase 6.0% in 2017 and in 2018. The result on the total electric revenues was estimated to be 2.8% in 2017 and 2.8% in 2018.

3.3 Operating and Capital Budget

As explained in Section 2.2, the Utilities System prepares and submits their proposed operating and capital budget to LCG. The operating portion of the budget contains projections of revenues and expenses for the upcoming FY.

The CIP, as contained in the 2020 Budget, is shown in Table 3-5 and totals $93.7 million over the five-year period. The Electric System CIP totals $28.0 million. The Electric System CIP includes production capital expenditures related to combustion turbine plant improvements including inlet air chiller coil replacements, chiller motor rebuild, and fuel supply

improvements. The distribution capital improvements include replacing and renewing distribution feeders, extending distribution infrastructure to serve system expansions, fault detector replacement, primary cable replacement, direct cable bury replacement, and other general distribution improvements. The substation capital improvements include new transformers, relay replacement, breaker replacement, and other substation improvements and expansion. The transmission improvements include new transmission lines to improve capacity, reliability, and performance. The general plant expenses include office expansions, call center enhancements, customer engagement, digital self-service and server improvements.

The Water System five-year CIP totals $17.1 million and includes building improvements, rehabilitation of treatment units, main replacements, upgrades, and extensions. Approximately half of the capital expenses are for production improvements including building rehabilitation, tank painting, treatment plant upgrade, and maintenance improvements. The other half of the capital expenditures are distribution related and include water main expansions, upgrades, replacements, and ground storage.

The Wastewater System CIP contained in the 2020 Budget totals $48.5 million and includes capital costs related to the expansion of wastewater treatment plants, digester rehabilitations, lift station upgrades, gravity sewer upgrades, collection system improvements, odor control, plant upgrades, pond cleaning, and sludge handling.

Table 3-5
Utilities System
2020 Budget Projected CIP

	2020	2021	2022	2023	2024	Total
Electric System						
Acquisitions (1)	$0	$0	$0	$0	$0	$0
Production	1,785,000	675,000	675,000	325,000	825,000	4,285,000
Distribution	3,895,000	1,735,000	1,435,000	1,035,000	1,035,000	9,135,000
Substation	885,000	1,185,000	1,185,000	885,000	885,000	5,025,000
Transmission	3,010,000	10,000	10,000	10,000	10,000	3,050,000
General Plant	4,250,000	1,550,000	450,000	150,000	150,000	6,550,000
Total Electric	$13,825,000	$5,155,000	$3,755,000	$2,405,000	$2,905,000	$28,045,000
Water System						
Production	$2,880,000	$1,380,000	$930,000	$730,000	$2,230,000	$8,150,000
Distribution	2,035,000	2,510,000	860,000	1,985,000	1,585,000	8,975,000
Total Water	$4,915,000	$3,890,000	$1,790,000	$2,715,000	$3,815,000	$17,125,000
Wastewater System						
Treatment	$2,710,000	$16,660,000	$660,000	$4,760,000	$360,000	$25,150,000
Collection	4,675,000	4,415,000	3,305,000	8,245,000	2,745,000	23,385,000
Total Wastewater	$7,385,000	$21,075,000	$3,965,000	$13,005,000	$3,105,000	$48,535,000
Total Capital Program	$26,125,000	$30,120,000	$9,510,000	$18,125,000	$9,825,000	$93,705,000

Source: 2020 Budget. Amounts are in 2020 dollars.
(1) May change based on SLEMCO contract negotiations.

Utilities System's Budget to Actual Performance

Table 3-6 summarizes the results of the Utilities System budget and actual accounts for 2019. Please note that the revenue categories shown in Table 3-6 are shown as exhibited in the 2019 Budget. These revenue categories are slightly different than other tables contained in this Report.

Table 3-6
Utilities System
Comparison of Budget to Actual Results – 2019

	Actual (millions)	2019 Budget (millions)	Difference (millions)	Difference (%)
Operating Revenues				
Electric Retail Sales	$100.8	$108.0	($7.2)	(6.7%)
Electric Retail Fuel Adj.	73.1	83.5	(10.4)	(12.5%)
Electric Wholesale Sales	0.2	0.2	0.0	2.6%
Water Sales	20.2	21.8	(1.6)	(7.3%)
Wastewater Sales	29.9	33.7	(3.7)	(11.1%)
Interest Income	4.7	1.2	3.5	291.3%
Miscellaneous Other	4.5	5.6	(1.1)	(19.8%)
Total Operating Revenue	$233.4	$254.0	($20.6)	(8.1%)
Operating Expenses				
Purchased Power LPPA	$47.2	$53.8	($6.6)	(12.2%)
Purchased Power Other	15.6	3.5	12.0	339.0%
Purchased Power MISO	46.7	72.5	(25.9)	(35.7%)
Purchased Power MISO Sales	(32.5)	(39.0)	6.4	(16.5%)
Production Fuel	2.4	1.3	1.1	85.1%
Other O&M	73.6	84.4	(10.9)	(12.9%)
ILOT	25.1	23.8	1.2	5.2%
Total Operating Expenses	$177.9	$200.4	($22.5)	(11.2%)
Other Income (Expenses)				
Normal Capital & Spec. Equip (1)	($6.1)	($12.9)	$6.8	(52.7%)
Principal from Internal Loans	0.8	0.8	0.0	0.0%
Interest from Internal Loans	0.9	0.9	0.0	0.0%
Interest on Long-Term Debt	(10.4)	(8.9)	(1.4)	16.1%
Principal on Long-Term Debt	(12.4)	(12.4)	0.0	0.0%
Total Other	($27.1)	($32.4)	$5.3	(16.4%)
Cash Available for Capital	$28.4	$21.1	$7.3	34.4%

Source: LCG
(1) Includes Current Year (2019) work orders. Does not include prior year work orders done in 2019.

The Utilities System 2019 revenues and expenses were both lower than originally projected in the 2019 Budget. The Utilities System collected $233 million in operating and miscellaneous revenues compared to the budgeted $254 million. The difference is attributable to lower

water sales, lower wastewater collection, lower energy sales, and lower purchased power costs. Operations and Maintenance (O&M) expenses were lower than budgeted primarily due to lower personnel salaries. Other Income & Expenses were lower than the budgeted amount due to lower spending on normal capital and special equipment. Overall, the cash available for capital was higher than the budgeted amount.

3.4 Utilities System Shared Services

Utilities System shared services are provided by the Customer Service & Support Service divisions. Among other things, these divisions offer financial planning, rates, meter services, customer service, and administration and business support services. The cost of these services is assigned and shared across the Electric, Water, and Wastewater Systems in the establishment of rates and charges. The customer service staff is sufficient with minimal turnover. Generally, positions become vacant as existing employees are promoted.

The Utilities System has two customer service centers and a drop box at City Hall. The Moss Customer Service Center opened in 2016 and is on the north side of the City. The Moss Customer Service Center has multiple drive through lanes to provide quick and easy access. Payment of all utility bills are accepted at the Moss location. The Pinhook Customer Service Center is on the south side of the City and payment of all utility bills is accepted.

Customers may pay their bill by mail, phone, online, drop box, or in person. LUS also accepts automatic bank or credit card payments. Additionally, LUS offers budget billing in which customers may make the same monthly payments with a true-up at the end of the 12-month period.

Depending on the services each customer receives, their bill may include the following services: electric, water, wastewater, recycling, and/or garbage collection. Communications System is billed separately from the other utilities. In addition to their utilities billing, LUS also performs the City's recycling and garbage collection billing and is reimbursed for the costs.

3.5 In Lieu of Tax

The Utilities System ILOT calculation provides for an ILOT payment of up to 12% of the Receipts Fund. The non-fuel revenues are the gross receipts less fuel costs and other miscellaneous items. To be eligible to make the ILOT payment, the Utilities System must first pass an ILOT Test. The purpose of the test is to ensure that the Utilities System has sufficient cash to meet capital obligations. If cash available after debt service, less 7.5% of the non-fuel revenues, is greater than 12% of the Receipts Fund, the Utilities System passes the test and makes the ILOT payment to the City. Should the Utilities System fail the ILOT Test, the Utilities System pays an amount equal to the amount of cash available after debt service, less 7.5% of the non-fuel revenues.

ILOT payments by municipally owned utilities are commonly used by local governments across the country to collect taxes and/or franchise fees that would be collected if an investor-owned utility were operating the utility franchises within the city. The American Public Power Association (APPA) publishes the *Public Power Pays Back* biannually, which summarizes ILOT payments by municipal utilities across the country. The most recently available report was published in 2018 utilizing 2016 data from 176 public power systems across the country. The report states that the median ILOT paid to local governments, as a percent of electric operating

revenues, was 5.6%. For utilities in the West South Central region, as defined by APPA and including LUS, the median ILOT as a percentage of electric operating revenues was 11.9%. LUS pays, on average, 10.2% of the operating revenues to LCG, which is higher than the national average and lower than the regional ILOT reported by APPA. Table 3-7 summarizes LUS' historical ILOT payments to LCG.

Table 3-7
Utilities System
Historical ILOT Payments

	2015	2016	2017	2018	2019
ILOT Paid (1)	$22,847,494	$23,306,557	$22,568,235	$23,708,786	$25,051,002
Total Operating Revenues	$229,448,195	$222,092,266	$226,673,006	$235,071,461	$233,374,132
ILOT as a % of Revenues	10.0%	10.5%	10.0%	10.1%	10.7%

Source: LUS Financial and Operating Statements
(1) Represents ILOT paid for the Utilities System including electric, water and wastewater.

3.6 Accounting and Financial Statements

The accounting responsibilities for the Utilities System is managed and performed by LCG, including the selection of accounting software and related financial reporting. LCG prepares monthly Financial and Operating Statements for the Utilities System. These monthly statements include a balance sheet, income statement, and detailed revenues and expenses by utility. As part of LCG, the Utilities System follows the same FY with an ending date of October 31st.

The audit for each FY is generally not available until April of the following year. The detailed financial data included for the Utilities System was primarily based on the monthly Financial and Operating Statements that support and align with the audited Comprehensive Annual Financial Report (CAFR). The tables included in this Report may slightly vary from the tables in the CAFR as numbers may be presented in various ways to calculate metrics. Although the numbers may vary, the differences are not material and do not affect the resulting metrics.

Balance Sheet

A historical balance sheet summary is shown below in Table 3-8. LUS' Total Assets have increased $72.6 million over the last five years.

The long-term debt increased over the five-year period by approximately $3.4 million. The long-term debt decreased in 2017 as a result of the Series 2017 Bonds and increased in 2019 as a result of the 2019 Series Bonds. The Bonds and Special Funds assets increased in 2019 also as a result of the Series 2019 Bonds. Overall, the Retained Earnings increased by $43.8 million over the last five years.

Table 3-8
Utilities System
Comparative Balance Sheet

	2015	2016	2017	2018	2019
Total Assets					
Utility Plant	$573,057,425	$569,502,627	$566,271,981	$565,059,332	$561,320,749
Bond and Special Funds	136,488,144	131,820,767	124,504,455	132,262,607	213,449,976
Current Assets	9,161,599	13,010,477	8,885,760	8,780,394	10,183,720
Accounts Receivable	24,582,490	27,665,322	29,668,893	28,439,772	28,657,295
Reserve for Uncollectible Accounts	(1,023,757)	(1,150,040)	(1,215,674)	(1,090,028)	(941,530)
Notes Receivable	27,723,160	27,623,160	27,181,093	26,529,343	25,686,227
Inventories	7,864,446	8,316,964	8,981,327	9,097,936	9,444,953
Deferred Debits	21,301,983	26,647,000	27,838,831	22,227,147	23,962,998
Total Assets	$799,155,490	$803,436,278	$792,116,667	$791,306,504	$871,764,388
Total Liabilities & Equity					
Long Term Debt	$226,365,000	$214,410,000	$195,915,000	$184,110,000	$229,805,000
Current Liabilities	24,471,474	28,334,541	24,734,800	24,900,222	27,266,441
Long Term Liabilities	51,363,714	56,581,937	60,358,386	62,946,218	73,987,500
Retained Earnings	496,955,303	504,109,800	511,108,482	519,350,063	540,705,447
Total Liabilities & Fund Equity	$799,155,491	$803,436,278	$792,116,667	$791,306,504	$871,764,388

Source: LUS Financial and Operating Statements

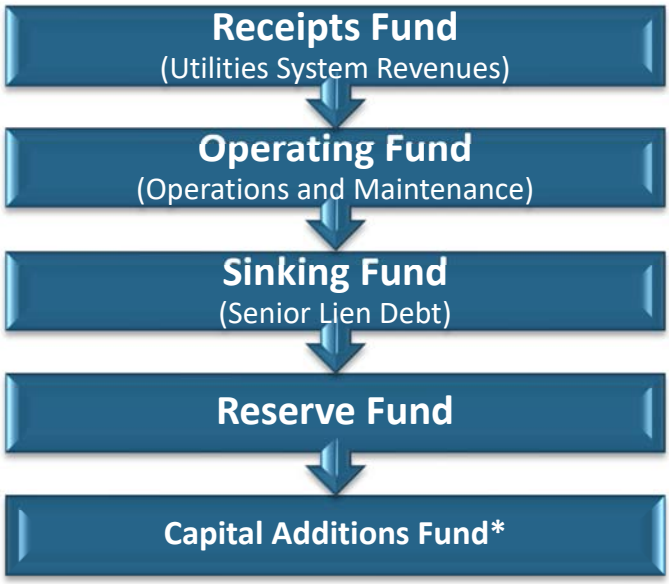
Fund Balances

Article V of the Utilities System General Bond Ordinance dictates LUS' funds and accounts and defines the 'Flow of Funds.' Article V creates the following funds: Receipts Fund, Operating Fund, Sinking Fund, Reserve Fund, and Capital Additions Fund. In addition, funds may be created as new bonds are issued. Table 3-9 below, summarized the beginning balance, receipts, disbursements, and ending balances of the required funds cash balances. As seen in Table 3-9, the Total Fund Balances increased by $81.7 million, or 62%, in 2019 due to the issuance of the 2019 Bonds. Figure 3-1 illustrates the LUS Flow of Funds.

Table 3-9
Utilities System
Fund Balances as of October 31, 2019 ($1,000)

	Receipts Fund	Operating Fund	Bond & Interest Fund	Capital Additions Fund	Bond Reserve Fund	2019 Bond Construction Fund	Total
Beginning Balance	$776	$8,000	$0	$103,432	$19,765	$0	$131,973
Receipts	249,808	180,267	23,076	61,355	0	71,174	585,680
Disbursements	248,460	180,207	23,076	49,368	2,487	364	503,962
Ending Balance	$2,124	$8,060	$0	$115,419	$17,278	$70,810	$213,691

Source: LCG



*First, 7.5% of Non-Fuel Revenues transferred to pay Capital Costs of the Utilities System,

Second, 12% of total deposits in the Receipts Fund transferred to the General Fund of the Issuer

Third, amounts due on Subordinated indebtedness, and

Fourth, any other purpose under the General Ordinance.

Figure 3-1: LUS Flow of Funds

Income Statement

Table 3-10 shows the comparative income statement. Since 2015, the revenues and expenses have varied primarily due to the varying fuel and purchased power costs. The Operating Revenues increased in 2017 and 2018 due to a rate increase applied to the Electric, Water, and Wastewater Systems. The Net Operating Revenues have varied over the last five years primarily driven by changes in the FC expenses and rate increases in 2017 and 2018. Other Income varied over the years as fund balances and interest rates changed.

The Net Income remained positive over the five-year period and has significantly increased as a result of the 2017 and 2018 rate increases. The Net Income was $5.9 million in 2016 and has grown to $21.4 million in 2019. The rate study was based on the 2017 Budget which included the decommissioning and then repowering of the existing Doc Bonin Power Plant with reciprocating engines. The 2018 and 2019 Budgets do not include this project as the City-Parish Council did not approve LUS to issue bonds for this project.

Table 3-10
Utilities System
Comparative Income Statement

	2015	2016	2017	2018	2019
Operating Revenues	$228,021,885	$220,387,318	$224,652,384	$232,203,121	$228,678,339
Operating Expenses	160,672,843	158,750,451	165,998,482	164,165,246	152,839,402
Net Operating Revenues	$67,349,042	$61,636,867	$58,653,902	$68,037,875	$75,838,938
Depreciation	22,881,380	23,601,958	23,960,817	24,555,286	25,130,355
Net Operating Revenues after Depreciation	$44,467,661	$38,034,910	$34,693,086	$43,482,589	$50,708,583
Other Income					
Interest Income	$1,426,311	$1,704,947	$2,020,622	$2,868,340	$4,695,793
Unrealized Gain/Loss on Inv.	91,526	117,778	(283,409)	(46,380)	399,671
Amortization of Debt Premium	3,028,445	3,020,974	2,995,867	3,544,254	3,639,998
Water Tapping Fees	107,420	78,320	64,240	72,240	56,760
Communications Lease Income	36,952	27,648	25,378	0	0
Contributions in Aid of Construction	0	56,063	128,155	304,557	0
Misc. Non-Operating Revenue	3,414,729	2,566,471	3,335,924	4,188,986	3,141,166
Total Other Income	$8,105,384	$7,572,201	$8,286,777	$10,931,997	$11,933,388
Other Expenses					
Loss on Disposition of Property	$313,714	$329,136	$369,488	$398,883	$309,767
Interest Expense	10,623,334	10,970,238	8,916,835	9,622,905	10,362,925
Amortizations	2,675,715	2,256,610	2,046,774	2,304,183	2,187,756
Interest on Customer Deposits	3,206	821	1,688	4,307	5,331
Tax Collections/Non-Operating	0	0	0	0	0
Misc. Non-Operating Expense	1,383,331	1,589,252	3,182,762	2,844,559	3,369,807
Total Other Expenses	$14,999,299	$15,146,058	$14,517,546	$15,174,837	$16,235,585
Net Income Before ILOT	$37,573,746	$30,461,053	$28,462,316	$39,239,748	$46,406,385
ILOT	22,847,494	23,306,557	22,568,235	23,708,786	25,051,002
Net Income	$14,726,252	$7,154,496	$5,894,081	$15,530,962	$21,355,383

Source: LUS Financial and Operating Statements
Note: May vary slightly from LCG Comprehensive Annual Financial REPORT due to rounding.

Cash Flow

Cash flow is an important indicator of municipal utility financial health. Municipal utilities typically operate on a Cash Basis, which excludes non-cash expenses, such as depreciation, but includes other cash expenses, such as principal payments associated with debt service and capital improvements. Since municipally owned utilities are primarily concerned with accumulating sufficient cash balances to meet operating expenses, debt service, capital improvements, and other obligations, the financial results are presented on a Cash Basis.

Table 3-11 shows the change in cash due to operations and ILOT for the Utilities System over the period 2015 through 2019. These numbers indicate that Utilities System rates were adequate in meeting operating expenses, debt service, normal capital and special equipment, and ILOT payment obligations of the Utilities System. The remaining five-year cumulative net margin of approximately $66.5 million was available for capital additions or reserves.

The Change in Cash has significantly increased as a result of the 2017 and 2018 rate increases. The Change in Cash was $6.1 million in 2016 and has grown to $21.1 million in 2019.

Table 3-11
Utilities System
Comparative Cash Flow

	2015	2016	2017	2018	2019	Five-Year Total
Operating Revenues	$228,021,885	$220,387,318	$224,652,384	$232,203,121	$228,678,339	$1,133,943,048
Operating Expenses	160,672,843	158,750,451	165,998,482	164,165,246	152,839,402	802,426,423
Net Operating Revenues	$67,349,042	$61,636,867	$58,653,902	$68,037,875	$75,838,938	$331,516,624
Debt Service	$22,924,293	$22,925,238	$21,341,835	$21,427,905	$22,732,925	$111,352,195
Balance After Debt Service	$44,424,749	$38,711,630	$37,312,067	$46,609,970	$53,106,013	$220,164,429
Less Normal Capital & Special Equipment	$10,001,798	$9,309,935	$4,890,913	$5,032,337	$6,979,931	$36,214,915
Less ILOT	22,847,494	23,306,557	22,568,235	23,708,786	25,051,002	117,482,074
Change in Cash due to Operations & ILOT	$11,575,457	$6,095,137	$9,852,919	$17,868,847	$21,075,080	$66,467,440

Source: LUS Financial and Operating Statements

Descriptions of the Electric, Water, and Wastewater Systems are included in the following sections. Each section includes details regarding customer sales or consumption, facilities, operations, regulatory impacts, and competitive benchmarking of services.

SECTION 4
ELECTRIC SYSTEM

The City owns and operates an Electric System providing reliable power to 68,495 customers. LUS operates power generation, transmission, substation, distribution, and customer facilities within and outside its service territory. The Electric System retail sales for 2019 were 2,004,310 megawatt-hours (MWh), 1.4% lower than 2018. Table 4-1 shows the historical Electric System retail sales, wholesale sales, and wholesale purchases.

Table 4-1
Electric System
Historical Retail and Wholesale Sales

	Retail Sales (MWh)	MISO Market Sales (MWh)	MISO Market Purchases (MWh)
2015	2,050,434	1,100,385	2,113,086
2016	2,027,945	872,154	2,098,275
2017	1,980,653	898,205	2,042,686
2018	2,031,847	1,153,292	2,108,460
2019	2,004,310	1,132,482	2,036,411

Source: LUS Financial and Operating Statements

LUS became a full market participant as a Local Balancing Authority and Transmission Owner within MISO in 2013. Participation in the MISO market requires a buy-all/sell-all type of transaction. LUS purchases the majority of its capacity and all of its energy requirements to serve its load from the MISO market. Correspondingly, MISO dispatches LUS' generation units and all of the generation is sold into the MISO market. The MISO Market Purchases represent purchases from the MISO market to serve LUS retail load.

As shown in Table 4-2, retail sales by customer class as of October 31, 2019 indicate that residential and commercial customers represent approximately 90.8% of Electric System sales. LUS' commercial customer base is diverse, with no single customer representing more than 2.3% of LUS electric retail revenues.

Table 4-2
Electric System
Customer Class Statistics as of October 31, 2019

	Number of Customers	Percent of Total	Sales (kWh)	Percent of Total
Residential	55,813	81.5%	814,426,586	40.6%
Residential – Outside the City	955	1.4%	15,726,781	0.8%
Commercial without Demand – Small	7,863	11.5%	192,408,009	9.6%
Commercial Small and Large – Outside of City	168	0.2%	15,133,647	0.8%
Commercial with Demand – Large	1,254	1.8%	781,249,991	39.0%
Private Security Lighting	1,732	2.5%	6,891,285	0.3%
Street Lighting	2	0.0%	16,792,608	0.8%
Schools and Churches	437	0.6%	58,024,500	2.9%
Municipal-General Fund	1	0.0%	274,080	0.0%
University of Louisiana – Lafayette	90	0.1%	68,404,153	3.4%
Interdepartmental	180	0.3%	34,978,350	1.7%
Total Meters In Service	68,495	100.0%	2,004,309,990	100.0%

Source: LUS October 2019 Financial and Operating Statements

4.1 Production and Power Supply

The Electric System annual peak demand typically occurs in the summer months and reached 451 megawatts (MW) in July 2019. LUS operates two power generation plants, while LPPA represents LUS' interest in a third power generating unit, Rodemacher Unit 2.

LUS generates electricity with two natural gas-fired generating plants located within the Parish, and the LPPA owned Rodemacher Unit 2 coal-fired generating plant located approximately 100 miles northwest of Lafayette near Boyce, Louisiana. LPPA holds a 50% ownership in Rodemacher Unit 2, which is operated by Cleco Corporate Holdings, LLC (Cleco).

LUS has two local power plants that are retired and still in place, the Doc Bonin Plant and the Curtis Rodemacher Plant. The Doc Bonin and the Curtis Rodemacher Plants were deemed economically obsolete. Curtis Rodemacher ceased operation in 1993, was retired in place in June 2000 and the Doc Bonin Plant was retired in April 2017. Decommissioning efforts at Doc Bonin are in progress and currently on budget. To date, the four Doc Bonin fuel oil tanks and associated piping were removed, all contaminated soil under the tanks was remediated, and grading of the site was completed.

The Curtis Rodemacher generating station remains retired with LUS performing routine maintenance, upkeep, and site monitoring. Site monitoring and remediation includes periodic soil sampling and lead paint removal. LCG must retain ownership of the Curtis Rodemacher site due to the co-location of a large, critical substation at the site and related security needs. Periodic costs associated with site monitoring and upkeep of both retired plants will continue, as needed, to maintain ownership and environmental compliance. The CIP contained in the

2020 Budget includes approximately $5 million for asbestos and lead paint abatement and equipment removal at the Curtis Rodemacher Plant.

LUS initiated a Request for Proposal to select a consultant to perform an Integrated Resource Plan (IRP), which is evaluating overall power supply options, including plans for potentially replacing or repowering the Doc Bonin Plant and a long-term strategy for Rodemacher Unit 2. The previously recommended project to install natural gas fired reciprocating engines at the Doc Bonin site, which was included in the 2018 Budget, was placed on hold pending the result of the new IRP. In addition, the IRP is evaluating the Coal Combustion Residue Rule and Effluent Limitation Guidelines to determine compliance and associated costs which will impact long-term decisions for Rodemacher Unit 2. An outcome studied in the IRP will be retiring Rodemacher Unit 2 from burning coal, whether by conversion to natural gas or retiring the unit entirely. Further analyses are required, along with detailed review of U.S. Environmental Protection Agency's (EPA) timing of submitting compliance documents. Any decision regarding modification or retirement to Rodemacher Unit 2 would be subject to the Owners approval, MISO processes, EPA approval and ultimately the governing bodies of the owners.

MISO Market

MISO provides reliability and wholesale market grid operation for interconnected utilities in the midcontinent region of the U.S. LUS is a Local Balancing Authority within the MISO Balancing Authority footprint. LUS has an agreement with TEA for power and fuel marketing and TEA is registered as LUS' Market Participant in MISO. LUS evaluates and approves TEA's strategies for energy market participation, as well as provides feedback on how the selected strategies worked compared to alternative strategies.

In collaboration with TEA, LUS purchases power to meet load from the power market on an hourly basis. Simultaneously, MISO economically dispatches LUS' generation assets into the market creating market sales for LUS. As a result of these changes, LUS reports the combined transaction as net purchased power (total market purchases less total market sales).

The following table and figure show the contribution of each of the generation stations to the Electric System over the past five years.

Table 4-3
Electric System
Electric Generation by Plant (MWh)

	2015	2016	2017	2018	2019
T. J. Labbé	6,696	13,423	16,738	17,974	13,755
Hargis Hebert	14,120	21,848	22,972	22,928	22,934
Rodemacher Unit 2 (1)	1,037,447	797,928	825,089	1,062,984	1,045,878
Total Generation	1,058,263	833,199	864,799	1,103,886	1,082,567

Source: LUS Financial and Operating Statements; LPPA Manager's Monthly Report
(1) LPPA portion.

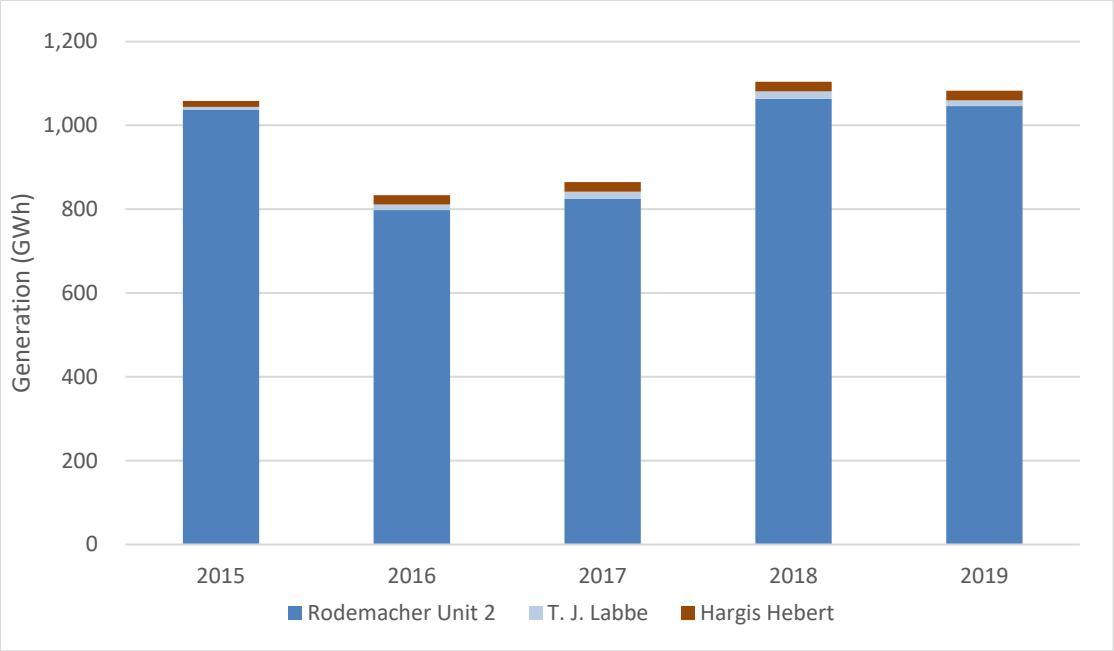


Figure 4-1: Electric Generation by Plant

In general, the amount of power generated and sold in MISO will vary based on the market prices and LUS' generation asset economic dispatching. Rodemacher Unit 2's generation and dispatching increased in 2018 and 2019 as seen in Figure 4-1. In addition, the Hargis-Hébert and T. J. Labbé plant generation showed an increasing trend in recent years. The access to lower cost power and economic benefit is realized by LUS customers through lower fuel clause charges and rates.

Table 4-4 shows the LUS electric generating capacity by plant. All plants with the exception of Rodemacher Unit 2 are directly owned and operated by LCG. LPPA owns a 50% share of Rodemacher Unit 2, which is operated by Cleco.

Table 4-4
Electric System
LUS Generating Capacity by Plant

Total Unit	Gross Capacity (MW)	Available Capacity (MW)	Fuel
T. J. Labbé Plant Total	100	100	Gas
Hargis-Hébert Plant Total	100	100	Gas
Rodemacher Unit 2 (1)	261	261	Coal
Total of All Units	461	461	

Source: LUS
(1) LPPA portion

T. J. Labbé Plant

The T. J. Labbé Plant began operation in 2005 and consists of two natural gas-fired 48 MW General Electric (GE) model LM6000PC combustion turbine generators (CTG) equipped with

supplemental inlet air cooling and compressor intercooling using a proprietary GE SPRay-INTercooled system called "SPRINT." Three 50% gas compressors were installed to boost the incoming natural gas delivery pressure to the required levels. LUS and T. J. Labbé Plant staff indicated the compressors are not currently required to operate. However, since the natural gas supplier's delivery pressure is higher than the CTGs design inlet pressure the compressors are not required and were isolated from the gas supply system. The CTGs are capable of starting and reaching base load generation levels within 10 minutes. While the plant is staffed 24-hours per day, 7 days a week, the CTGs are capable of being remotely started and monitored by the Hargis-Hébert staff. Previously, the T. J. Labbé Plant could be started and monitored from the Doc Bonin Plant control room. With the retirement of the Doc Bonin Plant, controls at both T. J. Labbé and Hargis-Hébert were upgraded in 2017 to allow for the start-up and monitoring of either plant from one location if required. The T. J. Labbé Plant is connected to the LUS transmission system at 230 kilovolts (kV). The plant also includes a 600 kilowatt (kW) emergency generator for black start capability.

The LM6000 CTG is an aero-derivative natural gas turbine that is commonly used in the power generation industry. The first LM6000 CTG was introduced in 1991 and began commercial operations in 1992.

The SPRINT system injects atomized water at two locations in the turbine. This lowers the compressor discharge temperature, allowing power enhancement in part by increasing the mass airflow by cooling the air during the compression process. This system allows the CTGs to optimize output over a wide range of ambient conditions.

GE has significant experience with the LM6000 gas turbines, with over 39 million operating hours on over 1,200 units.

Each CTG system includes a chilled water system for inlet air cooling. The power output of all CTGs is sensitive to ambient temperatures. As ambient temperatures increase, the gross power output decreases with the decrease in ambient air density. Inlet cooling systems are commonly used to reduce temperatures in order to maintain power output at high ambient temperatures. The chilled water systems include a chiller skid, which is capable of providing sufficient inlet air chilling to maintain optimum inlet air conditions (50 degrees Fahrenheit (°F)) up to an ambient temperature of 90°F.

Each combustion turbine package includes a gas turbine generator, unit enclosures, support structures, an air inlet system, an exhaust outlet, lube oil systems, a fire protection system, a control system, a water wash system, drawings, data and manuals, and a training package. In addition, each combustion turbine also includes a water injection system for emissions control, the SPRINT power augmentation package, inlet air chilling, air filtration, fin fan lube oil coolers, electro-hydraulic start system, and inlet heating system. These are the standard GE supplied LM6000PC packages. In 2017, both gas turbines received GE's recommended SB 310 high-pressure compressor section upgrade, which included new stage 3 thru 5 compressor blades. In addition, both turbines are inspected via borescope semi-annually, and have not experienced any Low Pressure Turbine stage 1 blade tip issues, which is a current fleet issue. Unit 1 gas turbine will be sent out to the depot this year to replace the No. 3 air oil seal; Unit 2 seal was replaced in 2018.

Each of the CTGs is capable of producing approximately 48 MW. The following table lists typical performance of LM6000PC Sprint engines at typical winter and summer conditions. The

output and heat rate number are inclusive of typical auxiliary loads. Table 4-5 shows the typical performance of the LM6000 units installed at the T. J. Labbé Plant.

Table 4-5
Electric System
Typical LM6000 PC Sprint Performance

Parameter	Natural Gas
Net Output, kW (summer 90 °F)	48,500
Net Heat Rate, Btu/kWh, HHV (summer)	10,140
Net Output, kW (winter 20 °F)	49,300
Net Heat Rate, Btu/kWh, HHV (winter)	9,770
NO_X water flow (lbs./hr.)	19,973
SPRINT water flow (lbs./hr.)	10,505
NO_X Emissions, ppmvd @ 15% O2	25

Source: LUS

T. J. Labbé Unit 2 suffered an extended forced outage from October 14, 2017 to February 22, 2018 due to high vibration in the CTG. The CTG was shipped to the GE Houston Service Center for repair. It was determined that an oil seal failure led to the high vibration. The CTG was disassembled, inspected, and repaired. Hargis Unit 1 experienced a similar failure in 2016. To minimize the risk of additional forced outages, the LUS Operating staff will continue to monitor the unit's vibration data and will complete overhauls of the remaining two units; Hargis 2 was completed in 2019 and Labbé 1 was completed in Spring 2020.

Table 4-6 summarizes the historical operating statistics for the T. J. Labbé Plant. The operation of the T. J. Labbé units increased in recent years based on dispatch in the MISO market.

Table 4-6
Electric System
T. J. Labbé Plant Historical Operating Statistics

Generation Statistics	2015	2016	2017	2018	2019	Five-Year Average
Unit 1						
Gross Generation (MWh)	3,808	7,545	10,648	12,084	8,848	8,587
Net Generation (MWh)	3,253	5,934	9,998	11,494	8,128	7,761
Unit Capacity Factor (%)	0.8%	1.4%	2.4%	2.6%	2.2%	1.9%
Unit Service Factor (%)	1.9%	3.5%	5.5%	5.6%	4.5%	4.2%
Unit Starts	25	40	52	51	73	48
Availability Factor (%)	95.1%	86.1%	95.2%	87.1%	92.6%	91.2%
Forced Outage Rate (%)	0.9%	2.6%	1.2%	1.5%	0.0%	1.2%
Unit 2						
Gross Generation (MWh)	4,627	7,690	8,228	8,143	8,586	7,455
Net Generation (MWh)	3,445	6,234	6,741	6,749	7,079	6,050
Unit Capacity Factor (%)	0.8%	1.4%	1.6%	1.9%	2.2%	1.6%
Unit Service Factor (%)	2.5%	3.5%	4.6%	5.0%	4.3%	4.0%
Unit Starts	30	44	54	45	72	49
Availability Factor (%)	94.5%	88.0%	83.8%	59.9%	93.2%	83.9%
Forced Outage Rate (%)	0.7%	23.3%	71.6%	86.8%	0.0%	36.5%
Plant Total						
Net Generation (MWh)	6,697	12,168	16,739	17,974	15,207	13,757
Fuel Consumed (MMBtu)	102,712	174,198	212,960	213,618	204,150	181,528
Avg. Net Heat Rate (Btu/kWh)	12,421	12,976	11,353	10,702	13,425	12,175

Source: LUS

T. J. Labbé Plant - Environmental Permits and Compliance

Table 4-7 summarizes the key environmental permits for the T. J. Labbé Plant.

Table 4-7
Electric System
T. J. Labbé Plant Key Permits

Permit	Regulatory Agency	Status
Title V Permit Part 70 Operating Permit	LDEQ	Permit No. 1520-00128-V4 Renewed: August 23, 2018 Expiration date: August 23, 2023
Title IV Permit Acid Rain Program	LDEQ	Permit No. 1520-00128-IV3 Renewed: August 23, 2018 Expiration date: August 23, 2023

Source: LUS

Air Permit

The T. J. Labbé Plant's Title IV and Title V Permit renewals were approved in 2018 and have an expiration date of August 23, 2023. The permits allow for the burning of natural gas only. Each of the CTGs has a CEM System installed to monitor unit emissions. Annual CEM Relative Accuracy Test Audit (RATA) testing is required.

CSAPR NO_X Allocations (Ozone Season Only)

In July 2011, the U.S. EPA finalized the Cross State Air Pollution Rule (CSAPR) to replace the Clean Air Interstate Rule (CAIR). Following legal proceedings, on November 21, 2014, the EPA issued an interim final rule amending CSAPR compliance deadlines for three years. The interim final rule provides that the compliance with CSAPR Phase 1 emissions budgets were required in 2015 and 2016, and compliance with Phase 2 was required beginning in 2017. On September 7, 2016, the EPA finalized an update to the CSAPR ozone season program.

CSAPR is administered by the EPA and Louisiana Department of Environmental Quality (LDEQ) no longer issues a separate permit for CSAPR. Under CSAPR, each facility is assigned an allocation of nitrogen oxide (NO_X) (tons), which may be emitted during the Ozone Season (May – September). In the event that the facility exceeds the limit during the Ozone Season, additional allowances may be withdrawn from the Plant owner's banked allowances or allowances may be purchased. CSAPR NO_X allocations for the T. J. Labbé units during the 2015 through 2020 ozone season are as follows:

Table 4-8
Electric System
T. J. Labbé Plant NO_X Emission Allocations

Unit	NO_X Allocation (Tons)
T. J. Labbé Unit 1	4
T. J. Labbé Unit 2	4

Source: LUS

Compliance

LUS staff indicated that the T. J. Labbé Plant has not had any exceedances or notice of violations (NOVs) in the past year and all required semi-annual and annual compliance reports were submitted to LDEQ.

Hargis-Hébert Plant

The Hargis-Hébert Plant began commercial operation in 2006 and is nearly identical to the T. J. Labbé Plant with two natural gas-fired 48 MW GE model LM6000PC SPRINT CTGs (see LM6000PC SPRINT details above). Both Hargis-Hebert gas turbines have received GE's recommended SB 310 high-pressure compressor section upgrade. Unit 2 was overhauled in 2019 which addressed No. 1 and No. 3 bearing seal replacements as well as other applicable SB's. In addition, both turbines are inspected via borescope semi-annually, and have not experienced any Low Pressure Turbine stage 1 blade tip issues, which is a current fleet issue. Natural gas compressors were not installed at the Hargis-Hébert Plant because the incoming natural gas delivery pressure is greater than the CTGs design inlet pressure. The Hargis-Hébert

Plant CTGs have the additional capability to provide voltage support to the transmission grid through a specially designed clutch system, which was originally installed on each of the CTGs allowing the gas turbine to be shut down and uncoupled from the generator while the generator remains synchronized to the grid to supply or absorb reactive power. The CTGs are capable of starting and reaching base load generation levels within 10 minutes. The Hargis-Hébert Plant is staffed full-time but is capable of being remotely started and monitored from the T. J. Labbé staff. Previously, the plant could be started and monitored from the Doc Bonin Plant control room. With the retirement of the Doc Bonin Plant, controls at both T. J. Labbé and Hargis-Hébert were upgraded in 2017 to allow for the start-up and monitoring of either plant from one location, if required. The Hargis-Hébert Plant is connected to the LUS transmission system at 69 kV. The plant has a 600 kW emergency generator for black start capability.

Table 4-9 summarizes the historical operating statistics for the Hargis-Herbert Plant. Similar to the T. J. Labbé Plant, operation of the Hargis-Hébert Plant units increased in recent years based on dispatch in the MISO market.

Table 4-9
Electric System
Hargis-Hébert Plant Operating Statistics

Generation Statistics	2015	2016	2017	2018	2019	Five-Year Average
Unit 1						
Gross Generation (MWh)	7,446	8,805	12,882	12,613	14,088	11,167
Net Generation (MWh)	6,867	7,593	12,168	11,822	13,494	10,389
Unit Capacity Factor (%)	1.7%	1.7%	2.9%	3.0%	3.7%	2.6%
Unit Service Factor (%)	3.7%	4.6%	6.5%	7.8%	6.5%	5.8%
Unit Starts	41	45	63	51	91	58
Availability Factor (%)	89.0%	66.1%	83.7%	94.5%	90.7%	84.8%
Forced Outage Rate (%)	0.1%	82.5%	17.7%	1.8%	0.3%	20.5%
Unit 2						
Gross Generation (MWh)	8,638	15,207	12,318	12,429	12,571	12,233
Net Generation (MWh)	7,251	12,986	10,809	10,906	11,000	10,590
Unit Capacity Factor (%)	1.8%	3.0%	2.7%	2.9%	3.5%	2.8%
Unit Service Factor (%)	3.9%	7.9%	7.0%	7.6%	6.7%	6.6%
Unit Starts	37	72	59	50	88	61
Availability Factor (%)	89.0%	93.2%	94.2%	94.3%	87.6%	91.7%
Forced Outage Rate (%)	1.0%	18.0%	17.6%	0%	0%	7.3%
Plant Total						
Net Generation (MWh)	14,118	21,852	22,977	22,728	24,494	21,234
Fuel Consumed (MMBtu)	183,321	280,858	301,281	282,258	292,850	268,114
Avg. Net Heat Rate (Btu/kWh)	11,659	12,853	12,064	11,354	11,956	11,977

Source: LUS

Hargis-Hébert Plant- Environmental Permits and Compliance

Table 4-10 summarizes the key environmental permits for the Hargis-Hébert Plant.

Table 4-10
Electric System
Hargis-Hébert Plant Key Permits

Permit	Regulatory Agency	Status
Title V Permit Part 70 Operating Permit	LDEQ	Permit No. 1520-00131- Renewed: August 17, 2018 Expiration date: August 17, 2023
Title IV Permit Acid Rain Program	LDEQ	Permit No. 1520-00131-IV3 Renewed: August 17, 2018 Expiration date: August 17, 2023

Source: LUS

Air Permit

The Hargis-Hébert Plant's Title IV and Title V Permit renewals were approved in 2018 and have an expiration date of August 17, 2023. The permits allow for the burning of natural gas only. Each of the Hargis-Hébert CTGs has a CEM System installed to monitor unit emissions. Annual CEM RATA testing is required.

CSAPR NO_X Allocations (Ozone Season only)

CSAPR NO_X Allocations for the Hargis-Hébert units during the 2015 through 2020 ozone season are shown in Table 4-11.

Table 4-11
Electric System
Hargis-Hébert Plant NO_X Emission Allocations

Unit	NO_X Allocation (Tons)
Hargis-Hébert Unit 1	3
Hargis-Hébert Unit 2	3

Source: LUS

Compliance

LUS staff indicated that the Hargis-Hébert Plant has not had any exceedances or NOVs in the past year and all required semi-annual and annual compliance reports were submitted to LDEQ.

Doc Bonin and Curtis Rodemacher Plants

The Doc Bonin Units 2 and 3 were retired April 1, 2017, as approved by MISO. MISO approval for the retirement of Doc Bonin Unit 1 was not required due to the fact that Unit 1 was never registered for dispatch within MISO. LUS decommissioned the fuel oil tanks during 2018.

The Curtis Rodemacher Plant was retired in June 2000, and decommissioning efforts were initiated in the past. The generating station remains retired with LUS performing routine maintenance, upkeep, and site monitoring. Site monitoring includes periodic inspections, with soil sampling, asbestos abatement, lead paint removal as required. LCG must retain ownership of the Curtis Rodemacher site due to the co-location of a large, critical substation at the site and related security needs. Periodic costs associated with site monitoring and upkeep of both retired plants will continue, as needed, to maintain ownership and environmental compliance.

Doc Bonin Plant – Environmental Permits and Compliance

LUS submitted a Request for Termination of its LPDES Permit No. LA0005711 on May 5, 2019, and in a letter dated August 16, 2019, the LDEQ states that this permit has been allowed to expire and the permit number has been removed from their system.

A Storm Water Multi-Sector General Permit (MSGP) permit authorization was issued to LUS for the Doc Bonin plant on April 24, 2019, to cover stormwater discharges from the facility. The facility MSGP authorization number is LAR05Q054.

LUS submitted a request to cancel the air permit which was accepted by LDEQ. The Bonin fuel oil tanks were removed and all contaminated soil under the tanks was removed. Therefore, a formal Facility Response Plan (FRP) is no longer required.

Air Permit

LUS submitted letters, dated February 21, 2017, to the LDEQ Air Permit Division and to the EPA Region 6 with official notification that the Doc Bonin Plant would be retired permanently effective April 1, 2017. The letter to LDEQ requested withdrawal of the air permit renewal applications that were submitted on May 20, 2016.

CSAPR NO_X Allocations (Ozone Season Only)

The 2015 through 2020 annual CSAPR NO_X allocations for the Doc Bonin Plant units are as follows: Unit 1: 7 tons, Unit 2: 84 tons, and Unit 3: 93 tons. LUS staff indicated that the Doc Bonin allowances are available to the other LUS facilities by notice to LDEQ.

Rodemacher Unit 2

Rodemacher Unit 2 is a 523 MW coal-fired generating station located at the Brame Energy Center near Boyce, Louisiana. Rodemacher Unit 2 is jointly owned by LPPA (50%), Cleco (30%), and the Louisiana Energy and Power Authority (LEPA) (20%); collectively, the Joint Owners. The Agreement for Joint Ownership, Construction, and Operation (the Joint Ownership Agreement) dated June 30, 1977, as amended, established the joint ownership of Rodemacher Unit 2. The Joint Owners share the output of Rodemacher Unit 2 based on the relative ownership percentages. LPPA's ownership share of Rodemacher Unit 2 is 261.5 MW of capacity and the related energy output. Rodemacher Unit 2 began commercial operation in 1982 and is operated by Cleco.

The Joint Ownership and Agreement (Agreement) with Cleco ensures and describes LPPA's authority with regard to management and operation of Rodemacher Unit 2. The Agreement includes the creation of the Owners' Committee to maintain communications and updates regarding the operation and management of the plant. Cleco must provide relevant information to the owners regarding finances, operations, and management of the plant in

addition to soliciting comments and recommendations regarding any significant decisions at the plant. Cleco must receive more than 50% approval for any major changes or matters regarding operations (e.g. large operating or capital expenditures, sales of assets, etc.). Thus, LPPA's 50% ownership in the project provides LPPA the authority to require additional analyses regarding material changes or expenditures at the plant, and potentially reject such recommendations or actions, if needed. This authority further reduces the risk that other participants in the project could adversely impact the project or future benefits. The Agreement will remain in effect through June 30, 2032.

LPPA and the City entered into a Power Sales Contract (the PSC) on May 1, 1977 in which LPPA agreed to sell and the City agreed to purchase 100% of LPPA's share of the capacity and energy produced by Rodemacher Unit 2. According to the PSC, all LPPA costs are passed to LUS as purchased power costs, which are considered and payable as operating expenses of the Electric System. As a result of being defined as operating expenses, the LPPA expenses have priority over LUS debt. The PSC expires on August 31, 2047.

On October 20, 2014, Cleco announced it was being acquired by Macquarie Infrastructure and Real Assets, Inc. (Macquarie) pending LPSC approval. On March 28, 2016, LPSC granted final approval to the acquisition. Per LUS staff, the acquisition has not materially impacted the operating agreements, performance, or personnel associated with Rodemacher Unit 2.

Major equipment at Rodemacher Unit 2 includes a Foster Wheeler conventional pulverized coal steam boiler, with a steam rating of 3,800,000 pounds per hour at 2,500 pounds per square inch gauge (psig) and a main steam and reheat temperature of 1,005°F, and a GE reheat steam turbine generator with bottom exhaust.

Lake Rodemacher supplies the cooling water for the steam turbine condenser and plant. Lake Rodemacher is a man-made lake located within the boundaries of the 6,000-acre Brame Energy Center site. An electrostatic precipitator, with a 99.5% efficiency rating when burning coal, is utilized for fly ash removal. The addition of an SNCR System with urea injection improved NO_X control in 2013.

In 2014, the plant completed installation of a dry absorbent injection system for acid gas control; a fabric filter baghouse for metallic particulate control; and induced-draft (ID) booster fans as a result of the EPA MATS requirements.

Table 4-12 summarizes the historical operating statistics for Rodemacher Unit 2.

Table 4-12
LPPA
Historical Rodemacher Unit 2 Operating Statistics

Generation Statistics	2015	2016	2017	2018	2019	Five-Year Average
Gross Generation (MWh)	2,253,136	1,855,018	1,987,052	2,555,929	2,532,781	2,236,783
Station Service (MWh)	235,204	256,462	252,072	277,178	263,630	256,909
Net Generation (MWh)	2,017,932	1,598,556	1,734,980	2,278,751	2,269,151	1,979,874
Station Service (%)	10.4%	13.8%	12.7%	10.8%	10.4%	11.6%
Net Capacity Factor (%) (1)	46.9%	36.7%	40.0%	52.7%	52.6%	45.8%
Hours Available	7,580	7,308	6,626	7,836	7,923	7,455
Net Unit Heat Rate (Btu/kWh)	11,306	11,896	11,524	11,385	11,085	11,439
Availability Factor (%) (2)	86.5%	83.2%	75.6%	89.5%	90.1%	85.0%
Forced Outage Factor (%) (3)	3.2%	2.4%	9.5%	3.2%	2.4%	4.2%
Scheduled Outage Factor (%)	10.2%	14.1%	14.9%	7.3%	8.1%	10.9%

Source: LPPA Manager's Monthly Reports
(1) Net Capacity Factor is the net energy produced over the year as a fraction of the maximum generation for the year.
(2) Availability Factor reflects the fraction of the year in which Rodemacher Unit 2 was available without any outages.
(3) Forced Outage Factor reflects the fraction of the year in which Rodemacher Unit 2 was unavailable due to forced outages.

Rodemacher Unit 2's operations in 2019 were similar to 2018, with a capacity factor of 52.6% and compared to 52.7% in 2018. Rodemacher Unit 2's generation and capacity factors are primarily driven by MISO participation and access to the market. In 2015, coal generation decreased due to low natural gas prices. In 2016, coal generation decreased again due to low natural gas prices and mild weather. Louisiana is located in MISO's South Region. The South Region is predominately served by natural gas units[2]. Low natural gas prices allow the natural gas fired units to be more cost effective or competitive. As such, coal generation generally decreased in the market.

The Joint Owners have reviewed a Natural Gas Conversion Study and a Front End Engineering Design Study for Rodemacher Unit 2. The Joint Owners continue to evaluate options to ensure the long-term operation of Rodemacher Unit 2.

On February 16, 2012, the EPA issued the final ruling titled *National Emission Standards for Hazardous Air Pollutants from Coal- and Oil-fired Electric Utility Steam Generating Units and Standards of Performance for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial-Institutional, and Small Industrial-Commercial-Institutional Steam Generating Units*, commonly referred to as MATS. To comply with the MATS requirements, Rodemacher Unit 2 installed a dry absorbent injection system for acid gas control; a fabric filter baghouse for metallic particulate control; and ID Booster Fans.

Coal is supplied by Arch Coal Sales Inc., Peabody CoalSales, and Cloud Peak and primarily sourced from the Powder River Basin in Wyoming. LPPA owns two unit-trains that deliver the

2 https://www.misoenergy.org/Library/Repository/Report/Seasonal%20Market%20Assessments/2016%20Winter%20Assessment%20Report.pdf

coal to the plant from Wyoming. Cleco coordinates the deliveries in conjunction with their unit trains.

Most of the coal combustion residue (e.g., fly ash and bottom ash) from the Rodemacher Unit 2 is currently removed from the site by truck and sold for beneficial reuse on a regular basis. On December 8, 2014, the EPA finalized the Coal Combustion Residue Rule (CCR Rule). The final rule classifies coal ash as solid waste rather than hazardous waste. Classifying coal residue as solid waste eliminates potential increased disposal costs associated with special handling, transportation, and disposal requirements for hazardous waste. As a result of the latest EPA ruling, Rodemacher Unit 2 will continue marketing and selling their coal ash for beneficial use. Additional information regarding the CCR Rule is discussed in the Rodemacher Environmental Compliance Section below.

EPA Clean Air Act Greenhouse Gas Regulations

On October 23, 2015, the EPA finalized the Clean Power Plan (CPP): carbon dioxide (CO_2) emission guidelines for existing power plants. On February 9, 2016, the U.S. Supreme Court granted a stay on the CPP and the CPP did not go into effect. In June 2019, the EPA repealed the CPP and simultaneously finalized the Affordable Clean Energy (ACE) rule. The approach in the ACE rule establishes guidelines for states to develop plans to address greenhouse (GHG) emissions from existing coal-fired power plants. The rule provides states three years to develop state plans, followed by one year for the EPA to act on a complete state submittal.

Currently, all operating expenses associated with environmental compliance are included in the Electric System FC and passed through to customers. Historically, major capital expenditures associated with environmental compliance were funded with bonds.

New Source Performance Standards

On October 23, 2015, the EPA also published the final New Source Performance Standard designed to reduce carbon pollution from new power plants. This regulation, which only applies to new facilities, limits coal fired power plant CO_2 emissions to 1,400 lb/MWh (gross). Traditional coal fired power plants cannot meet this limit without some form of CO_2 abatement, such as carbon capture and sequestration. Existing plants that commenced construction per the definition at 40 Code of Federal Regulations (CFR) Subpart 60 prior to January 8, 2014 are not subject to the rule. Rodemacher Unit 2 commenced construction prior to January 8, 2014, and as such, is not subject to the rule.

Rodemacher Unit 2- Environmental Permits and Compliance

Table 4-13 summarizes the key environmental permits for Rodemacher Unit 2.

Table 4-13
LPPA
Rodemacher Unit 2 Key Permits

Permit	Regulatory Agency	Status
Title V Permit Part 70 Operating Permit	LDEQ	Permit No. 2360-00030-V4 Renewal date: February 20, 2019 Expiration date: February 20, 2024
Title IV Permit Acid Rain Program Permit	EPA	Permit No. 2360-00030-IV5 Renewal date: February 20, 2019 Expiration date: February 20, 2024
LPDES Permit	LDEQ	Permit No. LA0008036 Expiration date: October 1, 2019 Renewal Application submitted March 13, 2019. In agency review. Facility can operate under existing permit during renewal process.
Solid Waste Standard Type I Permit For metal cleaning waste pond, bottom ash pond and fly ash pond	LDEQ	Permit No, P0005R1 Expiration date: November 18, 2026
Solid Waste Standard Type I Permit For coal sedimentation pond	LDEQ	Permit No. P-0062R1 Expiration date: November 18, 2026
Radioactive Material License	LDEQ	License No. LA-3719-L01 Expiration Date: May 31, 2023
Spill Prevention Control and Countermeasure Plan (SPCC)	EPA	Latest revision: December 2016
Hazardous Waste Generator	EPA	Permit No. LAD071941611

Source: LUS

National Ambient Air Quality Standards

The Clean Air Act requires the EPA to set National Ambient Air Quality Standards (NAAQS) to protect public health and the environment. Ambient air quality monitoring and air dispersion models are used to monitor air quality in a region or predict concentrations of pollutants for a given area. When pollution exceeds an allowable air quality standard, an area may be designated as a "Nonattainment Area," which typically requires emissions reductions from sources within the region and more restrictive permit limits for new sources. Rapides Parish and the surrounding region in Northern Louisiana is currently designated as "Attainment" for all criteria pollutants. Therefore, the more stringent nonattainment area regulations do not apply to Rodemacher Unit 2 under the current NAAQS.

In addition to NAAQS implementation, the EPA must update the standards every five years to maintain pace with new developments in health and science. Standards for NO_X (1-hour), PM2.5, SO_2 (1-hour), and ozone have all been updated within the past five years, and Rapides Parish continues to meet the standards. If future updates to the NAAQS result in a

nonattainment area designation, LDEQ would evaluate emission sources in the region and emissions reductions at Rodemacher Unit 2 could be required.

Air Emissions and Opacity Limitations

The Rodemacher Unit 2 Title IV and Title V Permit renewals were renewed on February 20, 2019 and have an expiration date of February 20, 2024.

The air permit currently allows for the burning of coal, natural gas, and No. 2 fuel oil in Unit 2. However, coal is the predominant fuel. The 2018 air permit renewal application removed the allowable use of No. 2 fuel oil in Unit 2, in order to comply with Best Available Retrofit Technology (BART) requirements. The unit has a Continuous Emission Monitoring (CEM) System installed; annual CEM RATA testing is required.

Based on our discussion with plant staff, we are not aware of any outstanding Notice of Violation or any material compliance issues with the Title IV and Title V permits.

CSAPR NO_X Allocations (Ozone Season only)

In July 2011, the EPA finalized CSAPR to replace the existing CAIR. In August 2012, the U.S. Court of Appeals for the District of Columbia Circuit invalidated CSAPR. On April 29, 2014, the U.S. Supreme Court reversed the Court of Appeals, upholding all aspects of the rule that had resulted in the Court of Appeals' invalidation. The U.S. Supreme Court remanded CSAPR to the Court of Appeals for further proceedings. On November 21, 2014, the EPA issued an interim final rule amending CSAPR compliance deadlines to align with the October 23, 2014 ruling that granted EPA's motion to lift the stay of CSAPR and delay its deadlines for three years. The interim final rule provides that the compliance with CSAPR Phase 1 emissions budgets were required in 2015 and 2016, and compliance with Phase 2 was required in 2017 and beyond.

Under CSAPR, each facility is assigned a NO_X allocation (tons), which may be emitted during the Ozone Season (May – September). In the event that the facility exceeds the limit during the Ozone Season, additional allowances may be withdrawn from the owner's banked allowances or allowances may be purchased. The CSAPR Ozone Season NO_X allocation for the Rodemacher Unit 2 is 995 tons.

Table 4-14
LPPA
Rodemacher Unit 2 NO_X Ozone Season Emission Allocations

Unit	NO_X Ozone Season Allocation (Tons)
Rodemacher Unit 2	995

Source: LPPA

Compliance

Rodemacher Unit 2's historical NO_X emission rates have met permitted levels. The operation of Rodemacher Unit 2 is not restricted due to the NO_X emission limits of the Title IV Permit. The NO_X permit limit is 0.46 lb/MMBtu, while the average annual NO_X emission rate was less

than 0.22 lb/MMBtu in each of the past six years. During the Ozone Season, Rodemacher Unit 2 NO_X emissions that exceed CSAPR allocations of 995 tons require use of banked allowances, purchase of additional allowances in the established market, or transfer of allowances from another of the Owner's facilities. In 2019, actual Ozone Season NO_X emissions were lower than the allocation, and no transfer or purchase was necessary.

Emissions sources that fall under the Regional Haze Rule must be evaluated for their effect on pertinent Class I areas and possibly require further evaluation for the necessity of installing BART. While CSAPR is considered BART for NO_X, Louisiana sources are required to implement BART for SO_2 emissions. This topic is discussed further below under Regional Haze Rule.

Air Permit – Acid Rain Program

The EPA issued a Title IV permit for Rodemacher Unit 2, which addresses the Acid Rain Program provisions of the Clean Air Act. The Acid Rain Program established (1) a trading system for SO_2 allowances, which are allocated to each facility, and (2) NO_X emission limits for coal-fired units.

Each SO_2 allowance is equal to one ton of SO_2 emissions. Emission allowances may be banked, transferred, purchased, or sold. If the facility emits more than the allocated SO_2 allowances, it may purchase additional allowances in the established market or may transfer allowances from another of the Joint Owner's facilities. The Rodemacher Unit 2 receives an annual allocation of 18,212 SO_2 allowances (tons). LPPA's share of the total SO_2 allocation is based on its ownership interest in the facility.

Table 4-15
LPPA
Rodemacher Unit 2 SO_2 Emissions

FY	Annual Average (lb/MMBtu)	Permit Limit (lb/MMBtu)	Total Annual (tons/yr.)	Annual Allocation (tons/yr.)
2015	0.30	1.2	3,657	18,212
2016	0.28	1.2	3,133	18,212
2017	0.27	1.2	2,887	18,212
2018	0.32	1.2	2,221	18,212
2019	0.25	0.3	3,042	18,212

Source: LPPA

Rodemacher Unit 2's historical SO_2 emissions were below permitted levels. The operation of Rodemacher Unit 2 should not be restricted due to the SO_2 emission limits of the air permit since the plant currently burns, and is expected to burn, 0.7 lbs/MMBtu sulfur coal. Total SO_2 emissions are directly related to the sulfur content of the coal. The average annual SO_2 emission rate over the past five years was 50% to 75% less than the permit limit (at that time) of 1.2 pounds per million British thermal units (lb/MMBtu).

The SO_2 permit limit has been changed due to the Regional Haze Rule State Implementation Plan (SIP), as discussed below.

NO_X emissions under the Rodemacher Unit 2 Title IV Permit are limited to 0.46 lb/MMBtu. As noted in the table below, the average annual NO_X emission rate was less than 0.22 lb/MMBtu in each of the past six years.

Based on our discussion with plant staff, we are not aware of any outstanding NOVs or any material compliance issues with the Title IV permit.

Table 4-16
LPPA
Rodemacher Unit 2 NO_X Emissions

FY	Annual Average (lb/MMBtu)	Permit Limit (lb/MMBtu)	Total Annual (tons/yr.)	Ozone Season (tons/yr.)
2015	0.14	0.46	1,754	845
2016	0.18	0.46	1,984	868
2017	0.15	0.46	1,580	674
2018	0.22	0.46	3,267	1,488
2019	0.21	0.46	2,698	1,033

Source: LPPA

Regional Haze Rule

The Regional Haze Rule requires certain existing large stationary emissions sources, such as coal-fired power generation units, to install BART to improve visibility at certain National Parks designated as Class I areas. Under the rule, certain types of older sources are required to install BART to control particulate matter, SO_2, and NO_X emissions. In 2012, the EPA issued a final action allowing states participating in the CSAPR trading program to use those programs instead of source specific BART to meet the requirements for the Regional Haze Rule.

The Regional Haze Rule BART requirement was superseded by the approval of CSAPR in 2014. However, in Louisiana, CSAPR only applies to NO_X emissions during the Ozone Season. Therefore, to satisfy the BART requirement for NO_X, Rodemacher 2 will continue participation in the CSAPR NO_X allowance trading program.

SO_2 emission sources that fall under Regional Haze Rule BART requirements were evaluated for their effect on pertinent Class I areas.

In February 2017, LDEQ submitted to the EPA a proposed SIP indicating how BART-applicable Electric Generating Units (EGUs) in Louisiana would comply with the BART requirements. On December 21, 2017, the EPA published approval of the SIP in the Federal Register. BART for Rodemacher Unit 2 as designed in the SIP will include the continued operation of the existing dry sorbent injection system (DSI) with increased reagent injection in order to meet a lower SO_2 limit of 0.30 lb/MMBtu on a 30-day rolling basis.

The effective date of the SIP was January 22, 2018, and emissions compliance must take place as expeditiously as practical, but not later than one year after the effective date of the SIP. Cleco confirmed that the existing DSI system continues to meet the requirements of and compliance with the SIP, including the lower SO_2 limit.

The Mercury and Air Toxics Standard

On February 16, 2012, the EPA issued the final ruling titled *National Emission Standards for Hazardous Air Pollutants from Coal- and Oil-fired Electric Utility Steam Generating Units and Standards of Performance for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial-Institutional, and Small Industrial-Commercial-Institutional Steam Generating Units*,

commonly referred to as MATS. To comply with MATS requirements, Rodemacher Unit 2 completed the installation of a dry absorbent injection system for acid gas control; a fabric filter baghouse for metallic particulate control; and ID Booster Fans. As of the date of this Report, all of the new equipment and systems are functioning properly. The results of the contract guarantee testing indicates that the equipment is operating per design to meet MATS requirements.

On June 29, 2015, the U.S. Supreme Court effectively remanded the EPA's MATS requirements to the District of Columbia Circuit Court. The U.S. Supreme Court's decision did not prohibit the EPA from regulating mercury emissions; however, it did require the EPA to consider costs for those plants yet to meet the MATS requirements. The EPA subsequently submitted revised cost/benefit analyses. The court rulings and future of MATS do not materially affect Rodemacher Unit 2, as it completed the upgrades and meets MATS requirements.

As noted above, emission control additions at Rodemacher Unit 2 were installed for compliance with CSAPR and MATS. The Utilities System's share of the capital cost for installation of these controls was $74 million. These estimated costs are not included in the Utilities System CIP, as these costs were funded within LPPA.

Cooling Water Supply and 316(b) Regulation

Circulating water for the cooling tower and boiler makeup is pumped from Lake Rodemacher by circulating water pumps located at the screened water intake. Rainfall runoff from around Lake Rodemacher provides makeup for water lost to evaporation. LDEQ issued an opinion that Lake Rodemacher is not subject to the requirements of 316(b) because it was constructed for support of the power plant operations and is not considered "waters of the state." To the best of our knowledge, the EPA has not opined or ruled otherwise.

Wastewater Permit

The Louisiana Pollution Discharge Elimination System (LPDES) Permit was renewed by LDEQ on October 1, 2014, with an expiration October 1, 2019, and covers the entire Brame Energy Center. The application to renew the permit was submitted on March 13, 2019, and continuation of expiring permits is governed by regulations promulgated at LAC 33:IX.2321 which states that when the permittee has submitted a timely application, the conditions of an expired permit continue in force until the effective date of a new permit.

The permit is required for discharges of wastewater and stormwater to surface waters. The permit establishes monitoring, reporting, and recordkeeping requirements, as well as limitations on emissions. The permitted discharge points, all of which are not exclusively used for Rodemacher Unit 2 effluent, are:

- Outfall 001 – Cooling pond discharge, including coal sedimentation pond effluent, seal well overflow, bottom ash and secondary settling pond effluent, chemical metal cleaning waste, clarifier sludge sedimentation pond effluent, and low volume wastewaters.
- Outfall R-02 – Coal sedimentation pond effluent.
- Outfall R-03 – Units 1 and 2 seal well effluent and general plant washdown effluent.

Based on our discussions with plant staff, we are not aware of any outstanding NOVs or any material compliance issues with the LPDES Permit.

Wastewater Effluent Standards

A 2009 study performed by the EPA determined that the steam electric power generating effluent guidelines established in 1982 did not adequately address the pollutants being discharged and have not kept pace with changes in the electric power industry. The EPA evaluated the technologies and costs to remove those metals and identified the best available technology to affect their control in coal-fired power plant effluent. The EPA proposed more stringent limits for new metals and parameters for individual wastewater streams generated by steam electric power plants, with emphasis on coal-fired power plants.

The EPA finalized the new Effluent Limitation Guidelines (ELGs) for coal-fired steam electric plants on September 30, 2015, portions of which were postponed and then re-issued in November 2019 as Proposed Revisions to the Steam ELGs. The rule establishes new requirements for power plant wastewater streams including flue gas desulfurization (FGD), fly ash, bottom ash, flue gas mercury control, and gasification of fuels such as coal and petroleum coke. The effluent limit requirements must be incorporated into each plant's LPDES permit. In September 2017, the EPA postponed the compliance dates for the new standards for two streams: FGD wastewater and bottom ash transport water for two years to provide the EPA with additional time to review and reconsider the rule for these two effluent streams. The compliance dates for these two effluent streams were postponed, while the compliance date remained November 1, 2018 for fly ash transport water and flue gas mercury control wastewater. Cleco indicated that the applicable requirements for fly ash transport water and flue gas mercury control wastewater are met with existing plant equipment and procedures.

The EPA issued the 2019 Proposed Revision to the ELG rule for FGD wastewater and for bottom ash transport water on November 22, 2019. The EPA summary indicates that the revisions will result in a cost savings related to less costly FGD wastewater treatment technologies that could be used to comply with the proposed lower selenium limit (compared with the 2015 rule limit), and less costly bottom ash transport water technologies due to the proposed relaxation of the 2015 rule's requirement to recycle 100 percent of the system water. The Proposed Revision allows for a two-year extension for compliance for FGD wastewater and additional proposed subcategories for both FGD wastewater and bottom ash transport water. The Proposed Revision includes a voluntary incentives program that provides for a later compliance deadline if plants commit to more stringent limitations. The compliance deadlines are proposed to be December 31, 2023 for bottom ash transport water and December 31, 2025 for FGD wastewater, with different options for plants that have retirement plans or opt in to stricter controls. The public comment period on the proposal was through January 21, 2020.

LUS is currently evaluating the impacts of the Proposed Revision on Rodemacher Unit 2 and anticipates that new wastewater treatment equipment will be required for long-term compliance. The LDEQ is expected to incorporate the new regulatory changes into the LPDES permit renewal.

Coal Combustion Residue

Most of the Rodemacher Unit 2 coal combustion residue (e.g. fly ash and bottom ash) is removed on a regular basis from the site by truck and sold for beneficial use. On December 19, 2014, the EPA finalized the CCR Rule and it was published on April 17, 2015 in the Federal Register. Rodemacher Unit 2 has two surface impoundments; the Fly Ash Pond and the Bottom Ash Pond, to which the CCR Rule applies. The rule became effective October 14, 2015. The final rule classifies coal ash as solid waste rather than hazardous waste.

Classifying coal residue as a solid waste eliminates potential increased disposal costs associated with special handling, transportation, and disposal requirements for hazardous waste. As a result of the latest EPA ruling, Rodemacher Unit 2 continues marketing and selling their coal ash for beneficial use.

The rule establishes technical requirements for CCR landfills and surface impoundments. In addition, the rule redefines beneficial use. Note that the CCR rule does not affect beneficial use applications started before the effective date of the rule. Beneficial use applications started after the effective date of the new rule will be evaluated according to new definitions of beneficial use and disposal. The rule defines beneficial use as needing to meet the following criteria:

1. The CCR must provide a functional benefit;
2. The CCR must substitute for the use of a virgin material, conserving natural resources that would otherwise be obtained through practices such as extraction;
3. The use of CCRs must meet relevant product specifications, regulatory standards, or design standards when available, and when such standards are not available, CCRs are not used in excess quantities; and
4. When un-encapsulated use of CCRs involves placement on the land of 12,400 tons or more in non-roadway applications, the user must demonstrate and keep records, and provide such documentation upon request, that environmental releases to ground water, surface water, soil, and air are comparable to or lower than those from analogous products made without CCRs, or that environmental releases to ground water, surface water, soil, and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use.

The new criteria for “beneficial use” exclude the use of CCR in large-scale placement or fill, such as mine fills, as a beneficial use.

The final rule establishes minimum national criteria for CCR landfills; CCR surface impoundments; and all lateral expansions of CCR units including location restrictions, liner design criteria, structural integrity requirements, operating criteria, groundwater monitoring and corrective action requirements, closure and post-closure care requirements, and recordkeeping, notification, and Internet posting requirements. CCR surface impoundments that do not receive CCR after the effective date of the rule, but still contain water, will be subject to all applicable regulatory requirements. Regulatory requirements must be met unless the owner or operator of the facility dewaters and installs a final cover system on these inactive units no later than three years from publication of the rule.

The final CCR Rule required the owner or operator of an existing CCR surface impoundment to document, no later than October 17, 2016, whether or not the impoundment was constructed to meet the liner requirements included in the final rule (40 CFR 257.71). In compliance with this requirement, Cleco obtained certification from a qualified professional engineer attesting that both the Bottom Ash Pond and the Fly Ash Pond meet the requirements of the final CCR Rule. In addition, a CCR Groundwater Monitoring Program is in place to determine the integrity of the liners in the Fly Ash and Bottom Ash Ponds, as required by the CCR Rule.

Annual inspections required by CCR for the Bottom Ash Pond and Fly Ash Pond were conducted in December 2019 by Providence Engineering & Environmental Group LLC. The inspection

reports state that the reservoirs and slopes are in satisfactory condition and either no corrective actions or minor corrective actions were needed.

Annual inspections and maintenance will continue until closure of the ponds.

Oil Storage and Spill Prevention

The Spill Prevention and Control (SPC) / Spill Prevention Control and Countermeasures (SPCC) plan for the Brame Energy Center was prepared in accordance with the requirements of the SPC regulations of the LDEQ and the SPCC regulations of the EPA. The SPC regulations are codified under Title 33, Part IX Chapter 9 of the Louisiana Administrative Code (LAC 33:IX.Chapter 9). The SPCC regulations are contained in Title 40, Part 112 of the Code of Federal Regulations (40 CFR Part 112). The purpose and scope of the SPC regulation is to establish requirements for contingency planning and implementation of operating procedures, and best management practices to prevent and control the discharge of pollutants resulting from spill events. The regulation defines a "spill event" as the accidental or unauthorized leaking or releasing of a substance from its intended container or conveyance structure that has the potential to be discharged or results in a discharge to the waters of the State of Louisiana. The purpose of the SPCC regulation is to establish procedures, methods, equipment, and other requirements for equipment to prevent the discharge of oil from non-transportation-related onshore and offshore facilities. The purpose of the SPCC Plan is to complement existing laws, regulations, rules, standards, policies, and procedures pertaining to safety standards, fire prevention, and pollution prevention rules, so as to form a comprehensive balanced federal/state spill prevention program to minimize the potential for oil discharges.

The FRP regulation (40 CFR Section 112.20) requires the owners or operators of facilities that may reasonably be expected to cause substantial harm to the environment by discharging oil to prepare an FRP.

Brame Energy Center's FRP addresses the concerns of 40 CFR 112.20.f.1.ii; the facility's total oil storage capacity is greater than or equal to 1 million gallons. LPPA has no ownership interest in, or liability for, the fuel oil storage tanks located on the Brame Energy Center site.

Rodemacher Transmission

Cleco owns five 230 kV transmission lines that transmit power out of the Rodemacher Unit 2 switching station and interconnect to the transmission grid. Four lines extend to the towns of Clarence, Leesville, Rapides, and St. Landry. The fifth line extends from the Brame Energy Center to Sherwood. Two 230 kV lines extend from Sherwood to the Pineville-Rapides 230 kV line. LUS is interconnected with the area's transmission grid through its 138 and 230 kV lines to Cleco and Energy Gulf States Louisiana, LLC.

The Joint Ownership Agreement Exhibit V-A dated November 15, 1982 originally provided for transmission service from Rodemacher Unit 2. A new Transmission Service Agreement (TSA) in January 1991 between LPPA, the City, and Cleco terminated and replaced the original agreement with the Electric System Interconnection Agreement (ESIA), Service Schedule FTS. Per the TSA, Cleco is to provide firm transmission service to the City's interconnection points with Cleco.

Fuel Supply

Natural Gas

The City signed a Resource Management Agreement with TEA in 2000 allowing TEA to market capacity and energy in the wholesale market and to purchase capacity and energy on behalf of the City, if needed. In 2005, the City signed Letter Agreement Number Two for Natural Gas Services (the Letter Agreement) with TEA. The Letter Agreement authorizes TEA to purchase natural gas and both firm and interruptible transportation and marketing for the Electric System's surplus natural gas and transportation. The Letter Agreement continues until either party provides 30-day written notice of termination to the other party.

Natural gas for the T. J. Labbé and Hargis-Hébert Plants is provided under a base contract dated July 1, 2010, between Centerpoint Energy Services, Inc. (CenterPoint) and TEA. In 2019, two Transaction Confirmations were signed on LUS behalf. Transaction Confirmation #5411241 was signed for a Firm Supply of up to 20,000 MMBtu per day for the Hargis Hebert Plant for July 1, 2019 through June 30, 2020, at monthly and daily rates based on Henry Hub indices, plus an adder, plus Gulf South Pipelines current transmission tariff, plus taxes or assessments. Transaction Confirmation #5454788 is a Full Requirements contract for the T. J. Labbé Plant for July 1, 2019 through June 30, 2020, with an automatic 12 month extension, for 100% of LUS' natural gas requirements at monthly and daily rates based on Henry Hub indices, plus an adder, plus taxes or assessments.

Natural gas supply to the Doc Bonin Plant site is via a 10-mile-long, 10-inch gas supply line, owned by LUS that connects to the Texas Gas Transmission Corporation and the Columbia Gulf Transmission Company pipeline.

Natural gas is supplied to the T. J. Labbé Plant through an expansion pipeline that is approximately one-half mile long and is connected to the 10-inch gas supply line serving the Doc Bonin Plant.

Natural gas to the Hargis-Hébert Plant is supplied from an interconnection to the east-west Gulf South Pipeline Company, LP (Gulf South) system located between Louisiana Highway 89 and Commission Boulevard. Gulf South operates and maintains the 10-inch lateral, which terminates at the metering station located on the Hargis-Hébert Plant property.

Coal for Rodemacher Unit 2

Coal from the Powder River Basin in Wyoming is the predominant fuel used at Rodemacher Unit 2. Coal is supplied under three contracts: Arch Coal Sales Company Inc., Peabody CoalSales LLC, and Cloud Peak Energy Inc. LPPA owns two unit-trains that deliver the coal to the plant from Wyoming. Cleco coordinates the deliveries in conjunction with their unit trains. Coal price adjustments are based on sulfur content in the coal and the heating value (British Thermal Units per pound (Btu/lb)) of the delivered coal.

The Joint Owners manage their own coal inventory and Cleco manages the physical operations related to coal. LPPA also monitors the content and level of coal inventory. LPPA's inventory value is calculated on a moving average basis. After each change in inventory, the cost per ton is recalculated. LPPA's target is 60 days of storage. As of October 31, 2018, LPPA's coal storage was 73,777 tons, or approximately 40 days at the historical five-year Average Capacity Factor of 46%. LPPA continues to manage coal deliveries to achieve the target of 60 days storage.

An annual physical observation of the coal inventory is performed based on an aerial photographic survey and density measurements. An adjustment to inventory occurs when the survey indicates a variance in the results of the physical inventory of at least plus or minus 3%.

Hydroelectric Purchased Power

LUS has a long-term contract with the Southwestern Power Administration for U.S. Department of Energy hydroelectric power. The bilateral agreement is for 22,320 MWh annually. The contract was renewed and ends May 31, 2033. The hydropower is generated by 24 Army Corps of Engineers dams in the region.

Energy Contract and Renewable Energy Credit Contract

LCG signed a contract with Exelon Generation Company, LLC for energy only based on 50 MW at 100% load factor. The contract term is from January 1, 2019 through December 31, 2020.

LCG signed a contract with STX Services B.V. via TEA for RECs on the same term as the energy contract, January 1, 2019 through December 31, 2020.

Capacity Contracts

As a MISO participant, LUS is required to maintain its relative share of capacity and reserves, also called Resource Adequacy. MISO applies a forced outage rate to each units' installed capacity values to calculate an unforced capacity value (UCAP). The LUS units' UCAP values may be applied toward LUS' Resource Adequacy. The Hargis Hébert Plant, with a gross capacity of 100 MW, has a UCAP value of 88.0 MW. The T. J. Labbé Plant, with a gross capacity of 100 MW, has a UCAP value of 83.3 MW. Rodemacher Unit 2, with a gross capacity of 261 MW, has a UCAP value of 228.2 MW. LUS extended existing capacity contracts to meet near-term capacity requirements and continues to evaluate the use of capacity contracts and owned generation to meet future capacity needs in MISO.

With the retirement of the Doc Bonin Plant, LUS does not have sufficient capacity to meet the MISO requirements. The proposed IRP will identify future capacity options and support longer-term capacity requirements in MISO. Due to a potential short-term capacity deficit, LUS secured the following capacity contracts through MISO planning year 2020:

- 40.0 MW from June 2016 through May 2020 with NRG Energy, Inc. (NRG)
- 33.0 MW from June 2017 through May 2019 with TEA
- 11.8 MW from June 2018 through May 2019 with TEA
- 43.8 MW from June 2019 through May 2020 with NRG
- 80.0 MW from June 2020 through May 2021 with TEA

4.2 Transmission and Distribution

The Electric System has 47 miles of transmission and 1,004 miles of distribution lines.

Transmission substation facilities are at 230 kV, 138 kV, and 69 kV. The 230 kV transmission system includes 16 miles of line with interconnections to Cleco and Entergy. The 138 kV system

equipment at the Doc Bonin Plant Substation connects to Entergy, as well as autotransformers to the 230 kV and 69 kV busses. The 69 kV transmission system consists of 31 miles of line. Fifteen distribution substations serve the 86 feeders on the LUS 13.8 kV distribution system.

The Moss Substation is under construction, with an in-service date of 2021. Moss Substation will initially have one 69/13.8 kV, 18/24/30/33.6 MVA transformer, with provisions for a second transformer in the future. Moss Substation will be connected to the existing 230 kV Pont Des Mouton Substation, where a 250 MVA 230/69 kV transformer will be installed, and to the existing 69 kV Peck Substation and the existing 69 kV Gilman Substation. Loading on both Peck and Pont Des Mouton will be relieved; in addition, the new 230/69 kV interconnection will serve as another power flow path from the 230 kV system to the 69 kV system, remove dependence on the Doc Bonin switchyard and bolster resiliency and redundancy. A new transmission line route from Pont Des Mouton to Moss Substation and from Moss Substation into the Gilman-Peck line with an additional tie point from the 230 kV system into the 69 kV system will relieve the dependence on the Doc Bonin switchyard.

LUS is in the process of surveying and design of the complete reconfiguration of the Bonin 69 kV switchyard to improve reliability and maintainability and better facilitate interconnection of the existing 138 kV system to the 69 kV system that serves the majority of LUS' load. This switchyard upgrade is becoming increasingly important as it has been postponed for over the last two years. Several pieces of retired equipment (transformers, switches, circuit breakers) were sold for salvage in 2019.

Existing transmission circuits are on a range of structure types including wood poles and steel towers. Typical new transmission circuits will use galvanized steel poles. There were no new transmission circuits or improvements in 2019.

The 1,004 miles of distribution include 478 miles of overhead and 526 miles of underground lines (13.8 kV). Overhead distribution poles are primarily creosote-treated southern yellow pine, with light-duty steel poles for corners or areas where guying is not possible. Distribution circuit improvements and construction in 2019 primarily addressed replacing damaged equipment and relocating circuits for road widening and sewer projects. All distribution facilities serving new subdivisions and commercial developments are underground. New underground cable is typically aluminum. All underground cable is installed in conduit with the exception of segments purchased from the local cooperative utility, SLEMCO. LUS is not aggressively pursuing conversion of overhead to underground facilities due to the significant costs incurred for the conversion.

LUS integrated Geographic Information System (GIS) data into its distribution model in 2016, allowing more accurate modeling of the distribution system for loadflow, voltage drop, and short circuit analysis. LUS signed a new agreement with the City of Broussard in July 2016 to serve certain developments in the area that SLEMCO does not wish to serve.

The transmission and distribution systems utilize dedicated fiber optic cables for secure communication and protection of the system. Distribution capacitor bank controls and recloser controls are connected to the operations center via the fiber system.

LPPA, the City, and Cleco have a TSA signed in January 1991 to provide firm transmission service from Rodemacher Unit 2 to the City's interconnection points with Cleco. The expiration of this agreement is August 28,2021.

4.3 Advanced Metering Infrastructure

LUS completed the implementation of an Advanced Metering Infrastructure (AMI) for its electric customers in 2013. LUS continues to use the AMI data in its planning and system modeling software to analyze distribution system performance in order to optimize investment in improvements. AMI data input has started to overload the OMS system; procurement has commenced for a new OMS system that will address this issue. Also, LUS' customers have access to their internal data through a customer portal to monitor usage and improve energy efficiency.

4.4 Historical Capital Improvement Program

LUS uses a capital work order system to track capital expenses. The historical capital shown in Table 4-17 reflects investment in infrastructure funded by the Series 2010 and Series 2019 Bonds and retained earnings. The Series 2010 Bonds were issued for multiple projects including the Acadiana Load Pocket transmission project and AMI projects. The Series 2019 Bonds are available to support various capital projects including fuel supply improvements, chiller coil replacement, breaker replacements, substation improvements, switchyard improvements, and street lighting upgrade.

Table 4-17
Electric System
Historical CIP

	2015	2016	2017	2018	2019
Normal Capital & Special Equipment	$6,418,252	$6,351,851	$1,565,194	$2,136,589	$3,468,467
Series 2010 Bonds	3,225,065	729,576	0	0	0
Series 2019 Bonds					241,628
Retained Earnings	4,284,528	5,990,441	2,499,043	5,752,782	4,331,810
Total Electric Capital	$13,927,846	$13,071,867	$4,064,237	$7,889,370	$8,041,906

Source: LUS, Status of Construction Work Order Reports

4.5 Operations and Related Performance

Dispatch and operations were fully staffed in 2019; after six years in MISO, the group is competent and comfortable with the practices and procedures and is continually updating and improving their processes.

In order to meet North American Electric Reliability Corporation (NERC) PER standards, Operations personnel are subject to various training courses. Some training is conducted by SERC Reliability Corporation (SERC). LUS conducts joint training with other entities, including hosting training sessions in the spring of 2018. LUS also has an internal trainer for NERC compliance and certification for operators.

LUS is a partner in the Power Lineman program at Southern Louisiana Community College. Some of the members of the first graduating class are on contract to join LUS in 2020.

Reliability

System Operations staff and policies regarding system reliability and asset maintenance and replacement are proactive and consistent.

Reliability metrics (Institute of Electrical and Electronics Engineers (IEEE) Standard 1366-2012 – IEEE Guide for Electric Power Distribution Reliability Indices) are calculated for the entire distribution system, as well as individual substations and feeders, including:

- System Average Interruption Duration Index (SAIDI) – indicates the total duration of interruption for the average customer during a predefined period of time.
- System Average Interruption Frequency Index (SAIFI) – indicates how often the average customer experiences a sustained interruption over a predefined period of time.
- Customer Average Interruption Duration Index (CAIDI) – represents the average time required to restore service over a predefined period of time.
- Momentary Average Interruption Frequency Index (MAIFI) – indicates the average frequency of momentary interruptions over a predefined period of time. Momentary interruptions are defined by industry standards as being less than five minutes in duration.

Table 4-18
Electric System
LUS Reliability Indices – Calendar Year

Year (1)	SAIDI (2)	SAIFI	CAIDI (2)	MAIFI
2015	49.5	0.88	56.1	0.93
2016	38.2	0.80	47.6	0.74
2017	34.2	0.59	58.4	0.91
2018 (6)	31.9	0.72	44.2	0.83
2019	39.7	0.74	53.6	0.57
National Median (3)	42.31	0.69	71.33	NA
Regional Average (4)	83.64	1.17	62.86	NA

Source: LUS, American Public Power Association
(1) Calendar Year.
(2) Minutes per year.
(3) Averages for 2018 triennial, American Public Power Association "Evaluation of Data Submitted in APPA's 2018 Distribution System Reliability and Operations Survey", Michael Hyland Alex Hofmann, Tyler Doyle and Ji Yoon Lee, July 2019.
(4) APPA Region 4 (OK, AR, TX, LA) results for 2018 survey, American Public Power Association "Evaluation of Data Submitted in APPA's 2018 Distribution System Reliability and Operations Survey".
(5) Vehicle Accidents (57), 1.3M customer minutes (34% overall of customer-minutes).
(6) LUS changed the reporting period from fiscal to calendar year in 2018.

On average, LUS' performance on all four reported indices is consistent and/or better than the typical national median performance reported by utilities, and significantly better in all areas as compared to reginal performance. This performance and consistency reflects the effectiveness of LUS maintenance and testing programs.

LUS utilized the fiber connections from the Communications System to monitor its Electric System since 2012, allowing it to immediately detect power outage occurrences and

locations. This initial version of the LUS outage detection system enabled LUS operators to more quickly detect power outages and more accurately direct field personnel to the location of the cause of the outage. Utilization of this technology significantly reduced the outage durations, as reflected in improved SAIDI results since that time. With the anticipation of implementing a new Outage Management System (OMS), LUS has discontinued utilizing this service. The new OMS will improve functionality and compatibility with AMI, and allow for new features such as customer notification, switching optimization, outage map publication, etc. The utilization of technology is a key element to maintaining and improving LUS' customer satisfaction levels.

Substation equipment upgrades in 2019 included: relaying upgrades at Doc Bonin Switchyard 138 kV Ring Bus, St. George Substation, Guilbeau Substation Perard Substation and Warehouse Substation; replaced several old 15 kV oil circuit breakers with new vacuum circuit breakers. In addition, two 230-13.8 kV Transformer LTC's were upgraded with new components, contacts, controls and mechanisms. This equipment failed due to age and was detected in time for orderly repairs.

NERC compliance mandates relaying upgrades at the T.J. Labbé switchyard for the bus differential relaying; LUS plans to complete this work in fall 2020.

LUS continues its direct and prescriptive approach to improving reliability performance: each year the distribution operations group addresses the five worst performing feeders as determined by reliability indices. Performance issues are pinpointed and addressed, including equipment, tree trimming, covered equipment jumpers, older lightning arresters, and protection coordination. These feeders are then tracked for the next two years to assess the effectiveness of the improvements.

Customers are more sensitive to "blinks" on feeders as their reliance on the Electric System evolved. LUS utilizes a fuse burning philosophy to isolate faulted feeder segments and reduce blinks to upstream customers, improving SAIFI performance. Automatic reclosers are applied at large taps and in heavily treed areas to provide sectionalizing capability and automatically restore service in the event of a temporary fault, improving SAIDI values. Transmission line reclosing is applied on some of the 69 kV lines and was an effective tool for rapid restoration.

LUS contracts with Osmose to inspect and treat wood poles, as well as check ground impedances to ensure reliable operation of the distribution system. All poles holding LUS wires or fiber, including those owned by other entities, are inspected on an eight-year cycle. LUS owned poles are treated or replaced, as necessary; other entities owning poles found deficient are notified of those specific issues. Ground impedance is maintained at 5 ohms or less to ensure protective device operation and safe grounding conditions. 2,388 poles were inspected and 161 were identified for replacement; 12 were replaced in 2019 with the remainder scheduled for replacement early in 2020.

In 2019 LUS worked with an independent contractor to perform an initial drone survey of portions of its transmission system as a pilot project. The survey provided critical information on above ground facilities, including detecting decay on the tops of transmission line crossarms which would not be detectable from the ground. LUS will include routine drone surveys of transmission facilities as part of its work with TEA; a kickoff meeting for this work will occur in 2020.

Regular, detailed inspection and infrared thermal imaging of underground distribution facilities improved with a defined process in place since 2014. Main 600 Amp switchgear is

inspected annually; pad-mount transformers throughout the system and underground distribution feeder cables exiting substations are covered on an eight-year cycle. Feeder exit cable checks were completed in 2016; this work moved into testing bulk feeder cable sections. Two feeders were checked in 2019, finding 37 problem areas (21 leaking transformers, 14 transformer bushing hot spots, and 2 damaged cabinets). Nineteen of the problem areas were repaired in 2019; work orders for repair of the remaining 18 issues are in place for work in the first quarter of 2020. Six-month infrared inspection across multiple components of the system included 20 stations (resulting in repairs on 51 different switch issues). Thirty 13.8 kV breakers were inspected with eight replaced; twenty 69 kV breakers were inspected with one replaced; one 138 kV breaker was replaced. 158 protective relays were maintained and calibrated; 32 relays were replaced.

LUS maintains a program to check all of the vacuum switches and fuses on more than 200 capacitor banks across their territory on an annual basis. Capacitors are applied as either fixed or switched banks, with automatic switching based on voltage settings.

Distribution substations, including transformers and transmission equipment, are visually inspected monthly. Substation transformers are assessed by Doble Engineering (Doble) on a periodic basis over a four-year program; the second four-year round of assessment will commence in 2020. Doble provides recommendations for determining and extending useful life or replacing units. Streetlights are presently being re-lamped on a four-year program.

Maintenance work is performed by in-house crews, ensuring consistency and detailed knowledge of the system. Pole climbing is taught and required of line crewmembers. O&M rolling stock and equipment on average are replaced after 10 years in service.

New construction is typically performed by contractors, providing an efficient, project-centered approach that allows LUS to maintain consistent in-house staffing levels. Contractors are approved for a two-year period, then go through a refresher training program to be eligible for the next two-year period.

The City is divided into zones for vehicle assignments for greater efficiency in normal work management. A work management system creates service tickets for changing out, adding, or removing physical equipment during normal conditions.

The Distribution System Dispatch Center (Dispatch Center) is responsible for addressing customer calls and dispatching and tracking crews. The Dispatch Center utilizes an AMI system as the primary means for detecting and tracking outages, supplemented with customer call tracking. LUS' OMS is overlaid on the City's GIS and creates outage tickets for crew assignments. Crew locations are tracked with truck-mounted GPS, enabling the dispatchers to adjust quickly to changing conditions with real time information. The OMS tracks outage locations over time to prioritize maintenance/replacement work and determine system reliability indices. A new OMS system is in the procurement process with an RFP issued in 2019.

Overhead and underground rights-of-way are managed by a full-time arborist. This individual is responsible for managing all live oaks, as well as general tree-trimming and right-of-way clearing. Distribution system tree-trimming is on a four-year cycle, covering approximately 100 line-miles per year. The 230 kV transmission system is completely covered on an annual basis; the 69 kV system is reviewed and addressed on an "as best as possible" basis.

Safety

Each division within the Electric System has a safety representative and full support from upper management. A separate group evaluates all incidents to report on causes and measures to improve safety. LUS adopted the APPA Safety Manual and utilizes the APPA E-Safety Tracker system. There were no lost time accidents in the electric utility division in 2019.

Operations' analysis indicates that evacuation of LUS' facilities and yards may be necessary in the event of a serious train incident adjacent to the main office. LUS is working to establish a remote site in the City for alternate system operations, equipment staging, and material storage to address this contingency.

SCADA System

The Dispatch Center is responsible for addressing customer calls, dispatching, and tracking crews. The Dispatch Center utilizes the AMI system as the primary means for detecting and tracking outages, supplemented with customer call tracking. The OMS tracks outage locations over time to prioritize maintenance/replacement work and determine system reliability indices.

LUS' apprenticeship program has two dispatch operator apprentices and one SCADA apprentice. These positions are helping to address the anticipated retirements of dispatchers and SCADA operators.

The Energy Control System (ECS) monitors assets from each of the Utilities' services including 15 electric substations, 3 switchyards and approximately 37 sewer lift stations.

The fully redundant SCADA system relies on the original fiber network LUS installed and used to provide communications services to customers in the City. The SCADA system utilizes a dedicated, isolated, and secure network on the fiber ring including dedicated hardware and software. Additional security measures on the SCADA system include periodic maintenance based on NERC requirements and constant monitoring. External connections are made through dedicated switches including firewalls with all computers connected to the network monitored for intrusion. The Back-up Control Center (BCC) includes all EMS, SCADA, and associated equipment required for emergency operation or loss of the main ECS. The BCC is served by back-up, emergency power systems including an engine generator and uninterruptible power supplies (UPS), which are exercised and tested monthly to ensure reliability.

LUS has undertaken a complete upgrade to its Energy Control Center, including new SCADA servers. Work performed in 2019 included removal of the old map board and starting remodeling of the Energy Control Center. The new OSI SCADA master equipment was procured in 2019 for installation in 2020 in both the Energy Control Center and the Backup Control Center. The Backup Control Center will be fully utilized during the installation and transition to the new system.

The eventual goal will be to integrate Distribution Operations (crews, outages, connects) and SCADA (substation and transmission system) on one platform to streamline data sharing and improve operational efficiency.

System Security

An evaluation of the Utilities System security measures is beyond the scope of this Report and a security assessment was not conducted. Based on site visits and discussions with LUS, we learned that the physical security includes the use of fencing, magnetic gates, card swipes, and key pads at critical facilities. In addition, armed personnel are stationed at the Doc Bonin Plant site. LUS security protocols also include employee and contractor background checks, routine training on requirements and policies, and standard entry procedures for all electric facilities. There were no modifications to the physical security systems in 2019.

4.6 Environmental and Regulatory Compliance Issues

NERC is a regulatory authority whose mission is to assure the reliability and security of the bulk power system in North America. NERC develops and enforces reliability and security standards including the Critical Infrastructure Protection (NERC CIP). The NERC CIP plan consists of standards and requirements covering the security of electronic perimeters and the protection of critical cyber assets, as well as personnel and training, security management, and disaster recovery planning. The Electric System's most recent NERC CIP audit was completed in November, 2019 with zero areas of concern. LUS' NERC 693 Reliability audit in 2017 was successful, with no violations; the next 693 audit is scheduled for September, 2020. SERC was assigned as LUS' regional compliance enforcement authority as of December 2, 2017.

As part of LUS', also referred to as LAFA by NERC, adherence to current and future NERC CIP standards, LAFA implemented new restrictive firewalls at substations and generating stations. In addition, encryption is now being utilized for substation communication to the LAFA control centers. LAFA significantly reduced exposure to potential cyber security issues through these improvements.

While internal controls by individual utilities are not currently required by NERC, these controls are encouraged by regulatory entities. LUS is being proactive in evaluating the potential NERC requirement impacts to the utility. LUS anticipates additional staff will be necessary to meet those requirements. NERC responsibilities assigned to staff members typically require up to 20% of their time; that time commitment can reach 60% prior to and during an audit.

Individual personnel are assigned to the following categories within the LUS Electric Environmental Compliance division: 1) NERC compliance; 2) spills, SPCC, and remediation; and 3) air quality. Compliance staff are provided education and training, as standards are updated/created, and the staff participates in NERC reliability and environmental conferences.

All NERC and Environmental Compliance is scheduled and tracked by LUS on Microsoft SharePoint, a web-based document management system. An outside consultant assists LUS with verification of the applicability of the various NERC electric reliability standards, while LUS maintains in-house Subject Matter Experts (SME). All compliance processes and procedures are prepared by the SMEs.

LUS established internal procedures that comply with testing and maintenance requirements set forth by NERC standards. LUS' policy is for SMEs to perform periodic review of the internal procedures and the NERC Reliability Standard Audit Worksheets (RSAWS) in order to keep the testing and maintenance practices in line with changing standards. LUS is also developing internal controls to assist with reasonable assurance to achieve effective compliance with regulations by reducing the organizational risk of noncompliance.

LUS established Protection and Control (PRC) testing intervals for substation and transmission line equipment including: microprocessor relays every five years; electromechanical relays every two years; high voltage circuit breakers every five years; power transformers every five years; and station battery systems every week, month, quarter, year, with a five-year load test.

Permits and Approvals

All environmental permits and related regulatory impacts for the LUS and LPPA owned power generation plants were discussed previously within this Section.

4.7 Contracts

In addition to interconnection agreements for transmission services, fuel supply arrangements mentioned above, and LUS' membership in MISO as a market participant, LUS maintains a number of contracts and agreements important to its day-to-day utility operations. Among the day-to-day operations contracts are agreements relating to maintenance of key equipment, testing services, customer acquisitions, and certain analysis functions.

Table 4-19
Electric System and LPPA
Contracts and Agreements

Contracts & Agreements Between	Date Signed/Renewed	Termination Date	Provisions
LPPA Contracts			
LPPA – Cleco, LEPA	November 15, 1982	June 30, 2032 or end of useful life	Joint ownership of Rodemacher Unit 2
LCG – LPPA	May 1, 1997	August 31, 2047 or when bonds were paid	Purchase of power from LPPA's 50 percent share in Rodemacher Unit 2
LPPA – Peabody	November 7, 2007	60 days' written notice	Purchase of coal for Rodemacher Unit 2
LPPA – Arch Coal Sales, Inc.	August 4, 2009	Upon 30 days' notice	Purchase of coal for Rodemacher Unit 2
LPPA – Cloud Peak Energy	December 11, 2002	Upon 180 days' notice	Purchase of coal for Rodemacher Unit 2
LPPA – Cleco – LEPA – Charah Inc	March 1, 2015	February 29, 2020; may be renewed for 1- or 5-year period	Sale of byproducts (ash) for reuse
MISO Related Contracts			
LCG – Other Transmission	January 4, 2013	Coincides with MISO Owners Agreement	Supplemental Agreement between Transmission Facilities Owners and MISO regarding Independent System Operator (ISO) services and functions
LCG – Other Transmission Facilities Owners	February 4, 2013	30 years from the earliest Effective Date for any	Transmission Owner Agreement for LUS in MISO

Table 4-19
Electric System and LPPA
Contracts and Agreements

Contracts & Agreements Between	Date Signed/Renewed	Termination Date	Provisions
		signatory, thereafter 5-year terms	
LCG – MISO	February 4, 2013	Coincides with MISO Owners Agreement	Agency Agreement for Open Access Transmission Service
LCG – MISO	August 1, 2013	Upon 30-day notice	Agreement to procure satellite phone link
LCG – MISO	September 25, 2013	2 years from Effective Date, thereafter 1-year terms	Modeling, Data, and Analysis reliability standards compliance obligations primarily related to NERC requirements
LCG – Other Transmission Facilities Owners	December 10, 2013	5 years from Effective Date, thereafter 1-year term	Settlement Agreement between Transmission Owners and MISO on Filing Rights
LCG – Midwest ISO Transmission Owners	January 25, 2018	Withdrawal from MISO	Cost sharing for attorneys and consultants related to MISO.
TEA and Fuel Contracts			
LCG – TEA	June 1, 2013	Upon 6-months' notice, but not prior to 48 months after the Effective Date	Power and Fuel Marketing
TEA – Centerpointe	March 28, 2019	June 30, 2020	Supply of natural gas for Hargis Hébert Plant
TEA –Centerpointe	July 15, 2109	June 30, 2020 with 2 year extension option	Supply of natural gas for T. J. Labbé Plant and Doc Bonin Plant sites
Capacity, Energy and Renewable Contracts			
LCG – NRG	July 10, 2015	May 2020	40.0 MW of capacity from June 2016 – May 2020
LCG – TEA	January 16, 2017	May 2019	33.0 MW of capacity from June 2017 – May 2019
LCG – TEA	February 22, 2018	May 2019	11.8 MW of capacity from June 2018 – May 2019
LCG – TEA	December 2018	May 31 2020	43.8 MW of capacity from June 2019 – May 2020
LCG – Exelon Generation Company, LLC	August 7, 2018	December 31, 2020	Energy contract for 50 MW at 100% load factor from January 1, 2019 through December 31, 2020.
LCG – SPA	June 1, 2018	May 31, 2033	Purchase of hydroelectric power
LCG – SPP	August 9, 2013	September 1, 2018	Firm point-to-point transmission service. Contract was not renewed.

Table 4-19
Electric System and LPPA
Contracts and Agreements

Contracts & Agreements Between	Date Signed/Renewed	Termination Date	Provisions
LCG – STX Services B.V. (via TEA)	August 3, 2018	December 31, 2020	RECs from January 1, 2019 through December 31, 2020.
Transmission Related Contracts			
City – Louisiana Generating (Cajun Electric)	May 23, 1983	Upon 3-year notice	Interchange agreement for electric transmission
City – Entergy Louisiana	October 6, 1988	Upon 18-month notice	Interchange agreement for electric transmission
LCG – Cleco	1991	August 31, 2021 (1)	Interconnection agreement for delivery of power Transformer lease agreement (Cleco rent transformer space to serve Breaux Bridge) Firm transmission service point to point (expires August 31, 2021)
LCG – Entergy Gulf States	June 22, 2012	June 21, 2032; year to year thereafter	Interconnection agreement for delivery of power
Miscellaneous Contracts			
LCG – SLEMCO	September 10, 2004	September 10, 2019	Contract expired. Negotiations ongoing.
LCG – GE	May 1, 2012	December 31, 2018	CTG Maintenance Services. LUS is currently negotiating with various suppliers.
LCG – City of Broussard	December 18, 2015	December 17, 2038	Franchise Agreement
LCG – City of Broussard	December 18, 2015	December 17, 2038	Streetlighting Agreement
LCG – City of Youngsville	July 7, 2017	November 30, 2026	Franchise Agreement
LCG – City of Youngsville	July 7, 2017	November 30, 2026	Streetlighting Agreement

Source: LUS, LPPA, LCG

(1) Notice of termination was not given within 3 years of initial expiration. Therefore, the term was automatically extended for five years. LCG notified Cleco during 2018 that LCG is terminating the contract.

4.8 Benchmarking

LUS' residential electric rates have historically been among the lowest in the state and the surrounding region. The following tables and figures compare the average residential and commercial rates for the selected electric utilities in the region. As shown in Table 4-20 and Figure 4-2, LUS residential rates are currently lower than average in the region. The residential rate comparison assumes a customer with a monthly energy usage of 1,000 kWh.

Table 4-20
Electric System
Residential Rate Comparison

Utility	Average ($/kWh) (1)
Lake Charles (3)	$0.09067
Baton Rouge (3)	$0.09067
LUS	$0.09243
Alexandria	$0.10091
Shreveport (2)	$0.10472
New Orleans (4)	$0.10650
New Iberia (5)	$0.11509

Source: LUS. Rates as of October 2019.
(1) Assumes 1,000 kWh per month consumption.
(2) Served by SWEPCO.
(3) Served by Entergy Gulf States.
(4) Served by Entergy New Orleans.
(5) Served by Cleco.

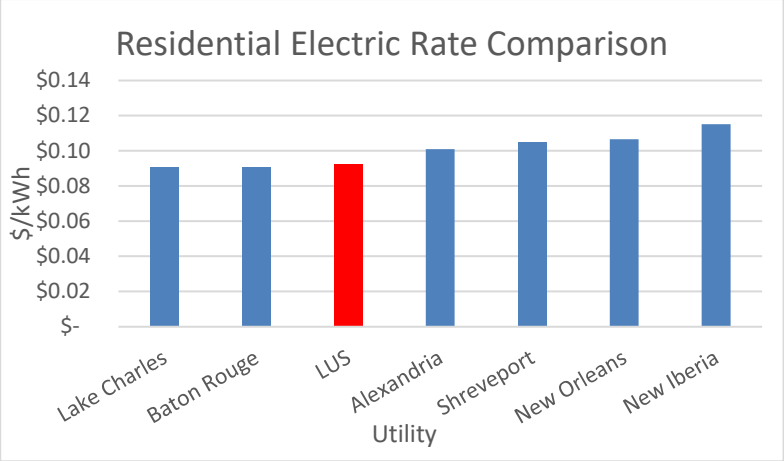


Figure 4-2: Electric System – Residential Rate Comparison

LUS completed a rate study in 2016, which showed that the Electric System rates were insufficiently recovering revenues to cover costs. As a result, Electric System base rates were increased November 1, 2016 by 6.0% (2.8% total rate) and again on November 1, 2017 by 6.0% (2.8% total rate) as approved by LPUA.

As shown in Table 4-21 and Figure 4-3, LUS commercial rates are competitive in the region. The commercial rate comparison assumes a 130 kW demand customer with a monthly energy usage of 52,000 kWh.

Table 4-21
Electric System
Commercial Rate Comparison

Utility	Average ($/kWh) (1)
Lake Charles (2)	$0.0678
Baton Rouge (2)	$0.0678
LUS	$0.0795
Shreveport (3)	$0.0844
New Orleans (4)	$0.0911
New Iberia (5)	$0.0939
Alexandria (6)	$0.1006

Source: NewGen. Rates as of October 2019.
(1) Assumes an average customer of 130 kW demand and 52,000 kWh per month.
(2) Served by Entergy Gulf States.
(3) Served by SWEPCO. SWEPCO Fuel Adjustment Factor not available at time of Report. Assumed 2019 Fuel Adjustment Factor.
(4) Served by Entergy New Orleans.
(5) Served by Cleco.
(6) Based on the 2018 fuel cost adjustment rate. The Energy Cost Adjustment was requested from the City of Alexandria, as of the date of this Report, the request has not been fulfilled.

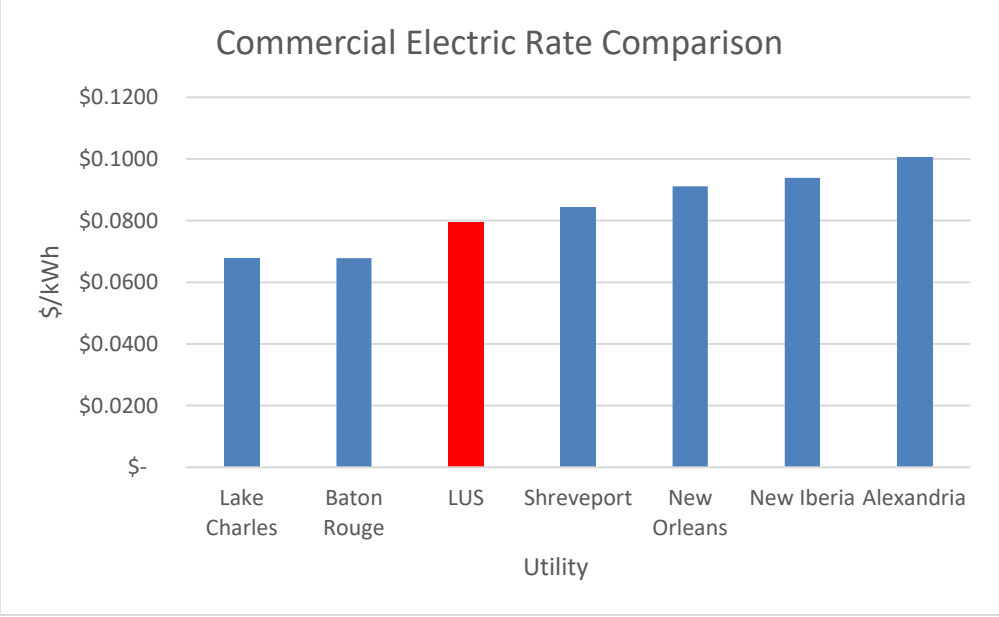


Figure 4-3: Electric System – Commercial Rate Comparison

Benchmarking Financial and Operating Statistics

Table 4-22 benchmarks selected financial and operating ratios for LUS with other large municipal electric utilities nationwide; the data was provided by the *APPA Financial and*

Operating Ratios of Public Power Utilities, 2017 Data published December 2018. The APPA report contains data based on regions of the U.S. and the number of electric customers served by the utility. For the purposes of our analysis, we used the Southwest region, which includes Louisiana and hereafter referred to as "Regional." For the customer range, we used the APPA range of 50,000 to 100,000 customers, hereafter referred to as "National." The results are shown below in Table 4-22. If possible, the comparisons were made based on the Electric System only. However, for some balance sheet items, the comparison was made based on the utility as a whole, including the Water and Wastewater Systems. Please note the National and Regional average metrics were available for 2018, not 2019; however, both the 2018 and 2019 data for LUS was included.

LUS' Electric Revenue per kWh was lower than the National and Regional average in 2018 and 2019, which corresponds with LUS having low rates for the region. LUS' Debt to Total Assets were lower than the National and Regional averages in 2018. LUS' total O&M Expenses per kWh sold were lower than the National and Regional averages in 2018 and 2019. The DSCR for LUS was higher than the National average but lower than the Regional average. Combined, these metrics help illustrate LUS as a financially stable utility with prudent levels of debt, operating efficiently with competitive and often lower retail rates.

Table 4-22
Electric System
Benchmarked Electric Utility Operating Ratios

		National	Regional	LUS	
Statistics	Basis	2018	2018	2018	2019
Revenue per kWh – All Retail Customers	Electric	$0.104	$0.095	$0.087	$0.087
Debt to Total Assets	Total LUS	0.409	0.355	0.344	0.380
Operating Ratio (Electric specific)	Electric	0.790	0.784	0.725	0.663
Current Ratio	Total LUS	3.00	3.23	2.56	2.38
Times Interest Earned	Electric	3.31	4.79	7.44	8.51
Debt Service Coverage Ratio	Electric	2.60	3.87	3.05	3.65
Net Income per Revenue Dollar	Electric	$0.1000	$0.1000	$0.0645	$0.1149
Uncollectible Accounts per Revenue Dollar	Total LUS	$0.0021	$0.0031	$0.0060	$0.0052
Total O&M Expense per kWh Sold	Electric	$0.0730	$0.0680	$0.0646	$0.0596
System Load Factor	Electric	64.0%	58.4%	52.9%	51.4%

Source: APPA

4.9 Historical Financial Performance

Electric System debt service for years 2015 through 2019 includes a portion of the Series 2010 Bonds, Series 2012 Bonds and Series 2019 Bonds. The Series 2019 Bonds first debt service was due November 1, 2019 (FY 2020). The Series 2010 Bonds will be fully redeemed by the proceeds of the Series 2017 Bonds on November 1, 2020. Table 4-23 shows historical debt service and the associated DSCR. In each year since 2015, the DSCR exceeded the minimum coverage requirement of 1.0 required by the Bond Ordinances.

Table 4-23
Electric System
Historical Debt Service Coverage

FY	Operating Revenues (1)	Operating Expenses (2)	Balance Available for Debt Service	Debt Service (3)	Debt Service Coverage Ratio
2015	$182,044,163	$130,006,922	$52,037,241	$16,500,796	3.2
2016	$174,354,151	$126,694,194	$47,659,957	$16,503,966	2.9
2017	$176,060,504	$133,347,125	$42,713,378	$15,655,298	2.7
2018	$180,955,690	$131,167,858	$49,787,833	$16,337,720	3.0
2019	$179,965,886	$119,400,682	$60,565,203	$16,615,466	3.6

Source: LUS Financial and Operating Statements
(1) Operating Revenues Include interest income and other miscellaneous income.
(2) Operating Expenses include O&M and other expenses such as customer service and A&G costs. Operating Expenses do not include ILOT, normal capital and special equipment, and other miscellaneous expenses.
(3) Debt Service was prepared on a cash basis for the below table and includes a portion of the Series 2010 Bonds, Series 2012 Bonds and Series 2019 Bonds. The Series 2019 Bonds first debt service was due November 1, 2019 (FY 2020). The Series 2010 Bonds will be fully redeemed by the proceeds of the Series 2017 Bonds on November 1, 2020.

Rate Structure

The Electric System rate structure includes base rates (customer, demand, and energy charges) and a pass through rate, the FC. The Electric System services customers inside the City limits and outside of the City limits.

Base Rates

The Electric System customer classes include residential, commercial, industrial, schools and churches, street lights, and special contract customers. All customers are charged a monthly Customer or Service Charge, Energy Charge, and the FC. Large customers are also charged a demand charge.

Fuel Charge

The monthly FC (Schedule FC) review continues on a month-to-month basis until the Utilities Director determines eligible costs warrant an adjustment to the current charge.

Schedule FC passes fuel, purchased power, and other eligible costs directly to customers. This mechanism protects LUS from the financial risk associated with unforeseen and potentially detrimental volatility in power costs that may be associated with the MISO market. These types of fuel charges are often used by utilities across the country to manage volatility in power costs.

Currently, all operating expenses associated with environmental compliance, fuel, and purchased power are included in the FC and passed through to customers. The FC includes the following items: MISO market purchases less market sales, transmission associated with purchased power, LPPA fuel and fuel handling costs, LPPA rail car debt service, LPPA MATS

debt service, LPPA MATS O&M, LPPA reagents, LUS fuel costs, hydro purchased power contract, and TEA costs.

As of October 31, 2019, the FC has over collected by approximately $6.5 million. Over and under collection of these FC related costs is common and expected in the industry. LUS intends to reimburse customers a portion of the over collection in FY 2020.

LUS completed a rate study in 2016, which showed that the rates for the Electric System were insufficiently recovering costs. As a result, Electric rates increased November 1, 2016 and November 1, 2017 to collect sufficient revenues to meet all operating costs, debt service coverage requirements, ILOT requirements, maintain reserves, and fund capital expenses through 2021. The Electric System base rates increased 6.0% (2.8% total) in 2017 and 2018.

Table 4-24
Electric System
Rate Schedules

Rate Class	Serves	Effective Date	Customer Charge ($/month)	Demand Charge ($/kW)	Non-Fuel Energy Charge ($/kWh)
R-1	Residential	Nov-17	$8.00	$0.00	$0.04764
R-1-O	Residential Non-City	Nov-17	$8.80	$0.00	$0.05240
C-1	Small Commercial	Nov-17	$10.00	$0.00	$0.06176
C-2	Large Commercial	Nov-17	$50.00	$8.50	$0.02098

Source: LUS Rate Schedules

Revenue Analysis

Table 4-25 shows the historical revenue collected from base rates and the FC. The FC is adjusted as needed to recover the fuel and purchased power costs. As shown below, the base rate revenue is relatively stable in aggregate and on a per kWh basis except in 2017 and 2018 which reflect rate increases approved by LPUA and City-Parish Council. The FC revenue fluctuates due to market dynamics and fuel or purchased power prices. Figure 4-4 shows the historical revenues on a per kWh basis.

Table 4-25
Electric System
Historical Base Rate and Fuel Charge Revenue Detail

	2015	2016	2017	2018	2019
Revenues					
Retail Sales- Base Rate	$92,626,681	$91,631,825	$94,552,196	$102,886,777	$100,836,993
Retail Sales- Fuel Charge	84,910,901	78,153,587	76,829,537	72,872,661	73,101,002
Total	$177,537,582	$169,785,412	$171,381,733	$175,759,439	$173,937,995
Energy Sales					
Retail Sales (kWh)	2,050,434,389	2,027,944,893	1,980,653,304	2,031,847,230	2,004,309,990
Revenue per kWh					
Retail Sales- Base Rate	$0.0452	$0.0452	$0.0477	$0.0506	$0.0503
Retail Sales- Fuel Clause	0.0414	0.0385	0.0388	0.0359	0.0365
Total	$0.0866	$0.0837	$0.0865	$0.0865	$0.0868

Source: LUS Financial and Operating Statements

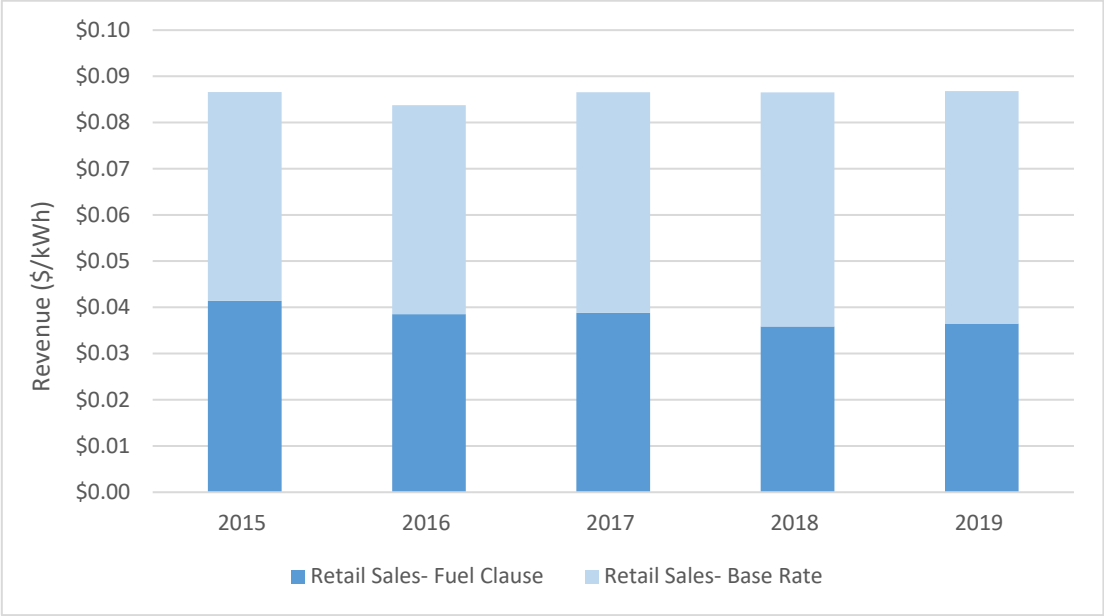


Figure 4-4: Electric Base Rates and FC Revenues per kWh of Sales

Electric Revenue Statistics

Table 4-26 shows the Electric System base rate revenues. Since 2015, the increase in total retail base rate revenues averaged 2.1% annually. Total base rate revenues in 2019 decreased by 2.0% due to decreased energy sales. The base rate revenues per kWh ($/kWh) increased 5.7% in 2017 and 6.1% in 2018 as a result of the rate increase. The base rate revenues per kWh ($/kWh) decreased 0.6% in 2019 as a result of the decrease in sales.

The number of customers consistently increased at approximately 1.0% per year with the highest customer growth in the Schools and Churches customer class. The revenue per customer since 2015 increased slightly at approximately 1.1% per year as a result of rate increases.

The total retail energy sales have decreased at an annual average of 0.6% since 2015. The energy sales per customer decreased at an annual average rate of 1.5%. The residential and small commercial class decreased their usage per customer annually on average by 1.4% and 1.5%, respectively. Increases in appliance efficiency and energy conservation measures contribute to this decrease and reflect broader energy and electric utility trends in the U.S.

Table 4-26
Electric System
Base Rate Revenue Statistics

	2015	2016	2017	2018	2019
Revenues					
Residential	$37,788,166	$37,245,915	$39,500,029	$45,868,752	$44,867,081
Commercial	47,192,693	46,646,591	47,150,242	48,685,466	47,517,635
Schools & Churches	4,817,122	4,893,085	4,996,497	5,308,787	5,210,732
Other	2,828,700	2,846,234	2,905,428	3,023,773	3,241,545
Total	$92,626,681	$91,631,825	$94,552,196	$102,886,777	$100,836,993
Number of Customers					
Residential	54,345	54,761	55,227	55,535	56,769
Commercial	9,092	9,141	9,204	9,285	9,285
Schools & Churches	494	511	522	518	527
Other	1,916	1,912	1,908	1,905	1,915
Total	65,847	66,325	66,860	67,243	68,495
Revenue per Customer					
Residential	$695	$680	$715	$826	$790
Commercial	5,191	5,103	5,123	5,243	5,118
Schools & Churches	9,759	9,572	9,578	10,250	9,891
Other	1,476	1,489	1,523	1,587	1,692
Total ($/Customer)	$1,407	$1,382	$1,414	$1,530	$1,472
Sales (kWh)					
Residential	840,719,003	822,151,289	790,227,214	845,855,856	830,153,367
Commercial	1,030,069,827	1,022,107,401	1,008,350,471	1,000,509,799	988,791,647
Schools & Churches	123,668,657	126,162,076	124,728,756	127,870,744	126,428,653
Other	55,976,902	57,524,127	57,346,863	57,610,831	58,936,323
Total	2,050,434,389	2,027,944,893	1,980,653,304	2,031,847,230	2,004,309,990
Sales (kWh) per Customer					
Residential	15,470	15,014	14,309	15,231	14,623
Commercial	113,295	111,816	109,562	107,753	106,498
Schools & Churches	250,553	246,812	239,097	246,894	239,978
Other	29,210	30,088	30,055	30,246	30,771
Total	31,139	30,576	29,624	30,216	29,262
Revenue per kWh					
Residential	$0.0449	$0.0453	$0.0500	$0.0542	$0.0540

Table 4-26
Electric System
Base Rate Revenue Statistics

	2015	2016	2017	2018	2019
Commercial	0.0458	0.0456	0.0468	0.0487	0.0481
Schools & Churches	0.0390	0.0388	0.0401	0.0415	0.0412
Other	0.0505	0.0495	0.0507	0.0525	0.0550
Total ($/kWh)	$0.0452	$0.0452	$0.0477	$0.0506	$0.0503

Source: LUS Financial and Operating Statements

Expense Analysis

Table 4-27 below shows the historical electric operating expenses separated between fixed and variable expense. Variable operating expenses include fuel cost, LPPA fuel cost, and purchased power. Fixed operating expenses include fixed production expenses, transmission, distribution, customer service, and A&G expenses. Historically, the variable expenses have averaged 52% of the total expenses. Figure 4-5 shows the historical breakdown graphically.

Table 4-27
Electric System
Historical Fixed and Variable Expense Summary

	2015	2016	2017	2018	2019
Variable Expenses					
Fuel Cost - LUS	$985,639	$1,363,817	$1,967,322	$3,020,362	$2,369,957
Purchased Power Other	3,493,850	3,543,627	3,926,250	3,637,576	15,569,793
Purchased Power LPPA Fuel	33,966,979	26,658,901	26,620,153	29,566,005	27,808,739
Purchased Power MISO	62,181,834	55,468,362	64,942,619	67,855,286	46,658,114
Purchased Power MISO Sales	(29,667,313)	(23,357,459)	(29,186,362)	(36,621,122)	(32,525,010)
Total Variable - Production	$70,960,989	$63,677,247	$68,269,981	$67,458,107	$59,881,593
Fixed Expenses					
Production - Fixed	$25,947,482	$28,570,660	$28,706,647	$26,998,804	$24,491,422
Transmission	7,405,920	8,661,822	9,192,823	9,275,422	8,612,596
Distribution	11,899,551	11,613,300	12,283,787	12,143,206	11,837,879
Customer	2,744,901	2,868,750	2,917,554	2,828,513	2,690,275
A&G	11,048,079	11,302,414	11,976,332	12,463,806	11,886,918
Total Fixed	$59,045,932	$63,016,947	$65,077,144	$63,709,751	$59,519,089
Total Fixed & Variable	$130,006,922	$126,694,194	$133,347,125	$131,167,858	$119,400,682
Percent Variable	55%	50%	51%	51%	50%
Percent Fixed	45%	50%	49%	49%	50%

Source: LUS Financial and Operating Statements

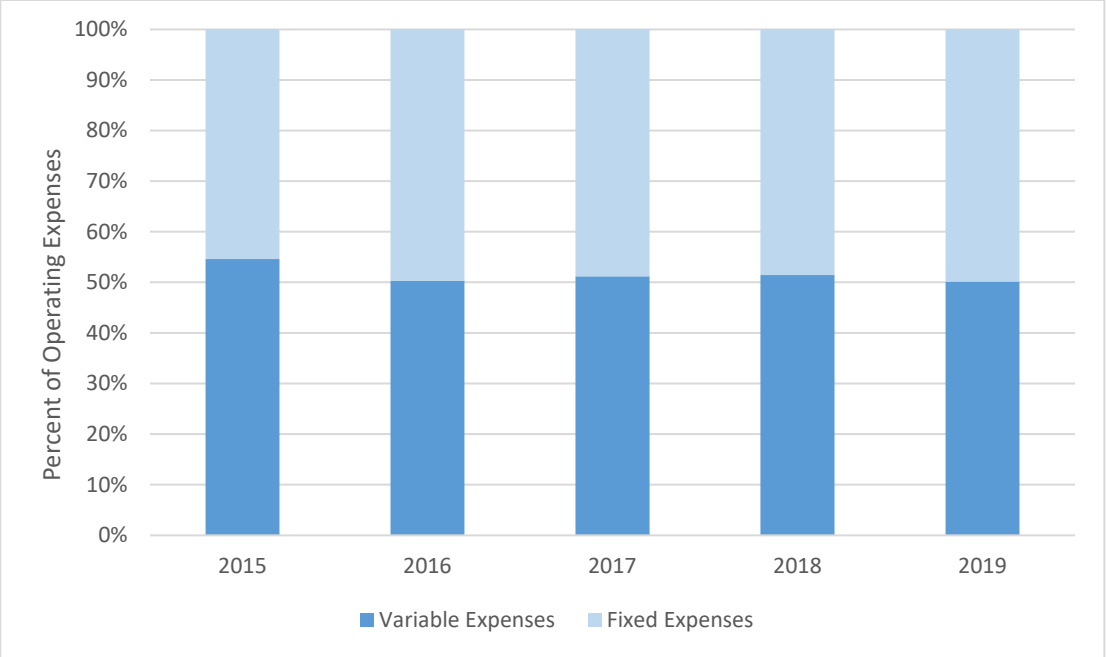


Figure 4-5: Fixed and Variable Breakdown of LUS Expenses

Recovery of Costs

Fixed and variable costs are recovered through the rates charged to customers. Customers are charged fixed base rates including a customer charge and demand charge. Customers are also charged variable rates including the energy rate and the FC pass through rate.

Based on the 2019 billing data provided by LUS, the customer, demand, energy, and FC collected approximately $8.8 million, $17.6 million, $75.5 million, and $73.1 million, respectively. Although approximately 48% of LUS' costs are fixed over the five-year average in Table 4-27, only 15% of revenues are collected through fixed charges. Approximately 85% of retail revenues are recovered through variable rates.

4.10 Findings and Recommendations

- Based on our visual observation and review of the Utilities System, we find the Utilities System in generally good condition and maintained properly in accordance with prudent utility and industry practices.
- Revenues from the Utilities System were sufficient to meet all financial obligations including operating expenses, LUS and LPPA debt service, capital improvements, ILOT payments, and required reserves. LUS' Electric System operating, expense, debt, revenue, and related ratios reflect a financially stable and healthy utility that is currently offering competitive, lower than market average rates.
- Historically, the Utilities System CIP was sufficient to sustain and improve the integrity and reliability of the system.
- The Doc Bonin Units 2 and 3 were retired April 1, 2017, as approved by MISO. The Curtis Rodemacher Plant was retired in June 2000. The generating station remains retired

with LUS performing routine maintenance, upkeep, and site monitoring. In anticipation of the cost associated with fully decommissioning the Curtis Rodemacher plant, LUS should establish a decommissioning reserve to cover the future costs of dismantling the plant. A decommissioning study for Doc Bonin was completed in May 2016. Decommissioning efforts are in progress and currently on budget. The four Doc Bonin fuel oil tanks and associated piping were removed and all contaminated soil under the tanks was removed.

- LUS is in the midst of its IRP process (scheduled for completion in summer 2020), evaluating overall power supply options, including plans for potentially replacing or repowering the Doc Bonin Plant. The previously recommended project to install natural gas fired reciprocating engines at the Doc Bonin site, which had been included in the 2018 Budget, was placed on hold pending the result of the new IRP. In addition, the IRP is evaluating the CCR and ELG rules to determine compliance and associated costs. An outcome studied in the IRP will be retiring RPS-2 from burning coal, whether by conversion to natural gas or retiring the unit entirely. Further analyses are required, along with detailed review of EPA's timing of submitting compliance documents.
- On average, LUS' performance on all four reported indices is consistent and/or significantly better than the typical national median performance reported by utilities, and significantly better in all areas as compared to regional performance. This performance and consistency reflects the effectiveness of LUS maintenance and testing programs. LUS continues to perform well in NERC CIP audits, NERC 693 (Operations) audits, and LDEQ environmental inspections.
- The organizational structure and management in the Electric System engineering and operations areas continue to facilitate staff empowerment, offer employees additional responsibilities, and encourage career growth.
- In general, attracting staff can be an issue for LUS and all municipally-owned utilities across the United States (U.S.) in certain positions such as engineering, electric lineman, and operators. LUS is also constrained by civil service policies and therefore lags the competition (such as investor-owned utilities) in salaries. Compared with the regional oil and gas industry and competing investor-owned utilities, LUS' advantages come down to job stability, location, quality of life, and home time. Opportunities to adjust compensation of competitive positions within the Utilities and Communications Systems should be pursued to attract and retain proper levels and expert staff.
- In terms of eliminating or re-allocating vacant positions, a personnel "slot" can move laterally or be down-graded within a utility division without City-Parish Council approval. However, any reorganization (reducing plant manning, for example) requires civil service and City-Parish Council approval. As a result, LUS may be limited and less flexible in hiring staff as needed in response to market changes or customer needs.
- Electric System revenue collection mechanisms are misaligned with the cost structure. While approximately 48% of LUS' costs are fixed over the five-year average, only 15% of revenues are collected through fixed charges. Approximately 85% of retail revenues are recovered through variable rates. Although this misalignment was historically common in the industry, many utilities are pursuing strategies that improve the collection of fixed cost through rates. These strategies reflect market trends where end-users become increasingly interested in renewable energy alternatives and energy

conservation. Historically LUS customers' interest in renewable energy alternatives and energy conservation was limited, but this could change over time. Therefore, we recommend that in future rate proceedings, LUS improve fixed cost recovery mechanisms in its Electric System rate structure.

SECTION 5
WATER SYSTEM

In 2019, LUS provided potable water to 58,316 residential, commercial, industrial, and wholesale customer accounts. LUS' responsibilities include raw water supply, water treatment, transmission, and distribution of finished potable water, metering, and sales. LUS obtains all of its raw water supply needs from the Chicot aquifer. The Water System includes two water treatment facilities, 19 ground water wells, elevated and ground treated-water storage, and 1,145 miles of distribution piping.

Water System total sales in 2019 were 3.9% lower than 2018, driven by decrease in both retail and wholesale sales. Retail water sales decreased by 4.0% and wholesale water sales decreased by 3.8% in 2019. Historical Water System volume sales are shown in Table 5-1.

Table 5-1
Water System
Historical Retail and Wholesale Sales

FY	Retail Sales (1,000 gallons)	Wholesale Sales (1,000 gallons)	Total Sales (1,000 gallons)
2015	5,419,758	2,116,545	7,536,303
2016	5,402,650	2,117,627	7,520,277
2017	5,382,447	2,161,051	7,543,498
2018	5,363,552	2,256,911	7,620,462
2019	5,148,605	2,171,928	7,320,533

Source: LUS Financial and Operating Statements

5.1 Water Supply

LUS' sole raw water supply is the Chicot aquifer, a confined aquifer that supplies water for public water systems (14%); aquaculture (17%); irrigation (58%); and industry, power generation, and other uses (11%). The Chicot aquifer is designated as a "sole-source" aquifer for all or parts of 15 parishes in Louisiana and parts of Texas. The Chicot aquifer is designated a sole source by the EPA, thus, special consideration for federal permitting of projects that could adversely affect it are required.

Studies conducted by the LDEQ indicate that the water quality of the Chicot aquifer generally does not exceed the maximum contaminant levels (MCL) for pollutants listed in the federal primary drinking water standards. The Chicot raw water supply is treated by a multi-step purification process at water treatment facilities that are monitored 24-hours a day by LUS operators and certified by Louisiana Department of Health (LDH) to ensure that all water delivered to its customers is safe to drink and is of acceptable secondary quality.

5.2 Water Treatment and Production

The Water System includes four water treatment facilities, North Water Plant (NWP), SWP, Gloria Switch Road (GSR) remote site, and Commission Blvd (CB) remote site, and a total of 19 ground water wells to provide raw water for treatment, as well as supplemental volume and pressure to the system.

The NWP has eight wells with a capacity of 23.2 million gallons per day (MGD) and a treatment capacity of 20.8 MGD. The SWP has seven wells with a capacity of 21.0 MGD and a treatment capacity of 24.0 MGD. The GSR remote site has two wells with a capacity of 3.7 MGD, but generally only operate one at a time, and a treatment capacity of 2.88 MGD. The CB remote site has two wells have a capacity of 3.6 MGD, but generally only operate one at a time. Both the NWP and SWP use coagulation, sedimentation, and filtration to remove iron and manganese with lime-softening for hardness reduction and gaseous chlorine for finished water disinfection. The GSR remote site uses potassium permanganate for treatment, phosphate for sequestering, and hypochlorite for finished water disinfection. The CB wells uses phosphate and hypochlorite for finished water disinfection. Table 5-2 shows the water production capacity by facility. Table 5-3 shows the capacity of each well.

The NWP and SWP have a base load treatment of 10.0 to 12.0 MGD each. The GSR site has a base load treatment of 1.21 MGD and the CB wells have a base load treatment of 1.74 MGD.

Table 5-2
Water System
Water Treatment Capacity

Facility	Capacity (MGD) (1)
NWP	20.8 (1)
SWP	24.0 (2)
Well No. 23	1.4
Well No. 24	1.4
Well No. 25	2.2
Well No. 26	2.3
Total Plant Capacity	51.5
Highest Recorded Production	33.8 (3)

Source: LUS
(1) Plant treatment capacity is less than total well production capacity.
(2) Plant treatment capacity is greater than total well production capacity.
(3) Recorded during freeze event in January 2018.

Table 5-3
Summary of Well Capacity

NWP		SWP		Commission Blvd	
Well No.	Capacity	Well No.	Capacity	Well No.	Capacity
7	2.88	1	2.59	23	1.44
9	2.88	2	2.59	25	1.44
12	2.81	3	2.59	Gloria Switch Road	
14	3.03	4	2.59	24	1.44
16	2.95	5	2.59	26	2.31
19	2.88	6	4.04		
21	2.88	7	4.04		
22	2.88				

Source: LUS

Fifteen deep well pumps located at the NWP and SWP provide the raw water supply for treatment at both facilities. The remaining four pumps are remotely located from the treatment plants and provide additional volume and pressure to the system. Each well has a surface-mount motor and is tested and inspected for pumping capacity and drawdown once per year. Each well is also dismantled and inspected for the operational condition of the pumps, motors, line shafts, line bearings, and condition of the casing. These tests are conducted by an independent private contractor.

Water Well Nos. 24 and 26, located at the Gloria Switch remote site, provide supplemental capacity and pressure to the northern end of the distribution system. Finished water is stored in a ground storage tank and delivered to the system with two 1.73 MGD high-service pumps.

Water Well Nos. 23 and 25, located at the Commission Boulevard remote site, provide additional volume and pressure to the wholesale users on the southern end of the distribution system including City of Broussard, City of Youngsville, and Milton Water System. Treatment at the Commission Boulevard site is currently limited to the addition of a polymer to serve as a sequestering agent, and hypochlorite generation facilities to provide disinfection. Water Well Nos. 23 and 25 have a high amount of naturally occurring ammonia, and LUS purchased approximately eight acres adjacent to this site for the construction of ammonia removal facilities. LUS is currently planning to convert the process at the Commission Boulevard site to include biological treatment, clinotreatment, sand filtration, and chlorine disinfection to remove ammonia from the raw water. Once a treatment plant design is approved, bidding for construction of these additional facilities will occur as it is included in the LUS CIP. LUS had planned to bid and construct this project in 2018, but the project was placed on hold until funding is available.

The Commission Boulevard site area also includes the Fabacher Field re-boost facilities consisting of a 2.0 MG ground storage tank and two 3.6 MGD high service pumps that are used to improve pressure conditions at the outer limits of the distribution system. The Fabacher Field (FF) booster facility is manually controlled by an operator at the SWP. A service pump is

turned on when the pressure drops during high demand periods and turned off under low demand periods.

The total water production has been trending between 22.1 MGD and 23.0 MGD for the past five years with 2019 having a decrease of 1.9% from 2018.

The LUS service area experienced a hard freeze in January 2018. The Water System produced a record 33.8 MGD flow during this event, due to residents running taps and pipe breaks. The Water System was also able to maintain minimum required pressures throughout the distribution system. The event highlighted a need for additional storage in some parts of the system, particularly the northern end. Although the system maintained its pressure for the freeze event, it is unknown how much longer the system would have been able to do so.

Water production facilities are provided with on-site backup electric generation facilities that are adequate to sustain an acceptable level of water production in the event of power failures or other catastrophic events. The SWP is equipped with full power generation capacity capable of maintaining full production output, while the NWP is equipped sufficiently to provide approximately 60% of production output. Based on the 2020 Budget, production improvements for 2020 through 2024 total $8.2 million.

Maintenance projects continue at the NWP, which recently completed the second of four phases of pipe painting. The third phase is currently underway, with plans to bid the last phase in the summer of 2020.

5.3 Water Distribution and Storage

The water distribution system consists of 1,145 miles of pipe and the treated water storage (including clearwells, distribution system ground storage tanks, and elevated storage) totals approximately 13.675 MG. LUS utilizes the Communications System assets and fiber connections to manage, monitor, and control the water flows and storage volumes on the Water System. The treated water storage includes 4.14 MG of clearwells at the NWP, 2.725 MG of clearwells at the SWP, 4.30 MG of distribution system elevated storage and 3.75 MG of distribution system ground storage at booster pumping station sites. Table 5-4 shows the storage volume of each tank/tower. LUS is currently evaluating the need for additional water storage facilities on the north end of the distribution system to provide operational flexibility and support growth. When considering the construction of additional treated water storage capacity, LUS prefers ground storage with high-service pumps over elevated water storage due to increased operational flexibility, and the ability to maintain a more stable chlorine residual. As with other operating components of the Water System, consideration of providing additional capacity components is weighed against such factors as budget constraints, capital outlay funding mechanisms, and population growth trends.

Table 5-4
Summary of Storage Volume (MG)

NWP		SWP		Distribution Elevated Towers	
Name	Capacity	Name	Capacity	Name	Capacity
Round 1	0.300	Clearwell 1	0.225	Bertrand	0.300
Round 2	0.300	Ground	2.000	Walker Road	1.000
Round 3	0.300	Clearwell 2	0.500	Guilbeau	1.000
Rectangular	0.000 (1)	Total	2.725	South Park	1.000
Ground	3.000			North Park	1.000
Total	3.900			Total	4.300
				Distribution Ground Tanks	
				Gloria Switch Road	0.750
				Fabacher Field	2.000
				Total	2.750

Source: LUS
(1) Rectangular storage tank at NWP has been decommissioned and is no longer in use.

The geographical service area and customer base have increased over the past several years and LUS completed several projects to improve the distribution system and related pressure. Current capacity and water pressure in the system is adequate. LUS plans for additional distribution improvements to meet the demands from future residential and commercial development as outlined in the CIP. Based on the 2020 Budget, distribution improvements for 2020 through 2024 total $9.0 million.

In addition to the planned distribution system investments to serve growth, water meter installation fees likely also require review and updating. LUS personnel report that the actual costs to purchase and install water meters of the varying sizes required for new customers greatly exceeds the current fees charged. In addition, the fees charged do not take into consideration the location of meter installations relative to the distribution main being accessed, the surface conditions, and whether or not the meter being installed is on the same side or the opposite side of the roadway as the main where the meter is being installed. LUS should consider evaluating the cost of service for new meter installations to the system.

The integration of SCADA and plant controls, completed in 2017, has resulted in streamlined operational efficiency and allowed for maximum utilization of operations personnel. LUS plans to continue to expand pressure monitoring in the distribution system.

The following table summarizes the growth in water distribution infrastructure over the past five years.

Table 5-5
Water System
Water Distribution System Assets [1]

	2015	2016	2017	2018	2019 [2]
Miles of Main Lines	1,112	1,126	1,164	1,170	1,145
Number of Valves	22,793	23,230	23,435	23,607	23,755
Number of Hydrants	6,464	6,540	6,579	6,616	6,685

Source: LUS
(1) Includes LUS contract service to Water District North.
(2) Change in inventory accounting procedure.

5.4 Advanced Metering Infrastructure

LUS completed the implementation of AMI for its water customers. The AMI deployment for the Water System had experienced a relatively high level of malfunctions and meter failures. Honeywell replaced all meter modules in an effort to resolve performance problems. As of January 2018, the meters were replaced, the project reached completion, and the meters are now under warranty. As of the end of FY 2019, meter failures are still occurring and those under warranty are still being replaced. The system benefited customers and the Water System by assisting with customer high bill complaints. When a customer contacts LUS concerning a high water bill, the LUS customer service representative can access the AMI meter information through the fiber system to accurately detect the periods of higher water consumption. This often allows the customer to recall the incident and related bill impact.

5.5 Historical Capital Improvement Program

LUS uses a capital work order system to track capital expenses. Historical capital improvements program expenditures shown in Table 5-6 reflect investments in infrastructure funded by the Series 2010 and Series 2019 Bonds and retained earnings. The Series 2010 Bonds were used for the Water System AMI projects and improvements to the water production system. The Series 2019 Bonds are available to support various capital projects including building rehabilitation and improvements, ground storage tank and treatment plant upgrades.

Table 5-6
Water System
Historical CIP

	2015	2016	2017	2018	2019
Normal Capital & Special Equipment	$1,485,601	$1,433,461	$1,448,745	$1,630,841	$1,526,170
Series 2010 Bonds	148,260	98,026	0	0	0
Series 2019 Bonds					0
Retained Earnings	1,485,157	2,925,329	1,704,416	791,664	786,874
Total Capital	$3,119,019	$4,456,815	$3,153,161	$2,422,504	$2,313,045

Source: LUS, Status of Construction Work Order Reports.

5.6 Operations and Related Performance

LUS' two water plants are each capable of producing over 20 MGD of treated water and LUS completed several projects in recent years to improve the distribution and related system pressures. LUS plans for additional improvements with further residential and commercial growth. LUS operates the two treatment plants for base load water treatment capacity with each plant producing an average of 10.0 to 12.0 MGD. The remote wells located at the Gloria Switch and the Commission Boulevard sites are used to supplement the flow at the extremities of the system to improve the pressure and capacity limitations on the distribution system. In 2019, the system average day demand was 22.6 MGD, with a peak-day demand of 27.4 MGD on January 8, 2019.

The lost and not accounted for water increased from 9.3% of total treated water in 2018 to 11.2% in 2019. This increase in lost and not accounted for water was due to distribution system flushing to meet the 0.5 mg/l residual chlorine. Table 5-7 shows the recent lost and not accounted for water volumes.

Table 5-7
Water System
Water Lost and Not Accounted for Volumes

	2015	2016	2017	2018	2019
Not Accounted For	6.4%	7.4%	7.1%	9.3%	11.2%

Source: LUS Financial and Operating Statements

The amount of lost and not accounted for water is within the range of acceptable industry standards[3]. Even though the percent of lost and not accounted for water increased, the volume of water lost and not accounted for decreased by 159,871,000 gallons over the 12-month period (438,000 gallons per day). Much of the unaccounted-for water is primarily due to aggressive line flushing for hydrants, and for compliance with the LA DHH Emergency Rule. Responding to insurance requirements, LUS flushes hydrants twice per year. Fire hydrant testing is required by the Property Insurance Association of Louisiana in order to obtain or retain a higher fire insurance rating for the City. In addition, in 2013 the LA DHH Emergency Rule was established to protect Water Systems from the effects of the Naegleria fowleri amoeba and resulted in significant increases in flushing due to the requirement to maintain 0.5 milligram per liter (mg/l) of free or total chlorine to all extremities of the distribution system. Due to this aggressive flushing and inspection program, the City kept its Class II PIAL rating.

5.7 Environmental and Regulatory Compliance Issues

LUS has environmental compliance and testing staff to provide direct environmental compliance support for the Water and Wastewater Systems. The Environmental Division is an independent operating unit providing regulatory compliance, industrial pretreatment program administration, stormwater planning, and analytical services relative to the analysis of drinking water quality, wastewater discharge quality analysis, and biosolids disposal and reuse.

[3] https://www.epa.gov/sites/production/files/2015-04/documents/epa816f13002.pdf

The testing lab is certified by the State of Louisiana to perform the majority of the tests necessary for potable water quality reports and wastewater discharge monitoring reports (DMR). The laboratory passed its evaluation in January 2019 and is re-certified through February 2021. Some exceptions to this include specialty testing such as Whole Effluent Toxicity, toxicity characteristic leaching procedures (TCLP), HAA5, and TTHM. Environmental staff reports that the department is fully staffed to provide all required testing and reporting, but acknowledge that future changes in regulations, operations, and/or service area may require additional personnel. In the near-term, environmental staff implemented in-house training, cross-training, and knowledge-based management programs to address succession planning for retiring employees and possible staff constraints.

LUS reports that the water treatment plants and supplemental wells are currently in compliance with all operating permits and meet all applicable drinking water standards of the Safe Drinking Water Act (the SWDA). The NWP permit to discharge wastewater associated with the treatment of potable water is current and effective through June 14, 2020, at which point it will be automatically renewed. The SWP permit to discharge wastewater from the treatment of potable water, stormwater, and sanitary wastewater was current and effective through November 30, 2019. A timely renewal application was submitted to LDEQ on May 9, 2019. Continuation of expiring permits is governed by regulations promulgated at LAC 33:IX.2321, which states that when the permittee has submitted a timely application, the conditions of an expired permit continue in force until the effective new date. The GSR permit to discharge wastewater associated with the treatment of potable water is current and effective through June 29, 2020, at which time it will automatically renew. LUS does not expect any rejections in the renewal of the Water System environmental or operating permits.

The LA DHH Emergency Rule requires all publicly owned water systems to maintain a minimum 0.5 mg/l chlorine residual throughout the piping distribution system. This requirement is based solely on the presence of the deadly Naegleria fowleri amoeba, which was detected in two water systems within the state. LA DHH had previously reduced the minimum chlorine residual from 0.2 mg/l to a trace amount, meaning any amount is acceptable, due to the potential of generating cancer-causing agents as a by-product of chlorination.

The Water System implemented the management and enforcement of 2014 LA DHH regulations for backflow prevention for individual users. The 2014 LA DHH regulations expired on January 1, 2016. However, the Louisiana State Uniform Construction Code Council adopted and enforces the 2014 LA DHH regulations. LUS continues to maintain its backflow prevention program in case the LA DHH re-implements the regulation in future years or as an Emergency Rule.

Pursuant to the requirements of the SDWA, the Water System must prepare and distribute an annual water quality report to its customers by July 1st of each calendar year. The most recent report for calendar year 2018 shows that the water quality of the Water System is well within the regulatory limits established by the EPA. The tables below include excerpts from the 2018 Water Quality Report for LUS.

In 2019, LUS was required to provide lead and copper samples from 50 residential facilities as mandated by EPA's Lead and Copper Rule. Sampling as part of the lead and copper rule is required every three years. In 2019, LUS also collected samples for 30 different chemical contaminants two times, at least six months apart, as required by EPA's Unregulated Contaminant Monitoring Rule (UCMR). Sampling as part of the UCMR is performed every five years.

Table 5-8
Water System
Violations of Drinking Water Regulations.

Type	Category	Analysis	Compliance Period
No violations occurred during this CER reporting period	NA	NA	NA

Source: Statement from LUS

Table 5-9
Water System
Monitored at Customer's Tap

Substance	Major Source in Drinking Water	EPA Designated Action Level (requires treatment) at 90th Percentile	LUS Results at 90th Percentile Testing
Lead	Corrosion of household plumbing systems; Erosion of natural deposits	15 ppb	0 ppb
Copper	Corrosion of household plumbing systems	1.3 ppm	0 ppm

Source: 2019 Triennial Lead and Copper Sampling

Table 5-10
Water System
Contaminants Monitored in the Water Distribution System

DBP Contaminants	Typical Source	Maximum Contaminant Level	Maximum Contaminant Level Goal	Locational Running Annual Average (LRAA)	Range	Location
Haloacetic Acids (HAA5)	By-product of drinking water chlorination	60 ppb	0	5 ppb	3.7 – 6.1 ppb	Ambassador Caffery & W. Congress
Haloacetic Acids (HAA5)	By-product of drinking water chlorination	60 ppb	0	4 ppb	1.8 – 6.0 ppb	Gloria Switch Rd. & Arbor
Haloacetic Acids (HAA5)	By-product of drinking water chlorination	60 ppb	0	4 ppb	2.7 – 4.7 ppb	Kaliste Saloom & E. Broussard
Haloacetic Acids (HAA5)	By-product of drinking water chlorination	60 ppb	0	5 ppb	4.6 – 6.5 ppb	Thomas Nolan & Brigante

Table 5-10
Water System
Contaminants Monitored in the Water Distribution System

DBP Contaminants	Typical Source	Maximum Contaminant Level	Maximum Contaminant Level Goal	Locational Running Annual Average (LRAA)	Range	Location
Haloacetic Acids (HAA5)	By-product of drinking water chlorination	60 ppb	0	3 ppb	1.64 – 5.1 ppb	Vennard & Valley View
Haloacetic Acids (HAA5)	By-product of drinking water chlorination	60 ppb	0	3 ppb	2.1 – 4 ppb	Walker & Doc Bonin
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	80 ppb	0	10 ppb	6 – 14.5 ppb	Ambassador Caffery & W. Congress
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	80 ppb	0	12 ppb	9 – 14.6 ppb	Gloria Switch Rd. & Arbor
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	80 ppb	0	10 ppb	6.5 – 14.5 ppb	Kaliste Saloom & E. Broussard
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	80 ppb	0	19 ppb	10.4 – 19 ppb	Thomas Nolan & Brigante
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	80 ppb	0	9 ppb	8 – 10.9 ppb	Vennard & Valley View
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	80 ppb	0	7 ppb	2.8 – 7.4 ppb	Walker & Doc Bonin

Source: 2018 Water Quality Report

Table 5-11
Water System
Microbiologicals Monitored in the Water System

Microbiologicals	Typical Source	Maximum Contaminant Level	Maximum Contaminant Level Goal	Result
None Detected	NA	NA	NA	NA

Source: 2018 Water Quality Report

Table 5-12
Water System
Water Additives

Substance	Typical Source	Maximum Residual Disinfectant Level (MRDL)	Maximum Residual Disinfection Level Goal (MRDLG)	Highest Running Annual Average (RAA)	Range
Chlorine	Water Additive	4 ppm	4 ppm	1.56 ppm	0.60-2.94 ppm

Source: 2018 Water Quality Report

Table 5-13
Water System
Substances Monitored Before Any Treatment

Substance	Major Source in Drinking Water	EPA Designated Contaminant Level	EPA Designated Max Contaminant Level Goal	LUS Max	LUS Range
Arsenic	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes	10 ppb	0 ppb	2.0 ppb	0-2.0 ppb
Fluoride	Erosion of natural deposits; discharge from fertilizer and aluminum factories	4 ppm	4 ppm	0.2 ppm	0.0 - 0.2 ppm
Nitrate-Nitrite	Runoff from fertilizer, use; leaching from septic tanks, sewage; erosion of natural deposits	10 ppm	10 ppm	0.5 ppm	0.0 – 0.5 ppm
Combined Radium (-226 & -228)	Erosion of natural deposits	5 pCi/L	0 pCi/L	2.74 pCi/L	0.0 – 2.74 pCi/L
Gross Alpha Particle Activity	Erosion of natural deposits	15 pCi/L	0 pCi/L	4.56 pCi/L	0 – 4.56 pCi/L
Gross Beta Particle Activity	Decay of natural and man-made deposits	50 pCi/L	0 pCi/L	4.19 pCi/L	0 – 4.19 pCi/L

Source: 2018 Water Quality Report

Spill Prevention and Control Plans

The water treatment facilities have spill prevention and control plans prepared in accordance with state regulations.

5.8 Contracts

In addition to the Water System within the City limits, LUS operates and maintains water distribution facilities outside the City limits. LUS provides retail and wholesale service outside the City limits. Wholesale service is provided in accordance with contracts between LCG and the district customers. LCG has six wholesale contracts serving seven specific customers, including two water districts and five neighboring water systems or cities. These six wholesale contracts include Waterworks District North, Waterworks District South, the City of Scott, the City of Broussard, Milton Water System, and the City of Youngsville. Water service to Waterworks District North customers is billed by LCG in the name of the Waterworks District North consistent with the applicable rate schedules. Both the North and South Waterworks Districts constructed their own additions and extensions according to standards set by LUS.

In addition to the six wholesale contracts, LCG signed a letter agreement with the City of Carencro in 1980, with no expiration date, to provide water service on an emergency back-up basis.

These wholesale customers represent 29.7% of the total water volume and 28.1% of total water sales revenue in 2019. The wholesale customer portion of total Water System sales volume remained stable over the past few years; however, the corresponding revenues have increased due to wholesale rate increases. Tables 5-14 and 5-15 summarize the historical wholesale water volume sales and revenues by customer.

Table 5-14
Water System
Wholesale Water Sales by Customer (1,000 gallons)

Customer	2015	2016	2017	2018	2019
City of Scott	323,792	331,260	356,855	339,037	365,611
City of Broussard	245,222	236,605	260,502	297,294	332,037
City of Youngsville	306,747	314,452	345,638	406,563	367,097
Milton Water System	242,354	245,279	225,155	234,024	240,071
Waterworks District North	458,144	458,802	448,394	442,492	324,787
Waterworks District North - Wholesale	234,629	228,077	225,320	222,101	227,818
Waterworks District South	305,657	303,152	299,187	315,399	314,507
Total Wholesale Water Sales	2,116,545	2,117,627	2,161,051	2,256,911	2,171,928
Total Water Sales (Wholesale and Retail)	7,536,303	7,520,277	7,543,498	7,620,462	7,320,533
Percent of Total Sales from Wholesale	28.1%	28.2%	28.6%	29.6%	29.7%

Source: LUS Financial and Operating Statements

Table 5-15
Water System
Wholesale Water Revenues by Customer

Customer	2015	2016	2017	2018	2019
City of Scott	$637,536	$711,851	$844,031	$988,418	$997,561
City of Broussard	472,174	503,623	613,321	760,203	879,643
City of Youngsville	589,515	665,814	820,289	1,033,306	934,361
Milton Water System	463,288	516,698	528,244	601,330	602,054
Waterworks District North	1,208,192	1,210,188	1,187,053	1,265,202	944,243
Waterworks District North – Wholesale	450,483	483,261	536,451	574,238	588,692
Waterworks District South	584,882	645,213	703,063	815,558	815,953
Total Wholesale Water Revenues	$4,406,071	$4,736,650	$5,232,452	$6,038,256	$5,762,507
Total Water Revenues (Wholesale and Retail)	$18,028,081	$18,286,651	$19,458,484	$21,220,243	$20,524,232
Percent of Total Revenues from Wholesale	24.4%	25.9%	26.9%	28.5%	28.1%

Source: LUS Financial and Operating Statements

Each contract is a long-term contract between 30 and 40 years in length. The City of Broussard contract was set to expire in 2020 but was extended to 2038. The City of Scott contract was set to expire in 2022 but was extended to 2038. The Waterworks District North and Waterworks District South contracts expire in 2032 and 2035, respectively. The Milton Water System expires in 2037 and the City of Youngsville expires in 2038.

Table 5-16 summarizes the terms of each wholesale customer agreement.

Table 5-16
Water System
Wholesale Water Contract Terms

Customer	Contract Date	Term (Yrs.)	Termination
Water District North – Full Service – Phase 1, 2, 3, 4 (NE area, NW area, Scott area)	October 17, 2002	30	October 17, 2032
Waterworks District North – Wholesale	October 17, 2002	30	October 17, 2032
City of Scott	May 28, 1997	25	May 28, 2038
City of Broussard (1)	March 5, 1998	40	July 31, 2038
Milton Water System	April 28, 1997	40	April 28, 2037
City of Youngsville	December 24, 1998	40	December 24, 2038
Waterworks District South	October 13, 1995	40	October 12, 2035
City of Carencro (2)	March 28, 1980	NA	No expiration

Source: LUS
(1) City of Broussard contract extended October 16, 2019
(2) Letter Agreement with the City of Carencro to provide them with water on an emergency back-up basis. The rate charged will be the same as the current City of Scott rate. As per information received from LUS' Water System, LUS supplied water to the City of Carencro under this letter agreement fewer than five times.

5.9 Benchmarking

LUS' residential and commercial water rates have historically been among the lowest in the state and surrounding region. The following tables compare the average residential and commercial rates for selected water utilities in the region.

Table 5-17
Water System
Residential Rate Comparison

Utility	Average ($/1,000 gallon) (1)
LUS	$2.64
Alexandria	$3.19
Lake Charles	$3.44
Shreveport	$4.01
Baton Rouge	$4.37
New Iberia	$5.04
New Orleans	$8.91

Source: LUS. Rates as of October 2019.
(1) Assumes monthly water consumption of 7,000 gallons per month.

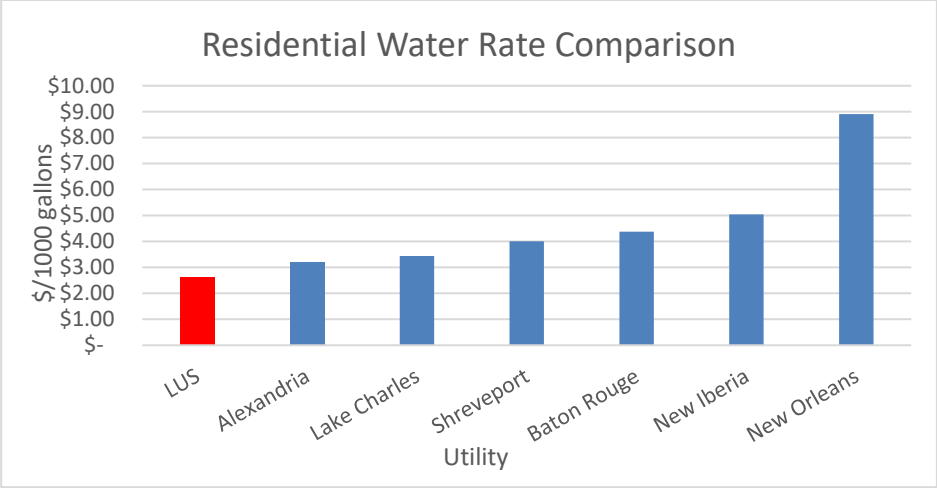


Figure 5-1: Water System – Residential Rate Comparison

LUS completed a rate study in 2016, which showed that the Water System rates were insufficiently recovering revenues to cover costs. As a result, Water System retail rates were increased November 1, 2016 by 7.4% and again on November 1, 2017 by 7.2% as approved by LPUA.

Table 5-18
Water System
Commercial Rate Comparison

Utility	Average ($/1,000 gallons) (1)
LUS	$3.05
Alexandria	$3.14
Shreveport	$3.87
Baton Rouge	$4.20
Lake Charles	$4.42
New Iberia	$4.44
New Orleans	$9.05

Source: NewGen. Rates as of October 2019.
(1) Assumes monthly consumption of 30,000 gallons and a 2-inch meter.

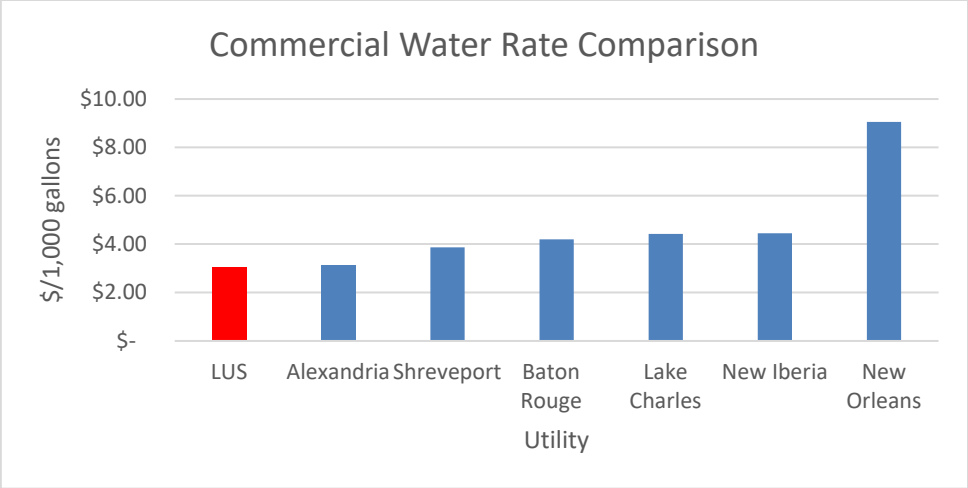


Figure 5-2: Water System – Commercial Rate Comparison

Benchmarking Financial and Operating Statistics

Table 5-17 benchmarks selected financial and operating ratios for LUS with other large municipal water utilities nationwide. The data was provided by the *AWWA Utility Benchmarking Performance Management for Water and Wastewater, 2018 Data published 2019*. The American Water Works Association (AWWA) report contains data based on regions of the U.S. and based on the number of water customers served by the utility. For the purposes of our analysis, we used the U.S. South region, which includes Louisiana and hereafter referred to as "Regional." In addition, the AWWA report contains an aggregate of Water utilities in the U.S. and Canada and hereafter referred to as "National." The results are shown below in Table 5-19. If possible, the comparisons were made based on the Water System only. However, for some balance sheet items, the LUS data was available for the combined Electric, Water, and Wastewater Utilities System and hereafter referred to as "Combined." The AWWA benchmark data for "Combined" includes only water and wastewater utilities.

As shown in Table 5-19, LUS' operational costs are considerably lower than the National and Regional costs. LUS' debt to equity is in lower than Regional but higher than National averages. LUS water utility operating ratio is above National and Regional. LUS' combined utility operation ratio is above National and Regional. However, the AWWA combined utilities include water, wastewater, and stormwater, whereas LUS includes water, wastewater, and electric. LUS' cash reserves are lower than other National and Regional ratios, while their DSC is higher than Regional ratios.

Table 5-19
Water System
Benchmarked Water Utility Operating Ratios

Statistics	Basis	National (1)	Regional	LUS	
		2018	2018	2018	2019
Operational Costs per MGD	Water	$3,285	$2,394	$1,691	$1,720
Debt to Equity (Total Assets)	Combined	0.29	0.47	0.34	0.38
Operating Ratio (O&M cost/ Operating revenue)	Water	0.64	0.56	0.67	0.69
Operating Ratio (O&M cost/ Operating revenue)	Combined	0.61	0.47	0.72	0.68
Cash Reserve Days (2)	Combined	553	300	42	51
Debt Service Coverage Ratio	Water	1.97	2.54	4.33	3.76
Debt Service Coverage Ratio	Combined	2.00	2.16	3.31	3.55

Source: AWWA and LUS
(1) National AWWA benchmarks for wastewater and combined water and wastewater utilities with 50,001 to 100,000 customers to align with the Water System customers served.
(2) Based on total O&M for Electric, Water, and Wastewater Systems less fuel and purchased power expenses.

5.10 Historical Financial Performance

Historical Water System debt service for years 2015 through 2019 includes a portion of the Series 2010 Bonds, Series 2012 Bonds and Series 2019 Bonds. The Series 2019 Bonds first debt service was due November 1, 2019 (FY 2020). The Series 2010 Bonds will be fully redeemed by the proceeds of the Series 2017 Bonds on November 1, 2020. Table 5-20 shows historical debt service and the associated DSCR. In each year since 2015, the DSCR exceeded the minimum coverage requirement of 1.0 required by the Bond Ordinances.

Table 5-20
Water System
Historical Financial Performance

FY	Operating Revenues (1)	Operating Expenses (2)	Balance Available for Debt Service	Debt Service (3)	Debt Service Coverage Ratio
2015	$18,284,817	$13,099,239	$5,185,577	$1,802,076	2.9
2016	$18,593,541	$13,761,106	$4,832,435	$1,801,748	2.7
2017	$19,822,196	$13,965,819	$5,856,377	$1,415,916	4.1
2018	$21,736,544	$14,260,225	$7,476,319	$1,726,379	4.3
2019	$21,369,475	$14,227,206	$7,142,269	$1,899,168	3.8

Source: LUS Financial and Operating Statements
(1) Operating Revenues include interest income and other miscellaneous income.
(2) Operating Expenses include O&M and other expenses such as customer service and A&G costs. Operating Expenses do not include ILOT, normal capital and special equipment, and other miscellaneous expenses.
(3) Debt Service was prepared on a cash basis for the below table and includes a portion of the Series 2010 Bonds, Series 2012 Bonds and Series 2019 Bonds. The Series 2019 Bonds first debt service was due November 1, 2019 (FY 2020). The Series 2010 Bonds will be fully redeemed by the proceeds of the Series 2017 Bonds on November 1, 2020.

Rate Structure

The Water System services retail and wholesale customers.

Wholesale

The Water System serves wholesale customers outside of the City limits on a contract basis.

Retail

The Water System serves customers inside the City limits and outside of the City limits. The Water System customer classes include residential, commercial, schools and churches, and special contract customers for bulk water. The Water System rate structure for retail customers include a customer charge based on the meter size and commodity charges based on usage. The Residential customers have seasonal rates with an inclining block rate structure during the summer months of April through November.

Table 5-21
Water System
Retail Rate Schedules

Rate Class	Serves	Effective Date	Meter Size (inches)	Customer Charge ($/month)	Winter Commodity Rate ($/1,000 gallons)	Summer Commodity Rate Tier 1 ($/1,000 gallons)	Summer Commodity Rate Tier 2 ($/1,000 gallons)	Monthly Commodity Rate ($/1,000 gallons)
W-1	Residential	Nov-17	0.75	$4.85	$1.65	$1.65	$2.65	NA
			1.00	$8.10	$1.65	$1.65	$2.65	NA
			1.50	$16.15	$1.65	$1.65	$2.65	NA
			2.00	$25.85	$1.65	$1.65	$2.65	NA
			3.00	$48.50	$1.65	$1.65	$2.65	NA
			4.00	$80.85	$1.65	$1.65	$2.65	NA
			6.00	$161.65	$1.65	$1.65	$2.65	NA
			8.00	$258.65	$1.65	$1.65	$2.65	NA
W-1-O	Residential Non-City	Nov-17	0.75	$9.70	$3.30	$3.30	$5.30	NA
			1.00	$16.15	$3.30	$3.30	$5.30	NA
			1.50	$32.35	$3.30	$3.30	$5.30	NA
			2.00	$51.75	$3.30	$3.30	$5.30	NA
W-2	Commercial	Nov-17	0.75	$4.85	NA	NA	NA	$1.85
			1.00	$8.10	NA	NA	NA	$1.85
			1.50	$16.15	NA	NA	NA	$1.85
			2.00	$25.85	NA	NA	NA	$1.85
			3.00	$48.50	NA	NA	NA	$1.85
			4.00	$80.85	NA	NA	NA	$1.85
			6.00	$161.65	NA	NA	NA	$1.85

Table 5-21
Water System
Retail Rate Schedules

Rate Class	Serves	Effective Date	Meter Size (inches)	Customer Charge ($/month)	Winter Commodity Rate ($/1,000 gallons)	Summer Commodity Rate Tier 1 ($/1,000 gallons)	Summer Commodity Rate Tier 2 ($/1,000 gallons)	Monthly Commodity Rate ($/1,000 gallons)
			8.00	$258.65	NA	NA	NA	$1.85
W-2-O	Commercial Non-City	Nov-17	0.75	$9.70	NA	NA	NA	$3.70
			1.00	$16.15	NA	NA	NA	$3.70
			1.50	$32.35	NA	NA	NA	$3.70
			2.00	$51.75	NA	NA	NA	$3.70

Source: LUS Rate Schedules

LUS completed a rate study in 2016, which showed that the rates for the Water System was insufficiently recovering all costs. As a result, Water rates increased November 1, 2016 by 7.4%, and again on November 1, 2017 by 7.2%.

Water Retail Revenue Statistics

Table 5-22 shows the Water System revenues. The total retail revenues increased by 4.8% in 2017 and 6.9% in 2018 due to rate increases. The revenues decreased by 2.7% in 2019 due to lower sales. The number of customers increased at an average annual rate of 1.6% since 2015. The revenue per customer decreased in 2019 by 6.3%.

Since 2015, the total retail gallon sales have decreased by annual average of 1.3%. The gallon sales per customer decreased annually on average by 2.9% since 2015. The residential class decreased their usage per customer annually on average by 3.6% since 2015. Increases in plumbing fixture efficiency, appliances and conservation measures are likely contributing to this decrease.

In 2019, the revenue per gallon increased by 1.4%. As customers use less water, the average rate is higher due to fixed costs being spread over fewer gallons.

Table 5-22
Water System
Retail Revenues by Class

	2015	2016	2017	2018	2019
Revenues					
Residential	$7,463,132	$7,426,141	$7,796,049	$8,410,699	$8,181,849
Commercial	5,091,137	5,092,632	5,319,854	5,543,239	5,464,127
Schools & Churches	461,676	500,405	537,322	632,392	534,520
Other	191,849	210,500	209,454	234,910	244,873
Total	$13,207,794	$13,229,678	$13,862,679	$14,821,240	$14,425,369
Number of Customers					
Residential	41,825	42,393	42,693	42,929	44,633
Commercial	6,451	6,550	6,647	6,671	6,899
Schools & Churches	290	297	305	312	317
Other	285	283	284	283	281
Total	48,851	49,524	49,929	50,195	52,130
Revenue per Customer					
Residential	$178	$175	$183	$196	$183
Commercial	789	777	800	831	792
Schools & Churches	1,592	1,683	1,763	2,028	1,685
Other	674	743	739	831	871
Total ($/Customer)	$270	$267	$278	$295	$277
Sales (1,000 gallons)					
Residential	2,779,361	2,737,573	2,714,031	2,735,228	2,561,224
Commercial	2,342,305	2,334,596	2,342,707	2,243,690	2,237,397
Schools & Churches	210,700	231,962	236,557	289,301	248,388
Other	87,392	98,519	89,152	95,333	101,596
Total	5,419,758	5,402,650	5,382,447	5,363,552	5,148,605
Sales (1,000 gallons) per Customer					
Residential	66	65	64	64	57
Commercial	363	356	352	336	324
Schools & Churches	726	780	776	928	783
Other	307	348	314	337	361
Total	111	109	108	107	99
Revenue per 1,000 gallons					
Residential	$2.69	$2.71	$2.87	$3.07	$3.19
Commercial	2.17	2.18	2.27	2.47	2.44
Schools & Churches	2.19	2.16	2.27	2.19	2.15
Other	2.20	2.14	2.35	2.46	2.41
Total ($/1,000 Gallons)	$2.44	$2.45	$2.58	$2.76	$2.80

Source: LUS Financial and Operating Statements

Expense Analysis

Table 5-23 shows the historical water operating expenses separated between fixed and variable expense. Variable operating expenses include purchased power costs embedded in the Power and Pumping expense account and chemical costs embedded in the Purification expense account. Fixed operating expenses include source of supply, fixed costs embedded in both the Power and Pumping and Purification expense accounts, Distribution, Customer Service, and A&G expenses. Historically, the variable expenses averaged 22% of the total expenses.

The Water System retail sales are affected by weather. Seasonal water sales increase during hot or dry summers and decrease during cool or wet summers. The volatility in the weather combined with a seasonal rate structure may affect the volatility in the revenues. However, as shown in Table 5-21, the expenses are largely fixed and do not vary with the weather. As a result, there is pressure on the water rates to adequately recover revenues during years with cool or wet summers.

Table 5-23
Water System
Historical Fixed and Variable Expense Summary

	2015	2016	2017	2018	2019
Variable Expenses					
Power & Pumping	$514,060	$474,683	$461,177	$464,538	$461,845
Purification	2,452,455	2,624,435	2,556,678	2,587,531	2,675,900
Total Variable Expenses	$2,966,515	$3,099,118	$3,017,855	$3,052,070	$3,137,745
Fixed Expenses					
Source of Supply	$169,594	$185,999	$191,113	$175,620	$183,896
Power & Pumping	313,576	327,040	268,334	296,324	303,191
Purification	1,703,658	1,853,514	1,929,383	1,971,597	1,871,480
Distribution	2,297,316	2,538,366	2,619,286	2,884,033	2,889,727
Customer	1,158,987	1,149,579	1,128,205	1,219,158	1,172,251
A&G	4,489,593	4,607,489	4,811,643	4,661,424	4,668,916
Total Fixed	$10,132,724	$10,661,987	$10,947,964	$11,208,155	$11,089,461
Total Fixed & Variable	$13,099,239	$13,761,106	$13,965,819	$14,260,225	$14,227,206
Percent Variable	23%	23%	22%	21%	22%
Percent Fixed	77%	77%	78%	79%	78%

Source: LUS Financial and Operating Statements

5.11 Findings and Recommendations

- While total water production remains stable, the retail and wholesale water sales decreased in 2019 by 4.0% and 3.8%, respectively. Based on the last five years of data, the wholesale customers' percentage of total water produced has leveled off between 28% to 30%. Continued coordination with wholesale customers and adequate planning

for improvements to the LUS system and the wholesale customers' systems is necessary to protect the interests of retail customers.

- The City of Broussard and the City of Scott extended their current Wholesale Water contract with LUS. The City of Broussard and the City of Scott are now under contract until 2038.
- A biological treatment process for the Commission Boulevard site was pilot tested and construction documents are completed. LUS is set to put the new treatment plant out to bid spring/summer 2020.
- Although staffing levels were not reported to be an issue, a succession plan should be implemented to ensure knowledgeable operators and maintenance personnel are developed for the Water and Wastewater Systems. Several key management personnel and certified operators can or will retire within the next five years. LUS should develop a succession plan to ensure the continued operation of the water/wastewater operations with as much operational continuity as possible, with as little loss of institutional knowledge as possible. LUS reports that staffing levels are reviewed annually, and that a program of screening and cross-training to identify individuals that exhibit technical proficiency and leadership skills is in place.
- LUS completed the integration of SCADA and plant controls, which resulted in streamlined operational efficiency, and allowed for maximum utilization of operations personnel. LUS plans to continue to expand pressure monitoring in the distribution system.
- The AMI deployment for the Water System had experienced a relatively high level of malfunctions and meter failures. Honeywell replaced all meter modules in an effort to resolve performance problems. As of January 2018, the meters were replaced, the project reached completion, and the meters are now under warranty. However, as of the end of FY 2019, meters are still failing and, if under warranty, being replaced.
- LUS personnel report that the actual costs to purchase and install water meters of the varying sizes required for new customers greatly exceeds the current fees charged. In addition, the fees charged do not take into consideration the location of meter installations relative to the distribution main being accessed, the surface conditions, and whether or not the meter being installed is on the same side or opposite side of the roadway as the main where the meter is being installed. LUS should consider evaluating the cost of service for new meter installations to the system.
- Commercial and residential development and redevelopment appears to be improving, which could cause a strain on LUS' system. LUS is seeing an increase in formerly single home properties being turned into multi-home developments, i.e. apartments/ townhomes. This may cause some localized issues as the current infrastructure connecting to these properties may not be adequate to handle the increase in water usage. However, at the time of this Report, it is unknown the extent and length of the impact the COVID-19 crisis may have on commercial and residential development in Lafayette and the Water System.
- The Guilbeau Road elevated tower's painting contract was renegotiated in late 2019.
- In February 2019, NWP experienced an accidental release of approximately 2,500 pounds of hydrated lime. As lime was being transferred from a storage silo to a feed

silo, a gauging cap was inadvertently left off, allowing for the release. Since lime covered nearby homes, residents were evacuated as a precaution, but were allowed to return the following day. There was no disruption of service to customers. Roads and homes were washed, and the lime was removed by vacuum. Road drains were sealed to minimize any environmental impacts.

- Two Water Boil Advisories were issued by LUS in 2019. The first was issued in February 2019 in coordination with Water District North after a private contractor broke a water line. The second was issued in September 2019 due to LUS performing water line repairs.

SECTION 6
WASTEWATER SYSTEM

As of 2019, LUS provided wastewater services to 45,623 customers. The Wastewater System is comprised of a wastewater collection system, four wastewater treatment plants at various locations throughout the City, and waste sludge management and disposal facilities. The total combined permitted treatment capacity for the four plants is 18.5 MGD. The total combined flowholding capacity at the four plants is 33.0 MG. In addition, LUS is responsible for integrating small, community-type package wastewater treatment plants into the main LUS Wastewater System. These package plants serve subdivisions and rural areas that are not currently in the LUS service area.

Wastewater System collection volumes increased in 2019 by 7.9% from 2018 collection volumes. Collection volumes in 2019 were in line with historical collection average volumes over the 2015 through 2018 period. Historical Wastewater System collection volumes are shown in Table 6-1.

Table 6-1
Wastewater System
Historical Retail Collection

FY	Retail Collection (1,000 gallons) (1)(2)
2015	5,734,225
2016	6,267,402
2017	5,768,832
2018	5,326,815
2019	5,746,278

Source: LUS Financial and Operating Statements
(1) The Wastewater System does not provide wholesale service.
(2) The Retail Collection is not associated with the gallons used for billing wastewater customers.

6.1 Wastewater Treatment

The four main wastewater treatment plants include the South Sewage Treatment Plant (SSTP), the East Sewage Treatment Plant (ESTP), the Ambassador Caffery Treatment Plant (ACTP), and the Northeast Treatment Plant (NETP). Table 6-2 summarizes the Wastewater System treatment capacity.

Table 6-2
Wastewater System
Wastewater Treatment Average Day Treatment Loads

	2019 (1) (MGD)	Permitted Capacity (MGD)	Flowholding Capacity (MG)
SSTP	5.3	7.0	3.5
ESTP	3.2	4.0	3.0
ACTP	5.9	6.0 (2)	7.0
NETP	1.2	1.5	25.0
Totals	15.6	18.5	38.5

Source: LUS
(1) Average day hydraulic loads are not adjusted to dry weather conditions and therefore include infiltration.
(2) Permitted capacity remains at 6.0 MGD but plant treatment capacity is 9.25 MGD.

South Sewage Treatment Plant

The SSTP is an activated sludge facility with a permitted capacity of 7.0 MGD but is currently operating at an average flow of 5.0 MGD. There is approximately 3.5 MG of on-site wet-weather retention capacity. Sludge is treated through aerobic digesters and transported off-site for disposal at the LUS sludge disposal land farm.

LUS purchased land surrounding the SSTP site for future construction of additional retention and treatment facilities to serve growth in the system, and the potential addition of package plants in the area. The planned expansion will increase the capacity of the SSTP from 7.0 MGD to a total capacity of 12.0 MGD. LUS prepared engineering plans and began initial phases of construction for the SSTP expansion project.

The SSTP expansion project, and design and construction of related projects to address issues such as expansion of influent head-works capacity, odor control, wet-weather flow retention or side-stream storage requirements, and increased sludge treatment capacity, are included in the CIP. The contract for improvements to the sludge handling at the SSTP (sludge building and belt presses) was bid in 2016, with notice to proceed given in March 2017. Phase 1 Part 1 (belt filter presses and the sludge building) was completed in early 2019. Phase 1 Part 2 of the solids handling project (two new digesters) will be bid during the spring of 2020. Other considerations for maximizing the treatment capacity at the SSTP include reconfiguration of existing treatment from extended aeration to Sequencing Batch Reactors (SBRs) and blending retained flow with treated discharge in accordance with EPA rules and guidelines.

Phase 2 (flow handling) of the SSTP expansion project consists of adding new screens, new grit chambers, and SBRs to the plant. Geotechnical investigation work was completed during 2019. This project will be bid at the completion of the Phase 1 Part 2 project in late 2021 or 2022.

East Sewage Treatment Plant

The ESTP has a permitted capacity of 4.0 MGD, and uses an extended aeration oxidation ditch treatment process, with a 3.0 MG wet-weather retention tank. Sludge is treated using anaerobic digesters that operate on time and temperature and achieve up to 27% solids. LUS

has a series of projects planned to rebuild the existing sludge digestion facilities, and to recover sludge digestion facilities that were previously taken out of service. The out of service tankage and structure remain intact and are capable of being refitted and restored to full operation. This initial portion of the rehabilitation project is currently 99% complete, with only punch list items remaining to be performed in 2020. Rehabilitation of the No. 2 digester will commence upon completion of the current project. This project is anticipated to bid in 2020.

LUS is discussing with the school board to purchase some land adjacent to the ESTP in 2020 providing for future plant expansion if needed.

Ambassador Caffery Treatment Plant

The ACTP is a 6.0 MGD treatment plant originally constructed with rotating biological contactors (RBCs) and an oxidation ditch with a 3.0 MG wet-weather retention tank. However, the RBC process has since been refitted and replaced with SBR's. LUS staff finds the SBR system to be extremely efficient, easily processing varying flow ranges. Although the permit for ACTP will remain at 6.0 MGD, the SBR system installed will treat up to 9.25 MGD average. The volatile solids resulting from the SBR process are very close to a Class B waste level without additional treatment. The system uses screw presses to prepare the sludge for transport to the sludge disposal land farm. A 24-inch force main from the ACTP to the SSTP provides operational flexibility should wastewater flows need to be diverted from the ACTP, at a max rate of 20 MGD.

Northeast Treatment Plant

The NETP is an oxidation ditch treatment facility with 1.5 MGD permitted capacity. The plant is connected to a 25.0 MG wet-weather retention basin used as a buffer during wet weather events due to high inflow and infiltration (I&I) of the collection system. The plant's sludge is treated with lime stabilization and liquid hauled for disposal by land farming. An onsite pond containing water plant sludge is nearing capacity and requires cleaning out.

Engineering study for the expansion of the NETP may need to be started in 3- to 6-year time frame.

6.2 Wastewater Collection

The collection system consists of 590 miles of gravity sewer collector pipes and interceptors, 12,868 sanitary sewer manholes, 190 sanitary sewer lift stations, and 102 miles of sewer force mains. Table 6-3 summarizes the Wastewater System collection system infrastructure.

Table 6-3
Wastewater System
Wastewater Collection System Infrastructure

	2015	2016	2017	2018	2019
Number of Connections	43,521	44,269	45,034	45,436	45,942
Miles of Pipe (1)	649	659	665	673	692
Number of Manholes	12,145	12,313	12,538	12,716	12,868
Number of Lift Stations	176	179	185	188	190

Source: LUS
(1) Combined length of gravity collection lines and sewer force mains. Does not include service laterals.

As the service area is relatively flat, with little to no elevation relief, the wastewater collection system requires a significant number of lift stations to pump and re-pump wastewater to the four treatment plants. The 190 sanitary sewer lift stations consist of approximately 30% self-priming style suction lift stations, and 60% submersible stations of various makes and descriptions. The increase of two new lift stations in 2019 is due to new development throughout the LUS Wastewater System service area. As requests are submitted to LUS for sewer lift station facilities to be included in the Wastewater System, LUS Engineering evaluates the opportunities to connect the development to existing collection basins, or to upgrade existing facilities to consolidate existing lift stations.

LUS attempts to standardize their control panel requirements for lift stations, but developers remain concerned about the higher cost of the equipment that LUS requests. LUS attempts to balance the support of development with optimizing Wastewater System efficiency. A majority of the lift stations include the ability to communicate with the operations center, via SCADA, for reporting outages, operating conditions, and flow data to the operators. Fiber optic cables were run to approximately 100 lift station sites. Another 51 are connected via Mission dialers, and the remaining sites require field verification by operators. LUS plans to continue installing SCADA communication capabilities in the future. Once all the lift stations are connected to SCADA, LUS can substantially improve proactive controlling and monitoring the operation of its lift stations, especially in response to heavy rain conditions. This increased SCADA communication will significantly reduce customer inconveniences, and the cost of claims due to sewer system backups. To date, approximately 100 of the lift stations have camera access via fiber connections with 30 Mbps service. LUS' goal is to connect the remaining lift stations to SCADA and are in the process of evaluating platforms.

Several items are under investigation (both short term and long term) in the downtown area to eliminate some capacity issue due to increase in sewer flow from multi-unit developments. A new lift station is under design, including flow monitoring, to intercept downtown area sewer flow and pump directly to the SSTP. The project is currently in the right-of-way acquisition phase. Negotiations with a private developer to construct a short-term lift station downtown which will intercept some existing downtown flow as well as the new development and discharge into the ESTP interceptor system to decrease the demand on the downtown system. Flow monitoring for this short-term lift station was performed in 2019.

The Acadiana Park lift station was completely rehabbed in 2019. The Brown Park lift station will receive a complete rehabilitation in 2020. Other projects include concrete rehabilitation at the Farrel Road Lift Station, and an upcoming project at the Camellia/Republic Lift Stations that will also improve gravity lines.

A new sewer district was established in 2019 in the Greenfarm Road area and will provide sewer to approximately 40 unserved homes.

LUS is also charged with the responsibility of assimilating small, community-type package wastewater treatment plants into the Wastewater System. These package plants are increasingly utilized to serve subdivisions and rural areas that are not currently in the LUS service area. To date, 23 package wastewater treatment plants are operated and maintained as LUS' Wastewater System infrastructure, with five additional package plants added in 2019. Each of the package plants carry its own discharge permit, and their relatively isolated locations meaning that they do not affect LUS capacity as both treatment and discharge are located at the package plant site. Additional package plant integration capacity will be provided by the future SSTP and Wastewater System expansions.

6.3 Historical Capital Improvement Program

LUS uses a capital work order system to track capital expenses. The historical capital shown in Table 6-4 reflects investment in infrastructure funded by the Series 2010 and Series 2019 Bonds and retained earnings. The Series 2010 Bonds were issued for wastewater collection system improvements including lift stations and interceptors. The Series 2019 Bonds are available to support various capital projects including expansion of treatment plants, lift station and sludge handline.

Table 6-4
Wastewater System
Historical CIP

	2015	2016	2017	2018	2019
Normal Cap & Spec Equipment	$2,097,944	$1,524,624	$1,876,974	$1,264,908	$1,985,294
Series 2010 Bonds	2,984,526	98,009	0	0	0
Series 2019 Bonds					128,538
Retained Earnings	2,174,335	2,294,350	4,207,580	6,881,980	5,247,716
Total Capital	$7,256,805	$3,916,983	$6,084,553	$8,146,888	$7,361,548

Source: LUS, Status of Construction Work Order Reports.

6.4 Operations and Related Performance

In 2019, the average daily wastewater volume treated by the four plants was 15.6 MGD. The average operating volumes treated by the four plants is less than each plant's permitted capacity except ACTP. ACTP's average wastewater flow is at its permitted level of 6.0 MGD. While the flows are at the permitted level, the SBR system at ACTP is capable of treating up to 9.25 MGD as a peak or maximum flow. The ACTP treats wastewater flows above its permitted levels in times of emergency operations or diversions to replace or repair other plant or

collection system infrastructure. This situation occurred six times in 2019, over the last five years, averaged five times per year.

Capacity, Management, Operations, and Maintenance Program

In April 2017, the EPA performed an audit of the LUS sanitary sewer system. LUS provided requested documentation, including the wastewater master plan and flow studies. The EPA also toured the four wastewater plants and select lift stations. The EPA took no issues with the LUS work order system or the process by which wastewater complaints are addressed and repairs made. Minor maintenance issues were noticed and documented.

The final results of the EPA's audit were presented to LUS in May 2018 in the form of an administrative order. The order requires the preparation and implementation of a Capacity, Management, Operations, and Maintenance (CMOM) Program by May 1, 2020. LUS submitted details of the CMOM implementation plan in February of 2020. These plans include Collection System Management, Collection System Operations, Collection System Maintenance, and Collection System Capacity Evaluation. This CMOM Program is designed to assist municipalities and utilities to create a framework for implementation of best practices for capacity, managing, operating, and maintaining a wastewater system. In LUS' case, this includes regularly scheduled testing and repair of sewerage infrastructure. The order requires 10% of the collection system be inspected each year, with found defects addressed within three years. This has required LUS to increase the frequency of its inspections of the collection system. The increase in the frequency of inspections began in November 2018. In preparation for this CMOM Program, LUS increased its annual budget for Closed Circuit Television Video (CCTV) inspection, as well as, the budget for inflow and infiltration repairs in the CIP, manhole lining, and point repairs. Another recommendation is that standard operating procedures (SOPs) for all sewage pump/lift stations be prepared and left at the sites for operator reference. LUS does not expect any material difficulties or have any material concerns complying with the order.

The Wastewater System must manage significant I&I issues with the wastewater collection system and thus the treatment plants. This is a common issue for wastewater utilities in the southeast and across the U.S., especially in aging systems such as LUS'. The CMOM Program will allow LUS to address I&I issues at the most problematic areas through its renewal and replacement system. LUS' periodic CCTV inspection program using remote cameras to inspect pipes for replacement will now have to inspect 10% of the collection system per year per the administrative order. Many defects are on the private side of the system (service lines, cleanouts, etc.), and this makes it difficult for LUS to completely seal the system as work must be performed by property owners at these locations. Due to the implementation of activities negotiated with EPA as a result of the 2017 audit, LUS will see an increase in those costs associated with testing, maintenance, and repair of the sewerage infrastructure. These costs were included in both the 2019 and 2020 Budgets, and LUS will continue to see the increases in future budgets.

Biosolids Beneficial Reuse Land Application Program

LUS disposes of biological solids (sludge), the byproduct of water and wastewater treatment plant operation, to privately owned farmland disposal sites leased by LUS. LUS sludge operations are permitted under LDEQ Biosolids/Sewage Sludge Landfarming/Beneficial Reuse

Permit No. LAJ020125. Waste sludge generated at each of the wastewater treatment plants is treated to Class B biosolids standards and dewatered prior to transport to the disposal site. LUS reports that all required quarterly, semiannual, and annual reports were submitted to LDEQ during 2019.

Waste sludge is transported and applied to privately owned land farms that are under lease to LUS for that purpose. Each of the leased locations is an active farming operation. LUS is required to accommodate their farming activities such as crop and livestock rotation, and access to farming operations during inclement weather. This arrangement makes it necessary for LUS to secure more acreage than is actually required for actual biosolids disposal. LUS currently leases approximately 1,163 acres for sludge disposal, with year-to-year leases that each include a 30-day notice end-of-lease clause. In 2019, LUS utilized roughly 320 acres for biosolids land application.

LUS has only three large sites available and minimal back-up capacity should any farmer terminate their agreement. LUS evaluated purchasing and owning land to dispose of the biosolids to eliminate the reliance on the multiple active farm leases, which could be cancelled with 30-day notice. As LUS currently treats biosolids to Class B sludge, disposal requires approximately 300 acres of land. If the land purchase is not feasible, LUS would be driven to generate Class A biosolids, and then find properties suitable for sludge application as a soil amendment rather than as a fertilizer component.

6.5 Environmental and Regulatory Compliance Issues

Currently, LUS' Pretreatment Section within Environmental Compliance uses the CityWorks Program to track complaints, work orders, and other information. In addition, the Department converted to a web-based version of the CityWorks Program as the beta testing of the system was accomplished in 2017. LUS' Environmental Compliance Department implemented that version of the CityWorks Program into other sections, so that better communication and tracking of customer complaints can be achieved. This implementation will make sharing and tracking of information more efficient within departments at LUS, especially as an Asset Management Program for the lift stations will be a part of the CMOM Program.

All wastewater systems in Louisiana are required to file an annual Municipal Water Pollution Prevention audit report for each operating facility. These reports, among other things, compare the design hydraulic and biological treatment capacity of each plant with the actual conditions to identify plant design capacity exceedances. At times, LUS exceeds the design flow capacity at its wastewater treatment plants. In 2019, LUS exceeded the design/permitted flow capacity at ACTP six times. Biological loading was exceeded four times at SSTP and one time at NETP during 2019. Planned improvements to wet-weather holding facilities and head-works facilities will help to alleviate capacity exceedances related to excessive rainfall events. Each of the exceedances are reported to LDEQ when they occur, and when LUS knows that there will be an excursion due to repairs or replacement, the utility coordinates with LDEQ, as required in their National Pollutant Discharge Elimination System (NPDES) discharge permit. Table 6-5 shows the number of months during which the design capacity of each plant was exceeded over the past five years.

Table 6-5
Wastewater System
Number of Months Design/Permitted Capacity was Exceeded

Plant	2015	2016	2017	2018	2019
Flow					
SSTP	2	2	0	0	0
ESTP	3	1	2	1	0
ACTP	5	8	5	1	6
NETP	0	1	0	0	0
Biological Loading					
SSTP	0	0	0	0	3
ESTP	0	1	0	0	0
ACTP	0	0	0	0	0
NETP	0	0	0	0	1

Source: LUS

The Clean Water Act of 1972 requires all states to participate in NPDES, and to file DMRs regarding wastewater quality at the point of discharge or introduction into the environment. The Vermilion River is considered oxygen deficient; therefore, LUS must comply with the limitations established for the release of carbonaceous biological oxygen demand and ammonia nitrogen (NH_3) into the river. Discharge permits are issued to LUS for each operating unit by the LDEQ that reflect the total maximum daily loading standards set for the Vermilion River in 2003.

The ACTP LPDES permit expired on September 30, 2019. A timely permit renewal application was submitted to LDEQ and the new permit was issued with an effective date of November 1, 2019. The permits for ESTP and SSTP permit expired on October 31, 2019. Timely permit renewal applications were submitted to LDEQ for both plants and the new permits were issued with an effective date of April 1, 2020. The permit for NETP expired on October 31, 2019. A timely permit renewal application was submitted to LDEQ. During the public comment period LUS submitted comments in regard to the new cyanide limits that LDEQ proposed to add to the final permit. LUS is working with LDEQ to come to a final decision and is therefore operating under an expired permit. Continuation of expiring permits is governed by regulations promulgated at LAC 33:IX.2321 which states that when the permittee has submitted a timely application, the conditions of an expired permit continue in force until the effective date of a new permit. LDEQ has added monitoring and reporting requirements for phosphorus and nitrogen in the permits for ACTP, ESTP and SSTP and LUS expects the same for the final permit for NETP. At this time no limitations have been placed in the permits for these parameters. The quality of various discharge parameters of each treatment unit are recorded on DMRs and submitted monthly to LDEQ. The 2019 DMRs for the various treatment plants and operating units indicate all operating units were in compliance with NPDES discharge limits except as shown in Table 6-5. LUS is current with all fees and report submittals, and there were no public complaints received in 2019. LUS does not expect any rejections in the renewal of the Wastewater System environmental or operating permits.

In 2017, the EPA issued rules to dental facilities concerning discharges containing Amalgam. LUS contacted local facilities regarding types of waste being discharged to issue proper certifications. The EPA begins enforcement of the rules in July 2020.

LUS completed its evaluation of guidance from the EPA regarding national air emission standards for hazardous pollutants. It was determined that these regulations do not apply to the LUS wastewater treatment facilities.

Spill Prevention Control and Countermeasure Plans

Wastewater treatment facilities that are proximate to waters of the U.S., and subject to spills of oils, fuel, or other controlled substances, and having a storage capacity of more than 1,320 gallons at a single facility must have an SPCC plan prepared in accordance with state and federal regulations. SPCC plans were prepared and implemented in accordance with state and federal requirements for each wastewater treatment site.

Wastewater Pretreatment Program

LUS continues to maintain a wastewater pretreatment program that is applicable to certain customers discharging to the LUS collection system. Many of the requirements contained in the program are industry-accepted best practices meant to reduce the loading at the treatment facilities. An example is the reduction of oils and grease into the Wastewater System. This program is currently maintained by the LUS Environmental Compliance Division. To ensure compliance, LUS samples permitted industries at least once per year.

Currently, there are six LUS customers that have been issued Significant Industrial User Permits, which are issued to any customer that discharges an average of 25,000 gallons or more of process wastewater, contributes a process waste stream that makes up 5% or more of the average dry-weather hydraulic or organic (BOD, TSS, and such) capacity of the treatment plant, or is designated as such because the industrial user has a reasonable potential for adversely affecting the treatment facility's operation or for violating any pretreatment standard or requirement.

LUS also has issued seven Categorical Zero Discharge Permits, which are issued to customers that do not discharge any process wastewater. These industrial users are issued permits because the EPA promulgates pretreatment standards for specific industry categories in accordance with CWA section 307.

In addition to these permits issued, LUS follows Best Management Practice Programs with 12 hospitals, 5 oilfield wash racks, and 17 vehicle wash racks.

The most recent Pretreatment Audit was done February 20-21, 2020. The final report has not been received but preliminary comments from LDEQ inspectors indicate that there were no deficiencies noted. The last audit of the pretreatment program by LDEQ was performed in 2015. Below is part of the summary of findings from that audit which indicates how professionally the pretreatment program is operated:

"Overall, Lafayette City-Parish Government Pretreatment Program was excellent. The organization of the Industrial Users' files allowed the file review process to be done in a timely and complete manner. It was noted the LUS prepares thorough Fact Sheets for each of their Significant Industrial Users. Through the file reviews and site visits, LDEQ determined that LUS

promotes pollution prevention. Each of the facilities visited was practicing some form of pollution prevention and researching alternative operational/treatment procedures to reduce pollution and water use. Additionally, the pretreatment staff maintains a good rapport with Industrial Users (IU) representatives and consequently, the IUs are cooperative in achieving the goal of compliance with pretreatment standards and requirements."

6.6 Contracts

LUS is currently under contract for wastewater O&M for the Grossie Avenue area. This area includes a small number of customers served by a separately owned wastewater collection system. This agreement was made in 1995 via a U.S. Department of Housing and Urban Development grant. Flows from the approximately 50 customers are treated at the ESTP. The 40-year agreement expires in August 2035.

6.7 Benchmarking

LUS' residential and commercial wastewater rates are similar to and competitive with the utilities benchmarked in the state and surrounding region. The following tables and figures compare the average residential and commercial rates for selected wastewater utilities in the region.

Table 6-6
Wastewater System
Residential Rate Comparison

Utility	Average ($/1,000 gallon) (1)
Alexandria	$3.86
Lake Charles	$4.33
New Iberia	$5.09
Baton Rouge	$6.39
LUS	$7.13
Shreveport	$10.30
New Orleans	$11.29

Source: LUS. Rates as of October 2019.
(1) Assumes monthly water consumption of 7,000 gallons per month.

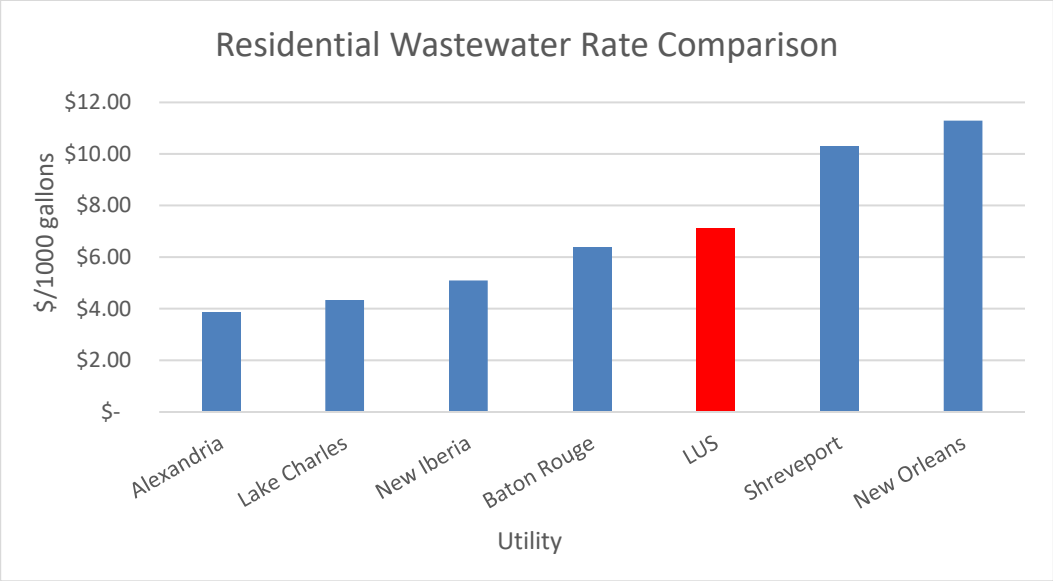


Figure 6-1: Wastewater System – Residential Rate Comparison

LUS completed a rate study in 2016, which showed that the Wastewater System rates were insufficiently recovering revenues to cover costs. As a result, Wastewater System rates were increased November 1, 2016 by 6.1% and again on November 1, 2017 by 5.7% as approved by LPUA.

Table 6-7
Wastewater System
Commercial Rate Comparison

Utility	Average ($/1,000 gallon) (1)
Alexandria	$3.66
Lake Charles	$3.87
LUS	$6.75
Baton Rouge	$8.55
Shreveport	$9.34
New Orleans	$12.44

Source: NewGen. Rates as of October 2019.
(1) Assumes monthly consumption of 30,000 gallons and a 2-inch meter.

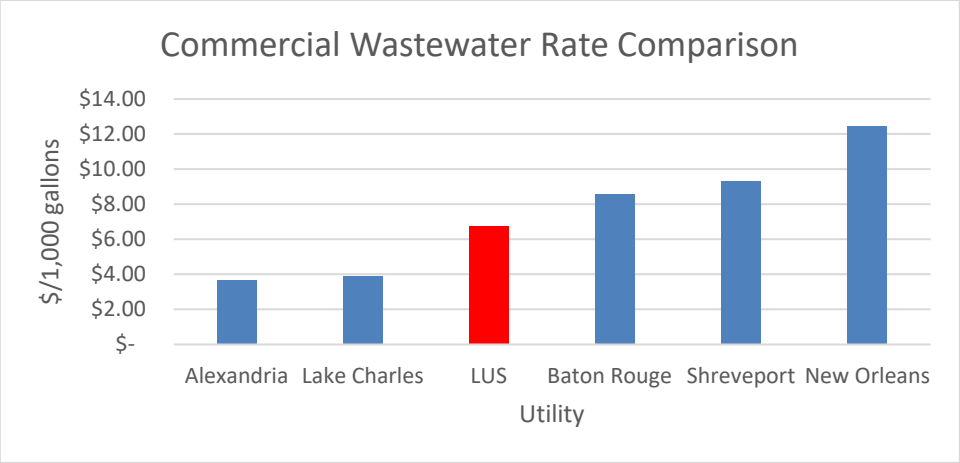


Figure 6-2: Wastewater System – Commercial Rate Comparison

Benchmarking Financial and Operating Statistics

Table 6-8 benchmarks selected financial and operating ratios for LUS with other large municipal wastewater utilities nationwide. The data was provided by the *AWWA Utility Benchmarking Performance Management for Water and Wastewater, 2018 Data published 2019*. The AWWA report contains data based on regions of the U.S. and based on the number of wastewater customers served by the utility. For the purposes of our analysis, we used the U.S. South region, which includes Louisiana and hereafter referred to as "Regional." In addition, the AWWA report contains an aggregate of Wastewater utilities in the U.S. and Canada and hereafter referred to as "National." For the National level statistics, we used the utilities that have 50,001 to 100,000 customers. If possible, the comparisons were made based on the Wastewater System only. However, for some balance sheet items, the LUS data was available for the combined Electric, Water, and Wastewater Systems and hereafter referred to as "Combined." The AWWA benchmark data for Combined includes only water and wastewater utilities.

As shown in Table 6-8, LUS' operational costs are above the National and Regional costs. LUS' debt to equity is higher than National and lower than Regional utilities. LUS wastewater utility operating ratio is higher than other utilities. LUS' cash reserves are lower than other utilities, while their DSCR is higher than National and Regional utilities.

Table 6-8
Wastewater System
Benchmarked Wastewater Utility Operating Ratios

Statistic	Basis	National (1)	Regional	LUS	
		2018	2018	2018	2019
Operational Costs per MGD	Wastewater	$2,916	$2,168	$3,518	$3,343
Debt to Equity (Total Assets)	Combined	0.29	0.47	0.34	0.38
Operating Ratio (O&M cost/ Operating revenue)	Wastewater	0.56	0.46	0.60	0.64
Operating Ratio (O&M cost/ Operating revenue)	Combined	0.61	0.47	0.72	0.68
Cash Reserve Days (2)	Combined	553	300	42	51
Debt Service Coverage Ratio	Wastewater	1.90	2.22	4.06	3.04
Debt Service Coverage Ratio	Combined	2.00	2.16	3.31	3.55

Source: AWWA and LUS
(1) National AWWA benchmarks for wastewater and combined water and wastewater utilities with 50,001 to 100,000 customers to align with the LUS customers served.
(2) Based on total O&M for Electric, Water, and Wastewater Systems less fuel and purchased power expenses.

6.8 Historical Financial Performance

Historical Wastewater System debt service for years 2015 through 2019 include the Series 1996 Bonds, a portion of the Series 2010 Bonds, Series 2012 Bonds and Series 2019 Bonds. The Series 2019 Bonds first debt service was due November 1, 2019 (FY 2020). The Series 2010 Bonds will be fully redeemed by the proceeds of the Series 2017 Bonds on November 1, 2020. Table 6-9 shows historical debt service and the associated DSCR. In each year since 2015, the DSCR exceeded the minimum coverage requirement of 1.0 required by the Bond Ordinances.

Table 6-9
Wastewater System
Historical Financial Performance

FY	Operating Revenues (1)	Operating Expenses (2)	Balance Available for Debt Service	Debt Service (3)	Debt Service Coverage Ratio
2015	$29,119,216	$17,566,682	$11,552,534	$4,621,420	2.5
2016	$29,144,574	$18,295,151	$10,849,422	$4,619,524	2.3
2017	$30,790,307	$18,685,538	$12,104,769	$4,270,621	2.8
2018	$32,379,226	$18,737,163	$13,642,063	$3,363,806	4.1
2019	$32,038,772	$19,211,514	$12,827,259	$4,218,291	3.0

Source: LUS Financial and Operating Statements.
(1) Operating Revenues Include interest income and other miscellaneous income.
(2) Operating Expenses include O&M and other expenses such as customer service and A&G costs. Operating Expenses do not include ILOT, normal capital and special equipment, and other miscellaneous expenses.
(3) Debt Service was prepared on a cash basis for the below table and includes the Series 1996 Bonds, a portion of the Series 2010 Bonds, Series 2012 Bonds and Series 2019 Bonds. The Series 2019 Bonds first debt service was due November 1, 2019 (FY 2020). The Series 2010 Bonds will be fully redeemed by the proceeds of the Series 2017 Bonds on November 1, 2020.

Rate Structure

The Wastewater System services retail customers inside the City limits and outside of the City limits. The Wastewater System customer classes include residential and commercial.

The Wastewater System rate structure includes a customer charge and volumetric charges. The volumetric charges are based on the season and on the customers' water consumption. Customers are charged for their actual usage during the months of December through March. For the summer months, generally the usage is calculated on the average of the four preceding winter months (December – March) usage. However, the usage may not be less than 75% of the actual water consumption for the current month. Adjustments may be made by LUS as needed.

LUS completed a rate study in 2016, which showed that the rates for the Wastewater System were insufficiently recovering all costs. As a result, Wastewater rates increased November 1, 2016 by 6.1%, and again on November 1, 2017 by 5.7%.

Table 6-10
Wastewater System
Rate Schedules

Rate Class	Serves	Effective Date	Customer Charge ($/month)	Monthly Volumetric Charge ($/1,000 gallons)
S-1	Residential	Nov 2017	$8.60	$5.90
S-1-O	Residential Non-City	Nov 2017	$10.30	$7.10
S-2	Commercial	Nov 2017	$16.15	$6.15
S-2-O	Commercial Non-City	Nov 2017	$24.20	$7.40

Source: LUS Rate Schedules

Wastewater Revenue Statistics

Table 6-11 shows the Wastewater System revenues decreased in 2019 by 3.4% and the retail collection amounts decreased. The number of customers consistently increased at an average annual of 1.2% since 2015 with the highest customer growth in the schools and churches customer class. The revenue per customer increased by 5.1% 2018 and decreased by 0.6% in 2019.

Table 6-11
Wastewater System
Retail Revenues by Class

	2015	2016	2017	2018	2019
Revenues					
Residential	$15,383,027	$15,428,467	$16,301,946	$17,209,307	$16,620,065
Commercial	11,631,865	11,669,904	11,899,780	12,073,215	11,804,385
Schools & Churches	1,080,667	1,213,052	1,300,138	1,509,518	1,316,766
Other	209,198	211,356	204,511	185,506	169,456
Total	$28,304,757	$28,522,778	$29,706,376	$30,977,546	$29,910,672
Number of Customers					
Residential	37,919	38,569	39,054	39,229	39,791
Commercial	5,238	5,328	5,398	5,402	5,442
Schools & Churches	252	257	263	273	275
Other	114	115	116	116	115
Total	43,521	44,269	44,830	45,019	45,623
Revenue per Customer					
Residential	$406	$400	$417	$439	$418
Commercial	2,221	2,190	2,205	2,235	2,169
Schools & Churches	4,294	4,719	4,947	5,528	4,781
Other	1,843	1,838	1,762	1,606	1,479
Total	$650	$644	$663	$688	$656

Source: LUS Financial and Operating Statements

Historically, the Wastewater System experienced approximately $90,000 per year in uncollectible accounts. This annual amount of uncollectible accounts and revenue for the Wastewater System is less than industry averages. While the annual uncollectible accounts are below industry averages, over several years, the balance accrued to approximately $505,000 in 2019 for the Wastewater System. The majority of this accrual is associated with a specific group of customers that are typically rental occupants and receive no other LUS services, thus limited opportunities to recover the past due wastewater bills. LUS is working on a plan to collect these amounts through a mechanism in Louisiana state law that allows cooperative efforts with surrounding water providers to collect past due balances. LUS also hopes to prevent or reduce uncollectible revenue in the future.

Expense Analysis

Table 6-12 below shows the historical wastewater operating expenses separated between fixed and variable expense. Variable operating expenses include purchased power costs embedded in the Collection expense account and chemicals embedded in the Treatment expense account. Fixed operating expenses include costs embedded in Collection, Treatment, Customer Service, and A&G expense accounts. Historically, the variable expenses have averaged 9% of the total expenses while fixed expenses average 91%.

As the Water System retail sales are affected by weather, so are the Wastewater System billed gallon sales. The volatility in the weather may affect the volatility in the revenues. However, as shown in Table 6-12, the expenses are largely fixed and do not vary with the weather. As a result, there is pressure on the wastewater rates to adequately recover revenues during any type of weather.

Table 6-12
Wastewater System
Historical Fixed and Variable Expense Summary

	2015	2016	2017	2018	2019
Variable Expenses					
Collection	$365,217	$366,371	$346,809	$332,139	$372,159
Treatment	1,391,904	1,350,099	1,351,974	1,334,120	1,249,620
Total Variable Expenses	$1,757,121	$1,716,470	$1,698,783	$1,666,259	$1,621,779
Fixed Expenses					
Collection	$3,722,893	$4,095,630	$4,350,118	$4,390,309	$4,940,592
Treatment	5,265,725	5,565,525	5,452,814	5,543,161	5,737,501
Customer	1,208,820	1,347,623	1,345,368	1,399,015	1,365,016
A&G	5,612,123	5,569,902	5,838,454	5,738,418	5,546,626
Total Fixed Expenses	$15,809,562	$16,578,681	$16,986,755	$17,070,904	$17,589,735
Total Fixed & Variable	$17,566,682	$18,295,151	$18,685,538	$18,737,163	$19,211,514
Percent Variable	10%	9%	9%	9%	8%
Percent Fixed	90%	91%	91%	91%	92%

Source: LUS Financial and Operating Statements

6.9 Findings and Recommendations

- In May 2018, the EPA issued an administrative order based on a 2017 audit of the Wastewater System. There were no issues with the LUS work order system and processes by which wastewater complaints are addressed and repairs made. However, the administrative order requires implementation of a CMOM Program. LUS will have to inspect 10% of its collection system each year, and address defects within three years of discovery. This required LUS to ramp up the frequency of its inspection of the collection system and will require additional funding to address sewer repairs. Based

upon the schedule and activities negotiated with EPA in 2018, this CMOM Program will be a substantial infrastructure rehabilitation program over the next ten years.

  - LUS submitted the required documents to EPA in February 2020, ahead of the May 1, 2020 deadline.
  - LUS began increased line inspection with cameras and initial findings indicate more repairs needed than first expected. Budgeting for repairs may need to be reevaluated to meet the CMOM program's three-year timeframe for any repairs.

- SCADA control and feedback from the operating units, especially lift stations, has not been fully implemented, although significant progress was made in 2018, little progress was made in 2019. Currently, 100 of the system's 188 lift stations now have fiber access. LUS still plans to connect the remaining lift stations to SCADA and is in the process of evaluating platforms. Although SCADA is not critical to the actual function of the operating units, O&M efforts, data collection used in developing reports, and maximization of personnel time and performance can be greatly enhanced by completing SCADA installations.
- Biosolids disposal continues to be a near-term issue that LUS must address as one of the lessors of the land cancelled an agreement, and as additional outlying package treatment plants are integrated with the Wastewater System. Although LUS is actively searching for new landowners to replace the acreage lost in 2017, LUS should continue to evaluate sludge treatment and disposal options such as:
  - Continuing to treat sludge to Class B standards versus Class A standards.
  - Continuing sludge disposal on leased land versus purchased land; third-party sales as a disposal option; or a combination of all three.
- Until such time as sludge treatment and sludge disposal options can be clarified, the current lease agreements for land necessary for sludge disposal land applications should be reviewed and updated to reflect long-term leases that will ensure that sufficient surface acreage is available to meet long-term sludge disposal requirements. Since the existing land leases are not favorable towards LUS regarding a long-term option for land application of biosolids, LUS advises that the following factors should be considered:
  - The lead time required to convert from generating Class B sludge to Class A sludge would likely take three to four years. This includes planning, permitting, design, procurement of equipment, and construction.
  - The cost for equipment necessary to generate Class A sludge is estimated in the $4.0 million range.
  - The cost for lime required in the Class A process is estimated in the $1.0 million per year range.
  - The process to purchase property will take anywhere from one to two years, depending if LUS can find suitable properties available within a reasonable proximity, and if the property can be purchased without having to go through the condemnation process.

- If a significant number of existing leases are cancelled before suitable arrangements can be made for alternate application sites, LUS may be forced to dispose of the biosolids in a landfill certified to handle Class B biosolids.

- Existing collection and transmission infrastructure necessary to assimilate outlying wastewater package plants into the Wastewater System, and to accommodate the flow from expected population growth is currently insufficient to properly handle such growth. LUS plans an update to the Wastewater Master Plan sometime in the near future that will identify collection system capacity improvements projects, wastewater treatment system capacity improvements, regulatory compliance projects, and system O&M projects for a minimum 20-year planning period. Such planning will enable LUS to update and supplement the existing CIP. In addition, the wet weather in 2016 caused higher flows at the NETP. As this is a smaller treatment facility, the higher flows make more of an impact. The master planning should evaluate any improvements or expansion necessary at NETP to accommodate future growth. The effort should also include the evaluation of the cost-benefit or cost effectiveness of assimilating additional package plants or service territory/City annexation areas into the Wastewater System.
- Although staffing levels were not reported to be an issue, several key management personnel and certified operators can or will retire within the next five years. LUS should develop a succession plan to ensure the continued operation of the water/wastewater operations with as much operational continuity as possible and with as little loss of institutional knowledge as possible. LUS reports that staffing levels are reviewed annually, and that a program of screening and cross-training to identify individuals that exhibit technical proficiency and leadership skills is in place.
- Currently, LUS' Pretreatment Section within Environmental Compliance uses the CityWorks Program to track complaints, work orders, and other information. In 2018, the Department converted to a web-based version of the CityWorks Program as the beta testing of the system was accomplished in 2017. LUS' Environmental Compliance Department plans to implement that version of the CityWorks Program into other sections, so that better communication and tracking of customer complaints can be achieved. This implementation should make sharing and tracking of information more efficient within departments at LUS, especially as an Asset Management Program for the lift stations will be a part of the CMOM Program.
- While the Wastewater System's annual amount of uncollectible accounts is less than industry averages, over the past several years, the balance accrued to approximately $505,000. The majority of this accrual is associated with a specific group of customers that are typically rental occupants and receive no other LUS services, thus limited opportunities to recover the past due wastewater bills. LUS is working on a plan to collect these amounts through a mechanism in Louisiana state law that allows cooperative efforts with surrounding water providers to collect past due balances. LUS also hopes to prevent or reduce uncollectible revenue in the future.
- LUS continues to invest in its infrastructure, with one rehabilitation project at the Acadiana Park Pump Station, completed in 2019. Another rehabilitation project at the Brown Park Pump Station is planned for 2020. Other projects include concrete rehabilitation at the Farrel Road Lift Station, an upcoming project at the Camellia/Republic Lift Stations that will also improve gravity lines, and the

improvements to the wastewater plants mentioned above. LUS also performed general maintenance projects at the lift stations and wastewater treatment plants, including repairs to oxidation ditch rotors at the East and Northeast Plants, rehabilitation to the drum screens at the East Plant, and replacement of a blower at the Ambassador Caffery Plant.

- Commercial and residential development and redevelopment, particularly in the downtown area, appears to be improving with the economy, which could cause a strain on LUS' system. LUS is seeing an increase in formerly single home properties being turned into multi-home developments, i.e. apartments/townhomes. This may cause some localized issues as the current infrastructure connecting to these properties may not be adequate to handle the increase in water usage and wastewater generation. A long-term project that is under consideration is a new major pump station with a discharge force main directly to the South Wastewater Treatment Plant. However, at the time of this Report, it is unknown the extent and length of the impact the COVID-19 crisis may have on commercial and residential development in Lafayette and the Water System.

SECTION 7
COMMUNICATIONS SYSTEM

7.1 System Description

The Communications System, also known as LUS Fiber, is comprised of a 70-mile fiber backbone system with direct connections to national Tier 1 broadband providers, 160 miles of distribution fiber, and 557 miles of access fiber connecting to [redacted] individual premise locations.

The fiber optic system began in 1998 with bulk fiber serving the Electric System SCADA system, transmission line protection systems, and LUS facilities. Further expansion offered wholesale communications and data services to governmental and educational facilities, and retail data, telephone, and CATV services to the general public. The first retail customers began receiving service in February 2009.

In preparation for providing retail communications services, the Communications System purchased the fiber optic system from the Utilities System in 2007. The Communications System utilized internal loans from the Utilities System to fund the purchase of the fiber system assets, startup costs, and operating costs. The Communication System does not expect any future loans from the Utilities System. The Communications System repayment of the loans will continue through 2033. The repayment of the Utilities System loans is subordinate to the payment of debt service on the Communications System bonds.

The Communications System offers an array of services in the competitive market including fiber leases, wholesale broadband, and retail customer services. The Communications System includes numerous 10-gigabit circuits deployed in multiple loops for greater redundancy that span the entire City and connect with the national fiber backbone. The Communications System added a fourth 10-gigabit Internet drain to cover capacity required in the near future. The four 10-gigabit fibers connections are a fixed cost for LUS Fiber with data bursts above the various committed gigabit levels leading to additional variable costs.

Customers

Since 2015, the Communications System number of accounts increased at a compound annual rate of 6.5%, totaling [redacted] retail accounts in 2019. As shown in Table 7-1, the historical number of accounts and market share is consistently increasing.

LUS Fiber's marketing activities focus primarily on single family residence and business customers receiving electric service inside the City limits. Customers meeting this profile enable LUS Fiber to provide communication services with minimal additional cost. For the purposes of understanding the Communications System's share of the LUS target market, the Communications System customer projections are compared with a subset of LUS Electric System customers along with customers outside the LUS Electric System service territory.

LUS Fiber attained franchise status in November 2017 to offer communications service throughout the Parish, including the City of Broussard, City of Youngsville, Carencro, Duson, Scott, and unincorporated areas in the Parish. LUS Fiber is continuing to build out targeted

areas at the rate of one to one-and-a-half miles per month of combined underground and overhead installations, including distribution and access routes.

Table 7-1
Communications System
Historical Retail Market Share

FY	Number of Customer Accounts	Increase in Customer Accounts (%)	Market Potential (1)	LUS Target Market (2)	Increase in LUS Target Market	LUS Target Market Share
2015	[redacted]	1.9%	[redacted]	[redacted]	1.6%	34.0%
2016	[redacted]	10.0%	[redacted]	[redacted]	1.6%	36.8%
2017	[redacted]	4.0%	[redacted]	[redacted]	1.4%	37.8%
2018	[redacted]	7.6%	[redacted]	[redacted]	1.3%	40.1%
2019	[redacted]	4.3%	[redacted]	[redacted]	1.2%	41.4%

Source: LUS Fiber
(1) LUS serviceable residential and business electric customers inside the City limits.
(2) Target market excludes apartments and other multifamily dwellings.

Service Offerings

In the retail market, the Communications System offers "triple play" services. "Triple play" is a common term in the industry that refers to CATV, Internet, and telephone services. The Communications System provides services to approximately 20,000 customers, who can choose to purchase any, or all, of the triple-play services. These services are in competition with regional and national data, and communications providers including Cox Communications, Dish, AT&T/DirecTV, kaptel, REACH4, and HughesNet.

The Communications System offers the following residential retail services to customers:

Residential Cable Television / Video Services

Digital TV

- 87 analog, 327 digital channels
- Packages
  - Basic Package with 20 channels
  - Expanded Basic with 80+ channels
  - Digital Access with 200+ digital channels
  - Digital Plus with 270+ digital channels
  - Digital Hispanic with 270+ digital channels, including 5 Spanish-only channels
  - Premium Movie Suites (HBO, Cinemax, Showtime, Starz/Encore)
    - Additional equipment and service options include digital video recorder (DVR), video on demand, pay-per-view, and set top boxes.

Streaming (new in 2019)

- ConnecTV Basic with 20 channels
- ConnecTV Expanded with 80+ channels
- ConnecTV Plus with 180+ digital channels
- Stingray Music
- Add on packages
  - Sports with 25+ channels
  - Premium with 40+ channels (HBO, Cinemax, Showtime, TMC, Starz, Encore)
  - Hispanic with 8+ channels

Residential Internet Service

- 3, 60, 100, 300 megabits per second (Mbps)
- 1 and 10 gigabits per second (Gbps)
- Hub City WiFi – residential WiFi service
- Hub City WiFi Plus – residential WiFi service

Residential Telephone Service

- Basic Line – basic digital telephone service line with paid long-distance calling; packages and features are sold separately
- Basic Feature Package – basic calling features
- Premium Feature Package – basic service, plus voicemail and caller identification
- Unlimited Long Distance – offered as a separate service to add to the above services
- International Long Distance – per minute rate depending on the area called

In addition to these residential communications services, the Communications System began offering ConnecTV, a smart home streaming application, in October 2019. LUS Fiber also offers business communications services.

The sale of Internet services exhibits the highest growth for the Communications System, while CATV service and telephone service sales are stable. It is difficult to directly compare specific CATV, Internet, and telephone service offerings across all competitors in the market as each competitor bundles packages, services, and offerings differently.

7.2 Competition / Benchmarking

The CATV and Internet services markets within the City are competitive. National telecommunications firms such as Cox Communications, Dish, and AT&T/DirecTV each offer services within the City limits. Some of the competitors (AT&T/DirecTV and Dish) also have access to and own wireless spectrum, which may further increase competition for telecommunications services within the City.

The Communications System's high Internet speeds are a tangible competitive advantage. LUS Fiber typically stays in step with the competition in offering other services to the market. Providing quality service offerings to customers is a top priority business objective of the Communications System. While the Communications System has a competitive advantage in Internet services within the City**;** however, another telecommunications service provider is installing fiber in and around the City with plans to compete with LUS Fiber. Although the provider is deploying a fiber network, they are not aggressively marketing services and the customer service provided is not comparable to LUS Fiber.

Current communications services rates are stable, with increases for CATV or video generally driven by programming and content costs. LUS Fiber offers comparable and competitively priced higher-end CATV packages within the City. Internet service is extremely competitive, based on the equally fast download and upload speeds offered by the Communications System. Competitors offer a slower download speed and significantly reduced upload speed (typically 10 to 20% of download speeds). The Communications System also offers customers a unique feature that enables peer-to-peer connections within the City limits with excellent data exchange speeds. Currently competitors cannot offer this feature. Telephone service is competitive but difficult to compare directly with competitors' packages.

Table 7-2 below summarizes and compares LUS Fiber and competitors' Internet service offerings within the City. The comparison illustrates LUS Fiber's competitive advantage of faster download and upload speeds available at lower prices than competitors. Lafayette Economic Development Authority (LEDA) also markets these capabilities to new potential customers.

Table 7-2
Communications System
Competitive Internet Service Offerings

Provider	Service Offerings (Upload x Download Speeds)				
LUS Fiber – Internet	3 Mbps (1) (Sym) (2)	60 Mbps (Sym)	100 Mbps (Sym)	1,000 Mbps (Sym)	10,000 Mbps (Sym)
Price/month	$19.95	$39.95	$49.95	$49.95	$295.95
LUS Fiber – Hub City WiFi		60 Mbps & WiFi	100 Mbps & WiFi	1,000 Mbps & WiFi	
Price/month		$52.95	$62.95	$114.95	
Cox Residential	Up to 10 x 1 Mbps(3)	Up to 50 x 3 Mbps	Up to 150 x 10 Mbps	Up to 300 x 30 Mbps	Up to 940 x 35 Mbps (Gigablast)
Price/month	$19.95	$39.99	$59.99	$79.99	$99.99
Data Caps/month	1024 GB	1024 GB	1024 GB	1024 GB	1024 GB
Cox Internet Ultimate 150 (similar to Hub City Wifi add-on)		$10/mo. Additional for Existing Cust.			
Cox Business	Up to 10 Mbps	Up to 100 Mbps	Up to 200 Mbps		
Price/month	$74.99	$104.99	$154.99		
AT&T Residential	10 x 1 Mbps	100 x 20 Mbps		1000 Mbps (Sym) (Fiber)	
Price/month	$60.00	$49.99		$49.99	
Data Caps/month	250 GB	None		None	
AT&T Business	Up to 25 x15 Mbps	Up to 50 x10 Mbps	Up to 100 x 20 Mbps	Up to 500 x 100 Mbps	
Price/month (Prices vary by location, AT&T solicits a quote from potential customers)	$60.00	$85.00	$115.00	$250.00	

Source: LUS Fiber
(1) Mbps is millions of bits (Megabits) per second.
(2) Sym is symmetrical, or equal upload and download speeds.
(3) Cox and AT&T services are identified first by the download speeds, and then upload (e.g. 100 x 10 represents up to 100 Mbps download and 10 Mbps upload).

7.3 Contracts

The Communications System has contracts with multiple service providers to connect to the national fiber backbone. The Communications System has several wholesale contracts with major carriers, Internet Service Providers (ISP), and application service providers that provide bandwidth, Internet, and telephone services on a retail basis to medium and large business customers.

7.4 Operations and Related Performance

LUS Fiber's 10 gigabit fiber home service, first offered in May 2018, provides equal upload and download speeds with its fiber equipment connecting directly to the home.

As a normal course of business, service outages do occur. Since the inception of the Communications System, LUS Fiber has successfully restored service in a timely manner when outages occur. Successful outage management requires the proactive periodic replacement and upgrade of equipment. Overall, the Communications System performance remains highly reliable with limited outages for customers. Communications System customers regularly give LUS Fiber high marks for reliability, contrasting the negative reliability trend of its competitors. There were no major network outages in 2019. There were a few minor outages due to fiber cuts by third party construction crews; these outages were geographically isolated and affected a small percentage of customers.

Communications Shared Services

During 2019, the Communications System employees and facilities were organized separately from Utility System operations; however, several services such as accounting, customer service, and reporting functions were shared among the Communication System and Utilities System. In accordance with the requirement to maintain separate Utilities System and Communications System funds, all costs associated with these services are accounted for separately.

The LUS Business Support Services division manages the customer service for the Utilities System and Communications System. The Communications System also utilizes the same customer service centers as the Utilities System. Customers may pay their bill by mail, phone, online, drop box, or in person. LUS Fiber also accepts automatic bank or credit card payments. The Communications System targeted improvements to customer service processes in 2015, resulting in the reduction of customer service idle time from 60% to 25 to 30% and improvements in call responses. In addition, average install times went from 14 days to 6 days from the date of order; and, customers can now choose their installation and setup time appointments. Customers rate the Communications System customer service very high and are pleased with the responsiveness of the representatives.

7.5 Regulatory Structure and Environment

The Communications System must adhere to the Local Government Fair Competition Act (the Fair Competition Act) in Louisiana. The Fair Competition Act requires, among other provisions, that LUS Fiber must operate the Communications System in a manner that does not discriminate against competing providers of the same service and it may not grant any undue or unreasonable preference to itself or any private provider of covered services. Further, LUS Fiber may not cross-subsidize its covered services with tax dollars, income from other local government or utility services, below-market rate loans from the local government, or any other means. Under the Fair Competition Act, covered services of LUS Fiber include telecommunications services, advanced services (Internet), and CATV.

Separate from the requirements of the Fair Competition Act and LPSC Rules, LPSC has some jurisdiction over the telecommunication rates of LUS Fiber but it does not have jurisdiction over LUS Fiber's rates for advanced services (Internet) and CATV.

Pursuant to the Act, LUS Fiber is also subject to certain rules and audit requirements of the LPSC. In particular, pursuant to the Act, the LPSC enacted Cost Allocation and Affiliate Transaction Rules (LPSC Rules) and has responsibility and authority for compliance thereof by LUS Fiber. LUS Fiber is required by the LPSC Rules to file a certification with the LPSC on an annual basis, signed under oath, stating that it is complying with the Act and the LPSC Rules. After 2014, LUS Fiber was no longer required to file the annual audit.

Attest Audit

In addition, the LPSC Rules require LUS Fiber to have an attest engagement audit performed on an annual basis by an independent certified public accountant. The attest audit expresses an opinion as to whether or not the LUS Fiber systems, processes, and procedures applied, comply with the Act and the LPSC Rules. LUS Fiber obtains and files such attest audit reports with the LPSC annually for each FY of its operations. In addition, pursuant to the LPSC Rules, the LPSC conducted separate audits of LUS Fiber's compliance with the LPSC Rules.

In April 2018, LUS self-reported that it paid for services from LUS Fiber but had not fully utilized these services. LUS reported that there were approximately 101 sewer lift stations for which fiber was run to; however, the Wastewater Division's efforts to complete connections for these services did not keep pace with Fiber construction, resulting in only 37 of the lift stations being fully connected.

Per the 2017 Attest Audit, dated September 28, 2018, LUS requested and was being billed for 101 lift stations; however, service was not utilized by LUS at 63 of those lift stations even though LUS Fiber installed and provided the services. This resulted in LUS paying $1,259,855 since 2012 for services not utilized. In addition, LUS neglected to terminate service at 25 CAP banks resulting in $274,882 being paid to LUS Fiber for services not used. LUS was reimbursed by LUS Fiber for the above charges in 2018 at the request of LCG administration. However, at this time the reimbursement has not been mandated by the LPSC.

Per self-disclosures in the 2017 Attest Audit, in 2018 LUS Fiber reimbursed LUS for multiple wastewater lift stations in which LUS Fiber provided service but LUS never utilized the services. Following the 2018 LUS Fiber repayment to LUS, the LCG Mayor-President initiated an internal audit of all LUS Fiber services to LUS. The results of the internal audit were published in December 2019 and presented to the City-Parish Council. As a result of the internal audit two letters were sent to the LPSC regarding self-reporting of potential violations of the Fair Competition Act and the compliance audit for 2017. As of the date of this report, the LPSC has not stated their intent to open a regulatory proceeding regarding the payments through 2017 for LUS Fiber services to LUS wastewater lift stations, nor the additional 2019 self-reported potential violations included in the two letters to the LPSC. As the LPSC is currently considering the potential to consolidate the two issues documented in 2017 and 2019, and their intent to open a regulatory proceeding, the 2018 Attest Audit is not complete.

Subsequent to the letters to the LPSC from the Mayor-President in December 2019, the newly elected Mayor-President Josh Guillory placed several staff of the Utilities and Communications Systems on administrative leave in February of 2020. The Mayor-President placed the staff on administrative leave due to concerns of potential criminal activity and deletion of records or

emails. The Mayor-President requested the Louisiana State Police investigate the matter. Immediately after notifying the State Police, the District Attorney for the 15th Judicial District Court also notified LCG that the office would be evaluating the accusations and examining evidence. As of the date of this report, the Louisiana State Police have declined to begin investigating and have deferred to the District Attorney's evaluation of the issue. The District Attorney continues to evaluate and examine the accusation and evidence; however, has not determined if they will recommend or proceed with a formal investigation.

Federal Communications Commission

In February 2015, the Federal Communications Commission (FCC) ruled and reclassified broadband Internet access services under Title II of the Communications Act. The FCC will regulate certain aspects of broadband Internet services across the country, in particular the ability of broadband providers (e.g., AT&T/DirecTV, Cox Communications) to slow or block competitors' services and/or charge fees to content providers to deliver content at faster speeds. This broadband regulation is commonly referred to as "Net Neutrality." While the FCC ruled on Net Neutrality, the U.S. Telecom Association filed a lawsuit against the FCC challenging the Net Neutrality rule. In June 2016, the US Court of Appeals upheld the FCC's Net Neutrality rules and the idea that broadband access is a public utility, rather than a luxury.

In November 2017 a newly appointed FCC Commissioner proposed a repeal of Net Neutrality, with the FCC subsequently voting to repeal the legislation. Various states announced they planned to sue the FCC over the decision. In February 2018, the FCC informed Congress of their intention to repeal Net Neutrality, giving Congress 60 days to stop the repeal with the Congressional Review Act. Congress failed to pass the Congressional Review Act and the 2015 Net Neutrality Order was repealed. The FCC Restoring Internet Freedom Order took effect on June 11, 2018.

Environmental Compliance

Given the design and operation of the Communications System, there are limited environmental compliance issues. The Communications System fiber is installed on LUS' overhead electric poles and in underground ducts co-located within the underground electric distribution system, avoiding additional right-of-way requirements or construction and land use related issues.

7.6 ILOT and Imputed Tax

Pursuant to terms of a regulatory settlement, the Communications System must calculate and pay to the City an Imputed Tax. The Imputed Tax is equivalent to the payments that it would have to make if it were a privately-owned entity paying applicable state and local sales tax, property tax, franchise tax, and income tax. This Imputed Tax calculation is performed annually and can be paid to either the Utilities System or the LCG General Fund. As the Communications System improves operating margins, the Communications System will be able to pay ILOT to the LCG General Fund. Once ILOT payments are made to the LCG General Fund, the corresponding Imputed Tax obligation is reduced on a dollar-by-dollar basis.

The Communications System's ILOT calculation provides for an ILOT payment up to 12.0% of Adjusted Revenues (revenues less the cost of goods sold). However, all or a portion of this

payment is made subject to a test. The ILOT test ensures that the Communications System retains sufficient cash to meet capital obligations. The test requires that the ILOT payment be no greater than 12.0% of Adjusted Revenues, or the cash balance available after the payment of operating expenses and debt service less 7.5% of Adjusted Revenues. The Communications System tax requirement cannot be less than that required by the Imputed Tax calculation.

On July 21, 2015, the City-Parish Council approved Ordinance No. O-014-2015 that revised the ILOT calculation. This ordinance recognizes that the Communications System operates in a competitive environment and the current ILOT calculation is a greater expense than Imputed Tax. With the approval of this ordinance, the Communications System is now required to pay an ILOT amount equal to Imputed Taxes. The Imputed Tax payments will be made to LUS and the City for years 2016 through 2020 as prescribed in the ordinance. After 2020, 100% of Imputed Tax payments will go to the City. The reduced financial obligation will increase cash available for Communication System's capital improvement projects and reserves thereby reducing pressure to raise rates in the future and helping to maintain a level playing field with competitors.

7.7 Operating and Capital Budget

As explained in Section 2.2, the Communications System prepares and submits their proposed operating and capital budget to LCG. The operating portion of the budget contains projections of revenues and expenses for the upcoming FY.

The CIP as contained in the 2020 Budget is shown in Table 7-3 and totals $36.1 million over the five-year period. The Communications System five-year CIP is reviewed, updated, and budgeted annually. General life expectancy of incoming connections and distribution (e.g., head end) is 7 to 10 years, at which time replacement or upgrade may be warranted.

Table 7-3
Communications System
Projected CIP

Project Description	2020	2021	2022	2023	2024	Total
Customer Installations	$2,175,671	$2,050,000	$2,000,000	$2,000,000	$2,000,000	$10,225,671
Customer Premise Equipment	2,933,776	2,100,000	1,850,000	1,850,000	1,825,000	10,558,776
Headend Equipment and Upgrades	200,000	550,000	675,000	650,000	650,000	2,725,000
Hut Equipment and Upgrades	350,000	415,000	350,000	350,000	350,000	1,815,000
Network Equipment and Upgrades	450,000	410,000	375,000	350,000	350,000	1,935,000
Special Equipment	1,940,000	1,800,000	1,500,000	1,500,000	1,500,000	8,240,000
Special Capital	125,000	125,000	125,000	125,000	125,000	625,000
Total	$8,174,447	$7,450,000	$6,875,000	$6,825,000	$6,800,000	$36,124,447

Source: 2020 Budget. All projects are shown in 2020 dollars.

The timing of capital projects is continually evaluated based on priority given changing circumstances; therefore, projects identified in the early years of the five-year program reflect a higher degree of certainty. All projects identified in the Communications System CIP are expected to be funded with cash available from Communications System operations.

Communications System Budget to Actual Performance

The Communications System's revenue performance was aligned with the 2019 Budget. The Communications System collected $41 million in operating and miscellaneous revenues in 2019, as compared to the budgeted $42 million. Operating expenses were under budget at $21.4 million, as compared to the budgeted $22.7 million. Other Income & Expenses were close to the budgeted amount. Overall, the cash available for capital was slightly above the budgeted amount. The Communications System's actual financial performance was close to budget and it exceeded DSCR requirements and continued to increase its net revenues.

Table 7-4
Communications System
Budget to Actual Performance

	Actual (millions)	Budget (millions)	Difference (millions)	Difference (%)
Operating Revenues				
Retail Sales	$37.4	$39.3	($1.9)	(4.9%)
Wholesale Sales	2.8	2.7	0.1	5.4%
Interest Income	0.2	0.2	0.0	(2.4%)
Miscellaneous Income	0.7	0.1	0.6	396.6%
Total Operating Revenue	$41.1	$42.3	($1.2)	(2.9%)
Operating Expenses				
Cost of Production	$8.7	$9.8	($1.1)	(11.0%)
Other O&M	12.7	13.0	(0.3)	(2.0%)
Total Operating Expenses	$21.4	$22.7	($1.3)	(5.9%)
Other Income (Expenses)				
Normal Capital/Special Equipment	($0.2)	($0.1)	($0.1)	99.9%
Interest on Long Term Debt	(4.8)	(4.8)	0.0	0.0%
Principal on Long Term Debt	(4.6)	(4.6)	0.0	0.0%
Note Payable	(1.7)	(1.7)	0.0	0.0%
Imputed Tax Expense	(0.6)	(1.1)	0.5	(49.0%)
Total Other	($11.7)	($12.2)	$0.5	(4.4%)
Cash Available for Capital	$8.0	$7.4	$0.6	8.8%

Source: LCG Finance and Accounting

7.8 Accounting and Financial Statements

The accounting responsibilities for the Communications System resides with LCG. LCG prepares monthly Financial and Operating Statements for the Communications System. These statements include a balance sheet, income statement, and detailed revenues and expenses. As part of LCG, the Communications System follows the same FY with the ending date of October 31st.

The audit for each FY is generally not available until April of the following year. The detailed financial data included for the Utilities System was primarily based on the monthly Financial and Operating Statements that support and align with the audited CAFR. The tables included in this Report may slightly vary from the tables in the CAFR as numbers may be presented in various ways to calculate metrics. Although the numbers may vary, the differences are not material and do not affect the resulting metrics.

Balance Sheet

A comparative balance sheet is shown in Table 7-5. Total Assets have remained steady over the five years primarily due to renewal and replacement of assets. The Deferred Debit increased due to the 2015 revenue bond issuance costs. Since 2015, the Retained Earnings increased due to positive net operating income. There was a significant increase in uncollectible accounts in 2019 due to an upgrade of the billing system. During the upgrade the Communications System fell behind on writing off uncollectible accounts; however, as the upgrade was completed, the write-offs returned to historical levels and will decline to the historical averages in 2020.

Table 7-5
Communications System
Comparative Balance Sheet

	2015	2016	2017	2018	2019
Total Assets					
Communications Plant	$79,409,738	$77,989,976	$76,227,066	$77,827,044	$78,200,948
Bonds and Special Accounts	4,235,338	6,327,788	9,404,519	6,014,644	5,920,578
Cash and Cash Equivalent	2,583,319	3,467,990	2,959,953	2,580,711	2,677,170
Accounts Receivable	1,430,268	1,508,689	1,451,287	1,425,507	2,174,550
Reserve for Uncollectible Accounts	(77,305)	(100,656)	(138,185)	(183,659)	(605,788)
Prepayments	58,683	262,960	256,139	448,868	404,315
Inventories	0	0	0	0	0
Deferred Debits	9,301,294	9,613,092	8,496,356	7,252,853	6,864,226
Total Assets	$96,941,336	$99,069,837	$98,657,134	$95,365,968	$95,635,998
Total Liabilities & Equity					
Long Term Debt	$106,195,000	$105,255,000	$101,210,000	$96,785,000	$92,140,000
Current Liabilities	3,113,538	2,654,078	4,198,360	2,395,408	2,913,130
Long Term Liabilities	42,274,489	42,556,583	41,249,931	39,484,427	37,899,544
Retained Earnings	(54,641,692)	(51,395,823)	(48,001,156)	(43,298,868)	(37,316,675)
Total Liabilities & Equity	$96,941,336	$99,069,837	$98,657,134	$95,365,968	$95,635,998

Source: Communications System Financial and Operating Statements

Fund Balances

Article V of the Communications System General Bond Ordinance dictates the Communications Systems' funds and accounts and how the 'Flow of Funds' works. Article V

creates the following accounts: Receipts, Operating, Sinking Fund, and Capital Additions. In addition, funds may be created as new bonds are issued. Table 7-6 below summarized the beginning balance, receipts, disbursements, and ending balances of the required funds. As seen in Table 7-6, the Total Fund Balances increased by $98, or 1.2%, in 2019.

Table 7-6
Communications System
Fund Balances as of October 31, 2019 ($1,000)

	Receipts Account	Operating Account	Debt Service Account	Reserve Account	Capital Additions Account	Security Deposits	Construction Funds	Total
Beginning Balance	$41	$2,250	$0	$0	$5,939	$69	$7	$8,306
Receipts	41,556	31,282	9,479	0	9,729	45	0	92,091
Disbursements	41,472	31,282	9,479	0	9,747	6	7	91,993
Ending Balance	$125	$2,250	$0	$0	$5,921	$108	$0	$8,404

Source: LCG

Income Statement

Table 7-7 shows the comparative income statement. The Operating Revenues and Operating Expenses have increased consistently since 2015 as the Communications System expanded and gained market share. Correspondingly, the Net Operating Revenues have increased 4.7% annually over the last five years.

Other Income varied over the years as amortization, fund balances, and interest rates changed. While the Net Income before Taxes was negative through 2015, it has been positive since.

There was a major change in the depreciation calculation in year 2016. The asset lives used for depreciation were originally set up nearly 10 years ago based on a consultant's recommendations. The historical depreciation rates for the communications related assets were aggressive and in recent years the City's auditors have commented that the depreciation needed to be reviewed. During 2016, the asset lives used for depreciation were adjusted to better reflect the actual asset lives based on the Communications System's experience with the assets and based on asset lives used by other municipal utilities. Each account was reviewed by LCG and adjusted based on this information. The adjustments were then reviewed by the City's auditors and approved. The depreciation in 2016 decreased by $4.2 million, or 39% from year 2015. The decrease in depreciation expense, in addition to increases in revenues, contributed to the increase in Net Income since 2016.

Table 7-7
Communications System
Comparative Income Statement

	2015	2016	2017	2018	2019
Operating Revenues	$33,808,462	$35,686,587	$37,217,396	$38,265,799	$40,816,572
Operating Expenses	17,661,873	19,467,412	19,654,241	20,312,983	21,398,164
Net Operating Revenues	$16,146,589	$16,219,175	$17,563,155	$17,952,816	$19,418,408
Depreciation	10,790,446	6,602,622	6,869,519	7,369,971	7,901,209
Net Operating Revenues after Depreciation	$5,356,143	$9,616,553	$10,693,635	$10,582,845	$11,517,199
Other Income					
Interest Income	$3,473	$18,136	$64,463	$151,056	$195,263
Unrealized Gain/Loss on Invs	0	0	0	(481)	481
Amortization of Debt Premium	492,774	1,211,233	1,206,147	1,151,434	1,091,581
Amortization of Debt Discount	(4,118)	(4,118)	(4,118)	(4,118)	(4,118)
Misc. Non-Operating Revenue	141,377	103,639	91,683	135,700	90,273
Other Operating Gains/Losses	(254,782)	1,095	(14,672)	650	687
Total Other Income	$378,724	$1,329,985	$1,343,503	$1,434,241	$1,374,168
Other Expenses					
Amortized Bond Issuance Costs	$1,222,126	$24,565	$24,462	$23,352	$22,138
Amortized Start Up Costs	96,742	96,742	96,742	96,742	96,743
Amortized 2007 Expense	6,786	6,786	6,786	6,786	6,785
Amortized Loss on Refunding	120,967	622,118	619,506	591,404	560,663
Interest on Long-Term Debt	5,724,768	5,225,541	5,206,741	5,004,491	4,783,241
Interest on Long-Term Debt - LUS Note	903,440	901,003	897,753	883,386	862,204
Interest on Customer Deposits	16	36	(695)	10	23
Extraordinary Charges	0	0	0	0	0
Total Other Expenses	$8,074,846	$6,876,792	$6,851,296	$6,606,172	$6,331,797
Net Income Before in Lieu of Tax or Imputed Tax	($2,339,979)	$4,069,747	$5,185843	$5,410,914	$6,559,570
ILOT or Imputed Tax	837,337	823,878	686,575	542,800	561,239
Net Income	($3,177,316)	$3,245,869	4,499,268	$4,868,114	$5,998,331

Source: Communications System Financial and Operating Statements

Cash Flow

Cash flow is an important indicator of municipal utility financial health. Municipal utilities typically operate on a Cash Basis. Cash Basis means that non-cash expenses, such as depreciation are excluded from calculations, but other cash expenses, such as principal payments associated with debt service are included. Since municipally owned utilities are

primarily concerned with accumulating sufficient cash balances to meet operating expenses, debt service, capital improvements, and other obligations, the financial results are presented in this manner.

The following Table 7-8 shows the change in cash due to Operations and Imputed Tax or ILOT for the Communications System over the period 2015 through 2019. These numbers indicate current Communications System revenues have improved from year-to-year as new customers were added to the system. Since 2015, the Communications Systems Net Operating Revenues met operating expenses, debt service, ILOT, or Imputed Tax obligation of the utility, and generated positive cash flow. The five-year cumulative net margin resulted in a gain of approximately $40.7 million.

Table 7-8
Communications System
Comparative Cash Flow

	2015	2016	2017	2018	2019	Total
Operating Revenues	$33,808,462	$35,686,587	$37,217,396	$38,265,799	$40,816,572	$185,794,816
Operating Expenses	17,661,873	19,467,412	19,654,241	20,312,983	21,398,164	98,494,673
Net Operating Revenues	$16,146,589	$16,219,175	$17,563,155	$17,952,816	$19,418,408	$87,300,143
Debt Service	$8,853,935	$6,165,541	$9,251,741	$9,429,491	$9,428,241	$43,128,950
Balance After Debt Service	$7,292,654	$10,053,634	$8,311,413	$8,523,325	$9,990,167	$44,171,193
Less Imputed Tax or ILOT	$837,337	$823,878	$686,575	$542,800	$561,239	$3,451,830
Change in Cash due to Operations & Imputed Tax or ILOT	$6,455,317	$9,229,756	$7,624,838	$7,980,525	$9,428,928	$40,719,364

Source: Communications System Financial and Operating Statements

7.9 Historical Capital Improvement Program

LUS uses a capital work order system to track capital expenses. The historical capital shown in Table 7-9 reflects investment in infrastructure funded by the Series 2007 Bonds, Series 2012 Bonds, and retained earnings. The Series 2007 Bonds were issued to build the retail side of the Communications System. The Series 2012 Bonds were issued for customer installations and equipment and various projects.

As mentioned, LUS Fiber attained franchise status in November 2017 to offer communications service outside Lafayette in the City of Broussard, City of Youngsville, and unincorporated areas in the Parish. In 2018, LUS Fiber expanded into Broussard and Youngsville to serve new customers as shown by the capital spending in 2018 shown in Table 7-9. In 2019, LUS Fiber expanded into Carencro. LUS Fiber is continuing to build out targeted areas.

Table 7-9
Communications System
Historical CIP

	2015	2016	2017	2018	2019
Series 2007 Bonds	$36,480	$0	$0	$0	$0
Series 2012A Bonds	189,541	21,315	0	13,731	2,223
Series 2012B Bonds	816,311	38,141	0	26,213	801
Retained Earnings	4,856,692	4,967,142	4,865,162	8,523,970	7,734,867
Special Equipment	0	0	11,138	50,465	247,473
Total Capital	$5,899,024	$5,026,598	$4,876,301	$8,614,379	$7,985,364

Source: Communications System, Status of Construction Work Order Reports

7.10 Historical Financial Performance

Since its inception in 2009, the Communications System exhibited steady growth and improved operating margins as summarized in Table 7-10.

Historical Debt Service Coverage Ratio

Communications System debt service for years 2015 through 2019 include the Series 2007 Bonds, Series 2012 Bonds, and Series 2015 Bonds. Table 7-10 shows historical debt service and the associated DSCR. In each year since 2015, the DSCR exceeded the minimum coverage requirement of 1.0 required by the Bond Ordinances.

Table 7-10
Communications System
Historical Debt Service Coverage

FY	Operating Revenues (1)	Operating Expenses (2)	Balance Available for Debt Service	Debt Service (3)	Debt Service Coverage
2015	$33,811,935	$17,661,873	$16,150,062	$8,853,935	1.8
2016	$35,704,723	$19,467,412	$16,237,311	$6,165,541	2.6
2017	$37,281,859	$19,654,241	$17,627,618	$9,251,741	1.9
2018	$38,416,855	$20,312,983	$18,103,872	$9,429,491	1.9
2019	$41,011,835	$21,398,164	$19,613,671	$9,428,241	2.1

Source: Communications System Financial and Operating Statements
(1) Operating revenues Include interest income and other miscellaneous income.
(2) O&M and other expenses include customer service, and A&G costs. Operating expenses do not include ILOT internal loan payments to LUS, and other miscellaneous expenses.
(3) Debt service includes the Series 2007 Bonds, Series 2012 Bonds, and Series 2015 Bonds. The 2012 Series Bonds debt service in years 2012 and 2013 was paid for out of capitalized interest. The 2015 debt service includes $4.77 million paid into the refunded Series 2007 Bonds escrow account.

Revenues

The Communications System Internet revenues have consistently increased over the last five years as the Communications System expanded. Cable telephone revenues fluctuate; however, each remain relatively stable over the last five years. While wholesale revenues declined in 2016 when a large wholesale customer left LUS Fiber, they have steadily increased since that date, returning to similar levels. Other revenues have varied and include dark fiber lease, late fees, miscellaneous revenues, colocation, and other items.

Table 7-11
Communications System
Historical Operating Revenues

	2015	2016	2017	2018	2019
Cable TV	$11,926,774	$12,495,096	$12,355,260	$11,646,190	$12,292,735
Internet	12,698,001	14,238,687	15,839,986	17,639,525	19,515,248
Telephone	5,684,204	5,840,121	5,685,137	5,727,349	5,604,970
Wholesale	2,948,151	2,263,413	2,464,909	2,537,726	2,794,419
Other	551,331	849,270	872,104	715,008	609,200
Total Operating Revenues	$33,808,462	$35,686,587	$37,217,396	$38,265,799	$40,816,572

Source: Communications System Financial and Operating Statements

Related to the 2019 Mayor-President's internal audit of LUS Fiber services to LUS, a number of services were identified as potentially noncompliant with the Fair Competition Act. These included a power outage monitoring system for the electric utility and several network service and fiber connections for LUS assets, facilities or equipment. In 2019, LUS eliminated the power outage monitoring system through LUS fiber with the anticipated implementation of its OMS. The elimination of the wholesale service to LUS reduced LUS Fiber Wholesale revenues; however, other wholesale sales and customers have replaced the lost revenue and continue to grow. Prior repayments from LUS Fiber to LUS occurred in 2018 and did not impact 2019 revenues, cash flow or Debt Service Coverage.

Expenses

The cost of goods sold generally increased since 2015 as LUS Fiber adds customers. Cost of goods sold predominantly consists of programming and content costs associated with service offerings. As the number of customers increase, so do the costs of goods sold for the cable and long-distance phone customers. The Plant Specific Expense averages $4.5 million and decreased by 0.5% in 2019. The Plant Specific Expense includes vehicles, furniture, electronics, maintenance, repairs, general maintenance, and other plant related items. The Plant Non-specific Expense have averaged approximately $2.3 million per year. The primary cost item in this category is engineering. Customer Operations have averaged $1.9 million over the last five years and decreased 4.9% in 2019. The administrative costs averaged $3.2 million over the last five years.

Table 7-12
Communications System
Historical Operating Expenses

	2015	2016	2017	2018	2019
Cost of Goods Sold	$7,089,691	$7,382,247	$7,207,212	$7,786,666	$8,697,038
Plant Specific Expense	3,867,317	4,521,047	4,601,990	4,664,168	4,639,539
Plant Non-Specific Expense	2,153,495	2,453,269	2,560,755	2,308,814	1,947,137
Customer Operations	1,394,372	1,597,052	1,911,069	2,278,406	2,166,207
Administrative	2,987,786	3,280,872	3,140,940	3,018,940	3,652,305
Other Operating Expenses	169,212	232,924	232,275	255,989	295,938
Total Operating Expenses	$17,661,873	$19,467,412	$19,654,241	$20,312,983	$21,398,164

Source: Communications System Financial and Operating Statements

Credit Event

The Communications System is financially separate from the Utilities System; however, if the Communications System fails to transfer to the Paying Agent by the 21st day of the month proceeding an interest payment date the amount equal to the debt service on the Communications System Bonds falling due on the first day of the following month (a Credit Event), the Utilities System is required to pay such debt service (but only to the extent of such insufficiency) from revenues available for the payment of Subordinated Indebtedness on deposit in the Capital Additions Fund of the Utilities System. Upon the occurrence of a Credit Event, the Communications System must proceed to discontinue its provision of services, as soon as reasonably practical, taking into consideration minimizing the interruption of services to existing users of the Communications System. Pursuant to the ordinances of the City authorizing the issuance of the Communications System Bonds, the rate covenant contained in the Bond Ordinances were incorporated by reference into the Communications System Bond Ordinance, and the debt service requirements on any Communications System Bonds are treated as amounts payable with respect to Subordinated Indebtedness of the Utilities System for the purposes of the rate covenant under the Bond Ordinances.

Table 7-13 shows the Utilities System DSCR had a Credit Event occur in 2019. If a Credit Event had occurred in 2019, the Utilities System DSCR would have exceeded the minimum coverage requirement of 1.0 required by the Bond Ordinances.

Table 7-13
Communications System
Credit Event Residual Balance Coverage Calculation

Item	2019
Utilities System Net Revenues	$80,534,731
Less Interest Income from LUS Fiber Internal Loans	883,386
Utilities System Net Available Revenues for Debt Service	$79,651,345
Less Utilities System Debt Service (1)	22,732,925
Less Capital Additions Account, Minimum Capital Requirement of 7.5% (2)	11,801,157
Net Available Revenues (Utilities System Residual Revenues) for Communications Debt Service	$45,117,263
Communications System Debt Service (3)	$9,428,241
Utilities System DSCR for Communications System Debt	4.8

Source: LUS and NewGen

(1) Debt service includes include the Series 2010 Bonds, Series 2012 Bonds and Series 2019 Bonds. The Series 2019 Bonds first debt service was due November 1, 2019 (FY 2020). The Series 2010 Bonds will be fully redeemed by the proceeds of the Series 2017 Bonds on November 1, 2020.

(2) The Bond Ordinance requires a minimum amount equal to 7.5% of the Adjusted Revenue deposits into the Receipts Account for the purposes of paying capital costs.

(3) The debt service represents debt service on the Series 2012 Bonds and Series 2015 Bonds.

7.11 Findings and Recommendations

- The Communications System is an LCG department that must compete in the retail marketplace. As such, a significantly different philosophy and approach are necessary for success compared with other municipal functions that are monopolies within the service territory. Products, services, and performance must be cutting edge and aggressively pursued, while at the same time fiscally conservative Additionally, the Communications System could benefit from direct management of its Customer service Department, which serves as both an internal sales department and a retention department, which are currently managed by Lafayette Utilities System. LEDA markets the capability to new potential customers.
- As the result of an internal audit of Communications System services to the Utilities System in 2019, two letters were sent to the LPSC regarding self-reporting of potential violations of the Fair Competition Act and the compliance audit for 2017. As of the date of this report, the LPSC has not stated their intent to open a regulatory proceeding regarding the payments through 2017 for Communications System services to the wastewater lift stations, nor the additional 2019 self-reported potential violations included in the two letters to the LPSC. As the LPSC is currently considering the potential to consolidate the two issues documented in 2017 and 2019, and their intent to open a regulatory proceeding, the 2018 Attest Audit is not complete.
- Staffing issues continue to be at risk for Communications System due to the extremely competitive nature of the business and the potential for employees to make significantly greater salaries in the marketplace. Other issues include performance recognition, overtime, and personnel being at the top of a category with no further

advancement potential. Communications System has been working to fill several engineering positions for over one year without success due to salary limitations. Communications is operating at engineering staffing levels 30% below budgeted amounts.

- Based on interviews with staff and our observations, we conclude that the Communications System Engineering division is not adequately staffed based on the number of customers. As the Communication System matures, it is important to strengthen the organizational structure. Currently the structure is relatively flat with a large number of diverse employees reporting to a single supervisor. It may be beneficial to evaluate and conduct an organizational assessment to optimize reporting and supervisory roles and improve effectiveness given the Communications System's competitive staffing and compensation issues.
- The Communications System's GIS system is separate from the Utilities System's GIS system. Outage reporting and customer service information are on separate platforms from the other systems. GIS data is input by one person on staff. Integrating fiber information and management to a unified GIS platform for all utilities including electric, water, wastewater, and fiber systems could be beneficial in the long-run by establishing one consistent database. However, such a migration would be costly and require more specialized staffing within the Utilities System drafting department. Additionally, the LUS Fiber GIS system is heavily relied on for auto-provisioning and customer service.
- At the current customer levels, the Communications System generates sufficient revenues to meet O&M expense, debt service, capital improvements, inter-utility loan payments, imputed taxes, and all other financial obligations. The financial performance of the Communications System improved in 2019. Given that a majority of Communications System costs are fixed and do not vary when new customers are added to the system, revenues associated with customer growth above current levels will further improve the system's financial performance. The Communications System credit rating from Moody's was also increased in 2019 from A3 to A2.
- Utilities System Residual Revenues Available for Communications Debt Service was sufficient to meet Communications System debt service if a Credit Event had occurred in 2019. The 2019 Utilities System Residual Balance achieved a coverage ratio of 4.8 as compared to the Communications System debt obligations.
- There were no major network outages in 2019.

SECTION 8
CONTINUING DISCLOSURES

Any governmental entity that issues bonds must enter into a continuing disclosure agreement to be in compliance with the Securities and Exchange Commission (SEC) Rule 15c2-12. As part of the continuing disclosure agreement, the Issuer promises to provide certain annual financial information and material event notices to the public. These filings must be made electronically at the EMMA portal. Please refer to Appendix A for the Utilities System Continuing Disclosures, Appendix B for the LPPA Continuing Disclosures, and Appendix C for The Communications System Continuing Disclosures. Each appendix contains a table that cross references the required information with tables in this Report.

Appendix A
CONTINUING DISCLOSURES – UTILITIES SYSTEM

Introduction

Government entities that issue bonds must enter into a continuing disclosure agreement to be in compliance with the SEC Rule 15c2-12. As part of the continuing disclosure agreement, the issuer promises to provide certain annual financial information and material event notices to the public. These filings must be made electronically at the EMMA portal (www.emma.msrb.org).

The Utilities System has the following outstanding debt as of October 31, 2019:

- Utilities Revenue Bonds, Series 2010
- Utilities Revenue Refunding Bonds, Series 2012
- Utilities Revenue Refunding Bonds, Series 2017
- Utilities Revenue Bonds, Series 2019

At the end of 2016, LUS refunded the majority of the Series 2010 bonds with the Series 2017 Bonds. By 2020, the Series 2010 Bonds will be fully redeemed by the proceeds of the Series 2017 Bonds.

The continuing disclosure agreements for the outstanding bonds require that specific tables contained in the Official Statements must be updated annually. This appendix contains these required tables. This appendix contains forward looking financial statements based on NewGen's current expectations and projections about future events and financial trends regarding the Utilities System. Projections as contained herein reflect estimates of what might occur in the future based on the information available to us as of the date of this Report. NewGen cannot predict the future or guarantee future financial performance of the Utilities System. To the extent that assumptions used in these projections vary from those actually observed, financial performance as presented herein will vary from actual performance. NewGen prepared a 10-year projection of financial and operating data for each of the Electric, Water, and Wastewater Systems. Projections are based on NewGen's review of historical operating results, the 2020 Budget, visual observations of the Utilities System assets, and other assumptions and considerations as listed in the Report. The projections prepared by NewGen are for the Projected Period of November 1, 2019 through October 31, 2029. LUS provided actual historical data for the 2015 through 2019 period.

Information and Assumptions Relied Upon

The projected operating results for the Utilities System rely upon the information and assumptions gathered in the course of NewGen's review and summarized below.

1. NewGen assumed LUS will operate and maintain the Utilities System following prudent utility practices. Prudent utility practices mean practices, methods, and acts that would be expected to accomplish the desired results in a workmanlike manner

consistent with applicable laws and other government requirements and reliability, safety, and environmental protection.

2. NewGen assumed LUS will hire and maintain competent personnel. If needed, LUS will provide training to personnel to ensure the safety of personnel and reliability of the utilities.

3. NewGen assumed LUS will maintain and renew any required permits or approvals related to the utilities including electric, water, and wastewater treatment plants and sites.

4. NewGen assumed there will not be further regulation of LUS facilities that require major capital expenditures for LUS to comply beyond those referenced in this Report and included in the LUS CIP.

5. NewGen assumed the Rodemacher Unit 2, Hargis-Hébert Plant, T. J. Labbé Plant and the proposed combustion turbine will be maintained and operated in good condition throughout the Projected Period.

6. NewGen assumed the transmission and distribution systems will be maintained and operated in good condition throughout the Projected Period.

7. NewGen assumed the water treatment plants, ground water wells, and distribution system will be maintained and operated in good condition throughout the Projected Period.

8. NewGen assumed the wastewater treatment plants and collection system will be maintained and operated in good condition throughout the Projected Period.

9. NewGen assumed that all existing contracts will be honored. NewGen assumed that the Utilities System would extend or replace any expired contracts as needed.

10. NewGen assumed standard operating procedure for LUS and did not include the effects of any event outside of LUS' control including events traditionally considered force majeure.

11. NewGen assumed LUS will have adequate coal, natural gas, and water supply for operation of the power plants.

12. NewGen assumed LUS will have adequate water supply from the Chicot aquifer to meet the customers' needs.

13. NewGen assumed that LUS will continue to be a market participant in MISO including providing capacity and meeting all other operational and financial requirements.

14. NewGen assumed adequate transmission access in MISO to buy and sell power as needed.

15. Utilities System financial and operating data was provided by LUS and LCG. LPPA financial and operating data was provided by LUS, LPPA and Cleco staff. Data provided includes historical financial and operating data for 2015 through 2019, the 2020 Budget, and the LPPA Operating and Capital Budget.

16. NewGen relied upon the Integrated Resource Plan (IRP) draft results provided by Burns & McDonnell. The IRP projected the dispatch of LUS' existing generating units, Rodemacher Unit 2 and a proposed combustion turbine. The IRP provided MISO market purchases, MISO market sales, and fuel costs for the LUS and LPPA power plants. Per the IRP, Rodemacher Unit 2 is projected to retire at the end of 2027 and a simple cycle natural gas turbine, F Class will replace the capacity. The IRP also included a solar purchased power agreement for years 2021 through 2029. The projections assume that LUS continues to pay the LPPA debt service even though the plant retires.

17. The structure of LUS' electric rates enable the direct pass through of MISO power supply costs, fuel costs, certain LPPA costs, environmental, purchased power contract costs and other eligible costs directly to customers.

18. Future costs associated with emissions or potential environmental compliance have not been included in the projected operating results. The implementation and financial impacts of the CPP are evolving and currently unknown. The Projected Period does not include any capital or debt associated with compliance with the CPP. All operating expenses associated with environmental compliance are included in the FC and passed through to customers.

19. NewGen relied upon the most recent semiannual Blue Chip Economic Indicator projection of gross domestic product (GDP), dated March 2020. The GDP was used to escalate O&M expenses and capital. Per the Blue Chip forecast, the annual GDP is projected to be 2.1 % over the Projected Period.

20. Projected interest costs associated with future Utilities System bonds were assumed to be 4.6 %. NewGen assumed that future bond terms will be 25 years with level annual debt service. The interest was capitalized for the first three years.

Projected Operating Results Assumptions

Although there are many variables that influence Utilities System projected operating results, a few key variables have an important influence on the financial integrity of the systems. These variables include growth in:

- Electric and water sales
- Adequacy of rates and rate structure
- Capital additions and improvements associated with the Utilities System

Sustained growth in electric and water sales reduces the frequency of rate increases and provides an increasing revenue stream. The Electric System rate structure includes base rates and a monthly FC (Schedule FC). The monthly FC continues on a month-to-month basis until which time the Utilities Director determines that eligible costs warrant an adjustment to the current charge. Schedule FC passes fuel, purchased power, and other eligible costs directly to customers. This mechanism protects LUS from the financial risk associated with unforeseen and potentially detrimental volatility in fuel costs or MISO market power costs.

Finally, each system must be maintained and expanded to meet customer growth and increasing demands. The maintenance and expansion of the Utilities System is capital intensive. This ensures a high level of reliability.

Revenue Projection

Historically, electric and water sales have shown steady growth as described earlier in this Report. Projected operating results assume that electric retail sales (kWh) will grow at an average annual rate of approximately 0.3% over the Projected Period. Water retail sales project growth at an average annual rate of approximately 0.6%, and wholesale sales project growth at an average annual rate of approximately 2.1% over the Projected Period. Wastewater sales are a function of water retail sales.

The revenue projection assumes periodic rate increases. Rate increases are required to meet system operating costs, debt service coverage, capital planning requirements, the ILOT test, and minimum cash reserve requirements.

Expense Projection

The Utilities System's single largest expense is related to electric purchased power and the power generation function. The projection of purchased power expenses is based on IRP results provided by Burns & McDonnell. The IRP results were the basis for LUS fuel costs associated with the Rodemacher Unit 2, T. J. Labbé Plant, Hargis-Hébert Plant, and the proposed combustion turbine in addition to the renewable energy contract expenses. Electric System production expenses include LPPA costs as a power purchase cost.

The structure of LUS electric rates and Schedule FC enables the direct pass through of the following: MISO market purchases less market sales, transmission associated with purchased power, capacity and energy contracts, the REC contract, LPPA fuel and fuel handling costs, LPPA rail car debt service, LPPA MATS debt service, LPPA MATS O&M, LPPA reagents, LUS fuel costs, hydroelectric purchased power contract, TEA costs and other eligible costs and credits to customers. The Utilities Director may adjust Schedule FC monthly to ensure that the charge adequately recovers eligible costs as closely as possible. As listed above, certain LPPA costs are included in the FC calculation. In 2019, approximately 82% of LPPA debt service was passed through Schedule FC. LUS Electric System base rates recover the remaining LPPA debt service obligation.

Other Electric System operating expenses include transmission, distribution, customer, and A&G expenses.

Water System operating expenses include production, distribution, customer, and A&G expenses. Water production is the largest expense for the Water System.

Wastewater System operating expenses include treatment, collection, customer, and A&G. Wastewater treatment is the largest expense for the Wastewater System.

Debt Service

As of the date of this Report, the Utilities System debt service includes the Series 2010 Bonds, Series 2012 Bonds, Series 2017 and Series 2019 Bonds. New debt service includes a bond issue in year 2027 for the proposed combustion turbine. The projected debt service coverage ratio exceeds the minimum requirement of 1.0.

Other Expenses

Other expense items include ILOT, normal capital and special equipment, and other miscellaneous expenses. Normal capital and special equipment are projected based on the 2020 Budget and escalated at inflation.

In Lieu of Tax

The Utilities System ILOT calculation provides for an ILOT payment equal to 12% of the Receipts Fund deposits. To be eligible to make the ILOT payment, the Utilities System must first pass an ILOT Test. The ILOT test ensures that the Utilities System retains sufficient cash to meet capital obligations. If cash available after payment of operating expenses and debt service, less 7.5% of the Non-fuel Revenues, is greater than 12% of the Receipts Fund, the Utilities System passes the test and makes the ILOT payment to the City. Should the Utilities System fail the ILOT test, the Utilities System pays the cash available after debt service less 7.5% of the Non-fuel Revenues.

Capital Improvement Program

During the Projected Period, the Utilities System CIP reflects capital projects designed to upgrade, renew, and expand the system to meet customer growth requirements. In this Report, the capital plan for years 2020 through 2024 was based on the 2020 Budget and 2025 through 2029 was based on historical spending.

Bond Reserve Fund and Cash Available

Cash available reflects remaining funds available to the Utilities System once all other credit obligations of the Utilities System are satisfied. LCG established a financial objective that requires a minimum cash balance of $8,000,000 to be held in an Operation and Maintenance Fund. The Operation and Maintenance Fund resides in the Operating Fund providing a cash reserve to meet system O&M expense requirements. Once O&M expense and debt service obligations are met by LUS, accumulated cash balances are held in a Capital Additions Fund and are applicable to capital projects or other lawful uses. The Projected Period assumes that capital additions for the Utilities System will be paid with a combination of cash balances available in the Capital Additions Fund and new debt.

Cross Reference

In an effort to minimize duplication of data, the following table is provided to assist in cross referencing the information contained in the Continuing Disclosures with the information contained in this Report.

City of Lafayette, Utilities Revenue Bonds, Series 2010

Official Statement Section	Official Statement Page	Official Statement Table Title	Report Reference
Trends in Finances, page 32-34	33	Lafayette City-Parish Consolidated Government, Lafayette Utilities System Income Statements	Table A-1
	35	Historical Debt Service Coverage Calculation	Table 3-3

City of Lafayette, Utilities Revenue Refunding Bonds, Series 2012

Official Statement Section	Official Statement Page	Official Statement Table Title	Report Reference
Trends in Finance, page 35	35	Lafayette City-Parish Consolidated Government, Lafayette Utilities System Income Statements	Table A-1
	36	Historical Debt Service Coverage Calculation	Table 3-3

City of Lafayette, Utilities Revenue Refunding Bonds, Series 2017

Official Statement Section	Official Statement Page	Official Statement Table Title	Report Reference
Trends in Finances, page 36-37	36	Lafayette City-Parish Consolidated Government, Lafayette Utilities System Income Statements	Table A-1
	37	Historical Debt Service Coverage Calculation	Table 3-3

City of Lafayette, Utilities Revenue Bonds, Series 2019

Official Statement Section	Official Statement Page	Official Statement Table Title	Report Reference
Trends in Finances, page 38-39	38	Lafayette City-Parish Consolidated Government, Lafayette Utilities System Income Statements	Table A-1
	39	Historical Debt Service Coverage Calculation	Table 3-3

Table A-1
Utilities System LUS Income Statements

	2015	2016	2017	2018	2019
Operating Revenues					
Electric Base Rates	$96,291,739	$95,194,646	$98,059,005	$106,419,392	$104,141,323
Electric Retail Fuel Adjustment	84,910,901	78,153,587	76,829,537	72,872,661	73,101,002
Water	18,028,081	18,286,651	19,458,484	21,220,243	20,524,232
Wastewater	28,791,165	28,752,436	30,305,358	31,690,825	30,911,782
Fiber	0	0	0	0	0
Total Operating Revenues	$228,021,885	$220,387,318	$224,652,384	$232,203,121	$228,678,339
Operating Expenses					
Electric Fuel & Purch Power	$88,717,783	$85,345,312	$89,403,214	$88,632,979	$79,275,605
Electric Other Production	8,190,689	6,902,595	7,573,414	5,823,932	5,097,410
Other Electric	33,098,450	34,446,286	36,370,497	36,710,947	35,027,667
Water	13,099,239	13,761,106	13,965,819	14,260,225	14,227,206
Wastewater	17,566,682	18,295,151	18,685,538	18,737,163	19,211,514
Fiber	0	0	0	0	0
Total Operating Expenses	$160,672,843	$158,750,451	$165,998,482	$164,165,246	$152,839,402
Net Operating Revenues	$67,349,042	$61,636,867	$58,653,902	$68,037,875	$75,838,938
Depreciation	$22,881,380	$23,601,958	$23,960,817	$24,555,286	$25,130,355
Other Income					
Interest Income	$1,426,311	$1,704,947	$2,020,622	$2,868,340	$4,695,793
Unrealized Gain/Loss on Invs	91,526	117,778	(283,409)	(46,380)	399,671
Amortization of Debt Premium	3,028,445	3,020,974	2,995,867	3,544,254	3,639,998
Water Tapping Fees	107,420	78,320	64,240	72,240	56,760
Communications Lease Income	36,952	27,648	25,378	0	0
Contributions in Aid of Construction	0	56,063	128,155	304,557	0
Misc. Non-Operating Revenue	3,414,729	2,566,471	3,335,924	4,188,986	3,141,166
Total Other Income	$8,105,384	$7,572,201	$8,286,777	$10,931,997	$11,933,388
Other Expenses					
Loss on Disposition of Property	$313,714	$329,136	$369,488	$398,883	$309,767
Interest Expense	10,623,334	10,970,238	8,916,835	9,622,905	10,362,925
Amortization on Plant	1,406,190	989,789	782,767	608,729	600,810
Amortization – Other	1,269,525	1,266,821	1,264,007	1,695,453	1,586,946
Interest on Customer Deposits	3,206	821	1,688	4,307	5,331
Tax Collections/Non-Operating	0	0	0	0	0
Misc. Non-Operating Expense	1,383,331	1,589,252	3,182,762	2,844,559	3,369,807
Total Other Expenses	$14,999,299	$15,146,058	$14,517,546	$15,174,837	$16,235,585

Table A-1
Utilities System LUS Income Statements

	2015	2016	2017	2018	2019
Net Income Before ILOT	$37,573,746	$30,461,053	$28,462,316	$39,239,748	$46,406,385
ILOT	$22,847,494	$23,306,557	$22,568,235	$23,708,786	$25,051,002
Net Income	$14,726,252	$7,154,496	$5,894,081	$15,530,962	$21,355,383
Net Position, Beginning (1)	$482,229,051	$496,955,303	$505,214,402	$503,819,102	$519,350,066
Net Position, Ending	$496,955,303	$504,109,800	$511,108,483	$519,350,066	$540,705,447

Source: LUS Financial and Operating Statements, 2015 through 2019, audited.

Note: May vary slightly from LCG Comprehensive Annual Financial REPORT due to rounding.

(1) The Net Position Beginning balance was restated.

Appendix B
CONTINUING DISCLOSURES - LPPA

Introduction

Government entities that issue bonds must enter into a continuing disclosure agreement to be in compliance with the SEC Rule 15c2-12. As part of the continuing disclosure agreement, the issuer promises to provide certain annual financial information and material event notices to the public. These filings must be made electronically at the EMMA portal (www.emma.msrb.org).

LPPA has the following outstanding debt as of October 31, 2019:

- Electric Revenue Bonds, Series 2012
- Electric Revenue Refunding Bonds, Series 2015

The continuing disclosure agreements for the outstanding bonds require that specific tables contained in the Official Statements must be updated annually. This appendix contains these required tables. This appendix contains forward looking financial statements based on our current expectations and projections about future events and financial trends regarding LPPA. Projections as contained herein reflect estimates of what may occur in the future based on the information available to us as of the date of this Report. NewGen cannot predict the future or guarantee future financial performance of LPPA. To the extent that assumptions used in these projections vary from those actually observed, financial performance as presented herein will vary from actual performance. NewGen prepared a 10-year projection of financial and operating data for LPPA. Projections are based on our review of historical operating results, Cleco's budget, visual observations of LPPA assets, and other assumptions and considerations as listed in the Report. The projections prepared by NewGen are for the Projected Period of November 1, 2019 through October 31, 2029. LUS provided actual historical data for the 2015 through 2019 period.

Information and Assumptions Relied Upon

Although there are many variables that influence LPPA's projected operating results, a few key variables have an important influence on the financial integrity of the systems. These variables include growth in:

- LUS electric sales growth
- Electric System rate structure
- Capital additions and improvements associated with LPPA

The Electric System growth is expected to remain steady with an average annual increase in energy sales of approximately 0.3% through the Projected Period. Growth and related rate revenues maintain LUS' ability to meet debt service requirements.

All LPPA costs are paid by LUS. The LPPA costs are treated as purchased power costs to LUS. The Electric System rate structure includes an FC that passes certain costs directly to

customers. The rate structure allows a significant portion of the LPPA costs to be recovered through the FC. The FC passes through any fuel or environmental related costs to the customers without the need for a formal rate increase and City-Parish Council approval. The following LPPA costs are passed through the LUS FC: fuel cost, MATS O&M costs, debt service associated with the rail cars, and debt service associated with the MATS project. The remainder of the LPPA expenses are recovered through the electric base rates (customer charge, demand charge, energy charge). Over the Projected Period, there are no base rate increases associated with the Electric System.

Revenue Projection

LPPA projected revenues reflect the full cost recovery per the PSC. Therefore, revenues are equivalent to debt service, capital, and meeting reserve requirements.

Expense Projection

LPPA's single largest expense is fuel. Rodemacher Unit 2 is projected to have an average capacity factor of 54% through the end of 2027. The capacity factor varies based on schedule outages and forecast MISO market prices.

In December 2013, LUS became a full MISO market participant as a Local Balancing Authority, with TEA designated to handle day-ahead schedules. Since becoming a MISO participant, LUS now generates power for and purchases power from the MISO market. LUS has the ability to schedule Rodemacher Unit 2 operation at certain levels to meet LUS load or other contractual obligations. Available capacity above the scheduled amount may be economically dispatched into the MISO market. A further discussion on MISO can be found under Utilities System-Electric System description within this Report.

NewGen relied upon the Integrated Resource Plan (IRP) draft results provided by Burns & McDonnell. The IRP projected the dispatch of LUS' existing generating units, Rodemacher Unit 2 and a proposed combustion turbine. The IRP provided MISO market purchases, MISO market sales, and fuel costs for the LUS and LPPA power plants. Per the IRP, Rodemacher Unit 2 is projected to retire at the end of 2027 and a simple cycle natural gas turbine, F Class will replace the capacity. The IRP also included a solar purchased power agreement for years 2021 through 2029. The structure of LUS' electric rates enable the direct pass through of MISO power supply costs, LUS fuel costs, environmental, and other eligible costs directly to customers.

All other Operating Expenses were provided by Cleco for years 2020 through 2024. Beyond year 2023, operating expenses were escalated at inflation. Beginning in 2028, there were minimal O&M expenses assumed as Rodemacher 2 was assumed to be retired.

Debt Service

An important LPPA non-fuel cost is related to debt service. LPPA fuel, O&M expenses, debt service associated with MATS upgrades, and debt service associated with rail cars are included in the LUS FC calculation. In 2019, approximately 82% of LPPA debt service was passed through Schedule FC. LUS Electric System base rates recover the remaining LPPA debt service obligation.

LPPA debt service includes the Series 2012 Bonds and Series 2015 Bonds. Projected operating results assume no future bond issues to meet LPPA capital requirements. The debt service coverage ratio meets the minimum requirement of 1.0. Because LUS pays 100% of LPPA costs, Operating Revenues, provided exclusively from LUS, generally equal Operating Costs including expenses, debt service and capital spending. To the extent that debt service coverage is greater than 1.0, any available cash is applied to capital improvement projects.

Bond monies associated with Series 2012 Bonds were used to install environmental controls to comply with MATS, NO_x, and SO_2 requirements; and other capital improvements required to maintain the operation and availability of Rodemacher Unit 2.

Capital Improvement Program

During the Projected Period, the LPPA CIP reflects capital projects designed to maintain the assets for reliability. The capital projects include environmental compliance projects, replace reheater tubing sections, replace control system, low pressure blade replacement, and other projects related to reliability or improving performance.

Bond Reserve Fund and Cash Available

LPPA's current Bond Reserve Fund Balance is approximately $9.6 million as required by the bond ordinance. LPPA also maintains a Reserved and Contingency Fund of approximately $5.3 million and a Fuel Cost Stability Fund of approximately $4.5 million.

Cross Reference

In an effort to minimize duplication of data, the following table is provided to assist in cross referencing the information contained in the Continuing Disclosures with the information contained in this Report.

Lafayette Public Power Authority Electric Revenue Bond, Series 2012

Official Statement Section	Official Statement Page	Official Statement Table Title	Report Reference
Debt Service Requirements, page 4	4	Series 2012 Bonds Debt Service	Table B-1
Summary of Historical Operating Results, page 18	18	LPPA Historical Operating Results	Table B-3
Trend in Finances, page 18-22	19	Lafayette Public Power Authority Summary Statements of Revenues, Expenses and Changes in Fund Net Position	Table B-4
	20	Lafayette Public Power Authority Summary Statements of Cash Flows	Table B-5
Unit 2, page 22 – 33	24	Unit No. 2 Operating Statistics	Table 4-12
	25	Annual Operating Expenses - LPPA's Share of Unit No. 2	Table B-2
City of Lafayette Utilities System, page 33-57	40	Electric System Largest Retail Customer	Table B-6
	40	Historical Electric Retail and Wholesale Sales	Table 4-1
	41	Proposed Electric System Facilities (Five Year Plan)	Table 3-5
	42	Electric Sales and Revenue	Table B-10
	43	Electric System Operations and Maintenance Expense Forecast	Table B-11
	44	Wastewater System Largest Retail Customers	Table B-8
	45	Historical Wastewater Retails Flows (000 Gallons)	Table 6-1
	45	Proposed Wastewater System Facilities (Five Year Plan)	Table 3-5
	46	Wastewater Sales and Revenue	Table B-12
	47	Wastewater System Operations and Maintenance Expense Forecast	Table B-13
	49	Water System Largest Retail Customers	Table B-7
	49	Historical Water Retail and Wholesale Sales	Tables 5-1 & B-14
	50	Proposed Water System Facilities (Five Year Plan)	Table 3-5
	51	Water Sales and Revenue	Table B-14
	51	Water System Historical and Projected Operating Expenses	Table B-15
	52	Electric System Sales and Revenues by Rate Class	Tables 4-2 & 4-26
	53	Electric Residential Rate Comparison	Table 4-20
	53	Electric Commercial Rate Comparison	Table 4-21
	56	Lafayette Utilities Systems Income Statements	Table A-1
	57	Summary Statement of Revenues, Expenses, and Changes in Fund Net Position	Table B-9
Appendix B-Financial & Statistical Data	B-3	Summary Debt Statement	See Appendix D

Lafayette Public Power Authority Electric Revenue Bond, Series 2015

Official Statement Section	Official Statement Page	Official Statement Table Title	Report Reference
Debt Service Requirements, page 4-5	5	Series 2015 Bonds Debt Service	Table B-1
Summary of Historical Operating Results, page 18	18	LPPA Historical Operating Results	Table B-3
Trend in Finances, page 18-21	19	LPPA Summary of Revenues, Expenses and Changes in Fund Net Position	Table B-4
	20	LPPA Statements of Cash Flows	Table B-5
Rodemacher Unit 2, page 21 - 32	23	Rodemacher Unit No. 2 Operating Statistics	Table 4-12
	24	Annual Operating Expenses - LPPA's Share of Unit No. 2	Table B-2
City of Lafayette Utilities System, page 32-59	39	Electric System Sales and Revenues by Rate Class	Tables 4-2 & 4-26
	40	Electric Residential Rate Comparison	Table 4-20
	40	Electric Commercial Rate Comparison	Table 4-21
	41	Historical Electric Retail and Wholesale Sales	Table 4-1
	42	Electric Sales and Revenue	Table B-10
	43	Electric System Operations and Maintenance Expense Forecast	Table B-11
	46	Wastewater System Largest Retail Customers	Table B-8
	46	Wastewater System Residential Rate Comparison	Table 6-6
	47	Wastewater System Commercial Rate Comparison	Table 6-7
	47	Historical & Projected Wastewater Retail Collection	Table B-12
	48	Wastewater Historical Sales & Projected Revenue	Table B-12
	49	Wastewater System Historical and Projected Operations & Maintenance Expense	Table B-13
	51	Water System Largest Retail Customers	Table B-7
	52	Water System Residential Rate Comparison	Table 5-17
	52	Water System Commercial Rate Comparison	Table 5-18
	53	Historical & Projected Water System Retail & Wholesale Sales	Table B-14
	54	Water Sales & Revenue	Table B-14
	55	Water System Historical and Projected Expenses	Table B-15
	57	Lafayette Utilities Systems Income Statements	Table A-1
	58	Summary Statement of Revenues, Expenses, and Changes in Fund Net Position	Table B-9
Appendix B-Financial & Statistical Data	B-4	Summary Debt Statement	See Appendix D

Table B-1
Debt Service Requirements

	Series 2007 Bonds		Series 2012 Bonds		Series 2015 Bonds		Total Debt Service Requirement		
Due Date	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Total
11/1/2014	$605,000	$737,078	$2,255,000	$1,362,975	$0	$0	$2,860,000	$2,100,053	$4,960,053
5/1/2015	$0	$724,978	$0	$1,329,150	$0	$0	$0	$2,054,128	$2,054,128
11/1/2015	$630,000	$724,978	$2,325,000	$1,329,150	$0	$0	$2,955,000	$2,054,128	$5,009,128
5/1/2016	$0	$26,900	$0	$1,282,650	$0	$532,936	$0	$1,842,486	$1,842,486
11/1/2016	$660,000	$26,900	$2,415,000	$1,282,650	$90,000	$571,003	$3,165,000	$1,880,553	$5,045,553
5/1/2017	$0	$13,700	$0	$1,234,350	$0	$570,103	$0	$1,818,153	$1,818,153
11/1/2017	$685,000	$13,700	$2,510,000	$1,234,350	$95,000	$570,103	$3,290,000	$1,818,153	$5,108,153
5/1/2018	$0	$0	$0	$1,184,150	$0	$569,153	$0	$1,753,303	$1,753,303
11/1/2018	$0	$0	$2,610,000	$1,184,150	$800,000	$569,153	$3,410,000	$1,753,303	$5,163,303
5/1/2019	$0	$0	$0	$1,131,950	$0	$561,153	$0	$1,693,103	$1,693,103
11/1/2019	$0	$0	$2,715,000	$1,131,950	$815,000	$561,153	$3,530,000	$1,693,103	$5,223,103
5/1/2020	$0	$0	$0	$1,104,800	$0	$548,928	$0	$1,653,728	$1,653,728
11/1/2020	$0	$0	$2,770,000	$1,104,800	$845,000	$548,928	$3,615,000	$1,653,728	$5,268,728
5/1/2021	$0	$0	$0	$1,049,400	$0	$536,253	$0	$1,585,653	$1,585,653
11/1/2021	$0	$0	$2,880,000	$1,049,400	$865,000	$536,253	$3,745,000	$1,585,653	$5,330,653
5/1/2022	$0	$0	$0	$991,800	$0	$523,278	$0	$1,515,078	$1,515,078
11/1/2022	$0	$0	$2,995,000	$991,800	$900,000	$523,278	$3,895,000	$1,515,078	$5,410,078
5/1/2023	$0	$0	$0	$916,925	$0	$505,278	$0	$1,422,203	$1,422,203
11/1/2023	$0	$0	$3,145,000	$916,925	$930,000	$505,278	$4,075,000	$1,422,203	$5,497,203
5/1/2024	$0	$0	$0	$854,025	$0	$486,678	$0	$1,340,703	$1,340,703
11/1/2024	$0	$0	$3,275,000	$854,025	$970,000	$486,678	$4,245,000	$1,340,703	$5,585,703
5/1/2025	$0	$0	$0	$772,150	$0	$467,278	$0	$1,239,428	$1,239,428
11/1/2025	$0	$0	$3,435,000	$772,150	$1,010,000	$467,278	$4,445,000	$1,239,428	$5,684,428
5/1/2026	$0	$0	$0	$686,275	$0	$442,028	$0	$1,128,303	$1,128,303
11/1/2026	$0	$0	$3,610,000	$686,275	$1,065,000	$442,028	$4,675,000	$1,128,303	$5,803,303
5/1/2027	$0	$0	$0	$596,025	$0	$415,403	$0	$1,011,428	$1,011,428

Table B-1
Debt Service Requirements

	Series 2007 Bonds		Series 2012 Bonds		Series 2015 Bonds		Total Debt Service Requirement		
Due Date	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Total
11/1/2027	$0	$0	$3,790,000	$596,025	$1,105,000	$415,403	$4,895,000	$1,011,428	$5,906,428
5/1/2028	$0	$0	$0	$501,275	$0	$398,828	$0	$900,103	$900,103
11/1/2028	$0	$0	$3,980,000	$501,275	$1,140,000	$398,828	$5,120,000	$900,103	$6,020,103
5/1/2029	$0	$0	$0	$401,775	$0	$381,016	$0	$782,791	$782,791
11/1/2029	$0	$0	$4,175,000	$401,775	$4,325,000	$381,016	$8,500,000	$782,791	$9,282,791
5/1/2030	$0	$0	$0	$297,400	$0	$272,891	$0	$570,291	$570,291
11/1/2030	$0	$0	$4,385,000	$297,400	$4,505,000	$272,891	$8,890,000	$570,291	$9,460,291
5/1/2031	$0	$0	$0	$231,625	$0	$199,684	$0	$431,309	$431,309
11/1/2031	$0	$0	$4,520,000	$231,625	$4,690,000	$199,684	$9,210,000	$431,309	$9,641,309
5/1/2032	$0	$0	$0	$118,625	$0	$82,434	$0	$201,059	$201,059
11/1/2032	$0	$0	$4,745,000	$118,625	$4,885,000	$82,434	$9,630,000	$201,059	$9,831,059
5/1/2033	$0	$0	$0	$0	$0	$0	$0	$0	$0
11/1/2033	$0	$0	$0	$0	$0	$0	$0	$0	$0

Source: LUS and Official Statements

Table B-2
Annual Operating Expenses – LPPA's Share of Unit No. 2

	2015	2016	2017	2018	2019
LPPA Share (MWh)	1,037,447	797,928	825,089	1,062,984	1,045,878
Fuel	$33,966,979	$26,658,901	$26,620,153	$29,566,005	$27,808,739
Operations	2,577,179	2,799,380	3,191,851	3,591,720	2,731,655
Maintenance	5,286,052	5,857,500	7,115,532	5,376,070	5,357,042
Administrative & General	2,639,075	2,684,288	2,729,322	2,778,370	2,793,274
Total Operating Expenses	$44,469,286	$38,000,069	$39,656,858	$41,312,164	$38,690,711
Total Operating Expenses $/MWh	42.86	47.62	48.06	38.86	36.99
Total Operating Expenses Less Fuel $/MWh	10.12	14.21	15.80	11.05	10.40

Source: LPPA Manager's Monthly Reports

Table B-3
LPPA Historical Revenues, Expenses, Balances Available for Debt Service

	2015	2016	2017	2018	2019
Total Operating Revenues	$51,723,772	$48,326,966	$47,753,386	$50,740,877	$47,202,751
Total Operating Expenses	44,469,286	38,000,068	39,656,858	41,312,164	38,690,711
Net Operating Revenues	$7,254,487	$10,326,898	$8,096,528	$9,428,713	$8,512,040
Other Income	$109,427	$190,946	$321,942	$548,007	$1,035,324
Balance Available for Debt Service	$7,363,914	$10,517,844	$8,418,470	$9,976,720	$9,547,364
Debt Service [1]	7,063,256	6,888,039	6,926,306	6,916,606	6,916,206
Balance After Debt Service	$300,658	$3,629,805	$1,492,164	$3,060,113	$2,631,158
Debt Service Coverage Ratio [2]	1.0	1.5	1.2	1.4	1.4

Source: LPPA Manager's Monthly Reports

(1) Debt service includes the Series 2007 Bonds, Series 2012 Bonds and Series 2015 Bonds. At the beginning of 2015, LPPA refunded the majority of the Series 2007 bonds. The Series 2007 Bonds final payment was November 1, 2017.

(2) To the extent that Debt Service Coverage Ratio is greater than 1.0, any available cash is applied to capital improvement projects.

Table B-4
Summary Statements of Revenues, Expenses, and Changes in Fund Net Position

	2015	2016	2017	2018	2019
Operating Revenues					
Sales of Electric Energy					
City of Lafayette (LUS)	$51,723,772	$48,326,966	$47,753,386	$50,740,877	$47,202,751
Operating Expenses					
Production	$41,830,211	$35,315,781	$36,927,535	$38,533,794	$35,897,437
Administrative & General	2,639,075	2,684,288	2,729,322	2,778,370	2,793,275
Depreciation	1,423,481	1,453,184	1,479,342	1,727,062	2,314,996
Total Operating Expenses	$45,892,767	$39,453,253	$41,136,200	$43,039,226	$41,005,708
Non-Operating Revenues (Expenses)					
Other	$503,446	($27,595)	$2,294,264	$485,521	$631,586
Investment Earnings	109,427	190,946	321,942	548,007	1,035,324
Interest on Long Term Debt	(4,108,256)	(3,723,039)	(3,636,306)	(3,506,606)	(3,386,206)
Gain (Loss) on Disposition of Property	(227,456)	(123,848)	(355,715)	(253,343)	73,948
Total	($3,722,839)	($3,683,536)	($1,375,816)	($2,726,421)	($1,645,350)
Net Income (Loss) for the Period	$2,108,166	$5,190,178	$5,241,371	$4,975,230	$4,551,693
Fund Net Position Beginning (1)	$69,305,675	$71,413,842	$76,604,019	$81,845,390	$86,820,620
Fund Net Position, End of Year	$71,413,842	$76,604,019	$81,845,390	$86,820,620	$91,372,313

Source: LPPA Financial Report

(1) The Net Position Beginning balance was restated.

Table B-5
Summary Statements of Cash Flows

	2015	2016	2017	2018	2019
Cash Flows from Operating Activities					
Receipts from customers	$51,723,772	$48,326,966	$47,753,386	$50,740,877	$47,202,751
Payments to suppliers for goods & services	(42,928,870)	(38,041,403)	(37,860,976)	(33,881,255)	(42,037,771)
Payments to employees and for employee related costs	(382,355)	(424,247)	(469,117)	(453,085)	(437,879)
Net cash provided (used) by operating activities	$8,412,547	$9,861,316	$9,423,293	$16,406,537	$4,727,101
Cash Flows from Capital and Related Financing Activities					
Proceeds from Issuance of Bonds	$0	$29,035,000	$0	$0	$0
Premium on Issuance on Bonds	0	2,077,808	0	0	0
Payment to escrow agent	0	(30,721,903)	0	0	0
Principal payments on bonds	(2,955,000)	(3,165,000)	(3,290,000)	(3,410,000)	(3,530,000)
Interest Paid	(4,108,256)	(3,723,039)	(3,636,306)	(3,506,606)	(3,386,206)
Debt issuance costs	(155,131)	(379,850)	0	0	0
Preliminary survey investigation costs paid	0	0	0	0	0
Proceeds from redesignation of capital assets	0	0	0	0	0
Purchase and construction of capital assets	(13,316,634)	(6,020,304)	(4,205,782)	(2,612,658)	(1,786,815)
Net cash provided (used) by capital and related financing activity	($20,535,021)	($12,897,288)	($11,132,088)	($9,529,264)	($8,703,021)
Cash Flows from Investing Activities					
Sales (purchases) of investments - net	$0	($2,300,000)	($5,200,000)	($11,700,000)	($14,920,000)
Maturities of Investments	0	2,500,000	5,181,000	2,000,000	15,500,000
Interest Earnings	96,958	188,630	299,780	578,932	973,513
Other	0	0	0	0	0
Net Cash provided by investing activities	$96,958	$388,630	$280,780	($9,121,068)	$1,553,513
Net increase (decrease) in cash and cash equivalents	($12,025,516)	($2,647,342)	($1,428,015)	($2,243,795)	($2,422,407)
Cash and cash equivalents, beginning of year	$44,640,102	$32,614,586	$29,967,244	$28,539,229	$26,295,434
Cash and cash equivalents, end of year	$32,614,586	$29,967,244	$28,539,229	$26,295,434	$23,873,027

Source: LPPA Financial Report

Table B-6
Largest Customers (Electric)

Customer	Type of Business	2019 Revenues
University of Louisiana	Higher Education	$11,633,493
Lafayette General Hospital	Health Care	$2,870,350
Our Lady Of Lourdes	Health Care	$1,817,972
Lafayette Consolidated Gov-Street Lighting	Local Government	$1,626,061
Stuller Inc.	Jewelry Manufacturing	$1,027,876
Halliburton - Gulf Coast Campus	Refining / Petrochemical	$788,456
University Hospital & Clinics Inc	Health Care	$716,066
International Paper	Paper Products	$685,585
Catalyst Recovery	Refining / Petrochemical	$647,407
Lafayette Consolidated Gov-S WW Plant	Local Government	$610,092

Source: LUS

Table B-7
Largest Customers (Water)

Customer	Type of Business	2019 Revenues
University of Louisiana	Higher Education	$354,025
Lafayette General Hospital	Health Care	$153,135
Our Lady Of Lourdes	Health Care	$107,133
Borden Company	Dairy Products	$79,679
Bayou Shadows Apartments	Apartment Complex	$68,472
Lafayette Parish Correctional Center	Correctional Facility	$54,297
Health & Beauty Solutions, Inc.	Polymer Manufacturer	$45,565
University Hospital & Clinics, Inc.	Health Care	$44,473
Lafayette General Southwest	Health Care	$40,720
Lafayette Parish Sheriff's Office	Correctional Facility	$38,160

Source: LUS

Table B-8
Largest Customers (Wastewater)

Customer	Type of Business	2019 Revenues
University of Louisiana	Higher Education	$933,169
Borden Company	Dairy Products	$350,946
Lafayette General Hospital	Health Care	$253,295
Bayou Shadows Apartments	Apartment Complex	$197,262
Our Lady of Lourdes	Health Care	$156,468
Lafayette Parish Correctional Center	Correctional Facility	$141,906
Westport Linen Services	Commercial Laundry	$136,283
Lafayette Parish Sheriff's Office	Correctional Facility	$116,077
Pinhook South Apartments	Apartment Complex	$115,072
South Point Apartments	Apartment Complex	$105,441

Source: LUS

Table B-9
Summary Statement of Revenue, Expenses, and Changes in Fund Net Position, City of Lafayette Utilities System, Five Years Ending October 31

	2015	2016	2017	2018	2019
Operating Revenues					
Charges for Services	$223,635,506	$216,475,270	$220,360,405	$227,771,102	$224,216,058
Miscellaneous	5,012,799	4,506,864	4,995,876	5,014,740	5,284,370
Total Operating Revenues	$228,648,305	$220,982,134	$225,356,281	$232,785,842	$229,500,428
Operating Expenses					
Production, Collection, & Cost of Services	$106,150,834	$102,175,581	$107,080,241	$104,674,970	$95,182,077
Transmission, Distribution & Treatment	28,292,560	29,733,282	30,885,632	31,179,941	30,327,322
Administrative & General & Customer	26,229,450	26,841,588	28,032,609	28,310,334	27,330,002
ILOT	22,847,494	23,306,557	22,568,235	23,708,786	25,051,002
Depreciation & Amortization on Plant	24,287,570	24,591,747	24,743,583	25,164,015	25,731,165
Total Operating Expenses	$207,807,909	$206,648,755	$213,310,300	$213,038,045	$203,621,568
Operating Income	$20,840,397	$14,333,379	$12,045,981	$19,747,797	$25,878,860
Non-Operating Revenues (Expenses)					
Investment Earnings	$1,517,837	$1,822,725	$1,737,213	$2,821,960	$5,095,464
Interest Expense	(8,867,619)	(9,216,905)	(7,186,663)	(7,778,412)	(8,315,204)
Bond Issuance Costs	0	0	0	0	(1,052,697)
Gain (Loss) on sale/disposal of assets	(313,714)	(329,136)	(1,006,340)	(398,883)	(309,767)
Federal Grant Revenue	932,987	497,562	(369,488)	0	1,031,268
Hurricane	0	(510,963)	(214,126)	(289,755)	(1,315,835)
Non-employer pensions contributions	524,936	539,204	542,688	556,122	549,266
Other	91,428	(37,431)	6,710	306,798	(173,356)
Total Non-Operating Revenues (Expenses)	($6,114,145)	($7,234,944)	($6,490,006)	($4,782,170)	($4,490,861)
Income Before Contributions	$14,726,252	$7,098,435	$5,555,974	$14,965,627	$21,387,999
Capital Contributions	$0	$56,063	$338,106	$565,337	(32,618)
Change in Net Position	$14,726,252	$7,154,498	$5,894,080	$15,530,964	$21,355,381
Net Position, Beginning [1]	$482,229,051	$496,955,303	$505,214,402	$503,819,102	$519,350,066
Net Position, Ending	$496,955,303	$504,109,801	$511,108,483	$519,350,066	$540,705,447

Source: LCG Comprehensive Annual Financial Report (CAFR)

(1) The Net Position Beginning balance was restated.

Table B-10
Utilities System Electric Sales and Revenue

Year	Retail Sales (MWh) [1]	Retail Sales: Base Rate Revenue [2]	Retail Sales: FC Revenue	Other Revenue [3]	Total Operating Revenue
2015	2,050,434	$92,626,681	$84,910,901	$4,506,581	$182,044,163
2016	2,027,945	$91,631,825	$78,153,587	$4,568,740	$174,354,151
2017	1,980,653	$94,552,196	$76,829,537	$4,678,770	$176,060,504
2018	2,031,847	$102,886,777	$72,872,661	$5,196,252	$180,955,690
2019	2,004,310	$100,836,993	$73,101,002	$6,027,891	$179,965,886
2020	2,003,517	$101,809,148	$81,102,368	$4,465,884	$187,377,400
2021	2,002,724	$101,856,464	$69,794,931	$4,636,135	$176,287,530
2022	2,010,412	$102,298,102	$73,400,142	$4,807,802	$180,506,046
2023	2,017,139	$102,548,152	$75,017,399	$4,997,139	$182,562,691
2024	2,023,866	$102,766,121	$77,615,261	$5,168,307	$185,549,690
2025	2,029,632	$102,937,882	$82,179,800	$5,299,803	$190,417,485
2026	2,035,398	$103,108,228	$82,637,159	$5,408,980	$191,154,368
2027	2,041,164	$103,277,915	$84,647,071	$5,108,649	$193,033,634
2028	2,046,930	$103,447,693	$78,479,296	$4,865,786	$186,792,775
2029	2,051,735	$103,573,216	$81,700,088	$5,105,611	$190,378,915
Average Growth	0.3%	0.2%	0.1%	1.5%	0.2%

Source: LUS, NewGen and Burns & McDonnell.

(1) Electric System projections based on Load Forecast for LUS developed by Burns & McDonnell. The retail sales do not include transmission or distribution losses.

(2) Base Rate Revenue projections reflect revenue from customer, energy, and demand charges by customer class.

(3) Other Revenue includes Miscellaneous Operating Revenue and Interest Income.

Table B-11
Electric System Historical and Projected Operating Expenses

Year	Production	Transmission [1]	Distribution	Customer Accounts, Service & Sales	Administrative & General	Total Operating Expenses [2]
2015	$96,908,471	$7,405,920	$11,899,551	$2,744,901	$11,048,079	$130,006,922
2016	$92,247,908	$8,661,822	$11,613,300	$2,868,750	$11,302,414	$126,694,194
2017	$96,976,628	$9,192,823	$12,283,787	$2,917,554	$11,976,332	$133,347,125
2018	$94,456,911	$9,275,422	$12,143,206	$2,828,513	$12,463,806	$131,167,858
2019	$84,373,015	$8,612,596	$11,837,879	$2,690,275	$11,886,918	$119,400,682
2020	$99,687,560	$8,412,749	$12,004,440	$2,706,986	$12,153,919	$134,965,652
2021	$87,848,611	$7,640,758	$12,256,533	$2,734,191	$12,409,151	$122,889,244
2022	$91,516,108	$2,958,312	$12,513,920	$2,793,042	$12,669,743	$122,451,125
2023	$93,078,647	$3,020,437	$12,776,712	$2,848,747	$12,935,808	$124,660,351
2024	$99,358,862	$3,083,866	$13,045,023	$2,907,330	$13,207,460	$131,602,541
2025	$99,295,485	$3,148,627	$13,318,969	$2,970,585	$13,484,816	$132,218,481
2026	$100,212,303	$3,214,748	$13,598,667	$3,027,166	$13,767,997	$133,820,882
2027	$102,695,845	$3,282,258	$13,884,239	$3,087,866	$14,057,125	$137,007,333
2028	$83,316,868	$3,351,185	$14,175,808	$3,134,280	$14,352,325	$118,330,466
2029	$88,274,086	$3,421,560	$14,473,500	$3,199,474	$14,653,724	$124,022,344
Average Growth	(1.3%)	(9.5%)	2.1%	1.9%	2.1%	(0.9%)

Source: NewGen and LUS.
(1) The Transmission Expense decrease in 2021 and 2022 represents the expiration of the Cleco contract. Estimates provided to LUS by other consultants indicate that the replacement transmission from MISO will be significantly more cost effective.
(2) Total Operating Expenses do not include debt service, ILOT, normal capital and special equipment, or other expenses.

Table B-12
Wastewater Retail Sales and Revenue

Year	Retail Collection (1,000 gallons) (1)	Retail Collection Revenue (2)	Other Revenue (3)	Total Operating Revenue
2015	5,734,225	$28,304,757	$814,459	$29,119,216
2016	6,267,402	$28,522,778	$621,796	$29,144,574
2017	5,768,832	$29,706,376	$1,083,931	$30,790,307
2018	5,326,815	$30,977,546	$1,401,680	$32,379,226
2019	5,746,278	$29,910,672	$2,128,101	$32,038,772
2020	5,858,406	$31,545,596	$1,511,146	$33,056,741
2021	5,904,610	$31,794,387	$1,546,012	$33,340,400
2022	5,947,342	$32,655,956	$1,578,926	$34,234,881
2023	5,984,609	$33,496,009	$1,603,338	$35,099,347
2024	6,017,883	$34,366,842	$1,614,033	$35,980,875
2025	6,048,729	$35,231,105	$1,604,947	$36,836,053
2026	6,077,579	$36,090,530	$1,579,876	$37,670,406
2027	6,104,865	$36,993,360	$1,556,177	$38,549,537
2028	6,131,112	$37,896,386	$1,535,037	$39,431,423
2029	6,156,230	$38,798,665	$1,525,752	$40,324,417

Source: NewGen and LUS.

(1) Retail Collection projections are based on customer growth and historical usage per customer. Annual collection volumes vary with weather. The 2016 volume reflects a wet weather event.

(2) Retail Collection Revenue includes historical approved rate increases in 2017 and 2018. Projected rate increases are 2.0% per year for years 2022 through 2029.

(3) Other Revenue includes Miscellaneous Operating Revenue and Interest Income.

Table B-13
Wastewater System Projected Operating Expenses

Year	Treatment	Collection	Customer Accounting, Collecting, Service and Info	Administrative & General	Total Operating Expenses (1)
2015	$6,657,629	$4,088,110	$1,208,820	$5,612,123	$17,566,682
2016	$6,915,624	$4,462,001	$1,347,623	$5,569,902	$18,295,151
2017	$6,804,788	$4,696,927	$1,345,368	$5,838,454	$18,685,538
2018	$6,877,281	$4,722,449	$1,399,015	$5,738,418	$18,737,163
2019	$6,987,121	$5,312,751	$1,365,016	$5,546,626	$19,211,514
2020	$7,169,573	$5,549,458	$1,374,389	$5,715,179	$19,808,598
2021	$7,263,259	$5,618,873	$1,392,733	$5,835,198	$20,110,063
2022	$7,421,415	$5,744,183	$1,422,489	$5,957,737	$20,545,824
2023	$7,573,015	$5,864,465	$1,451,315	$6,082,849	$20,971,644
2024	$7,731,006	$5,990,634	$1,481,352	$6,210,589	$21,413,581
2025	$7,900,262	$6,126,946	$1,513,242	$6,341,011	$21,881,461
2026	$8,054,349	$6,249,872	$1,542,961	$6,474,173	$22,321,354
2027	$8,218,007	$6,381,288	$1,574,345	$6,610,130	$22,783,770
2028	$8,348,945	$6,483,437	$1,600,866	$6,748,943	$23,182,191
2029	$8,524,082	$6,624,594	$1,634,262	$6,890,671	$23,673,609

Source: NewGen and LUS.
(1) Total Operating Expenses do not include debt service, ILOT, normal capital and special equipment, or other expenses.

Table B-14
Water Retail and Wholesale Sales and Revenue

Year	Retail Sales (1,000 gallons) (1)	Wholesale Sales (1,000 gallons) (2)	Retail Sales Revenue (3)	Wholesale Sales Revenue (4)	Other Revenue (5)	Total Operating Revenue
2015	5,419,758	2,116,545	$13,207,794	$4,406,071	$670,952	$18,284,817
2016	5,402,650	2,117,627	$13,229,678	$4,736,650	$627,213	$18,593,541
2017	5,382,447	2,161,051	$13,862,679	$5,232,452	$727,065	$19,822,196
2018	5,363,552	2,256,911	$14,821,240	$6,038,256	$877,048	$21,736,544
2019	5,148,605	2,171,928	$14,425,369	$5,762,507	$1,181,598	$21,369,475
2020	5,540,715	2,037,762	$15,403,188	$5,406,850	$672,596	$21,482,634
2021	5,584,413	2,078,774	$15,524,669	$5,790,486	$687,451	$22,002,606
2022	5,624,828	2,122,086	$15,974,512	$5,964,896	$699,540	$22,638,948
2023	5,660,074	2,164,753	$16,414,216	$6,388,145	$700,114	$23,502,475
2024	5,691,544	2,208,847	$16,846,970	$6,577,851	$684,955	$24,109,776
2025	5,720,717	2,254,426	$17,276,566	$7,048,198	$665,386	$24,990,150
2026	5,748,002	2,301,552	$17,703,847	$7,261,264	$647,240	$25,612,350
2027	5,773,809	2,350,289	$18,129,761	$7,784,553	$630,884	$26,545,199
2028	5,798,633	2,400,704	$18,555,626	$8,024,127	$616,515	$27,196,268
2029	5,822,389	2,452,867	$18,980,987	$8,607,000	$605,584	$28,193,572

Source: NewGen and LUS.
(1) Retail Sales projections are based on customer growth and historical usage per customer.
(2) Wholesale sales volumes were based on specific growth forecasts for wholesale customers. The decrease in Wholesale Sales reflects discontinued service to a wholesale customer.
(3) Retail Sales Revenue include historical approved rate increases in 2017 and 2018. Projected rate increases are 2.0% per year for years 2022 through 2029.
(4) Water Wholesale rate increases are 6% in each of the years 2021, 2023, 2025, 2027 and 2029.
(5) Other Revenue includes Miscellaneous Operating Revenue and Interest Income.

Table B-15
Water System Historical and Projected Expenses

Year	Production	Distribution	Customer Accounting, Collecting, Service and Info	Administrative & General	Total Operating Expenses (1)
2015	$5,153,344	$2,297,316	$1,158,987	$4,489,593	$13,099,239
2016	$5,465,672	$2,538,366	$1,149,579	$4,607,489	$13,761,106
2017	$5,406,685	$2,619,286	$1,128,205	$4,811,643	$13,965,819
2018	$5,495,611	$2,884,033	$1,219,158	$4,661,424	$14,260,225
2019	$5,496,311	$2,889,727	$1,172,251	$4,668,916	$14,227,206
2020	$5,741,579	$2,763,783	$1,182,838	$4,627,047	$14,315,247
2021	$5,874,921	$2,760,818	$1,200,028	$4,724,215	$14,559,982
2022	$6,046,200	$2,821,229	$1,225,598	$4,823,423	$14,916,451
2023	$6,214,846	$2,882,643	$1,250,575	$4,924,715	$15,272,778
2024	$6,389,351	$2,945,154	$1,276,517	$5,028,134	$15,639,156
2025	$6,573,032	$3,008,872	$1,303,892	$5,133,725	$16,019,521
2026	$6,751,510	$3,073,845	$1,329,776	$5,241,533	$16,396,664
2027	$6,938,756	$3,140,120	$1,356,961	$5,351,605	$16,787,442
2028	$7,111,406	$3,207,756	$1,380,701	$5,463,989	$17,163,852
2029	$7,312,713	$3,276,774	$1,409,534	$5,578,733	$17,577,754

Source: NewGen and LUS.

(1) Total Operating Expenses do not include debt service, ILOT, normal capital and special equipment, or other expenses.

Appendix C
CONTINUING DISCLOSURES – COMMUNICATIONS

Introduction

Government entities that issue bonds must enter into a continuing disclosure agreement to be in compliance with the SEC Rule 15c2-12. As part of the continuing disclosure agreement, the issuer promises to provide certain annual financial information and material event notices to the public. These filings must be made electronically at the EMMA portal (www.emma.msrb.org).

The Utilities System has the following outstanding debt as of October 31, 2019:

- Communications System Revenue Bonds, Series 2012
- Communications System Revenue Refunding Bonds, Series 2015

The continuing disclosure agreements for the outstanding bonds require that specific tables contained in the Official Statements must be updated annually. This appendix contains these required tables. This appendix contains forward looking financial statements based on the Communications System's current expectations and projections about future events and financial trends. The Communications System projections of revenues, expenses, debt service, and capital are contained herein and reflect estimates of what might occur in the future based on the information available as of the date of this Report. NewGen cannot predict the future or guarantee future Communications System financial performance. To the extent that assumptions used in these projections vary from those actually observed, financial performance as presented herein will vary from actual performance. NewGen relied upon a 10-year projection prepared by the Communications System for the Projected Period of November 1, 2019 through October 31, 2029. The Communications System provided actual historical data for the 2015 through 2019 period.

Information and Assumptions Relied Upon

The projected operating results for the Communications System rely upon the information and assumptions gathered in the course of NewGen's review and summarized below.

1. NewGen assumed the Communications System will operate, maintain, and upgrade head-end facilities and other important supporting infrastructure to ensure reliable and technologically competitive service offerings to customers.

2. NewGen assumed the Communications System will hire and maintain competent personnel. If needed, the Communications System will provide training to personnel to ensure the safety and reliability of the Communications System.

3. NewGen assumed the Communications System will maintain and renew any required permits or approvals.

4. NewGen assumed standard operating procedure for the Communications System and NewGen did not include the effects of any event outside of the Communications System's control, including force majeure.

5. Communications System financial and operating information was provided by the Communications System, LCG, interviews with LUS and LCG staff, and visual observations of the Communications System facilities. Data provided by the Communications System and LCG include historical financial and operating data for years 2015–2019, projected financial and operating data for years 2020–2029, and the 2020 Budget.

6. NewGen relied upon the most recent semi-annual Blue Chip Economic Indicator projection of GDP, dated March 2020. The GDP was used to escalate O&M expenses and capital. Per the Blue Chip forecast, the annual GDP is projected to be 2.1% over the Projected Period.

Projected Operating Results Assumptions

Although there are many variables that influence the Communications System's projected operating results, a few key variables have an important influence on the financial integrity of the system. These variables are:

- Customer growth and market share
- Service offering pricing
- Cost of goods sold
- Capital re-investment in the system

Customer growth and service offering pricing heavily influence projected revenues. Cost of goods sold predominantly consists of programming and content costs associated with service offerings. Capital re-investment in the system ensures that the system will remain well maintained, reliable, and competitive in the marketplace.

Other important Communications System costs include other operating expenses not associated with the cost of goods sold and debt service requirements. Although these costs are important and substantial to the Communications System, they are relatively fixed and do not vary significantly as new customers are added to the system. As a result, growth in the Communications System Gross Operating Margin (revenues less cost of goods sold) directly impacts the Communications System debt service coverage and net margins.

Revenue Projection

Since the Communications System inception in 2009, the system has successfully added customers and increased market share within the LUS service territory. The sale of CATV, Internet, and telephone services to retail and wholesale customers directly relates to the Communications System revenues. Projected operating results reflect average annual customer growth of 4.0% over the 2020 through 2029 period. The growth assumption results in target market share from the current 41% to 56% in 2029. Revenue per customer reflects a blend of CATV, Internet, and telephone services as described earlier in this Report. Retail service pricing levels are projected to be adjusted periodically in consideration of the cost of

goods sold and other rising costs. The Communications System pricing practices reflect an opportunistic approach where the development of new or higher value service offerings and competitor price increases provide the Communications System the ability to adjust rates if warranted. The Communications System's pricing strategy is to offer comparable or higher quality services at a lower price than the competition.

Additionally, wholesale customer projections remain constant, at 34 customers, from 2020 to 2029 with revenues of $3.2 million annually.

Expense Projection

The expense projection includes the cost of goods sold, maintenance of plant, A&G expense, and other miscellaneous expenses. The projected cost of goods sold assumes the 2019 cost per customer (adjusted for historical cost of goods sold inflation) multiplied by the projected number of customers. Other expenses have been escalated at 2.1% annually over the period 2020 through 2029.

Debt Service

The projected net revenues for debt service exceed the required debt service coverage ratio of 1.0.

Credit Event

If a Credit Event were to occur, bond covenants require that the Utilities System meet the credit obligation of the Communications System with funds available in the Utilities System Capital Additions Fund. The Utilities System has a debt service coverage ratio requirement of 1.0.

Other Expenses

Other expense items include the Communications System's Imputed Tax obligations, repayment of inter-utility loans from the Utilities System, Operating Account reserve obligations, and other miscellaneous expenses.

The Communications System utilized loans from the LUS to fund the fiber system assets purchase, startup costs, and operating costs. The Communications System loans repayment will continue through 2033.

The Operating Account reserve obligation was a one-time expense incurred by the Communications System to establish a Communications Systems Operating Account.

Imputed Tax

Pursuant to terms of a regulatory settlement, the Communications System must pay an Imputed Tax. The Imputed Tax is equivalent to paying state and local sales tax, property tax, franchise tax, and income tax.

The Communications System's ILOT calculation provides for an ILOT payment up to 12% of Adjusted Revenues deposits (revenues less cost of goods sold). However, all or a portion of this payment is made subject to an ILOT test. The ILOT test ensures that the Communications

System retains sufficient cash to meet capital obligations. The ILOT test requires that the ILOT payment be no greater than 12% of Adjusted Revenues deposits, or the cash balance available after the payment of operating expenses and debt service less 7.5% of the Adjusted Revenues deposits. The Communications System tax requirement cannot be less than that required by the Imputed Tax calculation.

In 2015, the City-Parish Council approved an ordinance that revises the required ILOT payment. This ordinance recognizes that the Communications System operates in a competitive environment and the ILOT calculation was a greater expense than Imputed Tax. With the approval of this ordinance, the Communications System pays an ILOT amount equal to Imputed Taxes. The Imputed Tax payments will be made to LUS and the City through 2020 as prescribed in the ordinance. After 2020, 100% of the Imputed Tax payments will go to the City.

Capital Improvement Program

The CIP includes the ongoing cost of customer installations, head-end, hut, network equipment and upgrades, and other miscellaneous items. In this Report, the capital plan for years 2020 through 2024 was based on the 2020 Budget and 2025 through 2029 was based on historical spending.

Cash Available

Cash available reflects remaining funds available to the Communications System once all other credit obligations of the Communications System are satisfied. For the Communications System, LUS established a financial objective that requires a minimum cash balance of $2,250,000 to be held in an Operating Account. The Operating Account maintains a cash reserve to meet system O&M expense requirements. Once O&M expense and debt service obligations are met by the Communications System, accumulated cash balances are held in a Capital Additions Fund and are applicable to capital projects or other lawful uses. The Projected Period assumes that there are sufficient cash balances in the Capital Additions Fund to meet the entire Communications System CIP obligation.

Cross Reference

In an effort to minimize duplication of data, the following table is provided to assist in cross referencing the information contained in the Continuing Disclosures with the information contained in this Report.

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	29	Projected Market Penetration	Table C-1
	30	Operating Revenue Summary	Table 7-7
	31	Communications System Revenue Forecast	Table C-2
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Operating Revenues and Expenses, page 35-37	35	Communications System Historical Operating Results	Tables 7-10 & 7-8
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	49	Electric System Largest Retail Customers	Table B-6
	50	Electric System Capital Improvement Plan (Five Year Plan)	Table 3-5
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	53	Water System Largest Retail Customers	Table B-7
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	55	Water System Sales and Revenue Forecast	Table B-14
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	57	Historical Wastewater System Flows (000 Gallons)	Table 6-1
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	59	Proposed Wastewater System Capital Improvement Plan (Five Year Plan)	Table 3-5
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	62	Historical and Projected Number of Customers by System	Table C-6
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	B-1	Assessed Value of Taxable Property of the City	See Appendix D
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Communications System, Page 28-41	33	Historical and Projected Number of Customer Accounts for the Communications System	Table C-1
	34	Projected Retail Market Share	Table C-1
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Table C-1
Communications System Number of Customers and Market Penetration

Year	Number of Customer Accounts (1)	Increase in Customer Accounts	Market Potential (2)	Target Market (3)	Increase Target Market	Target Market Share
2015	16,578	1.9%	53,900	48,753	1.6%	34.0%
2016	18,243	10.0%	54,732	49,521	1.6%	36.8%
2017	18,973	4.0%	55,503	50,218	1.4%	37.8%
2018	20,412	7.6%	56,209	50,857	1.3%	40.1%
2019	21,291	4.3%	56,866	51,452	1.2%	41.4%
2020	22,053	3.6%	57,484	52,011	1.1%	42.4%
2021	23,045	4.5%	58,072	52,543	1.0%	43.9%
2022	23,949	3.9%	58,602	53,022	0.9%	45.2%
2023	24,907	4.0%	59,086	53,460	0.8%	46.6%
2024	25,904	4.0%	59,537	53,868	0.8%	48.1%
2025	26,940	4.0%	59,991	54,279	0.8%	49.6%
2026	28,018	4.0%	60,449	54,692	0.8%	51.2%
2027	29,138	4.0%	60,910	55,107	0.8%	52.9%
2028	30,304	4.0%	61,374	55,525	0.8%	54.6%
2029	31,516	4.0%	61,843	55,944	0.8%	56.3%
Average Growth	4.0%		0.8%	0.8%		

Source: LUS

(1) Communications customer projections include retail customers with CATV, Internet, and telephone or some combination of the three services. The number of customers reflects the customers at the end of the year. The retail customer projection takes into consideration that the Communications System began serving customers in 2007 as a new market entrant. Historical percentage growth in customers has been significant because the Communications System was new to the market. The projection assumes that percentage increases in annual growth will gradually decline as LUS market presence matures and market penetration reflects levels that consider the presence of several competitors.

(2) Projection includes all LUS residential electric customers inside the City limits.

(3) Target market excludes apartments and other multifamily dwellings.

Table C-2
Communications System Revenue Forecast

Year	Number of Retail Customers	Number of Wholesale Customers	Retail	Wholesale	Total
2020	22,053	34	$38,636,851	$3,232,135	$41,868,986
2021	23,045	34	$39,627,904	$3,232,135	$42,860,040
2022	23,949	34	$40,570,504	$3,232,135	$43,802,639
2023	24,907	34	$41,520,074	$3,232,135	$44,752,209
2024	25,904	34	$42,502,010	$3,232,135	$45,734,146
2025	26,940	34	$43,503,764	$3,232,135	$46,735,899
2026	28,018	34	$44,505,966	$3,232,135	$47,738,102
2027	29,138	34	$45,523,293	$3,232,135	$48,755,428
2028	30,304	34	$46,567,975	$3,232,135	$49,800,110
2029	31,516	34	$47,637,641	$3,232,135	$50,869,776
Average Growth	4.0%	0.0%	2.4%	0.0%	2.2%

Source: LUS

Table C-3
Communications System Operations and Maintenance Expense Forecast

Year	Cost of Goods Sold (1)	Other Expenses (2)	Total Expenses
2020	$8,993,949	$13,067,850	$22,061,799
2021	$9,308,250	$13,342,274	$22,650,525
2022	$9,650,102	$13,622,462	$23,272,564
2023	$10,002,723	$13,908,534	$23,911,257
2024	$10,366,713	$14,200,613	$24,567,326
2025	$10,742,125	$14,498,826	$25,240,951
2026	$11,128,885	$14,803,301	$25,932,186
2027	$11,527,426	$15,114,171	$26,641,596
2028	$11,938,154	$15,431,568	$27,369,722
2029	$12,361,244	$15,755,631	$28,116,875
Average Growth	3.6%	2.1%	2.7%

Source: LUS

(1) Cost of Goods Sold predominantly consists of programming and content costs associated with service offerings.

(2) Includes O&M expenses; other expenses include customer service, and A&G costs. Excludes depreciation. Operating expenses do not include imputed tax, inter-utility loan payments to LUS, external loan payments, and other miscellaneous expenses.

Table C-4
Communications System Projected Operating Results

	2020	2021	2022	2023	2024
Operating Revenues					
Retail Sales	$38,636,851	$39,627,904	$40,570,504	$41,520,074	$42,502,010
Wholesale Sales	3,232,135	3,232,135	3,232,135	3,232,135	3,232,135
Other Revenues	804,701	826,613	848,791	870,884	895,731
Total Operating Revenues	$42,673,687	$43,686,652	$44,651,430	$45,623,093	$46,629,877
Operating Expenses					
Cost of Goods Sold	$8,993,949	$9,308,250	$9,650,102	$10,002,723	$10,366,713
O&M and Other	13,067,850	13,342,274	13,622,462	13,908,534	14,200,613
Total Operating Expenses	$22,061,799	$22,650,525	$23,272,564	$23,911,257	$24,567,326
Balance Available for Debt Service	$20,611,888	$21,036,128	$21,378,866	$21,711,836	$22,062,551
Debt Service	$9,430,991	$9,431,991	$10,590,741	$10,599,941	$10,601,223
Debt Service Coverage Ratio	2.2	2.2	2.0	2.0	2.1
Balance After Debt Service	$11,180,897	$11,604,136	$10,788,125	$11,111,895	$11,461,328
Other Income (Expenditures)					
Imputed Tax	($849,433)	($919,345)	($873,566)	($834,486)	($821,207)
Inter-utility Loan Repayment	(1,814,455)	(2,410,578)	(2,422,635)	(2,435,174)	(2,448,215)
Miscellaneous	103,570	105,745	107,966	110,233	112,548
Total Other Income (Expenditures	($2,560,318)	($3,224,178)	($3,188,235)	($3,159,427)	($3,156,874)
Balance Available for Capital	$8,620,579	$8,379,959	$7,599,890	$7,952,468	$8,304,454

Table C-5
Communications System Sources and Uses of Funds

	2020	2021	2022	2023	2024
Construction Fund [1]					
Sources of Funds					
Beginning Balance	$0	$0	$0	$0	$0
Deposits	0	0	0	0	0
Interest Income	0	0	0	0	0
Uses of Funds					
Capital Expenditures	0	0	0	0	0
Construction Fund Ending Balance	$0	$0	$0	$0	$0
Retained Earnings (Cash Available)					
Sources of Funds					
Beginning Balance	$2,694,587	$3,140,719	$3,914,228	$4,347,335	$5,035,736
Deposits from Earnings	8,620,579	8,379,959	7,599,890	7,952,468	8,304,454
Other					
Uses of Funds					
Capital Expenditures	(8,174,447)	(7,606,450)	(7,166,782)	(7,264,068)	(7,389,446)
Operating Account Creation	0	0	0	0	0
Sinking Fund transfer to Refunding	0	0	0	0	0
Retained Earnings Ending Balance	$3,140,719	$3,914,228	$4,347,335	$5,035,736	$5,950,744

(1) Includes the 2012 Bond Funds.

Table C-6
Utilities System Historical and Projected Number of Customers by System

Year	Electric [1]	Water [2]	Wastewater [3]
Historical			
2015	65,847	55,109	43,521
2016	66,325	55,851	44,269
2017	66,860	56,302	44,830
2018	67,243	56,564	45,019
2019	68,495	58,316	45,623
Projected			
2020	69,399	59,306	46,414
2021	69,946	59,715	46,780
2022	70,452	60,091	47,119
2023	70,894	60,419	47,414
2024	71,288	60,710	47,678
2025	71,653	60,972	47,922
2026	71,995	61,223	48,151
2027	72,318	61,460	48,367
2028	72,629	61,688	48,575
2029	72,927	61,905	48,774
Average Growth	0.6%	0.5%	0.6%

Source: LUS, Burns & McDonnell, LUS. LUS Financial and Operating Statements

(1) Electric System projections based on Load Forecast for LUS developed by Burns & McDonnell.

(2) Water System retail customer projections were based on the Electric System customer growth forecast. Wholesale customer growth was based on specific growth forecasts for wholesale customers.

(3) Wastewater System customer projections were based on the Electric System customer growth forecast.

Table C-7
Historical Operating Results

	2015	2016	2017	2018	2019
Operating Revenues					
Electric System					
Base Rate – Electric	$92,626,681	$91,631,825	$94,552,196	$102,886,777	$100,836,993
Fuel Charge – Electric	84,910,901	78,153,587	76,829,537	72,872,661	73,101,002
Wholesale Sales	179,301	200,753	177,166	174,622	179,515
Other Revenues [1]	4,327,280	4,367,987	4,501,605	5,021,629	5,848,375
Water					
Retail Sales	13,207,794	13,229,678	13,862,679	14,821,240	14,425,369
Wholesale Sales	4,406,071	4,736,650	5,232,452	6,038,256	5,762,507
Other Revenues [1]	670,952	627,213	727,065	877,048	1,181,598
Wastewater					
Retail Sales	28,304,757	28,522,778	29,706,376	30,977,546	29,910,672
Other Revenues [1]	814,459	621,796	1,083,931	1,401,680	2,128,101
Fiber	0	0	0	0	0
Total Operating Revenues	$229,448,195	$222,092,266	$226,673,006	$235,071,461	$233,374,132
Operating Expenses					
Electric System					
Generation	$8,190,689	$6,902,595	$7,573,414	$5,823,932	$5,097,410
Fuel - Gas Generation	985,639	1,363,817	1,967,322	3,020,362	2,369,957
Purchased Power LPPA	51,723,772	48,326,966	47,753,386	50,740,877	47,202,751
Purchased Power Other	36,008,371	35,654,529	39,682,507	34,871,740	29,702,897
Other	33,098,450	34,446,286	36,370,497	36,710,947	35,027,667
Water	13,099,239	13,761,106	13,965,819	14,260,225	14,227,206
Wastewater	17,566,682	18,295,151	18,685,538	18,737,163	19,211,514
Fiber	0	0	0	0	0
Total Operating Expenses [2]	$160,672,843	$158,750,451	$165,998,482	$164,165,246	$152,839,402
					0
Balance Available for Debt Service	$68,775,352	$63,341,815	$60,674,525	$70,906,215	$80,534,731
Debt Service [3]	$22,924,293	$22,925,238	$21,341,835	$21,427,905	$22,732,925
Debt Service Coverage Ratio	3.0	2.8	2.8	3.3	3.5
Balance After Debt Service	$45,851,060	$40,416,577	$39,332,690	$49,478,310	$57,801,806

Table C-7
Historical Operating Results

	2015	2016	2017	2018	2019
Other Income					
Interest Income [4]	$0	$0	$0	$0	$0
Water Tapping Fees	107,420	78,320	64,240	72,240	56,760
Communications Lease Income	36,952	27,648	25,378	0	0
Contributions in Aid of Construction	0	56,063	128,155	304,557	0
Misc. Non-Operating Revenue	3,414,729	2,566,471	3,335,924	4,188,986	3,141,166
Total Other Income	$3,559,102	$2,728,502	$3,553,697	$4,565,784	$3,197,926
Other Expenses					
Interest on Customer Deposits	$3,206	$821	$1,688	$4,307	$5,331
Tax Collections/Non-Operating	0	0	0	0	0
Misc. Non-Operating Expense	1,383,331	1,589,252	3,182,762	2,844,559	3,369,807
Total Other Expenses	$1,386,537	$1,590,073	$3,184,450	$2,848,867	$3,375,138
Payment in Lieu of Tax	$22,847,494	$23,306,557	$22,568,235	$23,708,786	$25,051,002
Bond Reserve & Capital Additions	$25,176,131	$18,248,448	$17,133,701	$27,486,441	$32,573,592

(1) Other Revenue includes Miscellaneous Operating Revenues and Interest Income.

(2) Debt Service was prepared on a cash basis. Debt Service includes the Series 1996 Bonds, Series 2004 Bonds, Series 2010 Bonds, and Series 2012 Bonds. In 2014, the Series 2004 Bonds were partially refunded and defeased by the Series 2012 Bonds. The Series 1996 Bonds matured on November 1, 2017. By 2020, the Series 2010 Bonds will be fully redeemed by the proceeds of the Series 2017 Bonds.

(3) The Operating Revenues, Operating Expenses, and Debt Service Coverage may differ slightly from LCG's Comprehensive Annual Financial Report.

(4) Interest Income is included above with Operating Revenues.

Table C-8
Utilities System Revenues and Debt Service Coverage Ratios

Year	Operating Revenues [1]	Operating Expenses [2]	Net Revenues Available for Debt Service	Debt Service [3]	Balance Available After Debt Service	Debt Service Coverage Ratio
2020	$241,916,775	$169,089,498	$72,827,278	$25,374,000	$47,453,278	2.9
2021	$231,630,536	$157,559,289	$74,071,248	$25,095,600	$48,975,648	3.0
2022	$237,379,875	$157,913,400	$79,466,475	$25,092,600	$54,373,875	3.2
2023	$241,164,513	$160,904,773	$80,259,740	$25,103,350	$55,156,390	3.2
2024	$245,640,341	$168,655,278	$76,985,063	$25,100,350	$51,884,713	3.1
2025	$252,243,687	$170,119,462	$82,124,225	$25,102,350	$57,021,875	3.3
2026	$254,437,124	$172,538,900	$81,898,224	$25,107,100	$56,791,124	3.3
2027	$258,128,370	$176,578,546	$81,549,824	$25,102,350	$56,447,474	3.2
2028	$253,420,466	$158,676,508	$94,743,957	$23,901,350	$70,842,607	4.0
2029	$258,896,904	$165,273,707	$93,623,197	$14,962,607	$78,660,590	6.3

Source: NewGen and LUS.

(1) Operating Revenues include interest income and other miscellaneous revenue.

(2) Operating Expenses include O&M and other expenses such as customer service, and A&G costs. Operating Expenses do not include ILOT, normal capital and special equipment, nor other miscellaneous expenses.

(3) Debt Service was prepared on a cash basis. Debt Service includes the Series 2010 Bonds, the Series 2012 Bonds, Series 2017 Bonds, Series 2019 Bonds and a projected bond issue in 2027. By 2020, the Series 2010 Bonds will be fully redeemed by the proceeds of the Series 2017 Bonds.

Table C-9
Utilities System Revenues and Debt Service Coverage Ratios Assuming a Communications System Default

Year	Utilities System Net Revenue Available for Debt Service	Utilities System Debt Service (1)	Capital Additions Account, Minimum Capital Requirement (2)	Net Revenues Available for Communications Debt Service	Communications System Debt Service (3)	Balance Available After Debt Service	Debt Service Coverage Ratio from Residual Revenues
2020	$71,992,475	$25,374,000	$12,050,631	$34,567,844	$9,430,991	$25,136,853	3.7
2021	$73,268,284	$25,095,600	$12,129,556	$36,043,128	$9,431,991	$26,611,137	3.8
2022	$78,715,759	$25,092,600	$12,290,502	$41,332,657	$10,590,741	$30,741,916	3.9
2023	$79,563,361	$25,103,350	$12,450,459	$42,009,551	$10,599,941	$31,409,610	4.0
2024	$76,345,195	$25,100,350	$12,591,711	$38,653,134	$10,601,223	$28,051,912	3.6
2025	$81,543,128	$25,102,350	$12,740,619	$43,700,159	$10,598,970	$33,101,189	4.1
2026	$81,378,249	$25,107,100	$12,872,154	$43,398,995	$10,596,363	$32,802,633	4.1
2027	$81,093,417	$25,102,350	$12,994,304	$42,996,762	$10,588,283	$32,408,480	4.1
2028	$94,353,660	$23,901,350	$13,106,887	$57,345,423	$10,593,760	$46,751,663	5.4
2029	$93,301,653	$14,962,607	$13,272,548	$65,066,498	$10,595,138	$54,471,360	6.1

Source: NewGen and LUS.

(1) Debt Service was prepared on a cash basis. Debt Service includes the Series 2010 Bonds, the Series 2012 Bonds, Series 2017 Bonds, Series 2019 Bonds and a projected bond issue in 2027. By 2020, the Series 2010 Bonds will be fully redeemed by the proceeds of the Series 2017 Bonds.

(2) The Bond Ordinances require a minimum amount equal to 7.5 % of the total Non-fuel Revenue deposits into the Receipts Account for the purposes of paying capital costs.

(3) Debt Service was prepared on a cash basis. Debt Service includes the Series 2012 Bonds and Series 2015 Bonds. No future debt issues are projected to be issued for the Communications System from 2020 through 2029.

Appendix D
FINANCIAL & STATISTICAL DATA

LAFAYETTE CONSOLIDATED GOVERNMENT
REVENUE BONDS CONTINUING DISCLOSURE

Population of City of Lafayette

Year	Population
1940	19,210
1950	33,541
1960	40,400
1970	68,908
1980	81,961
1990	94,421
2000	110,257
2010	120,623
2015	127,661
2016	127,626
2017	131,191
2018	132,747
2019	134,286

Sources: U.S. Census Bureau and Lafayette Economic Development Authority

Assessed Value of Taxable Property of the City

(All dollars in thousands)

Fiscal Year	Assessed Value	Fiscal Year	Assessed Value
2000	552,896	2010	1,167,335
2001	584,023	2011	1,178,154
2002	673,318	2012	1,220,334
2003	692,626	2013	1,306,098
2004	716,544	2014	1,381,041
2005	785,937	2015	1,461,552
2006	826,075	2016	1,577,908
2007	864,797	2017	1,592,059
2008	905,005	2018	1,586,428
2009	1,129,670	2019	1,615,615

Source: Lafayette Parish Assessor's Office

LAFAYETTE CONSOLIDATED GOVERNMENT
REVENUE BONDS CONTINUING DISCLOSURE

Classification of Property	**2019 Assessed Valuation** (City of Lafayette)
Real Estate	$1,256,272,233
Personal Property	332,252,190
Public Service Property	23,828,694
Total	$1,612,353,117

Source: Lafayette Parish Assessor's Office

Millage Rates

	2015	**2016**	**2017**	**2018**	**2019**
Parishwide Taxes:					
Schools	4.59	4.59	4.56	4.59	4.59
School District No. 1 -					
Special	7.27	7.27	7.27	7.27	7.27
Special School Improvements	5.00	5.00	5.00	5.00	5.00
School 1985 Operation	16.70	16.70	16.70	16.70	16.70
Courthouse & Jail Maintenance	2.34	2.34	2.34	2.34	2.34
Library (2007-2016)	2.91	2.68	N/A	N/A	N/A
Library (2009-2018)	1.61	1.48	1.48	1.48	N/A
Library (2003-2012)	2.00	1.84	N/A	N/A	N/A
Library (2013-2022)	N/A	N/A	1.84	1.84	1.84
Library (2017-2026)	N/A	N/A	2.68	2.68	2.91
Health Unit Maintenance	0.80	N/A	N/A	N/A	N/A
Juvenile Detention Maintenance	1.17	1.17	1.17	1.17	1.17
Lafayette Economic Development Authority	1.82	1.68	1.68	1.68	1.68
Assessment District	1.56	1.44	1.44	1.56	1.44
Law Enforcement	16.79	16.79	16.79	16.79	16.79
Airport Maintenance	1.71	1.58	1.58	1.58	1.71
Minimum Security Maintenance	2.06	1.90	1.90	1.90	2.06
Bridges and Maintenance	4.17	4.17	4.17	4.17	4.17
Lafayette Parish Bayou Vermillion -					
Bond & Interest	0.00	0.17	0.17	0.17	0.17
Maintenance	0.75	0.75	0.75	0.75	0.75
Drainage Maintenance	3.34	3.34	3.34	3.34	3.34
Public Improvement Bonds	2.75	2.75	2.75	2.75	2.00
Teche-Vermillion Water District	1.50	1.41	1.41	1.41	1.41
Mosquito Abatement & Control	1.50	N/A	N/A	N/A	N/A
Health Unit, Mosquito, Ect.	N/A	3.56	3.56	3.56	3.56
Other Parish and Municipal Taxes:					
Parish Tax (Inside Municipalities)	1.52	1.52	1.52	1.52	1.52
Parish Tax (Outside Municipalities)	3.05	3.05	3.05	3.05	3.05
Lafayette Centre Development District	10.91	11.24	11.24	12.75	12.75
City of Lafayette	**17.94**	**17.94**	**17.80**	**17.80**	**17.94**

Sources: Lafayette Parish Assessor and Lafayette Consolidated Government

LAFAYETTE CONSOLIDATED GOVERNMENT
REVENUE BONDS CONTINUING DISCLOSURE

Leading Taxpayers

The ten largest property taxpayers of the City and their 2019 assessed valuations follow:

	Name of Taxpayer	Type of Business	2019 Assessed Valuation
1.	Iberia Bank	Banking	$18,543,382
2.	Franks Casing	Oil & Gas Support Services	17,020,333
3.	Stuller Inc	Manufacturing	15,693,253
4.	Wal Mart / Sams	Warehouse Clubs & Supercenters	10,881,053
5.	AT&T / Bellsouth	Telecommunications	9,748,724
6.	JP Morgan Chase	Banking	9,735,837
7.	Home Bank	Banking	7,274,697
8.	Service Chevrolet Inc	New Car Dealers	6,665,727
9.	PHI Inc	Oil & Gas Support Services	6,594,794
10.	Entergy Gulf States	Electric Company	6,277,880
			$108,435,680 *

* Approximately 6.73% of the 2019 assessed valuation of the City.
Source: Lafayette Consolidated Government

Sales Tax Collections

The City has collected the following amounts from its 1961 special one percent (1%) sales and use tax initially effective July 1, 1961 and 1985 special one percent sales and use tax initially effective July 1, 1985, each effective in perpetuity, for the periods indicated below:

City of Lafayette Combined (61 & 85) Gross Sales Tax Collections

Month Collected	FY 17-18 Actual Collections	FY 18-19 Actual Collections	FY 19-20 Actual Collections
November	$6,273,115	$6,707,189	$6,880,764
December	6,374,642	6,896,866	6,953,838
January	7,959,495	7,850,848	7,990,427
February	5,946,269	6,215,366	6,396,301*
March	5,830,654	6,146,758	-
April	7,732,741	7,254,425	-
May	6,650,710	6,689,138	-
June	6,684,641	7,021,114	-
July	6,754,618	6,852,811	-
August	6,405,209	6,602,487	-
September	6,366,946	6,682,354	-
October	6,423,582	6,894,911	-
TOTAL	$79,402,621	$81,814,268	$28,221,331

Source: City of Lafayette. Figures unaudited.
* Latest month for which figures are available

LAFAYETTE CONSOLIDATED GOVERNMENT
CASH AND INVESTMENTS
BALANCES AS OF OCTOBER, 2019

			CASH AND INVESTMENTS
General Operating Funds:			
101	General Fund-City	$	50,922,505
102	Property Tax Escrow Fund		49,900
105	General Fund-Parish		747,943
126	Grants-Federal		(583,536)
127	Grants-State		(51,688)
128	Grants-Other		45,498
162	Community Development		(97,951)
163	Home Programs		4,522
165	Emergency Shelter Grant		0
171	HUD Housing Loan Prog		409,041
185	FHWA I-49 Grant		0
187	FTA Capital		(3,024)
189	DOTD Travel Management		0
201	Recreation and Parks		0
203	Municipal Transit System		75,313
204	Heymann Performing Arts Center		0
206	Animal Control Shelter		10,236,069
207	Traffic Safety		11,257
209	Combined Golf Courses		0
210	Laf Develop & Revitaliz		525,329
252	State Seized/Forfeited Property		46,136
253	Fed Narc Seized /Forfeited Property		14,811
255	Criminal Non-support		(78,135)
260	Road & Bridge Maintenance		19,943,314
261	Drainage Maintenance		11,975,616
262	Correctional Center		0
263	Library Fund		41,171,317
264	Courthouse Complex		12,302,382
265	Juvenile Detention Facility		4,623,372
266	Public Health Unit		825,889
268	Criminal Court		0
269	Combined Public Health		337,369
271	Mosquito Abatement		747,762

LAFAYETTE CONSOLIDATED GOVERNMENT
CASH AND INVESTMENTS
BALANCES AS OF OCTOBER, 2019

			CASH AND INVESTMENTS
272	Justice Department Federal Equitable Sharing Fund		72,051
273	Storm Water Management		10,060,927
274	Cultural Economy		832,849
277	Court Services Fund		0
297	Parking Program		128,393
299	Codes & Permits		0
550	Environmental Services		3,564,858
551	CNG Service Station		466,979
601	Payroll		3,438,533
605	Unemployment Compensation		4,782
607	Group Hospitalization		20,046,860
640	Hurricane Katrina		116,274
641	Hurricane Rita		331,383
643	Hurricane Gustav		(545,261)
644	Hurricane Isaac		(42,468)
645	2016 August Flood		(81,238)
646	Hurricane Barry		(440,821)
701	Central Printing		(146,241)
702	Central Vehicle Maintenance		1,038,644
	Total General Operating Funds	$	**193,047,516**
	Debt Service Funds:		
215	1961 City Sales Tax Trust Fund	$	3,177
222	1985 City Sales Tax Trust Fund		0
290	TIF City Sales Tax Trust Fund-MM101		653,711
291	TIF City Sales Tax Trust Fund-MM103		3,839,277
302	1961 Sales Tax Bond Sinking Fund		7,970,991
303	1961 Sales Tax Bond Reserve Fund		9,571,306
304	1985 Sales Tax Bond Sinking Fund		4,192,418
305	1985 Sales Tax Reserve Fund		8,054,349
356	Contingency Sinking-Parish		6,791,537
357	2011 Certificates of Indebt		216,247
358	2012 Limited Tax Refund		44,690
801	Consolidated Sewerage Sinking Fund		277
821	Consolidated Paving Districts Sinking Fund		0
	Total Debt Service Funds	$	**41,337,981**

LAFAYETTE CONSOLIDATED GOVERNMENT
CASH AND INVESTMENTS
BALANCES AS OF OCTOBER, 2019

			CASH AND INVESTMENTS
	Construction Funds:		
401	Sales Tax Capital Improvement Fund	$	61,635,184
407	2010 Parish General Obligation Bonds		8,184
436	2009A Sales Tax Bond Construction		618,053
438	2010 Sales Tax Bond Construction		31,485
440	2013 Sales Tax Bond Construction		19,105
441	City Combined Bond Fund		20,395,405
	Total Construction Funds	$	**82,707,415**
	Other:		
602	Firemen Pension & Relief	$	0
603	Police Pension & Relief		0
614	Risk Management		3,203,364
	Total Other	$	**3,203,364**

LAFAYETTE CONSOLIDATED GOVERNMENT
CASH AND INVESTMENTS
BALANCES AS OF OCTOBER, 2019

			CASH AND INVESTMENTS
	Utility System Funds:		
501	Receipts Fund	$	1,315,320
502	Operation and Maintenance		6,714,271
503	Bond & Interest		0
504	Capital Additions Fund		115,682,857
505	Security Deposit Fund		9,148,674
506	Bond Reserve Fund		17,295,114
507	2019 LUS Construction Fund		70,903,139
	Total Utilities System Funds	$	**221,059,375**
	LPPA Funds:		
520	LPPA Revenue Fund	$	14,257,204
521	LPPA Operating Fund		8,874,745
522	LPPA Fuel Cost Stability Fund		4,500,430
523	LPPA Bond Reserve Fund		9,564,626
524	LPPA Reserve & Contingency Fund		5,283,815
525	LPPA Bond Interest & Principal Fund		0
	Total LPPA Funds	$	**42,480,819**
	Communications System Funds:		
531	Receipts Account	$	125,421
532	Operating Account		2,202,523
533	Debt Service Account		0
535	2012A Bond Account		0
536	2012B Bond Account		0
537	Capital Additions Account		5,920,578
538	Security Deposits Account		108,074
	Total Communications System Funds	$	**8,356,597**
	TOTAL ALL FUNDS	$	**592,193,067**

LAFAYETTE CONSOLIDATED GOVERNMENT
REVENUE BONDS CONTINUING DISCLOSURE
ECONOMIC INDICATORS

Per Capita Personal Income

	2014	2015	2016	2017	2018
Lafayette Parish	$ 51,545	$ 48,734	$ 44,347	$ 45,892	$ 50,273
Louisiana	42,012	42,856	42,298	43,660	46,242
United States	46,494	48,451	49,246	51,731	54,446

Source: U.S. Bureau of Economic Analysis

Effective Buying Income

Median Household
Effective Buying Income

Year	Lafayette Parish	City of Lafayette	Louisiana	Nation
2018	$ 54,726	$ 50,182	$ 47,942	$ 73,965

Sources: U.S. Census Bureau

Employment

Year	Labor Force	Employment	Unemployment	Parish Rate	State Rate
2001	99,544	95,345	4,199	4.2	5.7
2002	98,002	93,450	4,552	4.6	6.1
2003	97,675	92,904	4,771	4.9	6.4
2004	98,439	94,047	4,392	4.5	5.9
2005	104,121	98,670	5,451	5.2	7.1
2006	107,716	104,316	3,400	3.2	4.5
2007	110,161	106,874	3,287	3.0	4.3
2008	113,129	109,279	3,850	3.4	4.9
2009	111,996	106,294	5,702	5.1	6.8
2010	113,571	106,487	7,084	6.2	8.0
2011	113,869	107,117	6,752	5.9	7.8
2012	116,591	110,733	5,858	5.0	7.1
2013	118,870	113,007	5,863	4.9	6.7
2014	122,466	116,444	6,022	4.9	6.4
2015	120,075	113,260	6,815	5.7	6.3
2016	114,348	107,348	7,000	6.1	6.0
2017	113,028	107,513	5,515	4.9	5.1
2018	113,337	108,265	5,072	4.5	4.9

Source: Louisiana Department of Labor

LAFAYETTE CONSOLIDATED GOVERNMENT
REVENUE BONDS CONTINUING DISCLOSURE

The final figures for the Parish for December 2019 were reported as follows:

Year	Labor Force	Employment	Unemployment	Parish Rate	State Rate
December 2019	113,213	108,278	4,935	4.4	*4.9

* The seasonally adjusted rate was 5.2

Source: Louisiana Department of Labor

The final figures for the Lafayette Metropolitan Statistical Area ("MSA") for December 2019 were reported as follows:

Year	Labor Force	Employment	Unemployment	Parish Rate	State Rate
December 2019	210,923	200,667	10,256	4.9	*4.9

* The seasonally adjusted rate was 5.2

Source: Louisiana Department of Labor

The following table show the composition of the employed work force in the Lafayette MSA.

Non-Farm Wage and Salary Employment by Major Industry
(Employees in Thousands)

	December 2016	December 2017	December 2018	December 2019
Mining	13.6	13.5	12.9	12.8
Construction	9.5	9.0	9.7	9.4
Manufacturing	14.8	15.7	15.7	16.6
Trade, Transporation, & Utilities	42.2	41.4	42.5	42.7
Information	2.5	2.5	2.4	2.3
Financial Activities	10.6	10.4	11	10.9
Professional And Business Services	20.1	20.2	21.7	21
Educational and Health Services	30.4	30.5	32.5	33.1
Leisure and Hospitality	21.7	22.1	22.0	22.0
Other Services	7.2	7.2	7.1	7.2
Government	26.7	26.8	27.5	27.8
Total	219.1	199.3	205.0	205.8

LAFAYETTE CONSOLIDATED GOVERNMENT
REVENUE BONDS CONTINUING DISCLOSURE
ANNUAL AVERAGE LAFAYETTE PARISH CONCURRENT ECONOMIC
INDICATORS 2015, 2016, 2017, 2018 AND THIRD QUARTER 2019
(All data not seasonally adjusted)

	2015	2016	2017	2018	2019:3
EMPLOYMENT					
Total	**137,602**	**130,217**	**129,061**	**132,838**	**130,491**
Accommodation and Food Services	14,384	14,327	14,084	14,227	13,684
Administrative and Waste Services	6,567	5,917	5,733	6,236	6,078
Agriculture,Forestry, Fishing, and Hunting	83	80	70	81	81
Arts, Entertainment, and Recreation	2,324	2,225	2,088	1,936	1,977
Construction	6,834	5,911	5,685	5,628	5,568
Educational Services	7,802	7,832	7,961	8,707	8,089
Finance & Insurance	3,283	3,449	3,501	3,645	3,572
Health Care and Social Services	20,519	21,197	22,078	22,980	23,867
Information	2,337	2,345	2,279	2,208	2,191
Management of Companies and Enterprises	3,062	2,753	2,622	2,610	2,486
Manufacturing	9,257	7,889	7,808	8,432	8,703
Mining	13,425	10,309	8,877	8,649	8,599
Other Services, except Public Administration	3,270	3,207	3,156	3,249	3,223
Professional & Technical Services	8,407	7,644	7,645	8,692	8,604
Public Administration	3,680	3,693	3,685	3,736	3,729
Real Estate and Rental and Leasing	3,551	3,120	3,060	3,169	3,139
Retail Trade	17,771	18,180	18,356	18,209	16,750
Transportation & Warehousing.	3,493	3,202	3,509	4,040	3,956
Utilities	458	433	424	415	425
Wholesale Trade	7,074	6,493	6,428	5,987	5,767

	Annual	Annual	Annual	Annual	Quarterly
EARNINGS ($ in Thousands)					
Total	**$6,747,390**	**$5,962,542**	**$5,931,890**	**$1,684,883**	**$1,564,227**
Accommodation and Food Services	247,617	236,975	230,580	60,805	59,225
Administrative and Waste Services	275,439	225,268	209,685	60,894	60,896
Agriculture,Forestry, Fishing, and Hunting	3,587	3,828	2,482	972	718
Arts, Entertainment, and Recreation	36,483	35,173	35,087	8,516	8,510
Construction	366,092	308,219	295,648	83,543	72,773
Educational Services	319,053	319,467	330,665	93,926	89,421
Finance & Insurance	228,264	228,385	239,273	65,112	59,408
Health Care and Social Services	925,857	930,555	973,111	275,118	280,341
Information	113,508	112,082	113,650	29,450	29,096
Management of Companies and Enterprises	290,137	247,246	228,492	82,221	48,229
Manufacturing	508,203	419,418	437,437	132,267	129,927
Mining	1,201,440	880,821	769,080	198,296	189,099
Other Services, except Public Administration	116,017	115,124	116,670	32,907	31,267
Professional & Technical Services	574,890	483,465	492,294	168,884	140,472
Public Administration	180,335	182,402	183,885	46,183	50,133
Real Estate and Rental and Leasing	225,269	174,921	175,155	53,924	47,716
Retail Trade	504,636	508,095	525,066	137,947	126,596
Transportation & Warehousing.	175,591	159,357	179,511	51,778	46,552
Utilities	26,373	25,298	25,975	6,638	7,543
Wholesale Trade	427,346	365,965	367,692	95,455	86,180

Source: Louisiana Department of Labor

LAFAYETTE CONSOLIDATED GOVERNMENT
REVENUE BONDS CONTINUING DISCLOSURE

The names of the largest employers located in Lafayette Parish are as follows:

	Name of Employer	Type of Business	Approximate No. of Employees
1.	Waitr	Information Technology	5,915
2.	Lafayette General Health	Health Care	4,298
3.	Lafayette Parish School System	Education	4,250
4.	University of Louisiana-Lafayette	Education	2,752
5.	Lafayette Consolidated Government	Public Administration	2,419
6.	Our Lady of Lourdes Reg Med Ctr	Health Care	2,248
7.	WHC Inc.	Oil and Gas Pipeline Construction	1,505
8.	Wal-Mart Stores Inc.	Retail Trade	1,479
9.	Stuller Inc.	Manufacturing	1,210
10.	Island Operating Company	Oil and Gas	1,050

Source: Lafayette Economic Development Authority

Banking Facilities

The Lafayette Parish are is served by the following banks:

Banks

1st Heritage Credit
3rd District Highway FCU
Acadian Federal Credit Union
Acadiana Medical Federal Credit Union
Advancial Federal Credit Union
American Bank & Trust Company
Aurora Ranch Mitigation Bank
BancorpSouth Bank
Bank of Sunset & Trust Company
Bayou Federal Credit Union
Business First Bank
Capital One, National Association
Chase Bank
Commercial Business Loans LLC
Community First Bank
Cornerstone Financial Credit Union
Crescent Bank & Trust
CUSA Federal Credit Union
Family Savings Credit Union
Farmers-Merchants Bank & Trust Company
Farmers State Bank & Trust Company
First Bank & Trust
First National Bank
First National Developments
First Pioneers FCU
Gulf Coat Bank
Hancock Whitney Bank
Heritage Credit Union
Home Bank
HPES
IBERIABANK
Investar Bank
JD Bank
LA Dotd Federal Credit Union
Lafayette Schools Federal Credit Union
M C Bank & Trust Co.
Maple Federal Credit Union
MidSouht Bank, N.A.
Pedestal Bank
PHI Federal Credit Union
Rayne State Bank & Trust Co
Regions Bank
Section 705 Credit Union
South Louisiana Bank
St Jules Credit Union
St. Landry Bank & Trust Company
St. Martin Bank & Trust Company
University of LA Credit Union
Washington State Bank
Woodforest National Bank

Source: Lafayette Economic Development Authority

STATEMENT OF DIRECT, OVERLAPPING, UNDERLYING
AND PARTIALLY UNDERLYING BONDED DEBT AS OF NOVEMBER 2, 2019
(The accompanying notes are an integral part of this statement.)

Notes	Name of Issuer & Issue	Interest Rates (%)	Dated Date	Final Maturity Date	Principal Outstanding	Principal Amount Due Within One Year
(1)	**Direct Debt of the City of Lafayette, State of Louisiana**					
(2)	Taxable Public Improvement Sales Tax Recovery Zone Economic Development Bonds, Series 2009A	7.23	8/18/09	3/01/34	$ 3,640,000	$ 0
(2)	Public Improvement Sales Tax Refunding Bonds, Series ST-2011A	3.75-5.0	6/01/11	3/01/26	9,520,000	1,160,000
(2)	Public Improvement Sales Tax Refunding Bonds, Series ST-2011C	3.125-5.0	12/08/11	3/01/27	4,785,000	520,000
(2)	Public Improvement Sales Tax Refunding Bonds, Series ST-2012A	3.0-3.125	6/01/12	3/01/28	3,695,000	350,000
(2)	Public Improvement Sales Tax Bonds, Series 2013	3.125-5.0	6/21/13	3/01/38	13,135,000	475,000
(2)	Public Improvement Sales Tax Refunding Bonds, Series 2014A	5.0	10/17/14	3/01/30	13,745,000	955,000
(2)	Public Improvement Sales Tax Refunding Bonds, Series 2014C	5.0	12/05/14	3/01/24	10,100,000	2,855,000
(2)	Public Improvement Sales Tax Refunding Bonds, Series 2015A	2.43	12/18/15	3/01/25	2,710,000	280,000
(2)	Public Improvement Sales Tax Refunding Bonds, Series 2016D	2.0-4.0	2/26/16	3/01/32	11,500,000	695,000
(2)	Public Improvement Sales Tax Refunding Bonds, Series 2017A	3.0-5.0	7/18/17	3/01/32	10,835,000	670,000
(3)	Public Improvement Sales Tax Refunding Bonds, Series 2018A	4.0-5.0	12/06/18	3/01/25	20,090,000	1,095,000
(3)	Public Improvement Sales Tax Refunding Bonds, Series ST-2011B	3.75-4.25	6/01/11	5/01/26	8,170,000	815,000
(3)	Public Improvement Sales Tax Refunding Bonds, Series ST-2011D	3.125-5.0	12/08/11	5/01/27	8,510,000	815,000
(3)	Public Improvement Sales Tax Refunding Bonds, Series ST-2012B	3.0-5.0	6/01/12	5/01/28	9,500,000	860,000
(3)	Public Improvement Sales Tax Refunding Bonds, Series 2014B	3.0-3.375	9/26/14	5/01/30	1,430,000	105,000
(3)	Public Improvement Sales Tax Refunding Bonds, Series 2015	5.00	2/06/15	5/01/24	5,870,000	1,695,000
(3)	Public Improvement Sales Tax Refunding Bonds, Series 2016A	3.0-5.0	2/26/16	5/01/25	13,285,000	3,075,000
(3)	Public Improvement Sales Tax Refunding Bonds, Series 2016E	2.63	2/26/16	5/01/32	1,540,000	100,000
(3)	Public Improvement Sales Tax Refunding Bonds, Series 2018B	4.0-5.0	12/06/18	5/01/34	18,335,000	870,000
(4)	Utilities Revenue Bonds, Series 2010	3.75	12/15/10	11/01/20	2,960,000	2,960,000
(4)	Utilities Revenue Refunding Bonds, Series 2012	5.0	1/11/13	11/01/28	109,315,000	10,025,000
(4)	Utilities Revenue Refunding Bonds, Series 2017	4.0-5.0	10/13/17	11/01/35	59,465,000	0
(5)	Certificates of Indebtedness, Series 2011	3.65	5/11/11	5/01/26	3,275,000	410,000
(6)	Communications System Revenue Bonds, Series 2012A	4.0-5.0	1/26/12	11/01/31	7,595,000	0
(6)	Taxable Communications System Revenue Bonds, Series 2012B	5.0-6.0	1/26/12	11/01/31	7,000,000	0
(6)	Communications System Revenue Refunding Bonds, Series 2015	3.5-5.0	8/21/15	11/01/31	77,545,000	4,880,000
(7)	Taxable Limited Tax Refunding Bond, Series 2012	3.75	3/02/12	5/01/28	26,365,000	2,510,000

Notes	Name of Issuer & Issue	Interest Rates (%)	Dated Date	Final Maturity Date	Principal Outstanding	Principal Amount Due Within One Year
(8)	**Overlapping Debt of the Parish of Lafayette, State of Louisiana**					
(9)	General Obligation Bonds, Series 2010	4.75-5.0	1/12/11	3/01/35	$19,775,000	$ 835,000
(9)	General Obligation Refunding Bonds, Series 2010	3.75-5.0	1/12/11	3/01/26	6,935,000	850,000
(9)	General Obligation Refunding Bonds, Series 2012	3.0-4.0	5/03/12	3/01/28	11,525,000	1,075,000
(9)	General Obligation Refunding Bonds, Series 2014	3.0-4.0	8/01/14	3/01/30	8,730,000	645,000
(10)	**Overlapping Debt of the Parish School Board of the Parish of Lafayette, State of Louisiana**					
(5)	Refunding Certificates of Indebtedness, Series 2010	3.06	12/29/10	11/01/23	1,195,000	285,000
(5)	Certificate of Indebtedness, Series 2015	2.2	8/17/15	11/01/22	5,945,000	1,465,000
(11)	Public School Refunding Bonds, Series 2010	3.75-4.0	5/27/10	4/01/21	1,850,000	905,000
(11)	Sales Tax Revenue Bonds, Series 2018A	3.0-5.0	7/31 /18	4/01/48	27,765,000	595,000
(11)	Sales Tax Revenue Bonds, Series 2018	3.0-5.0	2/27 /18	4/01/40	65,000,000	1,140,000
(11)	Sales Tax Revenue Bonds, Series 2019	2.0-5.0	4/18 /19	4/01/40	25,000,000	100,000
(12)	Limited Tax Bonds (Taxable QSCB), Series 2009	0.8	12/11/09	10/01/24	5,333,332	666,667
(12)	Limited Tax Bonds (Taxable QSCB), Series 2011	0	3/01/11	10/01/26	4,666,662	666,666
(12)	Limited Tax Bonds (Taxable QSCB), Series 2012	0	4/03/12	3/01/27	779,080	97,385
(12)	Limited Tax Revenue Bonds, Series 2012A	2.0-5.0	1/04/13	3/01/32	22,505,000	1,380,000
(12)	Limited Tax Revenue Bonds, Series 2016	2.375	12/21/16	12/21/56	75,393,777	1,316,010
(13)	**Overlapping Debt of the Law Enforcement District of the Parish of Lafayette, State of Louisiana**					
(14)	Limited Tax Revenue Bonds, Series 2012	2.0-4.0	3/01/12	3/01/32	15,570,000	915,000
(15)	**Overlapping Debt of the Lafayette Parish Bayou Vermilion District, State of Louisiana**					
(9)	General Obligation Bonds, Series 2016	2.0-2.625	8/30/16	3/01/36	3,685,000	140,000
(16)	**Underlying Debt of Lafayette Public Power Authority**					
(17)	Electric Revenue Bonds, Series 2012	3.0	12/21/12	11/01/32	47,705,000	2,770,000
(17)	Electric Revenue Refunding Bonds, Series 2015	3.0	11/13/15	11/01/32	27,235,000	845,000
(18)	**Partially Underlying Debt of Lafayette Parish Waterworks District North, Lafayette Parish, Louisiana**					
(19)	Water Revenue Refunding Bonds, Series 2013	2.95	1/29/13	10/01/27	2,629,000	382,000
(20)	**Partially Underlying Debt of Lafayette Parish Waterworks District South, Lafayette Parish, Louisiana**					
(19)	Water Revenue Refunding Bonds, Series 2011	2.9	12/21/11	8/01/21	719,000	353,000
(19)	Water Revenue Bonds, Series 2013	3.2	8/08/13	8/01/28	1,210,000	40,000
(19)	Water Revenue Bonds, Series 2018	1.675-3.35	7/26/18	8/01/30	1,500,000	10,000

NOTES

(1) The 2019 total assessed valuation of the City of Lafayette, State of Louisiana is approximately $1,612, 353,117, all of which is taxable for municipal purposes.

(2) Payable solely from and secured by an irrevocable pledge and dedication of the avails or proceeds of the special 1% sales and use tax being levied and collected by the issuer, pursuant to elections held in the issuer on May 13, 1961, November 20, 1965, March 22, 1977, and July 21, 2001, subject only to the prior payment of the reasonable and necessary costs and expenses of collecting and administering the tax.

(3) Payable solely from and secured by an irrevocable pledge and dedication of the avails or proceeds of the special 1% sales and use tax now being levied and collected by the issuer, pursuant to elections held in the issuer on May 4, 1985, November 15, 1997, and July 21, 2001, subject only to the prior payment of the reasonable and necessary costs and expenses of collecting and administering the tax.

(4) Payable as to principal and interest, solely from the income and revenues to be derived from the operation of the Lafayette Utilities System, subject only to the prior payment of the reasonable expenses of administration, operation and maintenance of the Lafayette Utilities System.

(5) Secured by and payable solely from an irrevocable pledge and dedication of the excess of annual revenues of the issuer above statutory, necessary and usual charges in each of the fiscal years during which the obligations and any parity obligations are outstanding.

(6) The Bonds shall be special obligations of the issuer, payable first, from the net income and revenues of the Communications System and second, to the amount necessary, from a secondary or subordinate pledge of the revenues of the Utilities System.

(7) Secured by and payable from an irrevocable pledge and dedication of the funds to be derived by the issuer from the levy and collection of a special tax of 5.42 mills (such rate being subject to adjustment from time to time due to reassessment), which the issuer is authorized to impose and collect in each year. Said special tax is authorized to be levied on all the property subject to taxation within the corporate boundaries of the issuer.

(8) The 2019 total assessed valuation of the Parish of Lafayette, State of Louisiana is approximately $2,750,982,374, of which approximately $2,349,992,652.

(9) Secured by and payable from unlimited *ad valorem* taxation.

(10) The 2019 total assessed valuation of the Parish School Board of the Parish of Lafayette, State of Louisiana is approximately $2,750,982,374 of which approximately $2, 349,992,652 is taxable.

(11) Secured by and payable solely from an irrevocable pledge and dedication of the avails or net proceeds of the 1% sales and use tax being levied and collected by the issuer, in compliance with a special election held within the Parish of Lafayette, State of Louisiana on September 18, 1965.

(12) Secured by and payable from an irrevocable pledge and dedication of the funds to be derived by the issuer from the levy and collection of a special tax of 4.59 mills (such rate being subject to adjustment from time to time due to reassessment) authorized to be levied each year on all the property subject to taxation within the corporate boundaries of the issuer.

(13) The 2019 total assessed valuation of the Law Enforcement District of the Parish of Lafayette, State of Louisiana is approximately $2,750,982,374, of which approximately $2,349,992,652 is taxable.

(14) Secured by and payable from an irrevocable pledge and dedication of the annual revenues of a special *ad valorem* tax of 8.03 mills (such rate being subject to adjustment from time to time due to reassessment) within the issuer, authorized to be imposed and collected each year on all the property subject to taxation within the corporate boundaries of the issuer.

(15) The 2019 total assessed valuation of the Lafayette Parish Bayou Vermilion District, State of Louisiana is approximately $$2,750,982,374, of which approximately $2,349,992,652 is taxable.

(16) The Lafayette Public Power Authority is parishwide, and levied no *ad valorem* taxes in 2019.

(17) Secured by a pledge of project power revenues of the Lafayette Public Power Authority attributable to the project after payment of operating expenses.

(18) Lafayette Parish Waterworks District North of the Parish of Lafayette, State of Louisiana includes an area lying to the North of the Township line between Township 9 South and Township 10 South, except those areas included in any municipality or other water district, and except certain areas adjacent to the City of Lafayette. The District levied no *ad valorem* taxes in 2019.

(19) Payable solely from the income and revenues derived or to be derived from the operation of the waterworks system of the issuer, subject only to the prior payment of the reasonable and necessary expenses of operating and maintaining the system.

(20) Lafayette Parish Waterworks District South of the Parish of Lafayette, State of Louisiana includes an area lying to the South of the Township line between Township 9 South and Township 10 South, except those areas included in any municipality or other water district and/or certain water systems, and except certain areas adjacent to the City of Lafayette. The District levied no *ad valorem* taxes in 2019.

(NOTE: The above statement excludes the outstanding indebtedness of the Lafayette Airport Commission, the Lafayette Economic Development Authority [formerly the Lafayette Harbor, Terminal and Industrial Development District], the Lafayette Public Trust Financing Authority, Lafayette Industrial Development Board, Lafayette I-10 Corridor District at Mile Marker 103, District No. 4 Regional Planning and Development Commission, and all operating and capital leases.)

SUMMARY DEBT STATEMENT AS OF NOVEMBER 2, 2019

A. Debt of the City of Lafayette

Type of Obligation	Principal Outstanding
Sales Tax Bonds	$170,395,000
Utilities Revenue Bonds	$171,740,000
Communications System Revenue Bonds	$92,140,000
Taxable Revenue Bonds	$26,365,000
Certificates of Indebtedness	$3,275,000

B. Debt of the Parish of Lafayette

Type of Obligation	Principal Outstanding
Unlimited Ad Valorem Tax Bonds	$50,650,000

C. Debt of the Lafayette Parish School Board

Type of Obligation	Principal Outstanding
Sales Tax Bonds	$228,292,851
Certificates of Indebtedness	$7,140,000

D. Debt of The Law Enforcement District

Type of Obligation	Principal Outstanding
Limited Tax Revenue Bond	
Lafayette Parish Law Enforcement District	$15,570,000

E. Debt of the Lafayette Public Power Authority

Type of Obligation	Principal Outstanding
Electric Revenue Bonds	$74,940,000

F. Partially Underlying Debt of the Lafayette Parish Waterworks District North

Type of Obligation	Principal Outstanding
Water Revenue Bonds	$2,629,000

G. Partially Underlying Debt of the Lafayette Parish Waterworks District South

Type of Obligation	Principal Outstanding
Water Revenue Bonds	$3,429,000

(NOTE: The above statement excludes the outstanding indebtedness of the Lafayette Airport Commission, the Lafayette EconomicDevelopment Authority [formerly the Lafayette Harbor, Terminal and Industrial Development District], the Lafayette Public TrustFinancing Authority, Lafayette Industrial Development Board, Lafayette I-10 Corridor District at Mile Marker 103, District No. 4Regional Planning and Development Commission, and all operating and capital leases.)