REPORT | April 2019

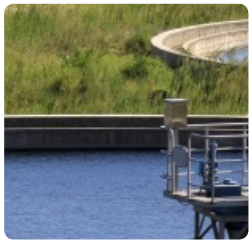
LUS
LAFAYETTE UTILITIES SYSTEM

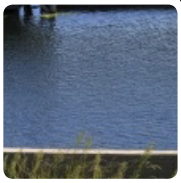
Lafayette
CONSOLIDATED GOVERNMENT

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 2018. 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) has 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 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.

The City owns the Communications System, often branded as LUS Fiber. Prior to October 31, 2018, the Utilities System 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, the prior Chief Communications Engineer is serving as the Communications System Interim Director. Prior to October 31, 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 target implementation on January 6, 2020. Once the amendment is implemented, the new City Council would replace the LPUA and LCG as the governing authority for the Utilities System, the Communications System, and LPPA. Currently, there is a pending question of whether an ordinance or an election is the proper method to address certain discrepancies in the description of the boundaries of the new City Council districts and Parish Council districts. The City-Parish Council is currently working on resolving that issue prior to October 12, 2019.

Bond Ordinances Requirements

As of October 31, 2018, the City has issued and is servicing debt related to Utilities System Utilities Revenue Bonds (Series 2010, 2012, and 2017), Communications System Communications Revenue Bonds (Series 2012 and 2015), and LPPA Bonds (Series 2012 and 2015). On September 3, 2017, LUS issued the Series 2017 Bonds to refund a portion of the Series 2010 Bonds. By 2020, the Series 2010 Bonds will be fully redeemed by the proceeds of the Series 2017 Bonds. The City began servicing the Series 2017 Bonds in May 2018. As of the date of this Report, the City is expected to issue $60.1 million in Utilities Revenue Bonds, Series 2019 Bonds, on May 1, 2019. The bond money is proposed to fund upgrades and improvements to the Utilities System.

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 fiscal year (FY) 2018 (November 1, 2017 to October 31, 2018). 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 February 2019. 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 has 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 67,243 electric customers, 56,564 water customers, and 45,019 wastewater customers in 2018. Customer growth on the Utilities System is stable, with observed customer growth averaging 0.9% per year since 2014.

LUS generated a total of $235 million of revenues in 2018, with the majority of the revenue ($181 million) from the electric services. 2018 revenues were approximately 3.7% higher than 2017, with the electric revenues 2.8% higher. The water and wastewater revenues increased by 9.7% and 5.2%, respectively, from the previous year. The increase in revenues is primarily driven by rate increases effective November 1, 2017 and increased sales. The debt service coverage ratio (DSCR) for the Utilities System remains strong at 3.3 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 2018 financial performance was less than budgeted as the actual revenues and expenses were both lower than originally projected in the 2018 budget. The Utilities System collected $235 million in operating and miscellaneous revenues compared to the budgeted $247 million. The difference is attributable to lower water sales, lower wastewater collection, lower energy sales and lower fuel costs. The lower purchased power costs reduced expenses, thus reduced FC related revenues as the purchased power costs are recovered via an FC cost recovery mechanism.

Other O&M expenses were lower than budgeted due to lower personnel salaries, the Director's Reserve, lower contracting costs including the decommissioning of the Doc Bonin plant. Other Income (Expenses) were higher than the budgeted amount due to increased spending on normal capital and special equipment. Overall, the cash available for capital was lower 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 approximately 20,000 customers in 2018. Communications System customer growth continues at a compound annual rate of 5.0% since 2014.

The Communications System revenues increased to $38 million in 2018, up 2.8% from 2017. The DSCR for the Communications System stayed steady at 1.9. The minimum DSCR requirement for the Communications System is 1.0.

In general, the Communications System's revenue performance was aligned with the budget. The Communications System collected $39 million in operating and miscellaneous revenues in 2018, as compared to the budgeted $40 million. Operating expenses were under budget at $20 million, as compared to the budgeted $21 million. The largest decrease in expenses was the cable programming costs. Other Income (Expenses) was close to the budgeted amount. Overall, the cash available for capital was aligned with the budgeted amount. While the Communications System's actual financial performance was under budget, it still 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.

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:

- On July 18, 2018, the Utilities Systems Director, Terry Huval, announced his retirement from LUS effective immediately. At that time, Mr. Huval as the Utilities System Director was responsible for managing both the Utilities and Communications Systems. Since that time Jeff Stewart, the Engineering and Power Production Division Manager, has served as the Interim Utilities System Director.
- 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. As of November 1, 2018, Teles Fremin, the current Chief Communications Engineer is serving as the Communications System Interim Director. LCG is now the governing authority of the Communications System.
- As the Consulting Engineer must approve of the Utilities System Director, NewGen is assisting LCG with a comprehensive executive search to facilitate the recruitment and selection of a Director for the Utilities System. This executive search will include identification of candidates, interview support, and facilitation of the selection process.
- On October 3, 2018, NextGEN Utility Systems, a Bernhard Capital Partners utility management company, made a proposal to the City-Parish Council to manage the LUS Electric, Water and Wastewater systems for 40 years. On November 5, 2018, NextGEN withdrew its proposal.
- In response to the proposal 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."
- 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 target implementation on January 6, 2020. Once the amendment is implemented, the City Council would replace the LPUA or LCG as the governing authority for the Utilities System, the Communications System, and LPPA. Currently, there is a pending question of whether an ordinance or an election is the proper method to address certain discrepancies in the description of the boundaries of the new City Council districts and Parish Council districts. The City-Parish Council is currently working on resolving that issue prior to October 12, 2019.

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 3.3 DSCR. The Utilities System minimum DSCR is 1.0.
- LUS has successfully implemented succession planning for key management positions in the organization. LUS has successfully transitioned or hired personnel to fill key management vacancies in recent years including the Customer Services, Support Services, and Electric / Communications Operations Division Managers. This consistent approach and success in filling these key management positions has maintained stability at LUS and ensured knowledge transfer.
- 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.
- Historically, the Utilities System capital improvement program (CIP) has been 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 several years ago. 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 have been removed and all contaminated soil under the tanks has been removed.
- LUS has initiated a Request for Proposal to select a consultant to perform an Integrated Resource Plan (IRP), which will evaluate 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, has been placed on hold pending the result of the new IRP.

- LUS' Electric System is highly reliable with reliability indices (i.e. SAIDI/SAIFI/CAIDI/MAIFI) significantly lower than the national and regional averages for electric utilities. Performance has improved year-over-year from 2014 to 2018.
- 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 2018; however, certain vacancies remain or are more difficult to fill in positions that are competitive in the broader labor market. While LUS has had recent success in filling targeted positions within the Utilities System, vacancies remain for certain lineman and 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 2019. 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 47% 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 is 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 self-generation alternatives and energy conservation. Historically LUS customers' interest in renewable energy alternatives and energy conservation has been 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 wholesale water sales have increased at an annual average rate of approximately 3.0% and retail sales have stayed flat. Wholesale customers have required an increasing percentage of the total water produced. This will place continued pressure on the distribution system and could adversely affect LUS retail customers. Therefore, 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.
- Due to the changes to the Water System from growth and the potential withdrawal of City of Broussard from the system, LUS has updated its water distribution model. LUS is considering the impact of the City of Broussard withdrawing as a wholesale customer as its contract expires in 2020. If the contract is not renewed, there will be a reduction in the amount of wholesale volume sales, as well as a corresponding reduction in revenues and expenses.
- LUS should consider the implications of this potential reduction in wholesale water volumes relative to the timing of any required improvements needed at the

Commission Boulevard site to accommodate additional growth and water sales in this service area.

- 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 Advanced Metering Infrastructure (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, all meters were replaced, the project reached completion, and the meters are now under warranty. However, meters are still failing and being replaced at a rate of approximately 75 per week as of January 2019.
- 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.

Wastewater System

- In May 2018, the U.S. Environmental Protection Agency (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 Capacity, Management, Operations, and Maintenance (CMOM) Program. LUS will have to inspect 10% of its collection system each year, and address defects within three years of discovery. This has required LUS to increase 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 the EPA in 2018, this program will be a substantial infrastructure rehabilitation program over the next ten years.
- 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.
- LUS currently plans an update to the Wastewater Master Plan in 2019 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. The master planning should evaluate any improvements or expansion necessary to accommodate future growth and integrate the increasing number of outlying packaged plants into the collection and treatment system.
- Commercial and residential development and redevelopment 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.

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 are also 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.
- Based on interviews with staff and our observations, we conclude that the Communications System Engineering division is adequately staffed based on the number of customers.
- 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 2018. 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 Balance Available for Communications Debt Service was sufficient to meet Communications System debt service if a Credit Event occurred in 2018. The 2018 Utilities System Residual Balance achieved a coverage ratio of 3.8 as compared to the Communications System debt obligations.

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
2004	Retired	$183,990,000	Addition to electric generation capacity and extensions, and wastewater improvements
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
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 (1)	$58,065,000	Additions, extensions, and improvements to the Utilities System
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

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

Date Issued	Retired/ Outstanding	Authorized Amount	Application of Proceeds
2002	Retired	$30,340,000	Refunded 1996 bonds
2003	Retired	$61210,000	Refunded 1993 bonds
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
(1) Scheduled for delivery May 1, 2019.

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

(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 revenue bonds. Communications System revenues are pledged to meet debt service obligations associated with the Communications System Series 2012 and 2015 revenue 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 primarily responsible for the Utilities System and 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.

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 was effective November 1, 2018.

In November 2018, and in response to the NextGEN Utility Systems (NextGEN) proposal to manage the Utilities System (described later in this section), 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."

In December 2018, the citizens of Lafayette also voted to modify the management of the City and Parish. The vote amended the Charter to replace the City-Parish Council with two separate five-person councils: the City Council and the Parish Council. The changes will be effective January 6, 2020. Currently, there is a pending question of whether an ordinance or an election is the proper method to address certain discrepancies in the description of the boundaries of the new City Council districts and Parish Council districts. The City-Parish Council is currently working on resolving that issue prior to October 12, 2019.

2.1 Governance

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 2018, 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 Lafayette Public Utilities Authority (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. LCG was created in the Charter as enabled by the electorate of 1992.

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 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 market including fiber leases, wholesale broadband, and retail customer services. 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. The backbone of the system includes a 67-mile fiber backbone with direct connections to

national, major Tier 1 broadband providers. The retail portion of the Communications System includes over 650 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.

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. Currently, the City-Parish Council consists of nine (9) members and acts as the governing authority for the City and the Parish. Pursuant to the Charter Amendments, the nine (9) member City-Parish Council will be replaced by the new Lafayette City Council consisting of five (5) members who shall serve as the governing authority for the City (City Council) and the new "Lafayette Parish Council" consisting of five (5) members who shall serve 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 boundaries of districts of the new five (5) member councils for the City and the Parish will be put in place for the upcoming elections on October 12, 2019. Currently, there is a pending question of whether an ordinance or an election is the proper method to address certain discrepancies in the description of the boundaries of the new City Council districts and Parish Council districts. The City-Parish Council is currently working on resolving that issue prior to October 12, 2019. Regardless of the ultimate resolution of this issue, the result will be that there will either be a five (5) member City Council and five (5) member Parish Council (as described above) or a nine (9) member consolidated City-Parish Council as currently exists. The organizational structure of the Council 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).

Offer for Third-Party Management of the Utilities System

On October 3, 2018, NextGEN, a Bernhard Capital Partners utility management company, made a proposal to the City-Parish Council to manage the Electric, Water, and Wastewater Systems for a period of 40 years in return for an initial payment to LCG and continuing payments aligned with LUS' in lieu of tax (ILOT) payments. Under the proposal, NextGEN would incur all the costs to operating the Utilities System and received all revenues generated from operating the Electric, Water, and Wastewater Systems. On November 5, 2018, NextGEN withdrew its proposal, and the City-Parish Council passed a resolution to further oppose any sale, lease, or third-party management agreement of LUS.

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 compiles 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, 2018 of LCG, LUS, LUS Fiber, LPPA, LPUA, and the Utilities System is shown in Figure 2-1. If the separation of the Parish and City governance is implemented, beginning January 6, 2020, the organizational structure will reflect this separation. Thus, 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.

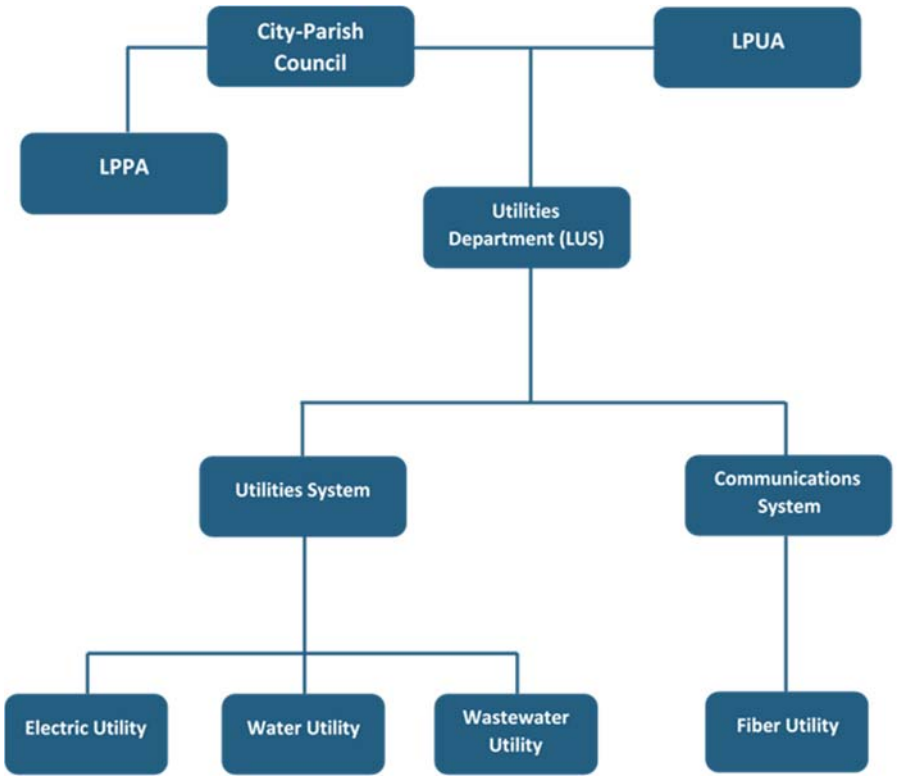

Figure 2-1: LCG Organizational Chart as of October 31, 2018

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 2018, 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 has been 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	2014	2015	2016	2017	2018
Utilities System					
Payments [1]	$462,400	$841,623	$1,669,926	$1,877,879	$591,520
Recovery	233,032	501,349	25,317	113,451	21,322
Net Transactions	$229,368	$340,274	$1,644,609	$1,764,428	$570,199
Communications System					
Payments	$2,217	$2,615	$4,733	$8,412	$14,299
Recovery	1,555	0	5,000	0	1,051
Net Transactions	$662	$2,615	($267)	$8,412	$13,248

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

2.5 Legal

LCG and ILOT

In June 2016 a class action lawsuit was filed against LCG, which challenges the validity of the LCG's collection of 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 timeline within which a definitive resolution of the issues involved in the class action lawsuit will be reached is indeterminable, at this time.

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.

2.6 Federal Emergency Management Agency (FEMA)

Hurricane Gustav, 2008

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 Louisiana State Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) acts as the auditor and approves expenses eligible for reimbursement.

When Hurricane Gustav hit southern Louisiana in 2008, 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 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. As of October 31, 2018, LUS has been reimbursed $693,178 from FEMA, with a payment of $263,281 in 2018.

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 submitted approximately $700,000 in flood related expenses to FEMA for reimbursement. As of October 31, 2018, LUS has been reimbursed $138,115.

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 67,243 electric accounts, 56,564 water accounts, and 45,019 wastewater accounts.

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

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), 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 defines the number of customers that can be acquired and specifies the amount of the payment to be made by LUS to SLEMCO for any acquired customers. The contract is a 15-year contract from 2004 through September 2019. As of the date of this Report, LUS is in the process of negotiating a new contract with SLEMCO to extend the current agreement.

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 2018, 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. LUS Fiber attained franchise status in November 2017 throughout the Parish and offers communications service to the City of Broussard, City of Youngsville, and unincorporated areas in the Parish. LUS Fiber 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. In 2019 and in the future, the new Communications Director position is subject to approval from the City-Parish Council. The Consulting Engineer must approve the Utilities Director. If, or when, the City Council replaces the LPUA as the governing authority for LUS and LPPA in 2020 related to the 2018 vote to separate the governance of the Parish and City, the Mayor-President will continue to appoint the Directors of the Utilities System and Communications System, but such appointment will be subject to ratification by the new City Council rather than the LPUA.

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 have been 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 determines rates, approves the LUS budgets, and issues debt as approved by the Mayor-President and City-Parish Council. If or when the governance separation of the Parish and City is implemented, the newly formed City Council will assume LPUA's responsibilities with respect to the Utilities 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. 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 with LUS for 18 years. Prior to July 2018, the Utilities Director was Mr. Terry Huval. On July 18, 2018, Terry Huval announced his retirement from LUS effective immediately. LCG, with NewGen's assistance, is currently performing a comprehensive executive search to facilitate recruitment and selection of a new Utilities Director with the intention of filling the position this year. As required by the Utilities System General Bond Ordinance, the Consulting Engineer intends to advise LCG in the appointment of a Utilities Director. Further, LCG shall not appoint anyone that has not been approved by the Consulting Engineer.

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.

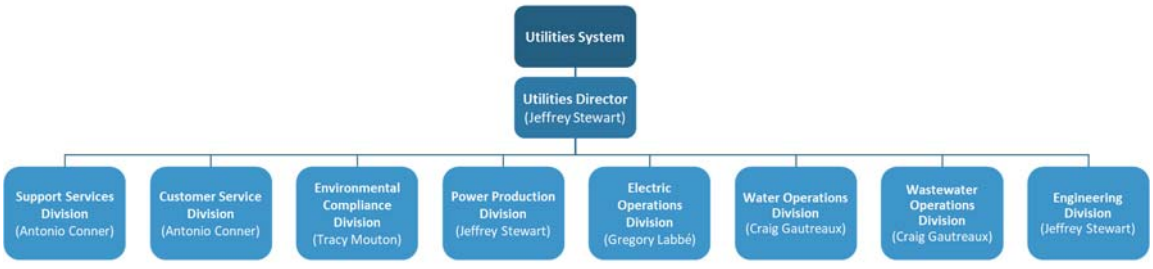


Figure 2-2: Utilities System Organizational Chart

Division managers reporting to the Utilities Director in 2018 include (please note the Customer Service, Support Services, and Operations Division Managers have both Utilities System and Communications System management responsibilities):

- ***Jeffrey Stewart*** – *Engineering & Power Supply Manager, Power Production Manager, and Interim Utilities Director*

  Mr. Stewart continues to serve as the Engineering & Power Supply Manager and Power Production Manager, as well as interim Director. 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, and Environmental Compliance associated with power generation.

- ***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 has 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 has been in the environmental field with the Utilities System for 24 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 has been with working with LUS for 33 years and has 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 25 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 2017-2018* (2018 Budget) and the *LCG Adopted Operating and Five-Year Capital Improvement Budget FY 2018-2019* (2019 Budget). Table 2-3 shows the budgeted number of employees contained in the 2018 and 2019 Budgets. The table also shows the numbers of employees as of the end of the FY. As shown, the Utilities System is understaffed by 52 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, 2018	2018 Budget	2019 Budget
Director's Office	1	2	2
Support Services	21	22	22
Customer Service	41	45	44
Environmental Compliance	17	17	17
Power Production	30	38	35
Electric Operations	79	94	94
Water Operations	61	68	67
Wastewater Operations	91	98	98
Engineering	71	80	81
Total Utilities System	412	464	460

Source: 2018 Budget, 2019 Budget, LUS Organizational Chart

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

During 2018, the LUS Utilities Director was responsible for operation and management of the Communications System. Mr. Terry Huval was the LUS Utilities Director until July 18, 2018, when Mr. Huval announced his resignation from LUS effective immediately. Upon Mr. Huval's resignation, Mr. Jeffrey Stewart was appointed the interim Utilities Director. Mr. Stewart remains the acting Utilities Director as of the date of this report.

During 2018, Communications System employees and facilities were organized separately from Utilities System operations; however, several services such as engineering, accounting, billing 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 60 employees, reporting to 5 functional areas: Administration and Support, Operations, Warehouse, Business Support Services, and Engineering as shown below. Please note that this figure represents the organizational responsibilities and positions as of October 31, 2018 and not the new organizational structure as adopted and implemented in the 2019 Budget.

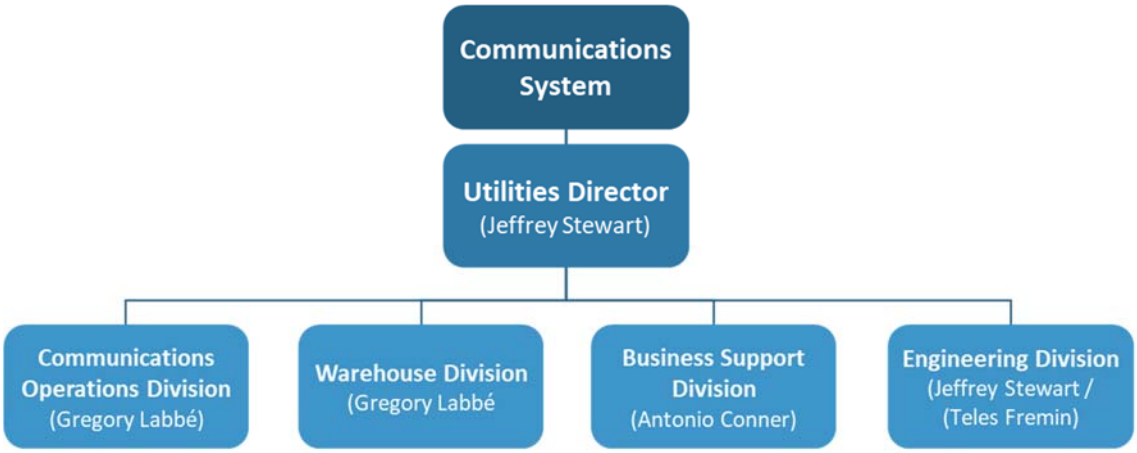


Figure 2-3: Communications System Organizational Chart as of October 31, 2018

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

- ***Teles Fremin*** – *Chief Communications Engineer and Interim Communications Director as of November 1, 2018*

  Ms. Fremin has over 17 years of experience in the public utility 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.

- ***Antonio Conner*** – *Administration & Support and Business Support Manager*

  Mr. Conner is responsible for various support and customer service functions within the Communications System including financial monitoring and planning, rates, revenue assurance, sales and marketing, customer service, business support services, and administration support services.

- ***Gregory A. Labbé*** – *Communications Operations and Warehouse Manager*

  Mr. Labbé is responsible for Communications System fiber and warehouse operations.

As approved with the adoption of the 2019 Budget, on November 1, 2018, the direction and management of the Communication System would be separated from the Utilities System Director and a new Communications System Director was created. The current interim Communications Director is 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 System Director November 1, 2018. Ms. Fremin has been with LUS for 17 years.

Beginning in 2019, the Communications Director will be responsible for the Communications System operations and management. Communications System employees and facilities will be organized separately from Utilities System operations; however, customer service will be shared between 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.

Communications System Staffing

As indicated in the Manning table below, the Communications System is understaffed in each functional area by a total of 13 personnel.

Table 2-4
Communications System
Manning Table

	Personnel		
Communications System	October 31, 2018	2018 Budget	2019 Budget
Administration & Support	0	0	2
Operations	34	37	37
Warehouse	0	3	3
Business Support Services	10	13	14
Engineering	15	19	21
Total Communications System	59	72	77

Source: 2018 Budget, 2019 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. 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
  - Lineman II
  - Power Plant Technician
- Water and Wastewater Utility

- Water/Wastewater Operations Manager
- Water Plant/Waste Plant Operator

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 Lineman II positions appear below market median compensation levels, while Power Plant Technician and Electrical Engineer III competitiveness varies based on the compensation benchmarking source. These results align with recent salary competitiveness issues LUS has experienced in pursing electric linemen and engineering staffing vacancies. For the two Water and Wastewater Utility positions reviewed, current compensation also appears to be below the market compensation values.

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 has been 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.

The Communications System's Internet, telephone, and CATV service markets are competitive. National telecommunications firms such as Cox Communications, Dish, and AT&T/DirecTV 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 Utilities Department 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.

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 2018, LUS served 67,243 electric customers, 56,564 water customers, and 45,019 wastewater customers. Combined LUS' customer growth since 2014 averaged 0.9% 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
2014	65,262	54,637	43,068
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

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

Historical Revenues

LUS generated a total of $235,071,461 of operating and other revenues in 2018 comprised of $180,955,690 from electric services, $21,736,544 from water services, and $32,379,226 from wastewater services. 2018 revenues were approximately 3.7% higher than 2017, with the electric revenues 2.8% higher. Water and wastewater revenues increased by 9.7% and 5.2%, respectively, from the previous year. The increase in revenues is primarily driven by rate increases effective November 1, 2017 for each system. 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
2014	$201,891,247	$17,783,466	$28,735,575	$248,410,288
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

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 2014 through 2018 include the Series 1996 Bonds, Series 2004 Bonds, Series 2010 Bonds, and Series 2012 Bonds. Series 2017 bonds were issued in 2017; however, the first debt service payment was not due until November 1, 2017 (FY 2018). Table 3-3 shows historical debt service and the associated DSCR. In each year since 2014, the DSCR has 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
2014	$248,410,288	$177,466,560	$70,943,728	$23,333,915	3.0
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

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. 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.

3.2 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

	2014	2015	2016	2017	2018 (1)
Electric Retail (2)	0%	0%	0%	2.8%	2.8%
Water Retail	0%	0%	0%	7.4%	7.2%
Wastewater Retail	0%	0%	0%	6.1%	5.7%

(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 2019 Budget, is shown in Table 3-5 and totals $143.1 million over the five-year period. The Electric System CIP totals $65.6 million. The Electric System CIP includes production capital expenditures related to combustion turbine plant improvements including inlet air chiller coil replacements, emissions controls, replacement of a cooling tower, and fuel supply improvements. The distribution capital improvements include replacing and renewing distribution feeders, extending distribution infrastructure to serve system expansions, and other general distribution improvements. The substation capital improvements include new transformers, a new substation, and other substation

improvements and expansion. The transmission improvements include new transmission lines to improve capacity, reliability, and performance. The general plant expenses include light-emitting diode (LED) streetlight replacements, office expansions, warehouse additions, software upgrades, and Pinhook Plant rehabilitations.

The 2018 Budget included the decommissioning and then repowering of the existing Doc Bonin Power Plant with reciprocating engines. The current budget, 2019 Budget, does not include this project as the City-Parish Council did not approve LUS to issue bonds for this project.

The Water System five-year CIP totals $19.5 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 pressure filters, building rehabilitation, hurricane protection, and maintenance improvements. The other half of the capital expenditures are distribution related and include water main expansions, upgrades, replacements, ground storage, and pressure support.

The Wastewater System CIP contained in the 2019 Budget totals $58.0 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, and sludge handling.

Table 3-5
Utilities System
2019 Budget Projected CIP

	2019	2020	2021	2022	2023	Total
Electric System						
Acquisitions [1]	$0	$0	$0	$0	$0	$0
Production	2,080,000	1,320,000	510,000	510,000	160,000	4,580,000
Distribution	3,845,000	3,185,000	1,285,000	1,285,000	535,000	10,135,000
Substation	17,485,000	1,135,000	1,135,000	835,000	835,000	21,425,000
Transmission	5,310,000	3,010,000	10,000	10,000	10,000	8,350,000
General Plant	9,860,000	5,560,000	5,410,000	160,000	160,000	21,150,000
Total Electric	$38,580,000	$14,210,000	$8,350,000	$2,800,000	$1,700,000	$65,640,000
Water System						
Production	$6,980,000	$580,000	$1,180,000	$930,000	$230,000	$9,900,000
Distribution	2,860,000	1,360,000	2,910,000	1,310,000	1,110,000	9,550,000
Total Water	$9,840,000	$1,940,000	$4,090,000	$2,240,000	$1,340,000	$19,450,000
Wastewater System						
Treatment	$13,230,000	$13,985,000	$860,000	$4,460,000	$610,000	$33,145,000
Collection	8,540,000	5,125,000	2,075,000	1,895,000	7,245,000	24,880,000
Total Wastewater	$21,770,000	$19,110,000	$2,935,000	$6,355,000	$7,855,000	$58,025,000
Total Capital Program	$70,190,000	$35,260,000	$15,375,000	$11,395,000	$10,895,000	$143,115,000

Source: 2019 Budget. Amounts are in 2019 dollars.
(1) May change based on SLEMCO contract negotiations

Utilities System's Budget to Actual Performance

The Utilities System financial performance was less than budgeted. Table 3-6 summarizes the results of the key Utilities System budget and actual accounts for 2018. Please note that the revenue categories shown in Table 3-6 are shown as exhibited in the 2018 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 – 2018

	Actual (millions)	2018 Budget (millions)	Difference (millions)	Difference (%)
Operating Revenues				
Electric Retail Sales	$102.9	$107.5	($4.7)	(4.3%)
Electric Retail Fuel Adj.	72.9	78.1	(5.2)	(6.7%)
Electric Wholesale Sales	0.2	0.2	(0.0)	(0.2%)
Water Sales	20.9	22.1	(1.2)	(5.6%)
Wastewater Sales	31.0	33.6	(2.6)	(7.7%)
Interest Income	2.9	0.5	2.4	473.7%
Miscellaneous Other	4.4	4.9	(0.5)	(9.4%)
Total Operating Revenue	$235.1	$246.9	($11.8)	(4.8%)
Operating Expenses				
Purchased Power LPPA	$50.7	$62.7	($11.9)	(19.0%)
Purchased Power Other	3.6	3.5	0.1	3.4%
Purchased Power MISO	67.9	72.7	(4.8)	(6.7%)
Purchased Power MISO Sales	(36.6)	(48.5)	11.9	(24.4%)
Production Fuel	3.0	1.3	1.7	129.9%
Other O&M	75.5	83.7	(8.2)	(9.8%)
ILOT	23.7	23.5	0.2	0.9%
Total Operating Expenses	$187.9	$198.9	($11.0)	(5.5%)
Other Income (Expenses)				
Normal Capital & Spec. Equip	($18.5)	($10.4)	($8.0)	76.7%
Imputed Tax	0.3	0.4	(0.0)	(6.6%)
Principal from Internal Loans	0.7	0.7	(0.0)	0.0%
Interest from Internal Loans	0.9	0.9	(0.0)	0.0%
Interest on Long-Term Debt	(9.6)	(9.9)	0.3	(3.1%)
Principal on Long-Term Debt	(11.8)	(11.8)	0.0	0.0%
Total Other	($38.0)	($30.3)	($7.7)	25.5%
Cash Available for Capital	$9.2	$17.7	($8.5)	(48.0%)

Source: LCG

The Utilities System 2018 financial performance was less than budgeted as the actual revenues and expenses were both lower than originally projected in the 2018 budget. The Utilities System collected $235 million in operating and miscellaneous revenues compared to the

budgeted $247 million. The difference is attributable to lower water sales, lower wastewater collection, lower energy sales and lower fuel costs. The lower purchased power costs reduced expenses, thus reduced FC related revenues as the purchased power costs are recovered via an FC cost recovery mechanism.

Other O&M expenses were lower than budgeted due to lower personnel salaries, the Director's Reserve, lower contracting costs including the decommissioning of the Doc Bonin plant. Other Income (Expenses) were higher than the budgeted amount due to increased spending on normal capital and special equipment. Overall, the cash available for capital was lower 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 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. LUS Fiber 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.

To make the customer service function more efficient, customer service representatives and cashiers are cross-trained to handle both the Utilities System and Communications System customer service needs. The customer service staff is sufficient with minimal turnover. Generally, positions become vacant as existing employees are promoted.

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, 9.9% 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

	2014	2015	2016	2017	2018
ILOT Paid (1)	$22,073,833	$22,847,494	$23,306,557	$22,568,235	$23,708,786
Total Operating Revenues	$248,410,288	$229,448,195	$222,092,266	$226,673,006	$235,071,461
ILOT as a % of Revenues	8.9%	10.0%	10.5%	10.0%	10.1%

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 less than $1.0 million over the last five years primarily due to a decrease in plant and an increase in deferred debits. The Deferred Debits increased in 2015 primarily due to GASB 68, which requires state and local governments to record net pension liability.

The long-term debt decreased over the five-year period by approximately $53.8 million. In 2015, the long-term liabilities increased due to GASB 68, which requires state and local governments to record net pension liability. The long-term debt decreased in 2017 as a result of the Series 2017 refunding bonds. Overall, the Retained Earnings increased by $21.4 million over the last five years.

Table 3-8
Utilities System
Comparative Balance Sheet

	2014	2015	2016	2017	2018
Total Assets					
Utility Plant	$573,113,520	$573,057,425	$569,502,627	$566,271,981	$565,059,332
Bond and Special Funds	130,777,798	136,488,144	131,820,767	124,504,455	132,262,607
Current Assets	9,711,223	9,161,599	13,010,477	8,885,760	8,780,394
Accounts Receivable	28,913,398	24,582,490	27,665,322	29,668,893	28,439,772
Reserve for Uncollectible Accounts	(1,184,446)	(1,023,757)	(1,150,040)	(1,215,674)	(1,090,028)
Notes Receivable	27,798,160	27,723,160	27,623,160	27,181,093	26,529,343
Inventories	7,959,322	7,864,446	8,316,964	8,981,327	9,097,936
Deferred Debits	13,478,290	21,301,983	26,647,000	27,838,831	22,227,147
Total Assets	$790,567,265	$799,155,490	$803,436,278	$792,116,667	$791,306,504
Total Liabilities & Equity					
Long Term Debt	$237,865,000	$226,365,000	$214,410,000	$195,915,000	$184,110,000
Current Liabilities	25,708,228	24,471,474	28,334,541	24,734,800	24,900,222
Long Term Liabilities	28,498,808	51,363,714	56,581,937	60,358,386	62,946,218
Retained Earnings	498,495,230	496,955,303	504,109,800	511,108,482	519,350,063
Total Liabilities & Fund Equity	$790,567,265	$799,155,491	$803,436,278	$792,116,667	$791,306,504

Source: LUS Financial and Operating Statements

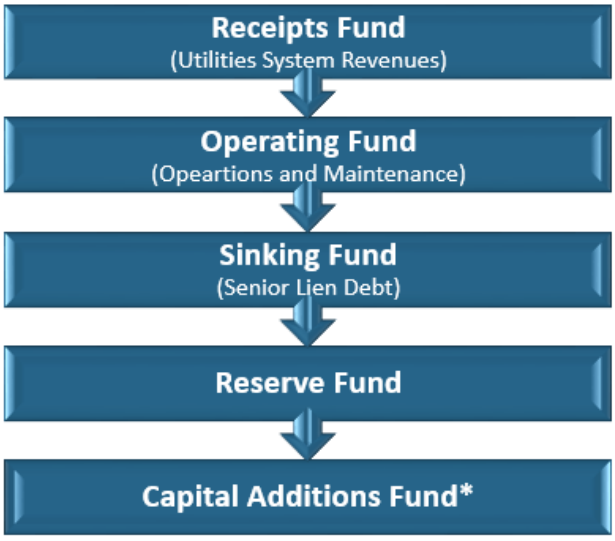
Fund Balances

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. As seen in Table 3-9, the Total Fund Balances increased by $7.1 million, or 5.6%, in 2018. Figure 3-1 illustrates the LUS Flow of Funds.

Table 3-9
Utilities System
Fund Balances as of October 31, 2018 ($1,000)

	Receipts Fund	Operating Fund	Bond & Interest Fund	Capital Additions Fund	Bond Reserve Fund	Total
Beginning Balance	$852	$8,021	$264	$96,017	$19,765	$124,919
Receipts	251,472	193,726	21,164	55,981	0	522,343
Disbursements	251,548	193,747	21,428	48,566	0	515,289
Ending Balance	$776	$8,000	$0	$103,432	$19,765	$131,973

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 2014, 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 increases 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 2017/2018 rate increases. Other Income has varied over the years as fund balances and interest rates changed. The Net Income remained positive over the five-year period.

Table 3-10
Utilities System
Comparative Income Statement

	2014	2015	2016	2017	2018
Operating Revenues	$247,097,098	$228,021,885	$220,387,318	$224,652,384	$232,203,121
Operating Expenses	177,466,560	160,672,843	158,750,451	165,998,482	164,165,246
Net Operating Revenues	$69,630,538	$67,349,042	$61,636,867	$58,653,902	$68,037,875
Depreciation	22,130,030	22,881,380	23,601,958	23,960,817	24,555,286
Net Operating Revenues after Depreciation	$47,500,508	$44,467,661	$38,034,910	$34,693,086	$43,482,589
Other Income					
Interest Income	$1,313,230	$1,426,311	$1,704,947	$2,020,622	$2,868,340
Unrealized Gain/Loss on Inv.	30,750	91,526	117,778	(283,409)	(46,380)
Amortization of Debt Premium	3,029,199	3,028,445	3,020,974	2,995,867	3,544,254
Water Tapping Fees	104,100	107,420	78,320	64,240	72,240
Communications Lease Income	97,073	36,952	27,648	25,378	0
Contributions in Aid of Construction	0	0	56,063	128,155	304,557
Misc. Non-Operating Revenue	2,877,693	3,414,729	2,566,471	3,335,924	4,188,986
Total Other Income	$7,452,045	$8,105,384	$7,572,201	$8,286,777	$10,931,997
Other Expenses					
Loss on Disposition of Property	$250,980	$313,714	$329,136	$369,488	$398,883
Interest Expense	9,180,021	10,623,334	10,970,238	8,916,835	9,622,905
Amortizations	2,916,327	2,675,715	2,256,610	2,046,774	2,304,183
Interest on Customer Deposits	11,746	3,206	821	1,688	4,307
Tax Collections/Non-Operating	0	0	0	0	0
Misc. Non-Operating Expense	1,921,605	1,383,331	1,589,252	3,182,762	2,844,559
Total Other Expenses	$14,280,680	$14,999,299	$15,146,058	$14,517,546	$15,174,837
Net Income Before ILOT	$40,671,873	$37,573,746	$30,461,053	$28,462,316	$39,239,748
ILOT	22,073,833	22,847,494	23,306,557	22,568,235	23,708,786
Net Income	$18,598,040	$14,726,252	$7,154,496	$5,894,081	$15,530,962

Source: LUS 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, 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 2014–2018. 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 $61.7 million was available for capital additions or reserves.

Table 3-11
Utilities System
Comparative Cash Flow

	2014	2015	2016	2017	2018	Five-Year Total
Operating Revenues	$247,097,098	$228,021,885	$220,387,318	$224,652,384	$232,203,121	$1,152,361,806
Operating Expenses	177,466,560	160,672,843	158,750,451	165,998,482	164,165,246	827,053,582
Net Operating Revenues	$69,630,538	$67,349,042	$61,636,867	$58,653,902	$68,037,875	$325,308,224
Debt Service	$23,333,915	$22,924,293	$22,925,238	$21,341,835	$21,427,905	$111,953,185
Balance After Debt Service	$46,296,623	$44,424,749	$38,711,630	$37,312,067	$46,609,970	$213,355,039
Less Normal Capital & Special Equipment	$8,512,201	$10,001,798	$9,309,935	$4,890,913	$5,032,337	$37,747,185
Less ILOT	22,073,833	22,847,494	23,306,557	22,568,235	23,708,786	114,504,905
Change in Cash due to Operations & ILOT	$15,710,588	$11,575,457	$6,095,137	$9,852,919	$17,868,847	$61,102,949

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 67,243 customers. LUS operates power generation, transmission, substation, distribution, and customer facilities within and outside its service territory. The Electric System retail sales for 2018 were 2,031,847 megawatt-hours (MWh), 2.6% higher than 2017. Table 4-1 shows the historical Electric System sales.

Table 4-1
Electric System
Historical Retail and Wholesale Sales

	Retail Sales (MWh)	Wholesale Sales (MWh) (1)	MISO Market Sales (MWh)	MISO Market Purchases (MWh)
2014	2,027,115	942	1,013,733	1,852,629
2015	2,050,434	0	1,100,385	2,113,086
2016	2,027,945	0	872,154	2,098,275
2017	1,980,653	0	898,205	2,042,686
2018	2,031,847	0	1,153,292	2,108,460

Source: LUS Financial and Operating Statements
(1) After LUS joined MISO, LUS generation was sold to the MISO Market.

LUS became a full market participant as a Local Balancing Authority 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. Joining MISO contributed to a significant increase in Market Sales. The MISO Market Sales shown in Table 4-1 represent LUS' sales into the MISO market from LUS generating units. 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, 2018 indicate that residential and commercial customers represent approximately 91% of Electric System sales. LUS' commercial customer base is diverse, with no single customer representing more than 5% of LUS electric retail revenues.

Table 4-2
Electric System
Customer Class Statistics as of October 31, 2018

	Number of Customers	Percent of Total	Sales (kWh)	Percent of Total
Residential	54,601	81.2%	829,850,078	40.8%
Residential - Outside the City	935	1.4%	16,005,778	0.8%
Commercial without Demand – Small	7,846	11.7%	194,553,271	9.6%
Commercial Small and Large - Outside of City	157	0.2%	14,378,424	0.7%
Commercial with Demand – Large	1,282	1.9%	791,578,104	39.0%
Private Security Lighting	1,724	2.6%	6,660,739	0.3%
Street Lighting	2	0.0%	16,680,712	0.8%
Schools and Churches	429	0.6%	58,386,606	2.9%
Schools and Churches - Outside the City	0	0.0%	0	0.0%
Municipal-General Fund	1	0.0%	301,811	0.0%
University of Louisiana – Lafayette	89	0.1%	69,484,138	3.4%
Interdepartmental	178	0.3%	33,967,569	1.7%
Total Meters In Service	67,243	100.0%	2,031,847,230	100.0%

Source: LUS October 2018 Financial and Operating Statements

4.1 Production and Power Supply

The Electric System annual peak demand typically occurs in the summer months and reached 456 megawatts (MW) in July 2018. 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 was retired in place in 1993 and the Doc Bonin Plant was retired in 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 have been removed and all contaminated soil under the tanks has been removed.

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

2019 Budget includes approximately $5 million for asbestos and lead paint abatement and equipment removal at the Curtis Rodemacher Plant.

MISO Market

LUS became a MISO full Market Participant in December 2013. 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)

	2014	2015	2016	2017	2018
T. J. Labbé	13,417	6,696	13,423	16,738	17,974
Hargis Hebert	12,540	14,120	21,848	22,972	22,928
Rodemacher Unit 2 (1)	1,185,928	1,037,447	797,928	825,089	1,062,984
Total Generation	1,211,885	1,058,263	833,199	864,799	1,103,886

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

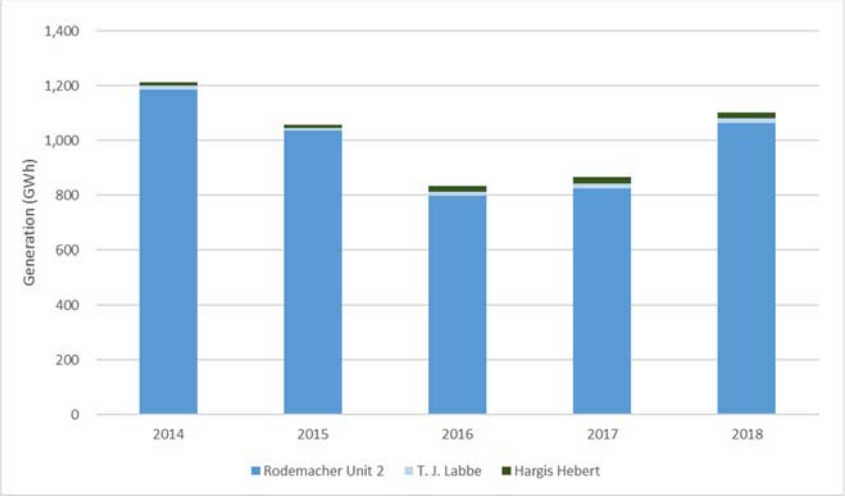


Figure 4-1: Electric Generation by Plant

As seen in Figure 4-1, the generation at most LUS plants has been impacted by joining MISO as LUS now has access to a wholesale power market. In general, the amount of power generated and sold in MISO will vary based on the market prices and LUS' generation asset economic dispatching. While Rodemacher Unit 2's generation and dispatching to the market has declined since joining MISO, it did increase in 2018. In addition, the Hargis-Hébert and T. J. Labbé plant generation has shown 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	

(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 have been 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 33 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.

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

Labbe 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 has scheduled overhauls of the remaining two units, Hargis 2 in 2019 and Labbe 1 in 2020.

Table 4-6 summarizes the historical operating statistics for the T. J. Labbé Plant. The operation of the T. J. Labbé units has 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	2014	2015	2016	2017	2018	Five-Year Average
Unit 1						
Gross Generation (MWh)	10,378	3,808	7,545	10,648	12,084	8,893
Net Generation (MWh)	9,714	3,253	5,934	9,998	11,494	8,079
Unit Capacity Factor (%)	2.3%	0.8%	1.4%	2.4%	2.6%	1.9%
Unit Service Factor (%)	4.6%	1.9%	3.5%	5.5%	5.6%	4.2%
Unit Starts	35	25	40	52	51	41
Availability Factor (%)	95.0%	95.1%	86.1%	95.2%	87.1%	91.7%
Forced Outage Rate (%)	4.3%	0.9%	2.6%	1.2%	1.5%	2.1%
Unit 2						
Gross Generation (MWh)	4,844	4,627	7,690	8,228	8,143	6,706
Net Generation (MWh)	3,707	3,445	6,234	6,741	6,749	5,375
Unit Capacity Factor (%)	0.9%	0.8%	1.4%	1.6%	1.9%	1.3%
Unit Service Factor (%)	2.5%	2.5%	3.5%	4.6%	5.0%	3.6%
Unit Starts	32	30	44	54	45	41
Availability Factor (%)	93.0%	94.5%	88.0%	83.8%	59.9%	83.8%
Forced Outage Rate (%)	44.4%	0.7%	23.3%	71.6%	86.8%	45.4%
Plant Total						
Net Generation (MWh)	13,421	6,697	12,168	16,739	17,974	13,400
Fuel Consumed (MMBtu)	169,181	102,712	174,198	212,960	213,618	174,534
Avg. Net Heat Rate (Btu/kWh)	12,605	12,421	12,976	11,353	10,702	12,011

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

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 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 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

Compliance

LUS staff has 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 have been 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). In 2017, the Hargis-Hebert Unit 1 gas turbine received GE's recommended SB 310 high-pressure compressor section upgrade. Unit 2 is scheduled for a major overhaul in 2019 at which time the compressor section upgrade will be completed. 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.

Hargis Unit 1 was overhauled in the GE Houston Service Center in 2016. Hargis 2 is scheduled for a full overhaul in 2019.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 has increased in recent years based on dispatch in the MISO market.

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

Generation Statistics	2014	2015	2016	2017	2018	Five-Year Average
Unit 1						
Gross Generation (MWh)	7,338	7,446	8,805	12,882	12,613	9,817
Net Generation (MWh)	6,803	6,867	7,593	12,168	11,822	9,051
Unit Capacity Factor (%)	1.6%	1.7%	1.7%	2.9%	3.0%	3.0%
Unit Service Factor (%)	3.8%	3.7%	4.6%	6.5%	7.8%	5.3%
Unit Starts	41	41	45	63	51	48
Availability Factor (%)	90.2%	89.0%	66.1%	83.7%	94.5%	84.7%
Forced Outage Rate (%)	11.0%	0.1%	82.5%	17.7%	1.8%	22.6%
Unit 2						
Gross Generation (MWh)	6,988	8,638	15,207	12,318	12,429	11,116
Net Generation (MWh)	5,744	7,251	12,986	10,809	10,906	9,539
Unit Capacity Factor (%)	1.4%	1.8%	3.0%	2.7%	2.9%	2.4%
Unit Service Factor (%)	3.8%	3.9%	7.9%	7.0%	7.6%	6.0%
Unit Starts	40	37	72	59	50	52
Availability Factor (%)	93.6%	89.0%	93.2%	94.2%	94.3%	92.9%
Forced Outage Rate (%)	2.0%	1.0%	18.0%	17.6%	0%	7.5%
Plant Total						
Net Generation (MWh)	12,547	14,118	21,852	22,977	22,728	18,844
Fuel Consumed (MMBtu)	169,544	183,321	280,858	301,281	282,258	243,452
Avg. Net Heat Rate (Btu/kWh)	13,514	11,659	12,853	12,064	11,354	12,289

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

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 as follows:

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

Compliance

LUS staff has 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 have been 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 several years ago, and decommissioning efforts were initiated in the past. The 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.

Doc Bonin Plant – Environmental Permits and Compliance

Although retired, the Doc Bonin Plant still has LPDES Permit No. LA0005711, which expires on August 1, 2019. LUS submitted a request to cancel the air permit which was accepted by LDEQ. The Bonin fuel oil tanks have been removed and all contaminated soil under the tanks has been 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 Louisiana Public Service Commission (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	2014	2015	2016	2017	2018	Five-Year Average
Gross Generation (MWh)	2,568,621	2,253,136	1,855,018	1,987,052	2,555,929	2,243,951
Station Service (MWh)	170,853	235,204	256,462	252,072	277,178	238,354
Net Generation (MWh)	2,397,768	2,017,932	1,598,556	1,734,980	2,278,751	2,005,597
Station Service (%)	6.7%	10.4%	13.8%	12.7%	10.8%	10.9%
Net Capacity Factor (%) (1)	55.8%	46.9%	36.7%	40.0%	52.7%	46.4%
Hours Available	5,626	7,580	7,308	6,626	7,836	6,995
Net Unit Heat Rate (Btu/kWh)	11,040	11,306	11,896	11,524	11,385	11,449
Availability Factor (%) (2)	64.2%	86.5%	83.2%	75.6%	89.5%	79.8%
Forced Outage Factor (%) (3)	1.3%	3.2%	2.4%	9.5%	3.2%	4.1%

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 not available due to forced outages.

Rodemacher Unit 2's operations increased in 2018 by approximately 29% over the previous year. 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 cause the natural gas fired units to be more cost effective or competitive. As such, coal generation has generally decreased in the market.

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

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 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 has never gone into effect. On August 21, 2018, the EPA proposed the Affordable Clean Energy (ACE) rule to replace the CPP. The approach in the proposed ACE rule would establish guidelines for states to develop plans to address greenhouse (GHG) emissions from existing coal-fired power plants. The proposed rule would provide 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 have been 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-V3 Expiration date: October 14, 2018 Renewal Application was timely submitted in April 2018 Facility can operate under existing permit during renewal process.
Title IV Permit Acid Rain Program Permit	EPA	Permit No. 2360-00030-IV5 Expiration date: October 14, 2018 Included in Title V Permit renewal process. Facility can operate under existing permit during renewal process.
LPDES Permit	LDEQ	Permit No. LA0008036 Expiration date: October 1, 2019 Renewal Application due 180 days prior to expiration (April 4, 2019)
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, 2018 CLECO indicates that the renewal, which will be through 2023, is awaiting signature by LDEQ
Spill Prevention Control and Countermeasure Plan (SPCC)	EPA	Latest revision: December 2016
Hazardous Waste Generator	EPA	Permit No. LAD071941611

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 approved in 2013 and have an expiration date of October 14, 2018. The permit renewal applications for both were submitted in April 2018 with additional information submitted in June 2018. As the renewal application was timely submitted, the facility can continue to operate under its permit issued in 2013 during the renewal process. A public comment period was held from December 13, 2018 through January 17, 2019. The only comment received was from Cleco, which requested some corrections to the permit.

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 requested the removal of No. 2 fuel oil in Unit 2, to comply with Best Achievable 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

Compliance

Rodemacher Unit 2's historical NO_X emission rates has 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 has been 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 2018, the emissions were over the allocation. LUS has enough banked allowances to cover the balance of the emissions for its portion.

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 Best Available Retrofit Technology (BART). While CSAPR is considered BART for NOx, 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.)
2014	0.58	1.2	6,456	18,212
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

Rodemacher Unit 2's historical SO_2 emissions have been below permitted levels. The operation of Rodemacher Unit 2 is not expected to be restricted due to the SO_2 emission limits of the air permit due to the fact that the plant currently burns, and is expected to continue 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 has been 50% to 75% less than the permit limit of 1.2 pounds per million British thermal units (lb/MMBtu).

The SO_2 permit limit will be 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 above, the average annual NO_X emission rate has been 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.)
2014	0.19	0.46	2,212	1,116
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

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 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 has 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 has completed the upgrades and meets MATS requirements.

As noted above, emission control additions at Rodemacher Unit 2 have been 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 have been 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 has 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 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 proposed the power plant Effluent Limitation Guidelines (ELGs) for coal-fired steam electric plants and accepted comments on the rule until September 20, 2013.

The EPA finalized the new effluent rule on September 30, 2015. The rule sets federal limits on the levels of toxic metals discharged in wastewater. 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. However, as of September 18, 2017, the EPA postponed the compliance dates for the new standards for 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 changed from November 1, 2018 to November 1, 2020. The compliance date remains November 1, 2018 for fly ash transport water and flue gas mercury control wastewater. Cleco indicated that the applicable requirements are being met with existing plant equipment and procedures. During LDEQ's development of the Brame Energy Center's LPDES permit renewal, LDEQ incorporated applicable aspects of the EPA's Guidance Document on this subject. Whether the changes will be in the renewed permit will depend on the outcome of EPA's rule review.

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 need to 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 need to 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 2017 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.

The anticipated date of closure for both the Fly Ash and Bottom Ash impoundments is no sooner than 2020.

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 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 2017, two Transaction Confirmations were signed on LUS behalf. Transaction Confirmation #4271474 was signed for a Firm Supply of up to 20,000 MMBtu per day for the Hargis Hebert Plant for July 1, 2017 through June 30, 2018, with an automatic 12-month extension, 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 #4547522 is a Full Requirements contract for the T. J. Labbe Plant for July 1, 2017 through June 30, 2018, 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 the TransCanada (Columbia Gulf) pipeline current transmission tariff, 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 form 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 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 has 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 Integrated Resource Plan (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

4.2 Transmission and Distribution

The Electric System has 47 miles of transmission lines and 1,002 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.

Design of another new substation, Moss Substation, in northeast Lafayette, is expected to be complete in 2019, with an in-service date of 2020 or 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 69 kV Peck Substation and the existing 230 kV Pont Des Mouton Substation, where a 250 MVA 230/69 kV transformer will be installed. 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.

LUS plans to design their configuration 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.

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 2018.

The 1,002 miles of distribution include 481 miles of overhead and 521 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 2018 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.

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. 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 Bonds and retained earnings. The Series 2010 Bonds were issued for multiple projects including the Acadiana Load Pocket transmission project and AMI projects.

Table 4-17
Electric System
Historical CIP

	2014	2015	2016	2017	2018
Normal Capital & Special Equipment	$5,115,415	$6,418,252	$6,351,851	$1,565,194	$2,136,589
Series 2010 Bonds	4,138,917	3,225,065	729,576	0	0
Retained Earnings	7,928,337	4,284,528	5,990,441	2,499,043	5,752,782
Total Electric Capital	$17,182,668	$13,927,846	$13,071,867	$4,064,237	$7,889,370

Source: LUS, Status of Construction Work Order Reports

4.5 Operations and Related Performance

Dispatch and operations were fully staffed in 2018; after five years in MISO, the group is competent and comfortable with the practices and procedures and is continually updating and improving their processes.

Operations conducts joint training with other entities, including hosting training sessions in the spring of 2018. LUS now has an internal trainer for North American Electric Reliability Corporation (NERC) compliance and certification for operators.

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
2014	61.4 (5)	0.97 (5)	63.2 (5)	0.93 (5)
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
National Median (3)	69.0	1.58	82.0	NA
Regional Average (4)	60.9	0.85	69.1	NA

(1) Calendar Year.
(2) Minutes per year.
(3) Averages for 2005 – 2015 semi-annual survey, American Public Power Association "Evaluation of Data Submitted in APPA's 2015 Distribution System Reliability and Operations Survey", Tanzina Islam, Alex Hofmann, and Michael Hyland, April 2016. (The 2018 DSRO survey is now open for submissions).
(4) APPA Region 4 (OK, AR, TX, LA) results for 2015 survey, American Public Power Association "Evaluation of Data Submitted in APPA's 2015 Distribution System Reliability and Operations Survey", Tanzina Islam, Alex Hofmann, and Michael Hyland, April 2016.
(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.

LUS performance on all four reported indices is consistent and significantly better than the typical median performance reported by utilities across the nation from 2005 to 2015 and regional results for 2015. Performance has improved year-over-year from 2014 to 2018, reflecting the effectiveness of LUS maintenance and testing programs and a decrease in externally caused outages, such as vehicle crashes that are not within the utility's control.

LUS has 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 personal to the location of the cause of the outage. Utilization of this technology has significantly reduced the outage

durations, as reflected in improved SAIDI results since that time. The AMI includes an Outage Management System (OMS) with the ability to notify customers by phone, text, or email as to outage occurrences and estimated time for restoration of power. LUS is considering implementation of these features in the future. This advanced system also alerts customers to dramatic increases in consumption of utility services, due to water leaks or other uncharacteristic use. The utilization of technology is a key element to maintaining and improving LUS' customer satisfaction levels.

Substation equipment upgrades in 2018 included: relaying upgrades at Doc Bonin Switchyard 138kV Ring Bus, Gilman Substation, and Pont Des Mouton Substation; replaced several old 15kV oil circuit breakers with new vacuum circuit breakers; and one 138 kV and one 230kV oil circuit breaker were replaced new with SF_6 circuit breakers.

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 has 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 has been 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. 2,314 poles were inspected and 43 were identified for replacement, 39 were replaced in 2018 with the remaining 4 scheduled for replacement early in 2019. In addition, 1,874 poles were treated at groundline on 6 feeders.

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 has now moved into testing bulk feeder cable sections. Five feeders were checked in 2018, finding 37 problem areas (15 leaking transformers, 8 transformer bushing hot spots, 13 transformer secondary bushing hot spots, and 1 damage cabinet). Twenty-seven of the problem areas were repaired in 2018; work orders for repair of the remaining ten issues are in place for work in the first quarter of 2019. Infrared inspection across multiple components of the system included: 3 switchyards, 15 distribution stations, 86 distribution feeders (resulting in repairs on 28 different switch issues), and 107 transmission breakers (no problems found).

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 first four-year round of assessment was completed in 2018 (all substation transformers in the system have had their first assessment completed). 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.

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 has adopted the APPA Safety Manual.

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.

The Energy Control System (ECS) monitors assets from each of the Utilities' services including 15 electric substations and approximately 30 sewer lift stations. LUS is planning to fully integrate all lift stations with the supervisory control and data acquisition (SCADA) system as approximately 100 stations are near or have fiber run to the equipment.

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.

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 2018.

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 693 Reliability audit in 2017 was successful, with no violations. SERC Reliability Corporation has been 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 has 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 expected to be mandatory in the next few years. 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 such as the CIP effort last year or the audit associated with FERC Order 693 in September 2017. The 2017 audit was completed and found no issues with the utility.

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 has established internal policy/procedures that comply with testing and maintenance requirements set forth by NERC standards. LUS' policy is for SMEs to perform periodic review of the Policies, Guidelines, and Procedures (PGPs) internal policy/procedures in order to keep the testing and maintenance practices in line with changing standards.

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 have been 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 signatory, thereafter 5-year terms	Transmission Owner Agreement for LUS in MISO
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

Table 4-19
Electric System and LPPA
Contracts and Agreements

Contracts & Agreements Between	Date Signed/Renewed	Termination Date	Provisions
TEA – Centerpointe	March 16, 2017	June 30, 2018 with automatic 12-month extension	Supply of natural gas for Hargis Hébert Plant
TEA –Centerpointe	June 20, 2017	June 30, 2018 with automatic 12-month extension	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 will not be renewed.
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	Customer acquisition agreement; Joint Use Rights

Table 4-19
Electric System and LPPA
Contracts and Agreements

Contracts & Agreements Between	Date Signed/Renewed	Termination Date	Provisions
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, 2025	Franchise Agreement
LCG – City of Broussard	December 18, 2015	December 17, 2025	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

(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)	$0.08793
Baton Rouge (3)	$0.08793
LUS	$0.09243
Shreveport (2)	$0.10329
Alexandria	$0.10442
New Orleans (4)	$0.11173
New Iberia (5)	$0.12063

Source: LUS. Rates as of October 2018.
(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.

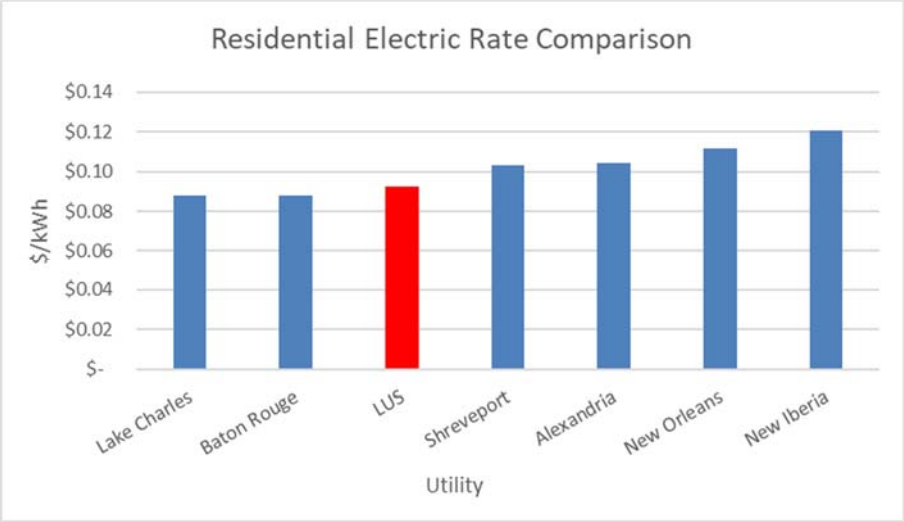


Figure 4-2: Electric System – Residential Rate Comparison

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 51,000 kWh.

Table 4-21
Electric System
Commercial Rate Comparison

Utility	Average ($/kWh) (1)
Lake Charles (2)	$0.0716
Baton Rouge (2)	$0.0716
LUS	$0.0800
Shreveport (3)	$0.0847
New Iberia (4)	$0.0968
New Orleans (5)	$0.1008
Alexandria	$0.1219

Source: NewGen. Rates as of October 2018.
(1) Assumes an average customer of 130 kW demand and 51,000 kWh per month.
(2) Served by Entergy Gulf States.
(3) Served by SWEPCO. SWEPCO Fuel Adjustment Factor not available at time of Report. Assumed 2016 Fuel Adjustment Factor.
(4) Served by Cleco.
(5) Served by Entergy New Orleans.

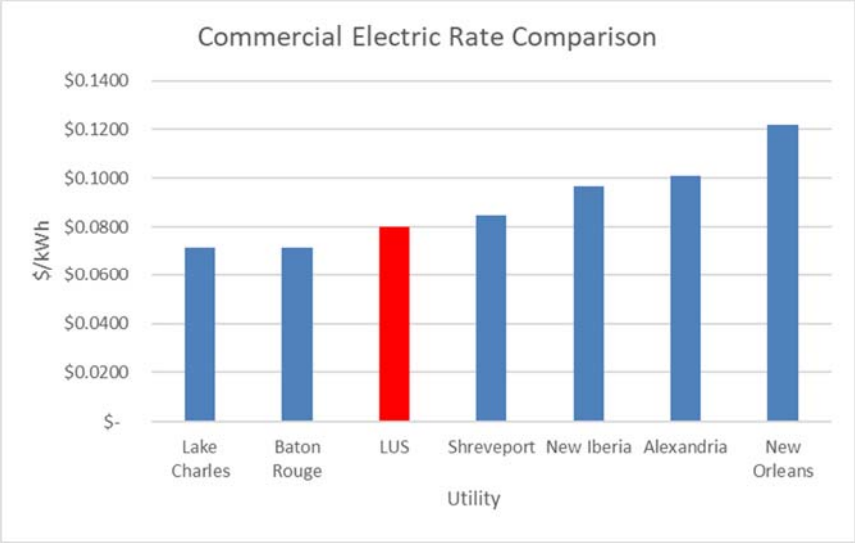


Figure 4-3: Electric System – Commercial Rate Comparison

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 region 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 2017, not 2018; however, both the 2017 and 2018 data for LUS was included.

LUS' Electric Revenue per kWh was lower than the National and Regional average, which corresponds with LUS having low rates for the region. LUS' Debt to Total Assets were lower than the National and Regional averages. LUS' total O&M Expenses per kWh sold were lower than the National and Regional averages. The DSCR for LUS was higher than both the National and Regional averages. 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	2017	2017	2017	2018
Revenue per kWh – All Retail Customers	Electric	$0.103	$0.091	$0.087	$0.087
Debt to Total Assets	Total LUS	0.512	0.393	0.355	0.344
Operating Ratio (Electric specific)	Electric	0.776	0.807	0.757	0.725
Current Ratio	Total LUS	4.10	4.01	2.66	2.56
Times Interest Earned	Electric	1.66	2.89	6.79	7.44
Debt Service Coverage Ratio	Electric	1.88	2.16	2.73	3.05
Net Income per Revenue Dollar	Electric	$0.0780	$0.0480	$0.0275	$0.0645
Uncollectible Accounts per Revenue Dollar	Total LUS	$0.0031	$0.0026	$0.0069	$0.0060
Total O&M Expense per kWh Sold	Electric	$0.0880	$0.0730	$0.0673	$0.0646
System Load Factor	Electric	61.0%	58.5%	53.6%	52.9%

4.9 Historical Financial Performance

Electric System debt service for years 2014 through 2018 include a portion of the Series 2004 Bonds, a portion of the Series 2010 Bonds, a portion of the Series 2012 Bonds, and a portion of the Series 2017 bonds. Series 2017 bonds were issued in 2017; however, the first interest payment was not due until May 2018 (FY 2018). Table 4-23 shows historical debt service and the associated DSCR. In each year since 2014, the DSCR has 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
2014	$201,891,247	$147,087,876	$54,803,370	$16,852,621	3.3
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

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. Debt Service includes a portion of the Series 2004 Bonds, a portion of the Series 2010 Bonds, a portion of the Series 2012 Bonds, and a portion of the Series 2017 Bonds. In 2014, the Series 2004 Bonds were partially refunded and defeased by the Series 2012 Bonds. By 2020, the Series 2010 Bonds will be fully redeemed by the proceeds of the Series 2017 Bonds.

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) 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.

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.

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

	2014	2015	2016	2017	2018
Revenues					
Retail Sales- Base Rate	$91,749,309	$92,626,681	$91,631,825	$94,552,196	$102,886,777
Retail Sales- Fuel Charge	105,375,603	84,910,901	78,153,587	76,829,537	72,872,661
Total	$197,124,912	$177,537,582	$169,785,412	$171,381,733	$175,759,439
Energy Sales					
Retail Sales (kWh)	2,027,114,665	2,050,434,389	2,027,944,893	1,980,653,304	2,031,847,230
Revenue per kWh					
Retail Sales- Base Rate	$0.0453	$0.0452	$0.0452	$0.0477	$0.0506
Retail Sales- Fuel Clause	0.0520	0.0414	0.0385	0.0388	0.0359
Total	$0.0972	$0.0866	$0.0837	$0.0865	$0.0865

Source: LUS Financial and Operating Statements

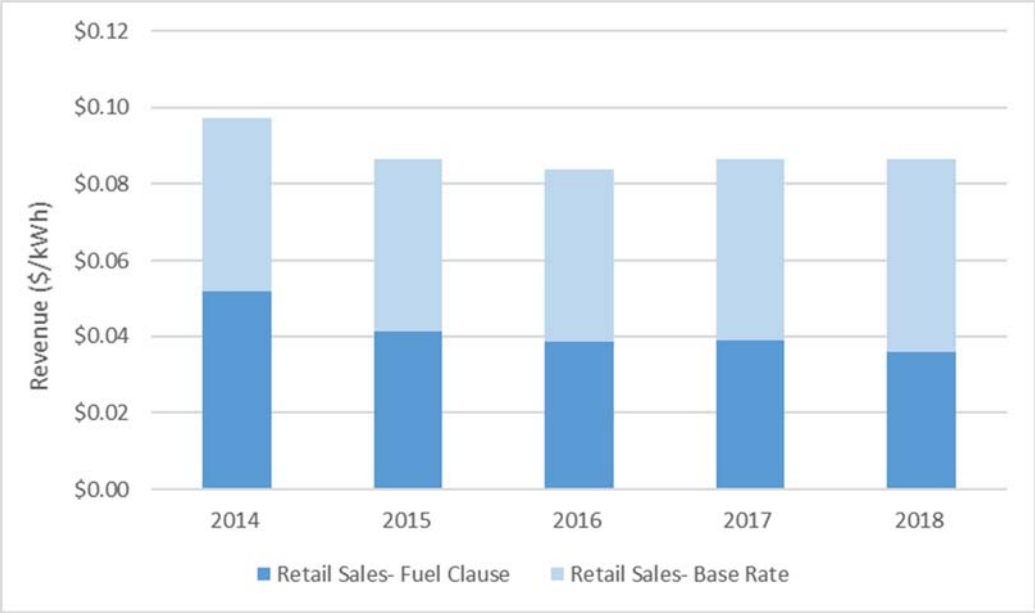


Figure 4-4: Electric Base Rates and FC Revenues per kWh of Sales

Electric Revenue Statistics

Table 4-26 shows the Electric System base rate revenues. Since 2014, the increase in total retail base rate revenues has averaged 2.9% annually. Total base rate revenues in 2018 increased by 8.8% due to the rate increase and increased energy sales. The base rate revenues per kWh ($/kWh) increased 5.7% and 6.1% in 2017 and 2018 as a result of the rate increase.

The number of customers has consistently increased at approximately 0.8% per year with the highest customer growth in the Commercial customer class. The revenue per customer since 2014 has increased slightly at approximately 2.1% per year as a result of rate increases.

The total retail energy sales have stayed level with a 0.1% average annual growth. The energy sales per customer on average decreased by 0.7% per year. The residential and small commercial class has decreased their usage per customer on average by 0.6% and 1.1% per year, 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

	2014	2015	2016	2017	2018
Revenues					
Residential	$37,712,108	$37,788,166	$37,245,915	$39,500,029	$45,868,752
Commercial	46,520,135	47,192,693	46,646,591	47,150,242	48,685,466
Schools & Churches	4,669,261	4,817,122	4,893,085	4,996,497	5,308,787
Other	2,847,805	2,828,700	2,846,234	2,905,428	3,023,773
Total	$91,749,309	$92,626,681	$91,631,825	$94,552,196	$102,886,777
Number of Customers					
Residential	53,884	54,345	54,761	55,227	55,535
Commercial	8,972	9,092	9,141	9,204	9,285
Schools & Churches	507	494	511	522	518
Other	1,900	1,916	1,912	1,908	1,905
Total	65,262	65,847	66,325	66,860	67,243
Revenue per Customer					
Residential	$700	$695	$680	$715	$826
Commercial	5,185	5,191	5,103	5,123	5,243
Schools & Churches	9,217	9,759	9,572	9,578	10,250
Other	1,499	1,476	1,489	1,523	1,587
Total ($/Customer)	$1,406	$1,407	$1,382	$1,414	$1,530
Sales (kWh)					
Residential	840,540,908	840,719,003	822,151,289	790,227,214	845,855,856
Commercial	1,009,864,890	1,030,069,827	1,022,107,401	1,008,350,471	1,000,509,799
Schools & Churches	118,426,044	123,668,657	126,162,076	124,728,756	127,870,744
Other	58,282,823	55,976,902	57,524,127	57,346,863	57,610,831
Total	2,027,114,665	2,050,434,389	2,027,944,893	1,980,653,304	2,031,847,230
Sales (kWh) per Customer					
Residential	15,599	15,470	15,014	14,309	15,231
Commercial	112,556	113,295	111,816	109,562	107,753
Schools & Churches	233,774	250,553	246,812	239,097	246,894
Other	30,681	29,210	30,088	30,055	30,246
Total	31,061	31,139	30,576	29,624	30,216
Revenue per kWh					
Residential	$0.0449	$0.0449	$0.0453	$0.0500	$0.0542
Commercial	0.0461	0.0458	0.0456	0.0468	0.0487
Schools & Churches	0.0394	0.0390	0.0388	0.0401	0.0415
Other	0.0489	0.0505	0.0495	0.0507	0.0525
Total ($/kWh)	$0.0453	$0.0452	$0.0452	$0.0477	$0.0506

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 53% of the total expenses. Figure 4-5 shows the historical breakdown graphically.

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

	2014	2015	2016	2017	2018
Variable Expenses					
Fuel Cost - LUS	$1,906,092	$985,639	$1,363,817	$1,967,322	$3,020,362
Purchased Power Other	4,720,733	3,493,850	3,543,627	3,926,250	3,637,576
Purchased Power LPPA Fuel	37,201,705	33,966,979	26,658,901	26,620,153	29,566,005
Purchased Power MISO	79,392,491	62,181,834	55,468,362	64,942,619	67,855,286
Purchased Power MISO Sales	(39,221,191)	(29,667,313)	(23,357,459)	(29,186,362)	(36,621,122)
Total Variable - Production	$83,999,830	$70,960,989	$63,677,247	$68,269,981	$67,458,107
Fixed Expenses					
Production - Fixed	$29,573,186	$25,947,482	$28,570,660	$28,706,647	$26,998,804
Transmission	7,543,561	7,405,920	8,661,822	9,192,823	9,275,422
Distribution	11,042,653	11,899,551	11,613,300	12,283,787	12,143,206
Customer	2,807,800	2,744,901	2,868,750	2,917,554	2,828,513
A&G	12,120,845	11,048,079	11,302,414	11,976,332	12,463,806
Total Fixed	$63,088,046	$59,045,932	$63,016,947	$65,077,144	$63,709,751
Total Fixed & Variable	$147,087,876	$130,006,922	$126,694,194	$133,347,125	$131,167,858
Percent Variable	57%	55%	50%	51%	51%
Percent Fixed	43%	45%	50%	49%	49%

Source: LUS Financial and Operating Statements

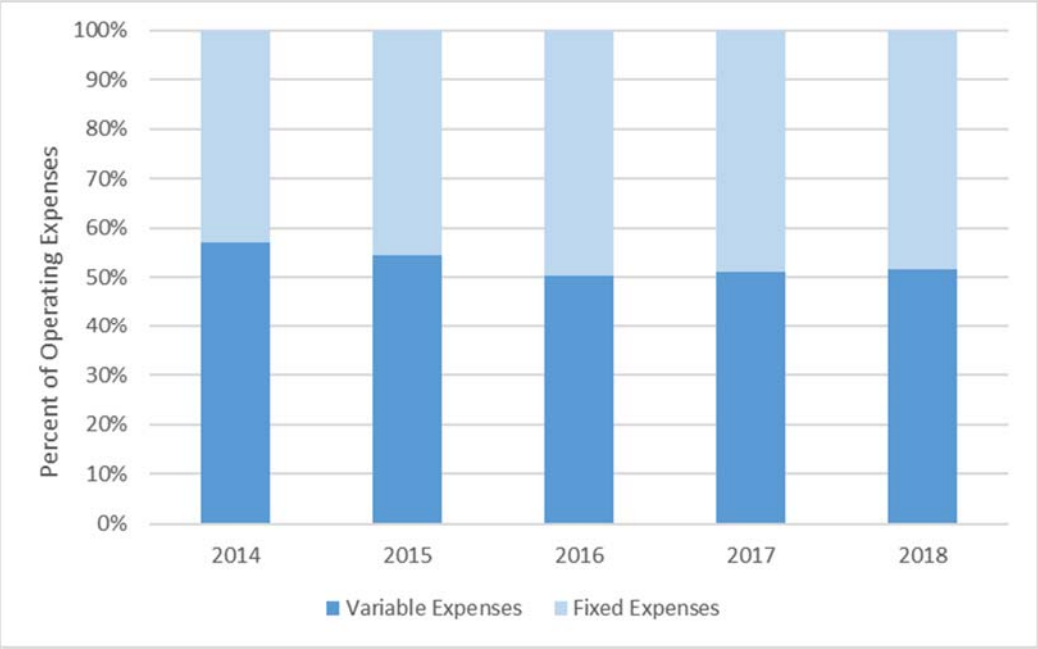


Figure 4-5: Fixed and Variable Breakdown of LUS Expenses

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 2018 billing data provided by LUS, the customer, demand, energy, and FC collected approximately $9 million, $18 million, $77 million, and $73 million, respectively. Although approximately 47% 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 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, 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 has been 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 several years ago. 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 have been removed and all contaminated soil under the tanks has been removed.

- LUS has initiated a Request for Proposal to select a consultant to perform an IRP, which will evaluate 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, has been placed on hold pending the result of the new IRP.
- LUS' Electric System is highly reliable with reliability indices (i.e. SAIDI/SAIFI/CAIDI/MAIFI) significantly lower than the national and regional averages for electric utilities. Performance has improved year-over-year from 2014 to 2018 reflecting the effectiveness of LUS maintenance and testing programs and a decrease in externally caused outages, such as vehicle crashes that are not within the utility's control.
- LUS continues to perform well in NERC CIP audits.
- 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 47% 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 has been 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 has been 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 2018, LUS provided potable water to 56,564 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, 20 ground water wells, elevated and ground treated-water storage, and 1,170 miles of distribution piping.

Water System total sales in 2018 were 0.5% higher than 2017, driven by an increase in wholesale water sales. Wholesale water sales increased by 4.4% in 2018. 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)
2014	5,426,408	2,004,355	7,430,763
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

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 and Hospitals (LA DHH) 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 two water treatment facilities, North Water Plant (NWP) and SWP, and a total of 20 ground water wells to provide raw water for treatment, as well as supplemental volume and pressure to the system. The SWP has a capacity of 23.0 million gallons per day (MGD) and the NWP has a capacity of 20.8 MGD. Both the NWP and SWP use coagulation, sedimentation, and filtration to remove iron and manganese with lime-softening for hardness reduction and hypochlorite for finished water disinfection. Table 5-2 shows the water treatment capacity by facility.

Table 5-2
Water System
Water Treatment Capacity (1)

Facility	Capacity (MGD) (1)
NWP	20.8
SWP	23.0
Well No. 23	1.4
Well No. 24	1.5
Well No. 25	2.2
Well No. 26	2.1
Total Plant Capacity	51.0
Total Effective Plant Capacity	27.4

Source: LUS
(1) Plant treatment capacity is less than total well production capacity.

Sixteen 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 volume and pressure to the northern end of the distribution system. Treatment at this site consists of application of potassium permanganate followed by six pressure filters, and the addition of hypochlorite for disinfection. Finished water is stored in a ground storage tank and delivered to the system with 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. The Commission Boulevard site also includes the Fabacher Field re-boost facilities consisting of a 2.0 million gallon (MG) ground storage tank and high service pumps that are used to improve pressure conditions at the outer limits of the distribution 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 has been placed on hold until funding is available.

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 2019 Budget, production improvements for 2019 through 2023 total $9.9 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 2019.

5.3 Water Distribution and Storage

The water distribution system consists of 1,170 miles of pipe and the treated water storage totals approximately 15.25 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 4.30 MG of elevated storage and 10.95 MG of ground storage, including finished water and booster pumping station clear wells. 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.

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 2019 Budget, distribution improvements for 2019 through 2023 total $9.6 million.

In addition to the planned distribution system investments to serve growth, water meter installation fees likely also require review and updating. The fees charged for water meter installations appear to have remained static since Ordinance 94-152 was passed in 1996. 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.

In 2017, 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 following table summarizes the growth in water distribution infrastructure over the past five years.

Table 5-3
Water System
Water Distribution System Assets (1)

	2014	2015	2016	2017	2018
Miles of Main Lines	1,087	1,112	1,126	1,164	1,170
Number of Valves	22,493	22,793	23,230	23,435	23,607
Number of Hydrants	6,413	6,464	6,540	6,579	6,616

Source: LUS
(1) Includes LUS contract service to Water District North.

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. However, some meter failures are still occurring and replacements of those under warranty are being performed at a rate of approximately 75 per week. The system has 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 5-4 reflect investments in infrastructure

funded by the Series 2010 Bonds and retained earnings. The Series 2010 Bonds were used for the Water System AMI projects and improvements to the water production system.

Table 5-4
Water System
Historical CIP

	2014	2015	2016	2017	2018
Normal Capital & Special Equipment	$1,980,021	$1,485,601	$1,433,461	$1,448,745	$1,630,841
Series 2010 Bonds	1,295,471	148,260	98,026	0	0
Retained Earnings	2,199,043	1,485,157	2,925,329	1,704,416	791,664
Total Capital	$5,474,535	$3,119,019	$4,456,815	$3,153,161	$2,422,504

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 has 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 2018, the system average day demand was 23.1 MGD, with a peak-day demand of 33.8 MGD.

The lost and not accounted for water increased from 7.1% of total treated water in 2017 to 9.3 % in 2018. This increase in lost and not accounted for water was due to freezing temperatures in January 2018 and related customer-owned water line breaks leading to increased losses of treated water. Table 5-5 shows the recent lost and not accounted for water volumes.

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

	2014	2015	2016	2017	2018
Not Accounted For	9.0%	6.4%	7.4%	7.1%	9.3%

Source: LUS Financial and Operating Statements

The amount of lost and not accounted for water is within the range of acceptable industry standards[3]. 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 hydrants are required to be tested 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 has resulted

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

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, with the water distribution component increasing by 2 points.

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 Department 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.

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 has 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 January 6, 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 is current and effective through December 1, 2019. LUS does not expect any rejections or delays 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 2017 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 2017 Water Quality Report for LUS.

Table 5-6
Water System
Violations of Drinking Water Regulations.

Type	Category	Analysis	Compliance Period
No violations occurred in the Calendar Year of 2017	NA	NA	NA

Source: 2017 Water Quality Report

Table 5-7
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	2 ppb or less (1)

(1) Two individual samples exceeded the Action Level. Note that lead has not been detected in LUS's source water, nor does LUS have any lead pipes in its water distribution system.

Table 5-8
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	2 ppb	0.66 – 4.2 ppb	Ambassador Caffery & W. Congress
Haloacetic Acids (HAA5)	By-product of drinking water chlorination	60 ppb	0	3 ppb	1.6 – 4.4 ppb	Gloria Switch Rd. & Arbor
Haloacetic Acids (HAA5)	By-product of drinking water chlorination	60 ppb	0	3 ppb	0.97 – 4.9 ppb	Kaliste Saloom & E. Broussard
Haloacetic Acids (HAA5)	By-product of drinking water chlorination	60 ppb	0	6 ppb	3.3 – 5.0 ppb	Thomas Nolan & Brigante

Table 5-8
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	2 ppb	0.92 – 2.9 ppb	Vennard & Valley View
Haloacetic Acids (HAA5)	By-product of drinking water chlorination	60 ppb	0	2 ppb	0.61 – 4 ppb	Walker & Doc Bonin
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	80 ppb	0	10 ppb	9.1 – 11 ppb	Ambassador Caffery & W. Congress
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	80 ppb	0	10 ppb	6.4 – 13.2 ppb	Gloria Switch Rd. & Arbor
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	80 ppb	0	9 ppb	6.5 – 10.7 ppb	Kaliste Saloom & E. Broussard
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	80 ppb	0	18 ppb	13.2 – 23.6 ppb	Thomas Nolan & Brigante
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	80 ppb	0	8 ppb	4.4 – 9.8 ppb	Vennard & Valley View
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	80 ppb	0	8 ppb	6.0 – 8.7 ppb	Walker & Doc Bonin

Source: 2017 Water Quality Report

Table 5-9
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: 2017 Water Quality Report

Table 5-10
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	1.59 ppm	0.5-2.08 ppm

Source: 2017 Water Quality Report

Table 5-11
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	1.0 ppb	0-1.0 ppb
Fluoride	Erosion of natural deposits; discharge from fertilizer and aluminum factories	4 ppm	4 ppm	0.2 ppm	0.2 ppm
Nitrate-Nitrite	Runoff from fertilizer, use; leaching from septic tanks, sewage; erosion of natural deposits	10 ppm	10 ppm	0.03 ppm	0.0 – 0.037 ppm
Combined Radium (-226 & -228)	Erosion of natural deposits	5 pCi/L	0 pCi/L	2.71 pCi/L	0.809 – 2.71 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	2.13 pCi/L	0 – 2.13 pCi/L

Source: 2017 Water Quality Report

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 30% of the total water volume and 28% of total water sales revenue in 2018. The wholesale customer portion of total Water System sales volume has remained stable over the past few years; however, the corresponding revenues have increased due to wholesale rate increases. Tables 5-12 and 5-13 summarize the historical wholesale water volume sales and revenues by customer.

Table 5-12
Water System
Wholesale Water Sales by Customer (1,000 gallons)

Customer	2014	2015	2016	2017	2018
City of Scott	317,233	323,792	331,260	356,855	339,037
City of Broussard	236,643	245,222	236,605	260,502	297,294
City of Youngsville	252,036	306,747	314,452	345,638	406,563
Milton Water System	221,717	242,354	245,279	225,155	234,024
Waterworks District North	454,474	458,144	458,802	448,394	442,492
Waterworks District North - Wholesale	220,900	234,629	228,077	225,320	222,101
Waterworks District South	301,352	305,657	303,152	299,187	315,399
Total Wholesale Water Sales	2,004,355	2,116,545	2,117,627	2,161,051	2,256,911
Total Water Sales (Wholesale and Retail)	7,430,763	7,536,303	7,520,277	7,543,498	7,620,462
Percent of Total Sales from Wholesale	27%	28%	28%	29%	30%

Source: LUS Financial and Operating Statements

Table 5-13
Water System
Wholesale Water Revenues by Customer

Customer	2014	2015	2016	2017	2018
City of Scott	$615,448	$637,536	$711,851	$844,031	$988,418
City of Broussard	448,489	472,174	503,623	613,321	760,203
City of Youngsville	490,485	589,515	665,814	820,289	1,033,306
Milton Water System	425,974	463,288	516,698	528,244	601,330
Waterworks District North	1,188,663	1,208,192	1,210,188	1,187,053	1,265,202
Waterworks District North – Wholesale	422,504	450,483	483,261	536,451	574,238
Waterworks District South	572,712	584,882	645,213	703,063	815,558
Total Wholesale Water Revenues	$4,164,275	$4,406,071	$4,736,650	$5,232,452	$6,038,256
Total Water Revenues (Wholesale and Retail)	$17,746,170	$18,028,081	$18,286,651	$19,458,484	$21,220,243
Percent of Total Revenues from Wholesale	23%	24%	26%	27%	28%

Source: LUS Financial and Operating Statements

Each contract is a long-term contract between 30 and 40 years in length, with the exception of the City of Scott and the City of Broussard. The City of Broussard contract is set to expire in 2020, while the City of Scott contract will expire in 2022. 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.

Due to the changes to the Water System from growth and the potential withdrawal of City of Broussard from the system, LUS updated its water distribution model. Although the City of Broussard may still withdraw from the system in 2020, LUS is exploring options to extend the contract.

Table 5-14 summarizes the terms of each wholesale customer agreement.

Table 5-14
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, 2022
City of Broussard	March 5, 1998	22	July 31, 2020
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 (1)	March 28, 1980	NA	No expiration

Source: LUS
(1) 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 has 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 5-15
Water System
Residential Rate Comparison

Utility	Average ($/1,000 gallon) (1)
LUS	$2.49
Alexandria	$3.03
Lake Charles	$3.30
Shreveport	$3.86
Baton Rouge	$4.23
New Iberia	$4.90
New Orleans	$7.65

Source: LUS. Rates as of October 2018.
(1) Assumes monthly water consumption of 7,000 gallons per month.

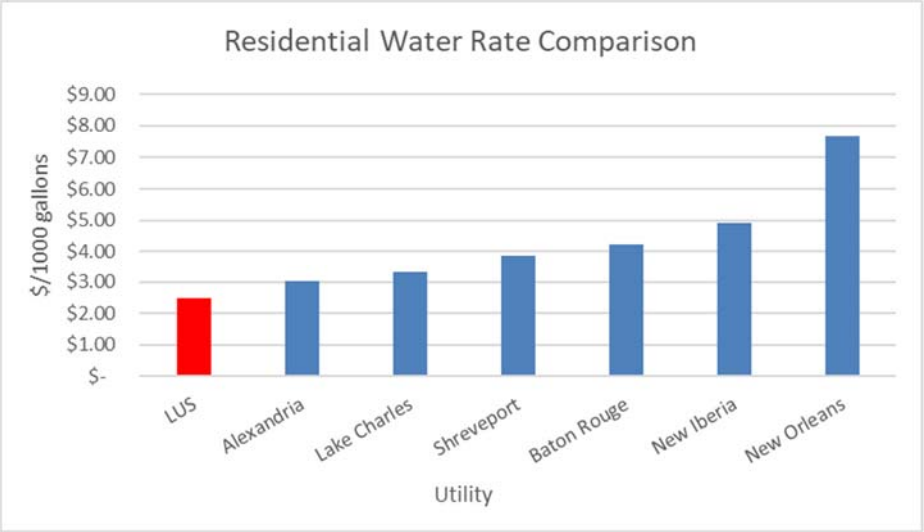


Figure 5-1: Water System – Residential Rate Comparison

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 5-16
Water System
Commercial Rate Comparison

Utility	Average ($/1,000 gallons) (1)
LUS	$2.94
Alexandria	$3.07
Shreveport	$3.78
Baton Rouge	$3.87
New Iberia	$4.12
Lake Charles	$4.15
New Orleans	$8.04

Source: NewGen. Rates as of October 2018.
(1) Assumes monthly consumption of 30,000 gallons and a 2-inch meter.

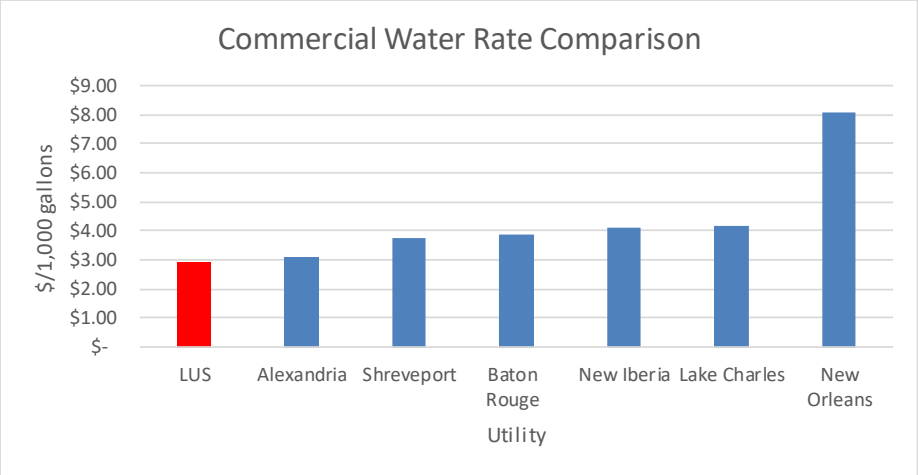


Figure 5-2: Water System – Commercial Rate Comparison

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, 2017 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 5-17. 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 5-17, LUS' operational costs are considerably lower than the National and Regional costs. LUS' debt to equity is in between the National and Regional ratios. LUS water utility operating ratio is the same as the National average. LUS' combined utility operation ratio is higher than other utilities. 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 5-17
Water System
Benchmarked Water Utility Operating Ratios

Statistics	Basis	National (1)	Regional	LUS	
		2017	2017	2017	2018
Operational Costs per MGD	Water	$2,913	$2,306	$1,714	$1,691
Debt to Equity (Total Assets)	Combined	0.30	0.37	0.35	0.34
Operating Ratio (O&M cost/ Operating revenue)	Water	0.65	0.53	0.72	0.67
Operating Ratio (O&M cost/ Operating revenue)	Combined	0.64	0.47	0.75	0.72
Cash Reserve Days (2)	Combined	392	292	42	42
Debt Service Coverage Ratio	Water	7.01	2.76	4.14	4.33
Debt Service Coverage Ratio	Combined	4.02	2.73	2.84	3.31

(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 2014 through 2018 includes a portion of the Series 2004 Bonds, a portion of the Series 2010 Bonds, a portion of the Series 2012 Bonds, and a portion of the Series 2017 Bonds. Series 2017 bonds were issued in 2017; however, the first interest payment was not due until May, 2018 (FY 2018). Table 5-18 shows historical debt service and the associated DSCR. In each year since 2014, the DSCR has exceeded the minimum coverage requirement of 1.0 required by the Bond Ordinances.

Table 5-18
Water System
Historical Financial Performance

FY	Operating Revenues (1)	Operating Expenses (2)	Balance Available for Debt Service	Debt Service (3)	Debt Service Coverage Ratio
2014	$17,783,466	$12,950,319	$4,833,147	$1,809,191	2.7
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

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. Debt Service includes apportion of the Series 2004 Bonds, a portion of the Series 2010 Bonds, a portion of the Series 2012 Bonds, and a portion of the Series 2017 Bonds. In 2014, the Series 2004 Bonds were partially refunded and defeased by the Series 2012 Bonds. By 2020, the Series 2010 Bonds will be fully redeemed by the proceeds of the Series 2017 Bonds.

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 5-19
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 2017	3/4	5.55	1.70	1.70	2.70	NA
			1	9.25	1.70	1.70	2.70	NA
			1 1/2	18.50	1.70	1.70	2.70	NA
			2	29.60	1.70	1.70	2.70	NA
			3	55.50	1.70	1.70	2.70	NA
			4	92.50	1.70	1.70	2.70	NA
			6	185.00	1.70	1.70	2.70	NA
			8	296.00	1.70	1.70	2.70	NA
W-1-O	Residential Non-City	Nov 2017	3/4	11.10	3.40	3.40	5.40	NA
			1	18.50	3.40	3.40	5.40	NA
			1 1/2	37.00	3.40	3.40	5.40	NA
			2	59.20	3.40	3.40	5.40	NA
W-2	Commercial	Nov 2017	3/4	5.55	NA	NA	NA	1.95
			1	9.25	NA	NA	NA	1.95
			1 1/2	18.50	NA	NA	NA	1.95
			2	29.60	NA	NA	NA	1.95
			3	55.50	NA	NA	NA	1.95
			4	92.50	NA	NA	NA	1.95
			6	185.00	NA	NA	NA	1.95
			8	296.00	NA	NA	NA	1.95

Table 5-19
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-2-O	Commercial Non-City	Nov 2017	¾	11.10	NA	NA	NA	3.90
			1	18.50	NA	NA	NA	3.90
			1 ½	37.00	NA	NA	NA	3.90
			2	59.20	NA	NA	NA	3.90

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 5-20 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 number of customers has consistently increased at approximately 0.9% per year. The revenue per customer increased in 2018 by 6.3% as a result of the rate increase.

The total retail gallon sales have decreased by average of 0.5% annually. The gallon sales per customer decreased annually by 1.3%. The residential class has decreased their usage per customer on average by 1.0% per year. Increases in plumbing fixture efficiency, appliances and conservation measures are likely contributing to this decrease.

In 2017 and 2018, the revenue per gallon increased by 5.2% and 8.0%, respectively, as a result of rate increases.

Table 5-20
Water System
Retail Revenues by Class

	2014	2015	2016	2017	2018
Revenues					
Residential	$7,295,912	$7,463,132	$7,426,141	$7,796,049	$8,410,699
Commercial	5,211,797	5,091,137	5,092,632	5,319,854	5,543,239
Schools & Churches	443,622	461,676	500,405	537,322	632,392
Other	167,679	191,849	210,500	209,454	234,910
Total	$13,119,010	$13,207,794	$13,229,678	$13,862,679	$14,821,240
Number of Customers					
Residential	41,463	41,825	42,393	42,693	42,929
Commercial	6,448	6,451	6,550	6,647	6,671
Schools & Churches	299	290	297	305	312
Other	284	285	283	284	283
Total	48,495	48,851	49,524	49,929	50,195
Revenue per Customer					
Residential	$176	$178	$175	$183	$196
Commercial	808	789	777	800	831
Schools & Churches	1,483	1,592	1,683	1,763	2,028
Other	590	674	743	739	831
Total ($/Customer)	$271	$270	$267	$278	$295
Sales (1,000 gallons)					
Residential	2,744,325	2,779,361	2,737,573	2,714,031	2,735,228
Commercial	2,388,538	2,342,305	2,334,596	2,342,707	2,243,690
Schools & Churches	216,425	210,700	231,962	236,557	289,301
Other	77,120	87,392	98,519	89,152	95,333
Total	5,426,408	5,419,758	5,402,650	5,382,447	5,363,552
Sales (1,000 gallons) per Customer					
Residential	66	66	65	64	64
Commercial	370	363	356	352	336
Schools & Churches	724	726	780	776	928
Other	271	307	348	314	337
Total	112	111	109	108	107
Revenue per 1,000 gallons					
Residential	$2.66	$2.69	$2.71	$2.87	$3.07
Commercial	2.18	2.17	2.18	2.27	2.47
Schools & Churches	2.05	2.19	2.16	2.27	2.19
Other	2.17	2.20	2.14	2.35	2.46
Total ($/1,000 Gallons)	$2.42	$2.44	$2.45	$2.58	$2.76

Source: LUS Financial and Operating Statements

Expense Analysis

Table 5-21 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 5-21
Water System
Historical Fixed and Variable Expense Summary

	2014	2015	2016	2017	2018
Variable Expenses					
Power & Pumping	$593,307	$514,060	$474,683	$461,177	$464,538
Purification	2,308,416	2,452,455	2,624,435	2,556,678	2,587,531
Total Variable Expenses	$2,901,723	$2,966,515	$3,099,118	$3,017,855	$3,052,070
Fixed Expenses					
Source of Supply	$186,174	$169,594	$185,999	$191,113	$175,620
Power & Pumping	323,339	313,576	327,040	268,334	296,324
Purification	1,579,886	1,703,658	1,853,514	1,929,383	1,971,597
Distribution	2,312,791	2,297,316	2,538,366	2,619,286	2,884,033
Customer	1,084,155	1,158,987	1,149,579	1,128,205	1,219,158
A&G	4,562,251	4,489,593	4,607,489	4,811,643	4,661,424
Total Fixed	$10,048,596	$10,132,724	$10,661,987	$10,947,964	$11,208,155
Total Fixed & Variable	$12,950,319	$13,099,239	$13,761,106	$13,965,819	$14,260,225
Percent Variable	22%	23%	23%	22%	21%
Percent Fixed	78%	77%	77%	78%	79%

Source: LUS Financial and Operating Statements

5.11 Findings and Recommendations

- While total water production remains stable, the wholesale water sales have increased at an annual average rate of approximately 3.0% and retail sales have stayed flat. Wholesale customers have required an increasing percentage of the total water produced. This will place continued pressure on the distribution system and could

adversely affect LUS retail customers. Therefore, 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.

- Due to the changes to the Water System from growth and the potential withdrawal of City of Broussard from the system, LUS has updated its water distribution model.
- LUS is considering the impact of the City of Broussard withdrawing as a wholesale customer as its contract expires in 2020. If the contract is not renewed, there will be a reduction in the amount of wholesale volume sales, as well as a corresponding reduction in revenues and expenses. LUS should consider the implications of this potential reduction in wholesale water volumes relative to the timing of any required improvements needed at the Commission Boulevard site to accommodate additional growth and water sales in this service area.
- A biological treatment process for the Commission Boulevard site has been pilot tested and construction documents are completed. Once the funding is in place, LUS plans to construct the new treatment process in 2019.
- 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, meters are still failing and being replaced at a rate of approximately 75 per week as of January 2019.
- The fees charged for water meter installations appear to have remained static since 1996. 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.

SECTION 6
WASTEWATER SYSTEM

As of 2018, LUS provided wastewater services to 45,019 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 plans 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 decreased in 2018 by 7.7% from 2017 collection volumes. Collection volumes in 2018 were lower than historical collection volumes over the 2014–2017 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]
2014	5,476,065
2015	5,734,225
2016	6,267,402
2017	5,768,832
2018	5,326,815

Source: LUS Financial and Operating Statements
(1) The Wastewater System does not provide wholesale service.

6.1 Wastewater Treatment

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

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

	2018 (1) (MGD)	Permitted Capacity (MGD)	Flowholding Capacity (MG)
SSTP	5.0	7.0	5.0
ESTP	2.9	4.0	3.0
ACTP	5.5	6.0 (2)	3.0
NETP	1.2	1.5	25.0
Totals	14.6	18.5	33.0

Source: LUS
(1) Average day hydraulic loads are not adjusted to dry weather conditions and therefore include infiltration.
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 has prepared engineering plans and begun 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 (belt filter presses and the sludge building) is 99% complete. Phase 2 (digesters) of the solids handling project will be bid upon completion of Phase 1, likely in the summer of 2019. 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.

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 buffer tank. Sludge is treated using anaerobic digesters that operate on time and temperature and achieve up to 27% solids. In 2015, the boiler used for heating the digester was repaired. LUS has a series of projects planned to rebuild the existing sludge digestion facilities, and to recover sludge digestion facilities that were previously abandoned. The abandoned 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 15% complete, in that old equipment is in the process of being removed.

Ambassador Caffery Treatment Plant

The ACTP is a 6.0 MGD treatment plant originally constructed with rotating biological contactors (RBCs) and an oxidation ditch. 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 as a peak or max flow. 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 instead of belt presses to prepare the sludge for transport to the sludge disposal land farm. In 2015, a 24-inch force main from the ACTP to the SSTP was completed, which provides operational flexibility should wastewater flows need to be diverted from the ACTP.

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.

6.2 Wastewater Collection

The collection system consists of 583 miles of gravity sewer collector pipes and interceptors, 12,716 sanitary sewer manholes, 188 sanitary sewer lift stations, and 90 miles of sewer force mains. Table 6-3 summarizes the Wastewater System collection system infrastructure.

Table 6-3
Wastewater System
Wastewater Collection System Infrastructure

	2014	2015	2016	2017	2018
Number of Connections	43,068	43,521	44,269	45,034	45,436
Miles of Pipe (1)	637	649	659	665	673
Number of Manholes	11,937	12,145	12,313	12,538	12,716
Number of Lift Stations	164	176	179	185	188

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 188 sanitary sewer lift stations consist of approximately 30% Gorman Rupp style suction lift stations, and 60% submersible stations of various makes and descriptions. The increase of three new lift stations in 2018 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 have been 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 fiber optic/SCADA communication capabilities in the future. Once all the lift stations are connected to the fiber system and fitted with SCADA, LUS can substantially improve proactive controlling and monitoring the operation of its lift stations, especially in response to heavy rain conditions. This increased fiber/SCADA communication will significantly reduce customer inconveniences, and the cost of claims due to sewer system backups. LUS made progress in 2018 with this effort. To date, 100 of the lift stations have camera access via fiber connections with 30 Mbps service. LUS' goal is to connect the remaining 88 lift stations to SCADA and are in the process of evaluating platforms.

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, 18 package wastewater treatment plants are operated and maintained as LUS' Wastewater System infrastructure, with two or three additional package plants likely to be added in 2019. Each of the package plants carry its own discharge permit, and their relatively isolated locations mean 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 should those service areas be incorporated into the existing collection system.

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 Bonds and retained earnings. The 2010 Bonds were issued for wastewater collection system improvements including lift stations and interceptors.

Table 6-4
Wastewater System
Historical CIP

	2014	2015	2016	2017	2018
Normal Cap & Spec Equipment	$1,416,765	$2,097,944	$1,524,624	$1,876,974	$1,264,908
Series 2010 Bonds	933,223	2,984,526	98,009	0	0
Retained Earnings	1,554,647	2,174,335	2,294,350	4,207,580	6,881,980
Total Capital	$3,904,635	$7,256,805	$3,916,983	$6,084,553	$8,146,888

Source: LUS, Status of Construction Work Order Reports.

6.4 Operations and Related Performance

In 2018, the average daily wastewater volume treated by the four plants was 14.6 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 one time in 2018 due to a wet weather event and over the last five years has averaged five times per year.

Capacity, Management, Operations, and Maintenance (CMOM) 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 CMOM Program by May 1, 2020. This CMOM Program is designed to assist municipalities and utilities to create a framework for implementation of best practices for 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 and I&I repairs in the CIP. 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 the 2019 Budget.

Biosolids Beneficial Reuse Land Application Program

LUS disposes of biosolids, the sludge byproduct of water and wastewater treatment plant operation, to privately owned farmland disposal sites leased by LUS. LUS biosolids operations are permitted under LDEQ Biosolids/Sewage Sludge Landfarming/Beneficial Reuse Permit No. LAJ020125. Waste sludge generated at each of the wastewater treatment units is treated to Class B biosolids standards prior to transport to the disposal site. LUS reports that all required quarterly, semiannual, and annual reports were submitted to LDEQ during 2018.

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 2,700 acres for sludge disposal, with year-to-year leases that each include a 30-day notice end-of-lease clause.

In August 2017, LUS was notified by the farmer of one of the larger sites that biosolids could no longer be disposed of on his site. This leaves LUS with only three large sites available and minimal back-up capacity should other farmers terminate their agreements. LUS has 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 has 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 has 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 2018, LUS exceeded the design flow capacity at ESTP one time, and ACTP one time. Biological loading was not exceeded during 2018 at any of the plants. The flow exceedances at ESTP and ACTP were due to excessive rainfall events that overwhelmed the system. 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 Capacity was Exceeded

Plant	2014	2015	2016	2017	2018
Flow					
SSTP	0	2	2	0	0
ESTP	0	3	1	2	1
ACTP	6	5	8	5	1
NETP	0	0	1	0	0
Biological Loading					
SSTP	1	0	0	0	0
ESTP	0	0	1	0	0
ACTP	0	0	0	0	0
NETP	0	0	0	0	0

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 wastewater discharge permit renewals for all four plants expire in the fall of 2019. LUS began the renewal process and expects the permit renewals by fall of 2019. All renewed permits contain identical effluent limits for biological oxygen demand, total suspended solids, ammonia nitrogen, dissolved oxygen, total residual chlorine, and pH, and are not expected to change as a result of the renewals. LDEQ did indicate to LUS that phosphorus and nitrogen will be monitored, but no limits will be included in the permit renewal. The quality of various discharge parameters of each treatment unit are recorded on DMRs and submitted monthly

to LDEQ. The 2018 DMRs for the various treatment plants and operating units indicate all operating units were in compliance with NPDES discharge limits, no notices of violation of effluent limits were received, LUS is current with all fees and report submittals, and there were no public complaints received in 2018. LUS does not expect any rejections or delays in the renewal of the Wastewater System environmental or operating permits.

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

Water and 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 have been prepared and implemented in accordance with state and federal requirements for each water and 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.

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	$3.32
Lake Charles	$4.33
New Iberia	$4.93
Baton Rouge	$6.15
LUS	$7.13
Shreveport	$9.62
New Orleans	$10.26

Source: LUS. Rates as of October 2018.
(1) Assumes monthly water consumption of 7,000 gallons per month.

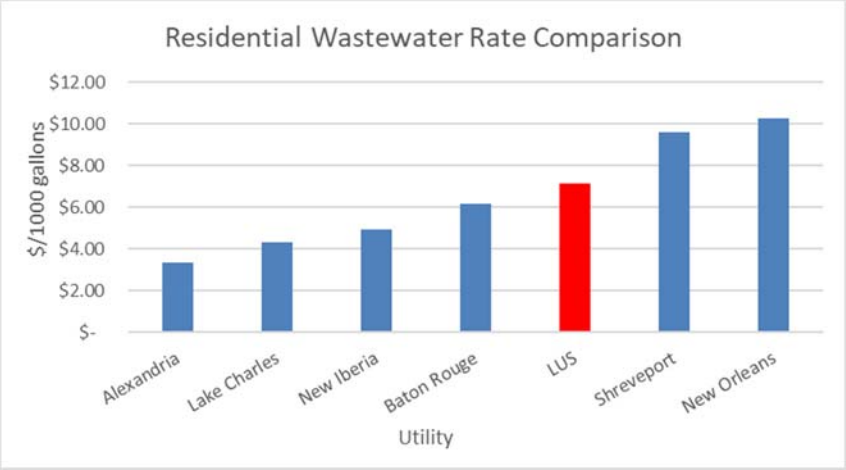


Figure 6-1: Wastewater System – Residential Rate Comparison

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	$2.41
Lake Charles	$3.88
LUS	$6.69
Baton Rouge	$7.95
Shreveport	$8.70
New Orleans	$10.89

Source: NewGen. Rates as of October 2018.
(1) Assumes monthly consumption of 30,000 gallons and a 2-inch meter.

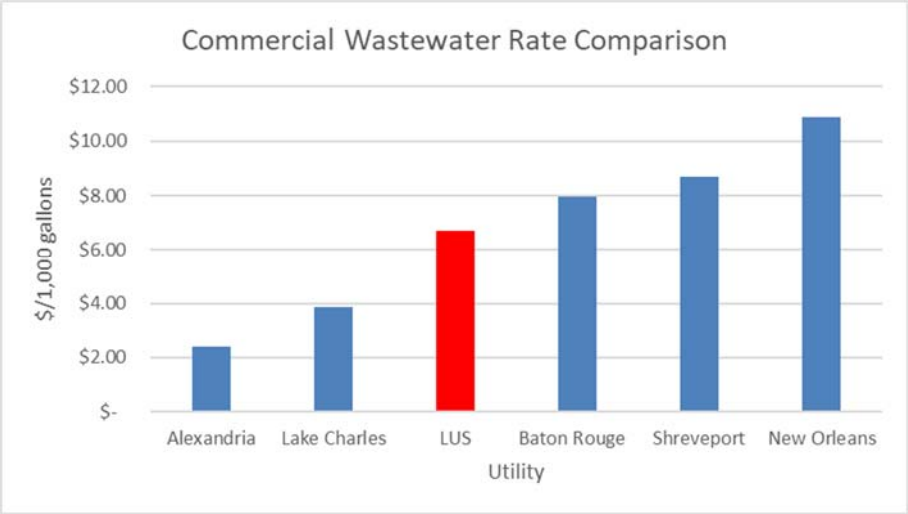


Figure 6-2: Wastewater System – Commercial Rate Comparison

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, 2017 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 in line with the National costs but above the Regional costs. LUS' debt to equity is in line with National and Regional utilities. LUS wastewater utility operating ratio is slightly higher than other utilities. LUS' cash reserves are lower than other utilities, while their DSCR is higher than Regional utilities.

Table 6-8
Wastewater System
Benchmarked Wastewater Utility Operating Ratios

		National (1)	Regional	LUS	
Statistic	Basis	2017	2017	2017	2018
Operational Costs per MGD	Wastewater	$3,125	$2,328	$3,239	$3,518
Debt to Equity (Total Assets)	Combined	0.30	0.37	0.35	0.34
Operating Ratio (O&M cost/ Operating revenue)	Wastewater	0.55	0.52	0.63	0.60
Operating Ratio (O&M cost/ Operating revenue)	Combined	0.64	0.47	0.75	0.72
Cash Reserve Days (2)	Combined	392	292	42	42
Debt Service Coverage Ratio	Wastewater	NA	2.51	2.83	4.06
Debt Service Coverage Ratio	Combined	4.02	2.73	2.84	3.31

(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 2014 through 2018 include the Series 1996 Bonds, a portion of the Series 2004 Bonds, a portion of the Series 2010 Bonds, a portion of the Series 2012 Bonds, and a portion of the Series 2017 Bonds. Series 2017 bonds were issued in 2017; however, the first interest payment was not due until May, 2018 (FY 2018). Table 6-9 shows historical debt service and the associated DSCR. In each year since 2014, the DSCR has 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
2014	$28,735,575	$17,428,365	$11,307,211	$4,672,103	2.4
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

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. Debt Service includes the Series 1996 Bonds, a portion of the Series 2004 Bonds, a portion of the Series 2010 Bonds, a portion of the Series 2012 Bonds, and a portion of the Series 2017 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.

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 increased in 2017 and 2018 by 4.1% and 4.3% even though the retail collection amounts decreased in 2017 and 2018. The revenue increases are due to rate increases implemented in 2017 and 2018. The number of customers consistently increased at approximately 1.1% per year with the highest customer growth in the schools and churches customer class. The revenue per customer increased by 4.8% and 5.1% in 2017 and 2018 respectively.

Table 6-11
Wastewater System
Retail Revenues by Class

	2014	2015	2016	2017	2018
Revenues					
Residential	$15,239,932	$15,383,027	$15,428,467	$16,301,946	$17,209,307
Commercial	11,829,389	11,631,865	11,669,904	11,899,780	12,073,215
Schools & Churches	1,074,254	1,080,667	1,213,052	1,300,138	1,509,518
Other	172,821	209,198	211,356	204,511	185,506
Total	$28,316,395	$28,304,757	$28,522,778	$29,706,376	$30,977,546
Number of Customers					
Residential	37,494	37,919	38,569	39,054	39,229
Commercial	5,201	5,238	5,328	5,398	5,402
Schools & Churches	259	252	257	263	273
Other	115	114	115	116	116
Total	43,068	43,521	44,269	44,830	45,019
Revenue per Customer					
Residential	$406	$406	$400	$417	$439
Commercial	2,275	2,221	2,190	2,205	2,235
Schools & Churches	4,154	4,294	4,719	4,947	5,528
Other	1,502	1,843	1,838	1,762	1,606
Total	$657	$650	$644	$663	$688

Source: LUS Financial and Operating Statements

Historically, the Wastewater System has 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 has accrued to approximately $490,000 in 2018 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 fixed costs embedded in Collection, Treatment, Customer Service, and A&G expense accounts. Historically, the variable expenses have averaged 10% of the total expenses while fixed expenses average 90%.

As the Water System retail sales are affected by weather, so are the Wastewater System 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

	2014	2015	2016	2017	2018
Variable Expenses					
Collection	$382,017	$365,217	$366,371	$346,809	$332,139
Treatment	1,466,968	1,391,904	1,350,099	1,351,974	1,334,120
Total Variable Expenses	$1,848,984	$1,757,121	$1,716,470	$1,698,783	$1,666,259
Fixed Expenses					
Collection	$3,498,088	$3,722,893	$4,095,630	$4,350,118	$4,390,309
Treatment	5,346,618	5,265,725	5,565,525	5,452,814	5,543,161
Customer	1,161,544	1,208,820	1,347,623	1,345,368	1,399,015
A&G	5,573,130	5,612,123	5,569,902	5,838,454	5,738,418
Total Fixed Expenses	$15,579,380	$15,809,562	$16,578,681	$16,986,755	$17,070,904
Total Fixed & Variable	$17,428,365	$17,566,682	$18,295,151	$18,685,538	$18,737,163
Percent Variable	11%	10%	9%	9%	9%
Percent Fixed	89%	90%	91%	91%	91%

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 has 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.
- SCADA control and feedback from the operating units, especially lift stations, has not been fully implemented, although significant progress was made in 2018. One-hundred of the system's 188 lift stations now have fiber access. 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 to be in the $4.0 million range.
  - The cost for lime required in the Class A process is estimated to be 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 in 2019 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.
- 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.
- While the Wastewater System's annual amount of uncollectible accounts is less than industry averages, over the past several years, the balance has accrued to approximately $490,000. 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 ongoing at the Acadiana Park Pump Station, currently at 80% completion. Another rehabilitation project at the Brown Park Pump Station is planned for this year. 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 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.

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, 145 miles of distribution fiber, and 539 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 2014, the Communications System number of accounts increased at a compound annual rate of 5.0%, totaling approximately 20,000 retail accounts in 2018. As shown in Table 7-1, the historical number of accounts and market share is 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.

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

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
2014	[redacted]	7.6%	[redacted]	[redacted]	1.0%	33.9%
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]	4.4%	[redacted]	[redacted]	1.3%	39.0%

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

- 87 analog, 327 digital channels
- Packages
  - Basic Package with 21 channels
  - Expanded Basic with 80+ channels
  - Digital Access with 200+ digital channels
  - Digital Plus with 300+ digital channels
  - Digital Hispanic with 300+ digital channels, including 6 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, set top boxes and RESTART TV.

Residential Internet Service

- 3, 60, 100 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 the residential communications services, the Communications System 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.

Current communications services rates are stable, with increases for CATV or video generally driven by programming and content costs. LUS Fiber's content pricing continues to improve since attaining membership in the National Cable Television Cooperative (NCTC) in December 2011.

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	$19.95	$39.95	$49.95	$59.95	$295.95
LUS Fiber – Hub City WiFi		60 Mbps & WiFi	100 Mbps & WiFi	1,000 Mbps & WiFi	
Price		$52.95	$62.95	$114.95	
Cox	10Mbps	30 X 3 Mbps	100 X 10 (3) Mbps	300 x 30 Mbps	
Price	$29.99	$39.99	$59.99	$79.99	
AT&T/DirecTV	Up to 5 Mbps	Up to 10 Mbps	Up to 300 Mbps	Up to 1000 Mbps	
Price	$30.00	$40.00	$60.00	$80.00	

Source: LUS Fiber
(1) Mbps is millions of bits (Megabits) per second.
(2) Sym is symmetrical, or equal upload and download speeds.
(3) Cox 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 2018. 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 2018, the Communications System employees and facilities were organized separately from Utility System operations; however, several services such as accounting, billing, 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 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 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 – 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 has 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 has 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 being provided at 63 of those lift stations. This resulted in LUS paying $1,259,855 since 2012 for services not provided. In addition, LUS terminated service at 25 locations, but did not update the contract, resulting in $274,882 being paid to LUS Fiber for services not used. LUS was reimbursed by LUS Fiber for the above charges. Additional information will be included in the 2018 attest audit expected to be completed in mid to late 2019.

FCC

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 has 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 effective June 2018. Since then, 20 states have filed lawsuits against the FCC. In addition, the U.S. House introduced a bill to reinstate the 2015 Net Neutrality order.

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 2019 Budget is shown in Table 7-3 and totals $39 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	2019	2020	2021	2022	2023	Total
Customer Installations	2,131,050	2,200,000	2,050,000	2,000,000	2,150,000	10,531,050
Customer Premise Equipment	2,743,069	2,400,000	2,056,283	1,850,000	1,950,000	10,999,352
Headend Equipment and Upgrades	575,000	650,000	550,000	675,000	675,000	3,125,000
Hut Equipment and Upgrades	750,000	375,000	410,000	350,000	350,000	2,235,000
Network Equipment and Upgrades	900,000	350,000	415,000	375,000	375,000	2,415,000
Special Equipment	2,540,000	1,936,497	1,850,000	1,436,750	1,235,000	8,998,247
Special Capital	125,000	125,000	125,000	125,000	125,000	625,000
Total	9,764,119	8,036,497	7,456,283	6,811,750	6,860,000	38,928,649

Source: 2019 Budget. All projects are shown in 2019 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 collected $38.6 million in operating and miscellaneous revenues in 2018, as compared to the budgeted $39.7 million. Operating expenses were under budget at $20.3 million, as compared to the budgeted $21.3 million. Other Income (Expenses) was close to the budgeted amount. Overall, the cash available for capital was higher than the budgeted amount. The Communications System actual financial performance 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	35.0	36.9	(1.9)	(5.2%)
Wholesale Sales	2.5	2.7	(0.1)	(4.2%)
Interest Income	0.2	0.0	0.1	739.2%
Miscellaneous Income	0.9	0.1	0.7	503.8%
Total Operating Revenue	38.6	39.7	(1.2)	(3.0%)
Operating Expenses				
Cost of Production	7.8	9.3	(1.5)	(16.4%)
Other O&M	12.5	12.0	0.5	4.4%
Total Operating Expenses	20.3	21.3	(1.0)	(4.7%)
Other Income (Expenses)				
Interest on Long Term Debt	(5.0)	(5.0)	0.0	0.0%
Principal on Long Term Debt	(4.4)	(4.4)	0.0	0.0%
Note Payable	(1.5)	(1.5)	0.0	0.0%
Imputed Tax Expense	(0.5)	(1.1)	0.6	(50.7%)
Total Other	(11.5)	(12.1)	0.6	(4.6%)
Cash Available for Capital	6.7	6.4	0.4	5.8%

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 Cash and Cash Equivalent account was high in 2014 due to a legal settlement with a contactor. The Deferred Debit increased due to the 2015 revenue bond issuance costs. The Retained Earnings balance steadily decreased through 2015 due to the accumulation of negative operating income. However, since 2015, the Retained Earnings increased due to positive net operating income.

Table 7-5
Communications System
Comparative Balance Sheet

	2014	2015	2016	2017	2018
Total Assets					
Communications Plant	$83,945,232	$79,409,738	$77,989,976	$76,227,066	$77,827,044
Bonds and Special Accounts	4,052,990	4,235,338	6,327,788	9,404,519	6,014,644
Cash and Cash Equivalent	4,072,088	2,583,319	3,467,990	2,959,953	2,580,711
Accounts Receivable	1,760,586	1,430,268	1,508,689	1,451,287	1,425,507
Reserve for Uncollectible Accounts	(155,904)	(77,305)	(100,656)	(138,185)	(183,659)
Prepayments	84,180	58,683	262,960	256,139	448,868
Inventories	0	0	0	0	0
Deferred Debits	1,927,135	9,301,294	9,613,092	8,496,356	7,252,853
Total Assets	$95,686,308	$96,941,336	$99,069,837	$98,657,134	$95,365,968
Total Liabilities & Equity					
Long Term Debt	$111,450,000	$106,195,000	$105,255,000	$101,210,000	$96,785,000
Current Liabilities	3,952,519	3,113,538	2,654,078	4,198,360	2,395,408
Long Term Liabilities	30,228,087	42,274,489	42,556,583	41,249,931	39,484,427
Retained Earnings	(49,944,298)	(54,641,692)	(51,395,823)	(48,001,156)	(43,298,868)
Total Liabilities & Equity	$95,686,308	$96,941,336	$99,069,837	$98,657,134	$95,365,968

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.

Table 7-6
Communications System
Fund Balances as of October 31, 2018 ($1,000)

	Receipts Account	Operating Account	Debt Service Account	Reserve Account	Capital Additions Account	Security Deposits	Construction Funds	Total
Beginning Balance	$537	$2,250	$0	$0	$9,276	$86	$42	$12,191
Receipts	39,458	30,662	9,471	0	8,999	0	3	88,593
Disbursements	39,954	30,662	9,471	0	12,336	17	38	92,478
Ending Balance	$41	$2,250	$0	$0	$5,939	$69	$7	$8,306

Source: LCG

Income Statement

Table 7-7 shows the comparative income statement. The Operating Revenues and Operating Expenses have increased consistently since 2014 as the Communications System has grown and gained market share. Correspondingly, the Net Operating Revenues have nearly tripled over the last five years.

Other Income has 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

	2014	2015	2016	2017	2018
Operating Revenues	$31,640,320	$33,808,462	$35,686,587	$37,217,396	$38,265,799
Operating Expenses	17,591,848	17,661,873	19,467,412	19,654,241	20,312,983
Net Operating Revenues	$14,048,472	$16,146,589	$16,219,175	$17,563,155	$17,952,816
Depreciation	10,435,461	10,790,446	6,602,622	6,869,519	7,369,971
Net Operating Revenues after Depreciation	$3,613,011	$5,356,143	$9,616,553	$10,693,635	$10,582,845
Other Income					
Interest Income	$1,103	$3,473	$18,136	$64,463	$151,056
Unrealized Gain/Loss on Invs	0	0	0	0	0
Amortization of Debt Premium	199,731	492,774	1,211,233	1,206,147	1,151,434
Amortization of Debt Discount	(4,118)	(4,118)	(4,118)	(4,118)	(4,118)
Misc. Non-Operating Revenue	2,579,035	141,377	103,639	91,683	135,700
Other Operating Gains/Losses	(111,881)	(254,782)	1,095	(14,672)	650
Total Other Income	$2,663,871	$378,724	$1,329,985	$1,343,503	$1,434,722
Other Expenses					
Amortized Bond Issuance Costs	$0	$1,222,126	$24,565	$24,462	$23,352
Amortized Start Up Costs	96,742	96,742	96,742	96,742	96,742
Amortized 2007 Expense	6,786	6,786	6,786	6,786	6,786
Amortized Loss on Refunding	0	120,967	622,118	619,506	591,404
Interest on Long-Term Debt	5,579,771	5,724,768	5,225,541	5,206,741	5,004,491
Interest on Long-Term Debt - LUS Note	910,864	903,440	901,003	897,753	883,386
Interest on Customer Deposits	161	16	36	(695)	10
Extraordinary Charges	0	0	0	0	0
Total Other Expenses	$6,594,325	$8,074,846	$6,876,792	$6,851,296	$6,606,172
Net Income Before in Lieu of Tax or Imputed Tax	($317,443)	($2,339,979)	$4,069,747	$5,185,843	$5,411,395
ILOT or Imputed Tax	933,755	837,337	823,878	686,575	542,800
Net Income	($1,251,198)	($3,177,316)	$3,245,869	$4,499,268	$4,868,594

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 2014–2018. These numbers indicate current Communications System revenues have improved from year-to-year as new customers were added to the system. Since 2014, 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 $35 million.

Table 7-8
Communications System
Comparative Cash Flow

	2014	2015	2016	2017	2018	Total
Operating Revenues	$31,640,320	$33,808,462	$35,686,587	$37,217,396	$38,265,799	$176,618,564
Operating Expenses	17,591,848	17,661,873	19,467,412	19,654,241	20,312,983	94,688,357
Net Operating Revenues	$14,048,472	$16,146,589	$16,219,175	$17,563,155	$17,952,816	$81,930,207
Debt Service (1)	$9,434,060	$8,853,935	$6,165,541	$9,251,741	$9,429,491	$43,134,769
Balance After Debt Service	$4,614,412	$7,292,654	$10,053,634	$8,311,413	$8,523,325	$38,795,439
Less Imputed Tax or ILOT	$933,755	$837,337	$823,878	$686,575	$542,800	$3,824,346
Change in Cash due to Operations & Imputed Tax or ILOT	$3,680,657	$6,455,317	$9,229,756	$7,624,838	$7,980,525	$34,971,093

Source: Communications System Financial and Operating Statements
(1) The 2012 Series Bonds debt service in years 2012 and 2013 was paid for out of capitalized interest. .

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. LUS Fiber is continuing to build out targeted areas.

Table 7-9
Communications System
Historical CIP

	2014	2015	2016	2017	2018
Series 2007 Bonds	$698,660	$36,480	$0	$0	$0
Series 2012A Bonds	260,079	189,541	21,315	0	13,731
Series 2012B Bonds	3,753,510	816,311	38,141	0	26,213
Retained Earnings	1,440,491	4,856,692	4,967,142	4,865,162	8,523,970
Special Equipment	0	0	0	11,138	50,465
Total Capital	$6,152,739	$5,899,024	$5,026,598	$4,876,301	$8,614,379

Source: Communications System, Status of Construction Work Order Reports

7.10 Historical Financial Performance

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

Historical Debt Service Coverage Ratio

Communications System debt service for years 2014 through 2018 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 2014, the DSCR has 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
2014	$31,641,423	$17,591,848	$14,049,575	$9,434,060	1.5
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

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 has grown. The cable and phone growth have slowed down and are leveling out. The largest revenue growth is in the Internet service category. Wholesale revenues remained steady until 2016 when a large wholesale customer left LUS Fiber. 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

	2014	2015	2016	2017	2018
Cable TV	$11,686,327	$11,926,774	$12,495,096	$12,355,260	$11,646,190
Internet	11,540,983	12,698,001	14,238,687	15,839,986	17,639,525
Telephone	5,089,891	5,684,204	5,840,121	5,685,137	5,727,349
Wholesale	3,167,698	2,948,151	2,263,413	2,464,909	2,537,726
Other	155,421	551,331	849,270	872,104	715,008
Total Operating Revenues	$31,640,320	$33,808,462	$35,686,587	$37,217,396	$38,265,799

Source: Communications System Financial and Operating Statements

Expenses

The cost of goods sold has generally increased since 2014 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 $4.3 million and increased by 1.2% in 2018. 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 $1.8 million over the last five years and increased 19.1% in 2018. The administrative costs averaged $3.1 million over the last five years.

Table 7-12
Communications System
Historical Operating Expenses

	2014	2015	2016	2017	2018
Cost of Goods Sold	$6,981,477	$7,089,691	$7,382,247	$7,207,212	$7,786,666
Plant Specific Expense	3,883,496	3,867,317	4,521,047	4,601,990	4,664,168
Plant Non-Specific Expense	1,971,886	2,153,495	2,453,269	2,560,755	2,308,814
Customer Operations	1,580,106	1,394,372	1,597,052	1,911,069	2,278,406
Administrative	3,007,708	2,987,786	3,280,872	3,140,940	3,018,940
Other Operating Expenses	167,175	169,212	232,924	232,275	255,989
Total Operating Expenses	$17,591,848	$17,661,873	$19,467,412	$19,654,241	$20,312,983

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 occurred in 2018. If a Credit Event had occurred in 2018, 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	2018
Utilities System Net Revenues	$70,906,215
Less Interest Income from LUS Fiber Internal Loans	897,753
Utilities System Net Available Revenues for Debt Service	$70,008,462
Less Utilities System Debt Service (1)	21,427,905
Less Capital Additions Account, Minimum Capital Requirement of 7.5% (2)	12,521,974
Net Available Revenues (Utilities System Residual Revenues) for Communications Debt Service	$36,058,583
Communications System Debt Service (3)	$9,429,491
Utilities System DSCR for Communications System Debt	3.8

(1) Debt service includes the Series 2010 Bonds and the Series 2012 Bonds. By 2020, the Series 2010 Bonds will be fully redeemed by the proceeds of the Series 2017 Bonds.
(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. LEDA markets the capability to new potential customers.
- Staffing issues are also 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.
- Based on interviews with staff and our observations, we conclude that the Engineering division is adequately staffed based on the number of customers.
- 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 2018. 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 2018. The 2018 Utilities System Residual Balance achieved a coverage ratio of 3.9 as compared to the Communications System debt obligations.
- There were no major network outages in 2018.

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, 2018:

- Utilities Revenue Bonds, Series 2010
- Utilities Revenue Refunding Bonds, Series 2012
- Utilities Revenue Refunding Bonds, Series 2017
- Utilities Revenue Bonds, Series 2019 (scheduled for delivery May 1, 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. As of the date of this Report, the Series 2019 Bonds are scheduled for delivery on May 1, 2019.

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 2019 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, 2018 through October 31, 2028. LUS provided actual historical data for the 2014 through 2018.

Information and Assumptions Relied Upon

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

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 be in compliance beyond those referenced in this Report and included in the LUS CIP.

5. NewGen assumed the Rodemacher Unit 2, Hargis-Hébert Plant, and T. J. Labbé Plant 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 2014 through 2018, the 2019 Budget, and an LPPA Operating and Capital Budget.

16. NewGen relied upon an hourly dispatch model provided by ACES Power LLC. Using this forecast, assumptions pertaining to the dispatch of LUS' generating units and Rodemacher Unit 2 were developed. The model projected MISO market purchases, MISO market sales, fuel costs associated with Rodemacher Unit 2, Hargis-Hébert Plant, and T. J. Labbé Plant. The structure of LUS' electric rates enable the direct pass through of MISO power supply costs, fuel costs, certain LPPA costs, environmental, and other eligible costs directly to customers.

17. 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.

18. NewGen relied upon the most recent semiannual Blue Chip Economic Indicator projection of gross domestic product (GDP), dated March 2019. 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.

19. NewGen relied upon the March 2019 Blue Chip Economic Indicator Report projection of the 3-month Treasury Bill for short term and long term investments.

20. Projected interest costs associated with future Utilities System bonds were assumed to vary from 4.0 to 5.0 %. NewGen assumed that future bond terms will be 25 years with level annual debt service.

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 0.9% over the Projected Period. The wholesale sales projection assumes the loss of one wholesale customer at the end of 2020. The discontinued water wholesale customer represents approximately 3.6% of the Water System's revenues. 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 an hourly dispatch model provided by Aces Power, LLC. Using this forecast, assumptions pertaining to the dispatch of LUS' generating units were developed. These assumptions were the basis for projecting LUS fuel costs associated with the Rodemacher Unit 2, T. J. Labbé Plant, and Hargis-Hébert Plant. 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 2018, 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 proposed Series 2019 Bonds. New debt service includes a bond issues in year 2023. Projected operating results assume future bond issues to meet Utilities System capital requirements. 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 2019 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 2019 through 2023 was based on the 2019 Budget and 2024 through 2028 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

	2014	2015	2016	2017	2018
Operating Revenues					
Electric Base Rates	$95,395,327	$96,291,739	$95,194,646	$98,059,005	$106,419,392
Electric Retail Fuel Adjustment	105,375,603	84,910,901	78,153,587	76,829,537	72,872,661
Water	17,746,170	18,028,081	18,286,651	19,458,484	21,220,243
Wastewater	28,579,957	28,791,165	28,752,436	30,305,358	31,690,825
Fiber	40	0	0	0	0
Total Operating Revenues	$247,097,098	$228,021,885	$220,387,318	$224,652,384	$232,203,121
Operating Expenses					
Electric Fuel & Purch Power	$105,679,639	$88,717,783	$85,345,312	$89,403,214	$88,632,979
Electric Other Production	7,893,377	8,190,689	6,902,595	7,573,414	5,823,932
Other Electric	33,514,860	33,098,450	34,446,286	36,370,497	36,710,947
Water	12,950,319	13,099,239	13,761,106	13,965,819	14,260,225
Wastewater	17,428,365	17,566,682	18,295,151	18,685,538	18,737,163
Fiber	0	0	0	0	0
Total Operating Expenses	$177,466,560	$160,672,843	$158,750,451	$165,998,482	$164,165,246
Net Operating Revenues	$69,630,538	$67,349,042	$61,636,867	$58,653,902	$68,037,875
Depreciation	$22,130,030	$22,881,380	$23,601,958	$23,960,817	$24,555,286
Other Income					
Interest Income	$1,313,230	$1,426,311	$1,704,947	$2,020,622	$2,868,340
Unrealized Gain/Loss on Invs	30,750	91,526	117,778	(283,409)	(46,380)
Amortization of Debt Premium	3,029,199	3,028,445	3,020,974	2,995,867	3,544,254
Water Tapping Fees	104,100	107,420	78,320	64,240	72,240
Communications Lease Income	97,073	36,952	27,648	25,378	0
Contributions in Aid of Construction	0	0	56,063	128,155	304,557
Misc. Non-Operating Revenue	2,877,693	3,414,729	2,566,471	3,335,924	4,188,986
Total Other Income	$7,452,045	$8,105,384	$7,572,201	$8,286,777	$10,931,997
Other Expenses					
Loss on Disposition of Property	$250,980	$313,714	$329,136	$369,488	$398,883
Interest Expense	9,180,021	10,623,334	10,970,238	8,916,835	9,622,905
Amortization on Plant	1,646,801	1,406,190	989,789	782,767	608,729
Amortization – Other	1,269,526	1,269,525	1,266,821	1,264,007	1,695,453
Interest on Customer Deposits	11,746	3,206	821	1,688	4,307
Tax Collections/Non-Operating	0	0	0	0	0
Misc. Non-Operating Expense	1,921,605	1,383,331	1,589,252	3,182,762	2,844,559
Total Other Expenses	$14,280,680	$14,999,299	$15,146,058	$14,517,546	$15,174,837

Table A-1
Utilities System LUS Income Statements

	2014	2015	2016	2017	2018
Net Income Before ILOT	$40,671,873	$37,573,746	$30,461,053	$28,462,316	$39,239,748
ILOT	$22,073,833	$22,847,494	$23,306,557	$22,568,235	$23,708,786
Net Income	$18,598,040	$14,726,252	$7,154,496	$5,894,081	$15,530,962
Net Position, Beginning (1)	$479,897,190	$482,229,051	$496,955,303	$505,214,402	$503,819,102
Net Position, Ending	$498,495,230	$496,955,303	$504,109,800	$511,108,483	$519,350,066

Source: LUS Financial and Operating Statements, 2014 through 2018, audited.

(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, 2018:

- 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, 2018 through October 31, 2028. LUS provided actual historical data for the 2014 through 2018.

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 41% over the Projected Period. 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 an hourly dispatch model provided by Aces Power, LLC. Using this forecast, assumptions pertaining to the dispatch of Rodemacher Unit 2 was developed. The model projected MISO market purchases, MISO market sales, LUS fuel costs associated with Rodemacher Unit 2, Hargis-Hébert Plant, and T.J. Labbé Plant. 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 2019 through 2023. Beyond year 2023, operating expenses were escalated at inflation.

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 2018, 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 $9.5 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 Operations and Transmission and Maintenance Expense Forecast	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 5-15
	52	Water System Commercial Rate Comparison	Table 5-16
	53	Historical & Projected Water System Retail & Wholesale Sales	Table B-14
	54	Water Sales & Revenue	Table B-14
	55	Wastewater System Historical and Projected Operations & Maintenance Expense	Table B-13
	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

	2014	2015	2016	2017	2018
LPPA Share (MWh)	1,185,928	1,037,447	797,928	825,089	1,062,984
Fuel	$37,201,705	$33,966,979	$26,658,901	$26,620,153	$29,566,005
Operations	2,311,923	2,577,179	2,799,380	3,191,851	3,591,720
Maintenance	9,767,676	5,286,052	5,857,500	7,115,532	5,376,070
Administrative & General	2,649,166	2,639,075	2,684,288	2,729,322	2,778,370
Total Operating Expenses	$51,930,471	$44,469,286	$38,000,069	$39,656,858	$41,312,164
Total Operating Expenses $/MWh	43.79	42.86	47.62	48.06	38.86
Total Operating Expenses Less Fuel $/MWh	12.42	10.12	14.21	15.80	11.05

Source: LPPA Manager's Monthly Reports

Table B-3
LPPA Historical Revenues, Expenses, Balances Available for Debt Service

	2014	2015	2016	2017	2018
Total Operating Revenues	$58,881,514	$51,723,772	$48,326,966	$47,753,386	$50,740,877
Total Operating Expenses	51,930,471	44,469,286	38,000,068	39,656,858	41,312,164
Net Operating Revenues	$6,951,043	$7,254,487	$10,326,898	$8,096,528	$9,428,713
Other Income	$79,783	$109,427	$190,946	$321,942	$548,007
Balance Available for Debt Service	$7,030,826	$7,363,914	$10,517,844	$8,418,470	$9,976,720
Debt Service [1]	7,060,106	7,063,256	6,888,039	6,926,306	6,916,606
Balance After Debt Service	($29,280)	$300,658	$3,629,805	$1,492,164	$3,060,113
Debt Service Coverage Ratio [2]	1.0	1.0	1.5	1.2	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

	2014	2015	2016	2017	2018
Operating Revenues					
Sales of Electric Energy					
City of Lafayette (LUS)	$58,881,514	$51,723,772	$48,326,966	$47,753,386	$50,740,877
Operating Expenses					
Production	$49,281,305	$41,830,211	$35,315,781	$36,927,535	$38,533,794
Administrative & General	2,649,166	2,639,075	2,684,288	2,729,322	2,778,370
Depreciation	1,799,880	1,423,481	1,453,184	1,479,342	1,727,062
Total Operating Expenses	$53,730,351	$45,892,767	$39,453,253	$41,136,200	$43,039,226
Non-Operating Revenues (Expenses)					
Other	$522,032	$503,446	($27,595)	$2,294,264	$485,521
Investment Earnings	79,783	109,427	190,946	321,942	548,007
Interest on Long Term Debt	(4,200,106)	(4,108,256)	(3,723,039)	(3,636,306)	(3,506,606)
Gain (Loss) on Disposition of Property	(89,914)	(227,456)	(123,848)	(355,715)	(253,343)
Total	($3,688,205)	($3,722,839)	($3,683,536)	($1,375,816)	($2,726,421)
Net Income (Loss) for the Period	$1,462,958	$2,108,166	$5,190,178	$5,241,371	$4,975,230
Fund Net Position Beginning (1)	$67,842,718	$69,305,675	$71,413,842	$76,604,019	$81,845,390
Fund Net Position, End of Year	$69,305,676	$71,413,842	$76,604,019	$81,845,390	$86,820,620

Source: LPPA Financial Report

(1) The Net Position Beginning balance was restated.

Table B-5
Summary Statements of Cash Flows

	2014	2015	2016	2017	2018
Cash Flows from Operating Activities					
Receipts from customers	$58,881,514	$51,723,772	$48,326,966	$47,753,386	$50,740,877
Payments to suppliers for goods & services	(41,029,452)	(42,928,870)	(38,041,403)	(37,860,976)	(33,881,255)
Payments to employees and for employee related costs	(413,944)	(382,355)	(424,247)	(469,117)	(453,085)
Net cash provided (used) by operating activities	$17,438,118	$8,412,547	$9,861,316	$9,423,293	$16,406,537
Cash Flows from Capital and Related Financing Activities					
Proceeds from Issuance of Bonds	$0	$0	$29,035,000	$0	$0
Premium on Issuance on Bonds	0	0	2,077,808	0	0
Payment to escrow agent	0	0	(30,721,903)	0	0
Principal payments on bonds	(6,005,000)	(2,955,000)	(3,165,000)	(3,290,000)	(3,410,000)
Interest Paid	(6,351,072)	(4,108,256)	(3,723,039)	(3,636,306)	(3,506,606)
Debt issuance costs	0	(155,131)	(379,850)	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	(41,841,533)	(13,316,634)	(6,020,304)	(4,205,782)	(2,612,658)
Net cash provided (used) by capital and related financing activity	($54,197,605)	($20,535,021)	($12,897,288)	($11,132,088)	($9,529,264)
Cash Flows from Investing Activities					
Sales (purchases) of investments - net	$0	$0	($2,300,000)	($5,200,000)	($11,700,000)
Maturities of Investments	0	0	2,500,000	5,181,000	2,000,000
Interest Earnings	76,041	96,958	188,630	299,780	578,932
Other	0	0	0	0	0
Net Cash provided by investing activities	$76,041	$96,958	$388,630	$280,780	($9,121,068)
Net increase (decrease) in cash and cash equivalents	($36,683,446)	($12,025,516)	($2,647,342)	($1,428,015)	($2,243,795)
Cash and cash equivalents, beginning of year	$81,323,548	$44,640,102	$32,614,586	$29,967,244	$28,539,229
Cash and cash equivalents, end of year	$44,640,102	$32,614,586	$29,967,244	$28,539,229	$26,295,434

Source: LPPA Financial Report

Table B-6
Largest Customers (Electric)

Customer	Type of Business	2018 Revenues
University of Louisiana	Higher Education	$7,414,145
Lafayette General Hospital	Health Care	$2,714,085
Our Lady of Lourdes	Health Care	$1,823,762
Lafayette Consolidated Gov-Street Lighting	Local Government	$1,725,662
Stuller Inc.	Jewelry Manufacturing	$1,012,728
Halliburton - Gulf Coast Campus	Refining / Petrochemical	$807,451
University Hospital & Clinics Inc	Health Care	$739,177
Acadiana Mall	Shopping Center	$720,602
Women's and Children's Hospital	Health Care	$706,953
International Paper	Paper Products	$701,651

Source: LUS

Table B-7
Largest Customers (Water)

Customer	Type of Business	2018 Revenues
University of Louisiana	Higher Education	$365,516
Lafayette General Hospital	Health Care	$154,309
Our Lady of Lourdes	Health Care	$118,222
Borden Company	Dairy Products	$78,720
Lafayette Parish Correctional Center	Correctional Facility	$53,164
Women's and Children's Hospital	Health Care	$51,324
University Hospital & Clinics Inc	Health Care	$43,531
Lafayette General Southwest	Health Care	$43,152
Peppertree Apartments	Apartment Complex	$42,466
Bayou Shadows Apartments	Apartment Complex	$42,328

Source: LUS

Table B-8
Largest Customers (Wastewater)

Customer	Type of Business	2018 Revenues
University of Louisiana	Dairy Products	$953,633
Borden Company	Health Care	$310,849
Lafayette General Hospital	Health Care	$246,346
Our Lady of Lourdes	Commercial Laundry	$161,698
Cintas Corporation	Apartment Complex	$129,624
Peppertree Apartments	Apartment Complex	$124,067
Bayou Shadows Apartments	Mobile Home Park	$120,324
Magnolia View Mobile Home Park	Apartment Complex	$111,798
Pinhook South Apartments	Apartment Complex	$111,508
South Point Apartments	Commercial Laundry Service	$111,234

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

	2014	2015	2016	2017	2018
Operating Revenues					
Charges for Services	$242,884,655	$223,635,506	$216,475,271	$220,360,405	$227,771,102
Miscellaneous	4,796,423	5,012,799	4,506,863	4,995,876	5,014,740
Total Operating Revenues	$247,681,078	$228,648,305	$220,982,134	$225,356,281	$232,785,842
Operating Expenses					
Production, Collection, & Cost of Services	$122,444,243	$106,150,834	$102,175,581	$107,080,241	$104,674,970
Transmission, Distribution & Treatment	27,674,617	28,292,560	29,733,282	30,885,632	31,179,941
Administrative & General & Customer	27,347,702	26,229,450	26,841,588	28,032,609	28,310,334
ILOT	22,073,833	22,847,494	23,306,557	22,568,235	23,708,786
Depreciation & Amortization on Plant	23,776,831	24,287,570	24,591,747	24,743,583	25,164,015
Total Operating Expenses	$223,317,226	$207,807,909	$206,648,755	$213,310,300	$213,038,045
Operating Income	$24,363,852	$20,840,397	$14,333,378	$12,045,981	$19,747,797
Non-Operating Revenues (Expenses)					
Investment Earnings	$1,343,980	$1,517,837	$1,822,725	$1,737,213	$2,821,960
Interest Expense	(7,432,094)	(8,867,619)	(9,216,905)	(7,186,663)	(7,778,412)
Gain (Loss) on sale/disposal of assets	(250,980)	(313,714)	(329,136)	(1,006,340)	(398,883)
Federal Grant Revenue	656,112	932,987	497,562	(369,488)	0
Hurricane	0	0	(510,963)	(214,126)	(289,755)
Non-employer pensions contributions	0	524,936	539,204	542,688	556,122
Other	(82,830)	91,428	(37,431)	6,710	306,798
Total Non-Operating Revenues (Expenses)	($5,765,812)	($6,114,145)	($7,234,944)	($6,490,006)	($4,782,170)
Income Before Contributions	$18,598,040	$14,726,252	$7,098,434	$5,555,975	$14,965,627
Capital Contributions	$0	$0	$56,063	$338,106	$565,337
Change in Net Position	$18,598,040	$14,726,252	$7,154,497	$5,894,081	$15,530,964
Net Position, Beginning [1]	$479,897,190	$482,229,051	$496,955,303	$505,214,402	$503,819,102
Net Position, Ending	$498,495,230	$496,955,303	$504,109,800	$511,108,483	$519,350,066

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
2014	2,027,115	$91,749,309	$105,375,603	$4,766,335	$201,891,247
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	1,997,591	$101,667,106	$80,023,497	$5,036,132	$186,726,735
2020	2,001,413	$101,934,439	$78,915,721	$5,090,723	$185,940,883
2021	2,005,403	$102,209,661	$78,792,299	$5,134,407	$186,136,366
2022	2,012,174	$102,468,864	$77,187,009	$5,389,714	$185,045,588
2023	2,019,108	$102,703,791	$75,918,454	$5,806,681	$184,428,926
2024	2,025,707	$102,921,295	$78,475,878	$6,052,370	$187,449,543
2025	2,032,009	$103,123,480	$80,691,096	$6,270,093	$190,084,669
2026	2,038,027	$103,311,657	$82,805,030	$6,384,134	$192,500,820
2027	2,043,777	$103,487,470	$83,835,737	$6,457,830	$193,781,038
2028	2,049,275	$103,651,479	$85,864,638	$6,504,672	$196,020,790
Average Growth	0.3%	0.2%	0.8%	2.9%	0.5%

Source: LUS, NewGen and Aces Power LLC.

(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]
2014	$113,573,016	$7,543,561	$11,042,653	$2,807,800	$12,120,845	$147,087,876
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	$94,722,979	$8,556,098	$12,398,213	$2,860,032	$12,408,385	$130,945,708
2020	$98,091,487	$8,735,776	$12,658,575	$2,910,900	$12,668,962	$135,065,700
2021	$96,164,273	$7,949,482	$12,924,406	$2,966,221	$12,935,010	$132,939,392
2022	$97,295,150	$3,165,871	$13,195,818	$3,020,063	$13,206,645	$129,883,547
2023	$99,939,635	$3,232,355	$13,472,930	$3,075,544	$13,483,985	$133,204,448
2024	$97,160,532	$3,300,234	$13,755,862	$3,138,807	$13,767,148	$131,122,583
2025	$99,866,383	$3,369,539	$14,044,735	$3,202,614	$14,056,258	$134,539,529
2026	$102,485,910	$3,440,299	$14,339,674	$3,267,499	$14,351,440	$137,884,822
2027	$104,021,098	$3,512,546	$14,640,807	$3,331,701	$14,652,820	$140,158,972
2028	$106,566,327	$3,586,309	$14,948,264	$3,398,878	$14,960,529	$143,460,308
Average Growth	1.3%	-9.2%	2.1%	1.9%	2.1%	1.0%

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
2014	5,476,065	$28,316,395	$419,180	$28,735,575
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	5,764,418	$31,718,328	$1,545,301	$33,263,628
2020	5,809,890	$31,968,534	$1,892,423	$33,860,957
2021	5,851,959	$32,833,161	$1,920,688	$34,753,849
2022	5,888,669	$33,721,756	$1,858,580	$35,580,335
2023	5,921,464	$34,595,989	$1,876,393	$36,472,382
2024	5,951,880	$35,463,643	$1,949,831	$37,413,474
2025	5,980,337	$36,326,459	$1,995,954	$38,322,413
2026	6,007,263	$37,232,813	$1,908,539	$39,141,352
2027	6,033,169	$38,139,381	$1,791,111	$39,930,493
2028	6,057,968	$39,045,222	$1,677,078	$40,722,300

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 2021 through 2028.

(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)
2014	$6,813,586	$3,880,104	$1,161,544	$5,573,130	$17,428,365
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	$7,121,267	$5,515,257	$1,411,687	$5,962,428	$20,010,638
2020	$7,258,421	$5,622,067	$1,438,071	$6,087,639	$20,406,198
2021	$7,401,749	$5,734,277	$1,466,209	$6,215,479	$20,817,715
2022	$7,539,846	$5,842,977	$1,494,002	$6,346,004	$21,222,829
2023	$7,681,345	$5,954,967	$1,522,558	$6,479,270	$21,638,140
2024	$7,841,814	$6,082,436	$1,554,062	$6,615,335	$22,093,647
2025	$8,003,508	$6,211,215	$1,585,950	$6,754,257	$22,554,930
2026	$8,167,623	$6,342,191	$1,618,414	$6,896,096	$23,024,324
2027	$8,330,099	$6,471,932	$1,650,834	$7,040,914	$23,493,779
2028	$8,499,969	$6,607,870	$1,684,512	$7,188,773	$23,981,124

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
2014	5,426,408	2,004,355	$13,119,010	$4,164,275	$500,181	$17,783,466
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	5,466,075	2,312,424	$15,086,368	$6,193,787	$862,715	$22,142,871
2020	5,509,194	2,415,840	$15,205,375	$6,467,756	$1,035,444	$22,708,575
2021	5,549,085	2,198,737	$15,648,421	$6,324,189	$982,330	$22,954,939
2022	5,583,896	2,267,537	$16,081,620	$6,601,061	$925,625	$23,608,305
2023	5,614,994	2,339,356	$16,508,082	$7,273,789	$956,579	$24,738,450
2024	5,643,835	2,370,665	$16,931,505	$7,454,910	$948,916	$25,335,330
2025	5,670,820	2,402,672	$17,352,709	$8,063,989	$917,746	$26,334,444
2026	5,696,352	2,435,394	$17,772,618	$8,266,674	$875,603	$26,914,895
2027	5,720,917	2,468,848	$18,192,517	$8,944,124	$840,003	$27,976,643
2028	5,744,433	2,503,054	$18,611,963	$9,171,036	$819,139	$28,602,139

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 2021 through 2028.
(4) Water Wholesale rate increases are 8 % in each of the years 2021, 2023, 2025, and 2027.
(5) Other Revenue includes Miscellaneous Operating Revenue and Interest Income.

Table B-15
Water System Historical and Projected Operating Expenses

Year	Production	Distribution	Customer Accounting, Collecting, Service and Info	Administrative & General	Total Operating Expenses (1)
2014	$4,991,122	$2,312,791	$1,084,155	$4,562,251	$12,950,319
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	$5,679,629	$2,947,292	$1,232,610	$4,699,189	$14,558,719
2020	$5,858,164	$2,561,280	$1,256,122	$4,797,872	$14,473,438
2021	$5,906,166	$2,617,341	$1,281,002	$4,898,627	$14,703,136
2022	$6,072,605	$2,674,332	$1,305,722	$5,001,498	$15,054,158
2023	$6,244,275	$2,732,341	$1,331,094	$5,106,529	$15,414,239
2024	$6,410,279	$2,791,470	$1,358,705	$5,213,767	$15,774,221
2025	$6,579,322	$2,851,763	$1,386,694	$5,323,256	$16,141,035
2026	$6,752,233	$2,913,265	$1,415,203	$5,435,044	$16,515,744
2027	$6,927,068	$2,976,030	$1,443,783	$5,549,180	$16,896,060
2028	$7,108,731	$3,040,077	$1,473,383	$5,665,713	$17,287,903

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, 2018:

- 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, 2018 through October 31, 2028. The Communications System provided actual historical data for the 2014 through 2018.

Information and Assumptions Relied Upon

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

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 2014–2018, projected financial and operating data for years 2019–2028, and the 2019 Budget.

6. NewGen relied upon the most recent semi-annual Blue Chip Economic Indicator projection of GDP, dated March 2019. 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 3.5% over the 2019 through 2028 period. The growth assumption results in target market share from the current 39% to 51% in 2028. 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 2019 to 2028 with revenues of $2.8 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 2018 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 2019 through 2028.

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 2019 through 2023 was based on the 2019 Budget and 2024 through 2028 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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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
2014	16,270	7.6%	53,017	47,969	1.0%	33.9%
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	19,809	4.4%	56,209	50,857	1.3%	39.0%
2019	20,593	4.0%	56,866	51,452	1.2%	40.0%
2020	21,342	3.6%	57,484	52,011	1.1%	41.0%
2021	22,089	3.5%	58,072	52,543	1.0%	42.0%
2022	22,862	3.5%	58,602	53,022	0.9%	43.1%
2023	23,662	3.5%	59,086	53,460	0.8%	44.3%
2024	24,490	3.5%	59,537	53,868	0.8%	45.5%
2025	25,347	3.5%	59,991	54,279	0.8%	46.7%
2026	26,234	3.5%	60,449	54,692	0.8%	48.0%
2027	27,153	3.5%	60,910	55,107	0.8%	49.3%
2028	28,103	3.5%	61,374	55,525	0.8%	50.6%
Average Growth	3.5%		0.9%	0.9%		

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
2019	20,593	34	$36,803,109	$2,808,159	$39,611,268
2020	21,342	34	$38,447,839	$2,780,000	$41,227,839
2021	22,089	34	$40,092,570	$2,780,000	$42,872,570
2022	22,862	34	$41,737,300	$2,780,000	$44,517,300
2023	23,662	34	$43,382,030	$2,780,000	$46,162,030
2024	24,490	34	$45,026,760	$2,780,000	$47,806,760
2025	25,347	34	$46,671,490	$2,780,000	$49,451,490
2026	26,234	34	$48,316,220	$2,780,000	$51,096,220
2027	27,153	34	$49,960,950	$2,780,000	$52,740,950
2028	28,103	34	$51,605,680	$2,780,000	$54,385,680
Average Growth	3.5%	0.0%	3.8%	-0.1%	3.6%

Source: LUS

Table C-3
Communications System Operations and Maintenance Expense Forecast

Year	Cost of Goods Sold (1)	Other Expenses (2)	Total Expenses
2019	$8,355,862	$12,889,369	$21,245,231
2020	$9,016,972	$13,160,046	$22,177,017
2021	$9,697,091	$13,436,407	$23,133,498
2022	$10,423,300	$13,718,571	$24,141,872
2023	$11,198,538	$14,006,661	$25,205,199
2024	$12,023,833	$14,300,801	$26,324,634
2025	$12,903,285	$14,601,118	$27,504,402
2026	$13,840,227	$14,907,741	$28,747,968
2027	$14,838,194	$15,220,804	$30,058,998
2028	$15,900,927	$15,540,441	$31,441,368
Average Growth	7.4%	2.1%	4.5%

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

	2019	2020	2021	2022	2023
Operating Revenues					
Retail Sales	$36,803,109	$38,447,839	$40,092,570	$41,737,300	$43,382,030
Wholesale Sales	2,808,159	2,780,000	2,780,000	2,780,000	2,780,000
Other Revenues	929,305	937,032	952,505	978,536	1,018,456
Total Operating Revenues	$40,540,573	$42,164,872	$43,825,075	$45,495,835	$47,180,485
Operating Expenses					
Cost of Goods Sold	$8,355,862	$9,016,972	$9,697,091	$10,423,300	$11,198,538
O&M and Other	12,889,369	13,160,046	13,436,407	13,718,571	14,006,661
Total Operating Expenses	$21,245,231	$22,177,017	$23,133,498	$24,141,872	$25,205,199
Balance Available for Debt Service	$19,295,342	$19,987,855	$20,691,577	$21,353,964	$21,975,286
Debt Service	$9,428,241	$9,430,991	$9,431,991	$10,590,741	$10,599,941
Debt Service Coverage Ratio	2.0	2.1	2.2	2.0	2.1
Balance After Debt Service	$9,867,101	$10,556,863	$11,259,585	$10,763,223	$11,375,345
Other Income (Expenditures)					
Imputed Tax	($945,561)	($975,743)	($864,470)	($807,130)	($748,642)
Inter-utility Loan Repayment	(1,705,320)	(1,814,455)	(2,410,578)	(2,422,635)	(2,435,174)
Miscellaneous	108,258	110,532	112,853	115,223	117,642
Total Other Income (Expenditures	($2,542,623)	($2,679,667)	($3,162,195)	($3,114,542)	($3,066,174)
Balance Available for Capital	$7,324,478	$7,877,196	$8,097,390	$7,648,680	$8,309,171

Table C-5
Communications System Sources and Uses of Funds

	2019	2020	2021	2022	2023
Construction Fund [1]					
Sources of Funds					
Beginning Balance	$6,930	$0	$0	$0	$0
Deposits	0	0	0	0	0
Interest Income	75	0	0	0	0
Uses of Funds					
Capital Expenditures	(7,005)	0	0	0	0
Construction Fund Ending Balance	$0	$0	$0	$0	$0
Retained Earnings (Cash Available)					
Sources of Funds					
Beginning Balance	$2,896,040	$463,403	$135,337	$459,992	$858,707
Deposits from Earnings	7,324,478	7,877,196	8,097,390	7,648,680	8,309,171
Other	0	0	0	0	0
Uses of Funds					
Capital Expenditures	(9,757,114)	(8,205,263)	(7,772,735)	(7,249,965)	(7,454,647)
Operating Account Creation	0	0	0	0	0
Sinking Fund transfer to Refunding	0	0	0	0	0
Retained Earnings Ending Balance	$463,403	$135,337	$459,992	$858,707	$1,713,231

(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			
2014	65,262	54,637	43,068
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
Projected			
2019	68,137	57,113	45,429
2020	68,674	57,569	45,787
2021	69,171	57,995	46,118
2022	69,605	58,374	46,408
2023	69,993	58,718	46,666
2024	70,352	59,034	46,906
2025	70,689	59,341	47,130
2026	71,007	59,633	47,342
2027	71,313	59,917	47,547
2028	71,606	60,191	47,742
Average Growth	0.6%	0.6%	0.6%

Source: LUS, Burns & McDonnell, LUS. LUS Financial and Operating Statements, 2014–2018, audited

(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

	2014	2015	2016	2017	2018
Operating Revenues					
Electric System					
Base Rate – Electric	$91,749,309	$92,626,681	$91,631,825	$94,552,196	$102,886,777
Fuel Charge – Electric	105,375,603	84,910,901	78,153,587	76,829,537	72,872,661
Wholesale Sales	160,062	179,301	200,753	177,166	174,622
Other Revenues [1]	4,606,272	4,327,280	4,367,987	4,501,605	5,021,629
Water					
Retail Sales	13,119,010	13,207,794	13,229,678	13,862,679	14,821,240
Wholesale Sales	4,164,275	4,406,071	4,736,650	5,232,452	6,038,256
Other Revenues [1]	500,181	670,952	627,213	727,065	877,048
Wastewater					
Retail Sales	28,316,395	28,304,757	28,522,778	29,706,376	30,977,546
Other Revenues [1]	419,180	814,459	621,796	1,083,931	1,401,680
Fiber	40	0	0	0	0
Total Operating Revenues	$248,410,328	$229,448,195	$222,092,266	$226,673,006	$235,071,461
Operating Expenses					
Electric System					
Generation	$7,893,377	$8,190,689	$6,902,595	$7,573,414	$5,823,932
Fuel - Gas Generation	1,906,092	985,639	1,363,817	1,967,322	3,020,362
Purchased Power LPPA	58,881,514	51,723,772	48,326,966	47,753,386	50,740,877
Purchased Power Other	44,892,033	36,008,371	35,654,529	39,682,507	34,871,740
Other	33,514,860	33,098,450	34,446,286	36,370,497	36,710,947
Water	12,950,319	13,099,239	13,761,106	13,965,819	14,260,225
Wastewater	17,428,365	17,566,682	18,295,151	18,685,538	18,737,163
Fiber	0	0	0	0	0
Total Operating Expenses [2]	$177,466,560	$160,672,843	$158,750,451	$165,998,482	$164,165,246
Balance Available for Debt Service	$70,943,768	$68,775,352	$63,341,815	$60,674,525	$70,906,215
Debt Service [3]	$23,333,915	$22,924,293	$22,925,238	$21,341,835	$21,427,905
Debt Service Coverage Ratio	3.0	3.0	2.8	2.8	3.3
Balance After Debt Service	$47,609,853	$45,851,060	$40,416,577	$39,332,690	$49,478,310
Other Income					
Interest Income [4]	$0	$0	$0	$0	$0
Water Tapping Fees	104,100	107,420	78,320	64,240	72,240
Communications Lease Income	97,073	36,952	27,648	25,378	0
Contributions in Aid of Construction	0	0	56,063	128,155	304,557

Table C-7
Historical Operating Results

	2014	2015	2016	2017	2018
Misc. Non-Operating Revenue	2,877,693	3,414,729	2,566,471	3,335,924	4,188,986
Total Other Income	$3,078,866	$3,559,102	$2,728,502	$3,553,697	$4,565,784
Other Expenses					
Interest on Customer Deposits	$11,746	$3,206	$821	$1,688	$4,307
Tax Collections/Non-Operating	0	0	0	0	0
Misc. Non-Operating Expense	1,921,605	1,383,331	1,589,252	3,182,762	2,844,559
Total Other Expenses	$1,933,351	$1,386,537	$1,590,073	$3,184,450	$2,848,867
Payment in Lieu of Tax	$22,073,833	$22,847,494	$23,306,557	$22,568,235	$23,708,786
Bond Reserve & Capital Additions	$26,681,534	$25,176,131	$18,248,448	$17,133,701	$27,486,441

(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
2019	$242,133,234	$165,515,065	$76,618,169	$22,732,925	$53,885,244	3.4
2020	$242,510,415	$169,945,336	$72,565,079	$25,374,000	$47,191,079	2.9
2021	$243,845,154	$168,460,243	$75,384,912	$25,095,600	$50,289,312	3.0
2022	$244,234,228	$166,160,533	$78,073,695	$25,092,600	$52,981,095	3.1
2023	$245,639,758	$170,256,826	$75,382,931	$25,874,119	$49,508,812	2.9
2024	$250,198,348	$168,990,451	$81,207,896	$26,254,930	$54,952,966	3.1
2025	$254,741,526	$173,235,494	$81,506,033	$26,257,304	$55,248,729	3.1
2026	$258,557,068	$177,424,890	$81,132,177	$26,262,444	$54,869,733	3.1
2027	$261,688,174	$180,548,811	$81,139,363	$26,258,101	$54,881,262	3.1
2028	$265,345,228	$184,729,335	$80,615,893	$25,057,526	$55,558,368	3.2

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 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.

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
2019	$75,755,965	$22,732,925	$12,170,543	$40,852,497	$9,428,241	$31,424,255	4.3
2020	$71,730,277	$25,374,000	$12,284,376	$34,071,901	$9,430,991	$24,640,910	3.6
2021	$74,581,948	$25,095,600	$12,388,107	$37,098,241	$9,431,991	$27,666,250	3.9
2022	$77,322,979	$25,092,600	$12,538,636	$39,691,743	$10,590,741	$29,101,002	3.7
2023	$74,686,553	$25,874,119	$12,734,305	$36,078,129	$10,599,941	$25,478,187	3.4
2024	$80,568,028	$26,254,930	$12,887,104	$41,425,993	$10,601,223	$30,824,771	3.9
2025	$80,924,936	$26,257,304	$13,056,777	$41,610,855	$10,598,970	$31,011,885	3.9
2026	$80,612,203	$26,262,444	$13,186,248	$41,163,510	$10,596,363	$30,567,148	3.9
2027	$80,682,955	$26,258,101	$13,338,691	$41,086,164	$10,588,283	$30,497,881	3.9
2028	$80,225,596	$25,057,526	$13,463,407	$41,704,663	$10,593,760	$31,110,903	3.9

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, proposed Series 2019 Bonds and a projected bond issue in 2023. 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 2019 through 2028.

Appendix D
FINANCIAL & STATISTICAL DATA

LAFAYETTE CONSOLIDATED GOVERNMENT
REVENUE BONDS CONTINUING DISCLOSURE

Population of City of Lafayette

Year	Population
1960	40,400
1970	68,908
1980	81,961
1990	94,440
2000	110,257
2007	112,199
2008	111,088
2009	112,640
2010	120,623
2013	122,510
2014	126,066
2015	127,661
2016	127,626
2017	131,191
2018	132,747

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
1999	542,680	2009	1,129,670
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	1,582,892

Source: Lafayette Parish Assessor's Office

LAFAYETTE CONSOLIDATED GOVERNMENT
REVENUE BONDS CONTINUING DISCLOSURE

Classification of Property	**2018 Assessed Valuation (City of Lafayette)**
Real Estate	$1,233,831,778
Personal Property	325,130,777
Public Service Property	23,929,732
Total	$1,582,892,287

Source: Lafayette Parish Assessor's Office

Millage Rates

	2005	2006	2007	2008	2010	2011	2012	2013	2014	2015	2016	2017	2018
Parishwide Taxes:													
Schools	4.59	4.59	4.59	4.59	4.59	4.59	4.59	4.59	4.59	4.59	4.59	4.56	4.59
School District No. 1 -	0.69	0.52	0.19										
Special	7.27	7.27	7.27	7.27	7.27	7.27	7.27	7.27	7.27	7.27	7.27	7.27	7.27
Special School Improvements	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
School 1985 Operation	16.70	16.70	16.70	16.70	16.70	16.70	16.70	16.70	16.70	16.70	16.70	16.70	16.70
Courthouse & Jail Maintenance	2.25	2.25	2.25	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34
Library (2007-2016)	2.80	2.80	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.68	N/A	N/A
Library (2009-2018)	1.55	1.55	1.55	1.55	1.61	1.61	1.61	1.61	1.61	1.61	1.48	1.48	1.48
Library (2003-2012)	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.84	N/A	N/A
Library (2013-2022)					N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.84	1.84
Library (2017-2026)					N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.68	2.68
Health Unit Maintenance	0.99	0.99	0.99	0.99	0.99	0.99	0.94	N/A	1.61	0.80	N/A	N/A	N/A
Juvenile Detention Maintenance	1.13	1.13	1.13	1.13	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17
Lafayette Economic Development Authority	1.92	1.92	1.92	1.58	1.92	1.92	1.82	1.82	1.82	1.82	1.68	1.68	1.68
Assessment District	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.44	1.44	1.56
Law Enforcement	16.79	16.79	16.79	16.79	16.79	16.79	16.79	16.79	16.79	16.79	16.79	16.79	16.79
Airport Maintenance	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.58	1.58	1.58
Minimum Security Maintenance	1.98	1.98	1.98	2.06	2.06	2.06	2.06	2.06	2.06	2.06	1.90	1.90	1.90
Bridges and Maintenance	4.01	4.01	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17
Lafayette Parish Bayou Vermillion -													
Bond & Interest	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.00	0.17	0.17	0.17
Maintenance	0.75	0.75	0.75	0.75	0.75	0.75	0.71	0.75	0.75	0.75	0.75	0.75	0.75
Drainage Maintenance	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34
Public Improvement Bonds	2.90	3.50	3.50	3.50	3.00	3.00	3.00	3.00	3.00	2.75	2.75	2.75	2.75
Teche-Vermillion Water District	1.00	1.00	1.48	1.26	1.26	1.50	1.45	1.45	1.50	1.50	1.41	1.41	1.41
Mosquito Abatement & Control	1.50	1.50	1.50	1.50	1.50	1.50	1.50	0.50	1.50	1.50	N/A	N/A	N/A
Health Unit, Mosquito, Ect.					N/A	N/A	N/A	N/A	N/A	N/A	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	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52
Parish Tax (Outside Municipalities)	3.05	3.05	3.05	3.05	3.05	3.05	3.05	3.05	3.05	3.05	3.05	3.05	3.05
Lafayette Centre Development District	10.91	10.91	10.91	10.91	10.91	10.91	10.91	9.60	10.91	10.91	11.24	11.24	12.75
City of Lafayette	**17.81**	**17.81**	**17.81**	**17.81**	**17.84**	**17.94**	**17.94**	**17.94**	**17.94**	**17.94**	**17.94**	**17.80**	**17.80**

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 2018 assessed valuations follow:

	Name of Taxpayer	Type of Business	2018 Assessed Valuation
1.	Stuller	Manufacturing	$16,657,039
2.	Iberia Bank	Commercial Banking	15,967,451
3.	Frank's Casing Crew & Rental Tools	Oil & Gas Support Services	12,274,649
4.	Walmart/Sam's	Warehouse Clubs & Supercenters	10,219,678
5.	J P Morgan Chase	Commercial Banking	10,215,769
6.	PHI Inc	Oil & Gas Support Services	9,853,053
7.	AT&T/ Bellsouth	Telecommunications	9,717,005
8.	Service Chevrolet Inc	New Car Dealers	7,147,758
9.	Entergy Gulf States	Oil & Gas Support Services	5,924,070
10.	HCA Regional Health System	General Medical & Surgical Hospitals	5,226,956
			$103,203,428 *

* Approximately 6.52% of the 2018 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 16-17 Actual Collections	FY 17-18 Actual Collections	FY 18-19 Actual Collections
November	$6,569,295	$6,273,115	$6,707,189
December	6,563,374	6,374,642	6,896,866
January	8,426,880	7,959,495	7,850,848
February	6,137,715	5,946,269	6,215,366*
March	5,912,935	5,830,654	-
April	7,297,553	7,732,741	-
May	6,343,120	6,650,710	-
June	6,807,826	6,684,641	-
July	6,876,297	6,754,618	-
August	6,225,120	6,405,209	-
September	6,417,062	6,366,946	-
October	6,439,454	6,423,582	-
TOTAL	$80,016,631	$79,402,621	$27,670,269

Source: City of Lafayette. Figures unaudited.
* Latest month for which figures are available

LAFAYETTE CONSOLIDATED GOVERNMENT
CASH AND INVESTMENTS
BALANCES AS OF OCTOBER, 2018

			CASH AND INVESTMENTS
General Operating Funds:			
101	General Fund-City	$	47,951,643
102	Property Tax Escrow Fund		46,343
105	General Fund-Parish		280,624
126	Grants-Federal		(958,343)
127	Grants-State		(4,921)
128	Grants-Other		98,774
162	Community Development		(226,049)
163	Home Programs		(5,475)
165	Emergency Shelter Grant		(27,606)
171	HUD Housing Loan Prog		200,602
185	FHWA I-49 Grant		0
187	FTA Capital		(113,386)
189	DOTD Travel Management		3,127
201	Recreation and Parks		0
203	Municipal Transit System		416,457
204	Heymann Performing Arts Center		63,741
206	Animal Control Shelter		6,785,539
207	Traffic Safety		663
209	Combined Golf Courses		0
210	Laf Develop & Revitaliz		1,004,571
252	State Seized/Forfeited Property		41,528
253	Fed Narc Seized /Forfeited Property		14,253
255	Criminal Non-support		(76,314)
260	Road & Bridge Maintenance		19,221,597
261	Drainage Maintenance		11,426,994
262	Correctional Center		(390,555)
263	Library Fund		42,533,091
264	Courthouse Complex		11,189,837
265	Juvenile Detention Facility		4,452,706
266	Public Health Unit		963,564
268	Criminal Court		0
269	Combined Public Health		1,655,854
271	Mosquito Abatement		1,639,066

LAFAYETTE CONSOLIDATED GOVERNMENT
CASH AND INVESTMENTS
BALANCES AS OF OCTOBER, 2018

			CASH AND INVESTMENTS
272	Justice Department Federal Equitable Sharing Fund		135,720
273	Storm Water Management		11,275,316
274	Cultural Economy		492,600
277	Court Services Fund		49,419
297	Parking Program		129,319
299	Codes & Permits		126,327
550	Environmental Services		2,843,283
551	CNG Service Station		320,469
601	Payroll		3,219,491
605	Unemployment Compensation		(5,152)
607	Group Hospitalization		19,970,117
640	Hurricane Katrina		116,202
641	Hurricane Rita		331,383
643	Hurricane Gustav		(545,261)
644	Hurricane Isaac		(161,500)
645	2016 August Flood		(158,160)
701	Central Printing		(159,278)
702	Central Vehicle Maintenance		1,072,262
	Total General Operating Funds	$	**187,240,485**
	Debt Service Funds:		
215	1961 City Sales Tax Trust Fund	$	5,539
222	1985 City Sales Tax Trust Fund		0
290	TIF City Sales Tax Trust Fund-MM101		645,543
291	TIF City Sales Tax Trust Fund-MM103		4,428,230
302	1961 Sales Tax Bond Sinking Fund		7,660,819
303	1961 Sales Tax Bond Reserve Fund		10,759,822
304	1985 Sales Tax Bond Sinking Fund		4,476,233
305	1985 Sales Tax Reserve Fund		8,694,661
356	Contingency Sinking-Parish		5,915,831
357	2011 Certificates of Indebt		204,129
358	2012 Limited Tax Refund		26,899
801	Consolidated Sewerage Sinking Fund		376
821	Consolidated Paving Districts Sinking Fund		0
	Total Debt Service Funds	$	**42,818,081**

LAFAYETTE CONSOLIDATED GOVERNMENT
CASH AND INVESTMENTS
BALANCES AS OF OCTOBER, 2018

			CASH AND INVESTMENTS
	Construction Funds:		
401	Sales Tax Capital Improvement Fund	$	49,190,660
407	2010 Parish General Obligation Bonds		937,223
436	2009A Sales Tax Bond Construction		3,183,561
438	2010 Sales Tax Bond Construction		31,452
440	2013 Sales Tax Bond Construction		3,682,178
	Total Construction Funds	$	**57,025,075**
	Other:		
602	Firemen Pension & Relief	$	0
603	Police Pension & Relief		0
614	Risk Management		3,257,343
	Total Other	$	**3,257,343**

LAFAYETTE CONSOLIDATED GOVERNMENT
CASH AND INVESTMENTS
BALANCES AS OF OCTOBER, 2018

			CASH AND INVESTMENTS
	Utility System Funds:		
501	Receipts Fund	$	273,911
502	Operation and Maintenance		7,499,871
503	Bond & Interest		0
504	Capital Additions Fund		103,594,191
505	Security Deposit Fund		8,873,076
506	Bond Reserve Fund		19,677,588
	Total Utilities System Funds	$	**139,918,636**
	LPPA Funds:		
520	LPPA Revenue Fund	$	17,661,834
521	LPPA Operating Fund		8,457,800
522	LPPA Fuel Cost Stability Fund		4,502,185
523	LPPA Bond Reserve Fund		9,555,656
524	LPPA Reserve & Contingency Fund		5,285,843
525	LPPA Bond Interest & Principal Fund		0
	Total LPPA Funds	$	**45,463,318**
	Communications System Funds:		
531	Receipts Account	$	41,344
532	Operating Account		2,709,866
533	Debt Service Account		0
535	2012A Bond Account		6,069
536	2012B Bond Account		861
537	Capital Additions Account		5,938,706
538	Security Deposits Account		69,489
	Total Communications System Funds	$	**8,766,336**
	TOTAL ALL FUNDS	$	**484,489,274**

LAFAYETTE CONSOLIDATED GOVERNMENT
REVENUE BONDS CONTINUING DISCLOSURE
ECONOMIC INDICATORS

Per Capita Personal Income

	2010	2011	2012	2013	2014	2015	2016	2017
Lafayette Parish	$ 43,373	$ 43,859	$ 49,026	$ 48,000	$ 51,545	$ 48,734	$ 44,347	$ 45,892
Louisiana	37,226	38,148	40,019	40,103	42,012	42,856	42,298	43,660
United States	40,277	42,461	44,282	44,493	46,494	48,451	49,246	51,731

Effective Buying Income

	Median Household Effective Buying Income			
Year	Lafayette Parish	City of Lafayette	Louisiana	Nation
2017	$ 53,950	$ 48,533	$ 46,710	$ 57,652

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	119,171	113,334	5,837	4.9	6.7
2014	122,611	116,590	6,021	4.9	6.4
2015	120,299	113,468	6,831	5.7	6.3
2016	113,761	106,731	7,030	6.2	6.1
2017	113,028	107,513	5,515	4.9	5.1

Source: Louisiana Department of Labor

LAFAYETTE CONSOLIDATED GOVERNMENT
REVENUE BONDS CONTINUING DISCLOSURE

The preliminary figures for the Parish for December 2018 were reported as follows:

Year	Labor Force	Employment	Unemployment	Parish Rate	State Rate
December 2018	112,580	108,226	4,354	3.9	*4.4

* The seasonally adjusted rate was 4.9

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
Mining	13.6	13.5	12.9
Construction	9.5	9.0	9.7
Manufacturing	14.8	15.7	15.7
Trade, Transporation, & Utilities	42.2	41.4	42.5
Information	2.5	2.5	2.4
Financial Activities	10.6	10.4	11
Professional And Business Services	20.1	20.2	21.7
Educational and Health Services	30.4	30.5	32.5
Leisure and Hospitality	21.7	22.1	22.0
Other Services	7.2	7.2	7.1
Government	26.7	26.8	27.5
Total	219.1	199.3	205.0

Source: U.S. Bureau of Labor Statistics

LAFAYETTE CONSOLIDATED GOVERNMENT
REVENUE BONDS CONTINUING DISCLOSURE
ANNUAL AVERAGE LAFAYETTE PARISH CONCURRENT ECONOMIC
INDICATORS 2014, 2015, 2016, 2017 AND THIRD QUARTER 2018
(All data not seasonally adjusted)

	2014	2015	2016	2017	2018:3
EMPLOYMENT					
Total	**141,663**	**137,602**	**130,217**	**129,061**	**130,527**
Accommodation and Food Services	14,154	14,384	14,327	14,084	14,114
Administrative and Waste Services	6,584	6,567	5,917	5,733	6,157
Agriculture,Forestry, Fishing, and Hunting	89	83	80	70	86
Arts, Entertainment, and Recreation	2,228	2,324	2,225	2,088	2,048
Construction	6,579	6,834	5,911	5,685	5,570
Educational Services	7,894	7,802	7,832	7,961	8,044
Finance & Insurance	3,200	3,283	3,449	3,501	3,623
Health Care and Social Services	20,336	20,519	21,197	22,078	22,764
Information	2,561	2,337	2,345	2,279	2,144
Management of Companies and Enterprises	3,180	3,062	2,753	2,622	2,618
Manufacturing	10,051	9,257	7,889	7,808	8,244
Mining	16,415	13,425	10,309	8,877	8,739
Other Services, except Public Administration	3,201	3,270	3,207	3,156	3,172
Professional & Technical Services	8,835	8,407	7,644	7,645	8,440
Public Administration	3,592	3,680	3,693	3,685	3,710
Real Estate and Rental and Leasing	4,082	3,551	3,120	3,060	3,174
Retail Trade	17,163	17,771	18,180	18,356	17,605
Transportation & Warehousing.	3,779	3,493	3,202	3,509	3,823
Utilities	462	458	433	424	416
Wholesale Trade	7,250	7,074	6,493	6,428	6,034

	Annual	Annual	Annual	Annual	Quarterly
EARNINGS ($ in Thousands)					
Total	**$7,127,334**	**$6,747,390**	**$5,962,542**	**$5,931,890**	**$1,524,963**
Accommodation and Food Services	248,865	247,617	236,975	230,580	59,757
Administrative and Waste Services	245,497	275,439	225,268	209,685	58,774
Agriculture,Forestry, Fishing, and Hunting	3,630	3,587	3,828	2,482	716
Arts, Entertainment, and Recreation	34,720	36,483	35,173	35,087	8,420
Construction	351,041	366,092	308,219	295,648	72,154
Educational Services	322,979	319,053	319,467	330,665	86,740
Finance & Insurance	221,910	228,264	228,385	239,273	59,270
Health Care and Social Services	891,176	925,857	930,555	973,111	265,940
Information	122,866	113,508	112,082	113,650	27,133
Management of Companies and Enterprises	301,173	290,137	247,246	228,492	48,101
Manufacturing	569,632	508,203	419,418	437,437	119,251
Mining	1,507,778	1,201,440	880,821	769,080	188,278
Other Services, except Public Administration	116,983	116,017	115,124	116,670	32,131
Professional & Technical Services	593,471	574,890	483,465	492,294	135,460
Public Administration	172,111	180,335	182,402	183,885	49,152
Real Estate and Rental and Leasing	265,335	225,269	174,921	175,155	47,784
Retail Trade	485,057	504,636	508,095	525,066	127,330
Transportation & Warehousing.	196,204	175,591	159,357	179,511	46,906
Utilities	26,421	26,373	25,298	25,975	6,957
Wholesale Trade	449,027	427,346	365,965	367,692	84,692

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.	Lafayette General Health	Health Care	4,250
2.	Lafayette Parish School System	Education	4,209
3.	University of Louisiana-Lafayette	Education	2,894
4.	Lafayette Consolidated Government	Public Administration	2,400
5.	Our Lady of Lourdes Reg Med Ctr	Health Care	1,888
6.	Wal-Mart Stores, Inc.	Retail Trade	1,479
7.	Stuller Inc.	Manufacturing	1,191
8.	Island Operating Company	Oil and Gas	1,000
9.	Lafayette Parish Government (not a part of LCG)	Public Administration	996
10.	Baker Hughes	Oil and Gas	891

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
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.
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
Tri-Parish Bank
University of LA Credit Union
Washington State Bank
Whitney Bank
Woodforest National Bank

Source: Lafayette Economic Development Authority

STATEMENT OF DIRECT, OVERLAPPING BONDED DEBT AS OF MAY 2, 2019
(*The accompanying notes are an integral part of this statement*)

Notes	Name of Issuer and 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)	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)	Taxable Public Improvement Sales Tax Recovery Zone Economic Development Bonds, Series 2009A	7.23	8/18/09	3/01/34	3,640,000	(a)
(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	13,830,000	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
(2)	Public Improvement Sales Tax Refunding Bonds, Series 2018A	4.0-5.0	12/06/18	3/01/33	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	6,650,000	815,000
(3)	Public Improvement Sales Tax Refunding Bonds, Series ST-2011D	3.125-5.0	12/08/11	5/01/27	6,995,000	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	1,420,000	105,000
(3)	Public Improvement Sales Tax Refunding Bonds, Series 2015	5.0	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
(3)	Public Improvement Sales Tax Bonds, Series 2019A*	2.5-5.0	4/11/19	5/01/44	26,070,000	0
(4)	Utilities Revenue Bonds, Series 2010	3.75-5.0	12/15/10	11/01/20	5,780,000	2,820,000
(4)	Utilities Revenue Refunding Bonds, Series 2012	5.0	1/11/13	11/01/28	118,865,000	9,550,000
(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	82,190,000	4,645,000
(7)	Taxable Limited Tax Refunding Bond, Series 2012	3.75	3/02/12	5/01/28	26,365,000	2,510,000

* The $26,070,000 Public Improvement Sales Tax Bonds, Series 2019A will be delivered on April 11, 2019.

(*a*) *Various amounts are required to be deposited annually into a sinking fund.*

Notes	Name of Issuer and 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	$19,770,000	$ 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	1,425,000
(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	4/01/48	65,000,000	1,140,000
(12)	Limited Tax Bonds (Taxable QSCB), Series 2009	0.8	12/11/09	10/01/24	10,000,000	(a)
(12)	Limited Tax Bonds (Taxable QSCB), Series 2011	0	3/01/11	10/01/26	10,000,000	(a)
(12)	Limited Tax Bonds (Taxable QSCB), Series 2012	0	4/03/12	3/01/27	1,460,000	(a)
(12)	Limited Tax Revenue Bonds, Series 2012A	2.25-5.0	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	77,574,158	1,297,922
(13)	**Overlapping Debt of 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)	Revenue Anticipation Note, Series 2018	3.0	10/25/18	6/30/19	5,000,000	5,000,000
(16)	**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
(17)	**Overlapping Debt of Lafayette Public Power Authority**					
(18)	Electric Revenue Bonds, Series 2012	2.0-5.0	12/21/12	11/01/32	50,420,000	2,715,000
(18)	Electric Revenue Refunding Bonds, Series 2015	3.0-5.0	11/13/15	11/01/32	28,050,000	815,000
(19)	**Partially Underlying Debt of Lafayette Parish Waterworks District North, Lafayette Parish, Louisiana**					
(20)	Water Revenue Refunding Bonds, Series 2013	2.95	1/29/13	10/01/27	3,001,000	372,000
(21)	**Partially Underlying Debt of Lafayette Parish Waterworks District South, Lafayette Parish, Louisiana**					
(20)	Water Revenue Refunding Bonds, Series 2011	2.9	12/21/11	8/01/21	1,085,000	369,000
(20)	Water Revenue Bonds, Series 2013	3.2	8/08/13	8/01/28	1,400,000	20,000
(20)	Water Revenue Bonds, Series 2018	1.675-3.35	7/26/18	8/01/30	1,500,000	20,000

(a) *Various amounts are required to be deposited annually into a sinking fund.*

NOTES

(1) The 2018 total assessed valuation of the City of Lafayette, State of Louisiana is approximately $1,582,892,287, 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 2018 total assessed valuation of the Parish of Lafayette, State of Louisiana is approximately $2,680,216,083, of which approximately $2,286,166,528 is taxable.

(9) Secured by and payable from unlimited *ad valorem* taxation.

(10) The 2018 total assessed valuation of the Parish School Board of the Parish of Lafayette, State of Louisiana is approximately $2,680,216,083, of which approximately $2,286,166,528 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 2018 total assessed valuation of the Law Enforcement District of the Parish of Lafayette, State of Louisiana is approximately $2,680,216,083, of which approximately $2,286,166,528 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) Secured by and payable from a pledge of all revenues accruing to the sheriff's general fund for the fiscal year ending June 30, 2019.

(16) The 2018 total assessed valuation of the Lafayette Parish Bayou Vermilion District, State of Louisiana is $2,680,216,083, of which approximately $2,286,166,528 is taxable.

(17) The Lafayette Public Power Authority is parishwide, and levied no *ad valorem* taxes in 2018.

(18) Secured by a pledge of project power revenues of the Lafayette Public Power Authority attributable to the project after payment of operating expenses.

(19) 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 2018.

(20) 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.

(21) 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 2018.

(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 MAY 2, 2019

A. Debt of the City of Lafayette

Type of Obligation	Principal Outstanding
Sales Tax Bonds	$197,150,000
Utilities Revenue Bonds	$184,110,000
Communications System Revenue Bonds	$96,785,000
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	$50,645,000

C. Debt of the Lafayette Parish School Board

Type of Obligation	Principal Outstanding
Sales Tax Bonds	$216,154,158
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
Revenue Anticipation Note	
Lafayette Parish Law Enforcement District	$5,000,000

E. Debt of the Lafayette Public Power Authority

Type of Obligation	Principal Outstanding
Electric Revenue Bonds	$78,470,000

F. Partially Underlying Debt of the Lafayette Parish Waterworks District North

Type of Obligation	Principal Outstanding
Water Revenue Bonds	$3,001,000

G. Partially Underlying Debt of the Lafayette Parish Waterworks District South

Type of Obligation	Principal Outstanding
Water Revenue Bonds	$3,985,000

(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.)