REPORT | April 2017

LUS
LAFAYETTE UTILITIES SYSTEM

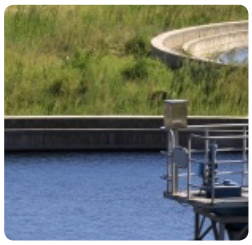
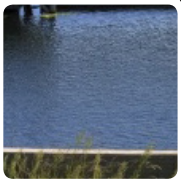
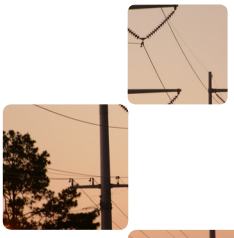
Lafayette
CONSOLIDATED GOVERNMENT

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 2016. 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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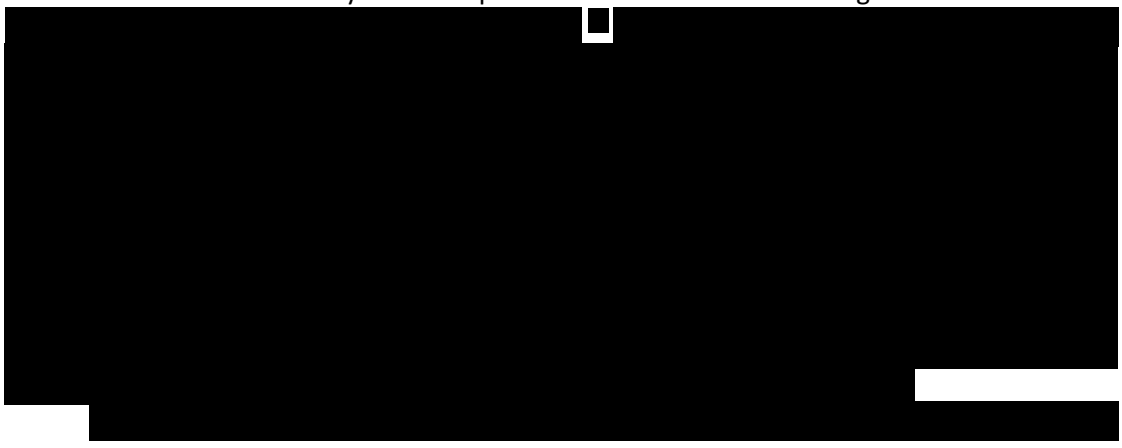
Table of Contents

List of Appendices

List of Tables



List of Figures

EXECUTIVE SUMMARY

Introduction

Lafayette City-Parish Consolidated Government (Lafayette Consolidated Government or LCG) governs the City of Lafayette, Louisiana (City) and the Lafayette Parish (the Parish), collectively the City-Parish. LCG includes a Mayor-President and nine City-Parish Council members (the Council), elected by the Parish to four-year terms of office. The 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 Department, also known as Lafayette Utilities System (collectively defined as LUS). LUS includes the Electric, Water, and Wastewater Systems (collectively the Utilities System), and the Communications Systems.

The City has issued and is currently servicing debt related to Utilities System, Communications System, and LPPA bonds—Utilities Revenue Bonds (Series 2010 and 2012), Communications Revenue Bonds (Series 2012 and 2015), and LPPA Bonds (Series 2007, 2012, and 2015). As of October 31, 2016, the City was servicing debt related to the Series 2010 and 2012 Utilities Revenue Bonds, Series 2012 and 2015 Communications Bonds, and Series 2007 and 2012 LPPA Bonds. As required in the bond ordinances included with the Utilities System and Communications System Bonds (collectively the Bond Ordinances), a Consulting Engineering 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) 2016 (November 1, 2015 to October 31, 2016). The contents of this Report are intended to provide engineering and management information to bond holders, LUS, 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, 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.

The information and analyses presented herein are representative of information made available to NewGen as of the date of this Report, observations of the systems, and interviews conducted with LUS and LCG staff in March 2017. 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.

Overall Performance

LUS served approximately 66,000 electric customers, 56,000 water customers, and 44,000 wastewater customers in 2016 while the Communications System served over 18,000 customers. Customer growth on the Utilities System is stable, with observed customer growth averaging 1.1% per year since 2012. Communications System customer growth continues, with growth averaging 7.3% per year since 2012.

LUS generated a total of $222 million of revenues in FY 2016, with the majority of the revenue ($174 million) from the electric services. FY 2016 revenues were approximately 3.2% lower than 2015, with the electric revenues 4.2% lower, primarily driven by significantly lower purchased power costs and related reductions in pass-through revenues. The water and wastewater revenues increased by 1.7% and 0.1%, respectively, from the previous year. The debt service coverage ratio (DSCR) for the Utilities System remains strong at 2.8 for the combined Electric, Water, and Wastewater Systems. The minimum DSCR requirement for the Utilities System is 1.0.

The Communications System revenues increased to $36 million in 2016, up 5.6% from 2015. The DSCR for the Communications System increased to 2.6 in 2016 from 1.8 in 2015. The DSCR increase in 2016 was partially due to the savings realized from refinancing the Communications Bonds in 2015. The minimum DSCR requirement for the Communications System is 1.0.

In general, the Utilities System financial performance aligned with the LCG Adopted Operating and Capital Budget FY 2015–2016 (as provided in 2016 Budget) budgeted projections. The Utilities System FY 2016 actual revenues and expenses were lower than budgeted. The Utilities System collected $222 million in operating and miscellaneous revenues compared to the budgeted $241 million. The difference is primarily attributable to the lower purchased power costs, which are passed through and recovered in the Fuel Charge (FC). Other operations and maintenance (O&M) expenses were lower than budgeted due to lower generator and equipment maintenance, contract labor expenses, personnel salary expenses, as well as multiple other adjustments. Other Income (Expenses) was higher than budgeted primarily due to an increase in normal capital.

In general, the Communications System's revenue performance was slightly less than budgeted. The Communications System collected $36 million in operating and miscellaneous revenues in 2016, as compared to the budgeted $37 million. However, expenses were also lower than budgeted by 9.3%. While the Communications System actual financial performance was under budget, it still exceeded DSRC requirements and continued to increase its net revenues.

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

In August 2016, southern Louisiana experienced major flooding, which impacted LUS' Utilities and Communications Systems operations. The Communications System did not experience any major outages or disruptions in service. However, the flood did impact Utilities System

services to some customers as described in greater detail in the Report. LUS plans to submit approximately $1.5 million in flood related expenses to FEMA for reimbursement.

Findings and Recommendations

Based upon our information and assumptions relied upon, as included in this Report, we are of the opinion:

- Based on our visual observation and review of the Utilities System and Communications System, we find the Utilities System and Communications System to be in generally good condition and maintained properly in accordance with prudent utility and industry practices.
- Historically, the Utilities System capital improvement program (CIP) has been sufficient to sustain and improve the integrity and reliability of the system.
- 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.
- The Electric System became a Midcontinent Independent System Operator (MISO) participant on December 19, 2013. MISO has significantly benefited and improved LUS' power supply economics, operations, and reliability, as well as eliminated prior transmission constraint issues. LUS has also realized greater flexibility in dispatching Rodemacher Unit 2 and its overall power supply mix. Since joining MISO, LUS' generation plant utilization has declined, as market prices are generally lower than the peaking unit costs to generate power.
- The Doc Bonin and the Curtis Rodemacher generating stations are currently economically obsolete. Curtis Rodemacher was retired several years ago and decommissioning efforts were initiated in the past. The Doc Bonin units are unavailable and not offered into the MISO market. MISO approved the retirements of Doc Bonin Units 2 and 3, effective April 1, 2017. As a decommissioning study for Doc Bonin was completed in May 2016, LUS now has a basis to develop a decommissioning reserve. In addition, in 2016, LUS hired a consultant to perform an integrated resource plan (IRP) and evaluate overall power supply options, including plans for potentially replacing or repowering Doc Bonin. The study was completed in November 2016, and recommended developing and installing new natural gas fired reciprocating engines at the Doc Bonin site. LUS has extended existing capacity contracts to meet near term capacity requirements, while the replacement of the Doc Bonin Plant will support longer term capacity requirements in MISO.
- Important needs for staffing in the Electric System continue to include high voltage linemen, with five apprentice positions presently open; as of October 31, 2016, the ECS/NERC training coordinator position was filled, which is critical to keeping staff up to date on compliance and safety issues.
- Water sales to wholesale customers have remained steady to increasing over the past five years and are increasing as a percentage of total sales. As wholesale water sales continue and are projected to increase, it will place added pressure on the distribution system, which could accelerate capital upgrades. In addition to capital upgrades,

additional wholesale customer sales volume management may be required to maintain adequate pressure in the system.

- The AMI deployment for the Water System has experienced a relatively high level of malfunctions and meter failures. Honeywell continues to read all meters at no cost to the Water System. Honeywell has also agreed to replace all meter modules in an effort to resolve performance problems and approximately 19% of the remaining malfunctioning meters are left to be replaced.
- Biosolids disposal from wastewater treatment continues to be a near term issue that LUS must address if the current lessors of the land used for disposal begin cancelling agreements, and/or additional outlying package treatment plants are integrated with the Wastewater System. LUS will continue evaluating alternative sludge treatment options and the potential purchase of land for disposal. Where possible, the existing year-to-year leases with 30-day notices for cancellation should be renegotiated to longer-term staggered leases with longer cancellation notice periods.
- As wastewater collection and transmission infrastructure continues to age, infiltration/inflow (I&I) and system overflows will remain an important infrastructure issue. Efforts to address and control I&I and overflows should continue to be a priority.
- The Utilities System maintained a combined 2.8 DSCR while the Communications System achieved a 2.6 DSCR. Both the Utilities System and Communications System's minimum DSCRs are 1.0.
- The Communications System operates in a highly competitive market, and faces significant business risks associated with pricing, customer turnover, market penetration, and technological obsolescence. In this environment, the Communications System has increased its customer base and market penetration, demonstrating its ability to operate successfully in a competitive industry.
- 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 and DSCR of the Communications system improved in 2016. 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.
- Reflecting LUS's financial performance, the Utilities System's Residual Balance available for Communications Debt Service was sufficient to meet Communications System debt service if a Credit Event had occurred in FY 2016. The 2016 Utilities System Residual Balance achieved a coverage ratio of 4.7 as compared to the Communications System debt obligations.
- Staffing and succession planning remains a material issue for LUS and all municipally-owned utilities across the United States (U.S.). LUS is also constrained by civil service policies and therefore lags the competition in salaries. Compared with the regional oil and gas industry, LUS' advantages come down to job stability, location, quality of life, and home time. A consistent approach and plan to replace retirees and their knowledge base is key to the future success of the utility.

- Staffing issues are also at risk for the 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 human resources issues include performance recognition, overtime, and personnel being at the highest applicable pay grade with no further advancement potential.
- The 2016 flood minimally impacted LUS and Communications System customers, with only 2,000 electric customers out of service, reflecting LUS' quality of construction and maintenance. The Water, Wastewater, and Communications Systems experienced only minor disruptions in service and minimal damage to system infrastructure.

Additional and more detailed findings and recommendations are found within each Section of the Report.

Revenue Bond History and Ratings

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

Table ES-1
LUS Related Bonds 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 Advanced Metering Infrastructure (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

Table ES-1
LUS Related Bonds Summary

Date Issued	Retired/ Outstanding	Authorized Amount	Application of Proceeds
Lafayette Public Power Authority			
1977	Retired	$100,000,000	Finance the initial construction of Rodemacher Unit 2
1980	Retired	$40,000,000	Continued construction of Rodemacher Unit 2
1981	Retired	$43,200,000	Continued construction of Rodemacher Unit 2
1982	Retired	$14,000,000	Continued construction of Rodemacher Unit 2
1987	Retired	$88,045,000	Refunded the 1980 bonds and 1985 bonds
1993	Retired	$112,525,000	Refunded the 1977 bonds, 1980 bonds, and 1987 bonds
1996	Retired	$50,910,000	Refunded the 1987 bonds
2002	Retired	$30,340,000	Refunded 1996 bonds
2003	Retired	$61210,000	Refunded 1993 bonds
2007	Outstanding	$34,045,000	Purchase of two aluminum rail car trains and other improvements to Rodemacher Unit 2
2012	Outstanding	$65,100,000	Installation of Mercury and Air Toxic Standard (MATS) equipment, Selective Non-Catalytic Reduction (SNCR), and other improvements to Rodemacher Unit 2
2015	Outstanding	$29,035,000	Refunded $28,325,000 million of the 2007 Bonds
Communications System			
2007	Retired	$110,405,000	Creation of the Communications System to provide retail telephone, cable television (CATV), and Internet service to the residents of the City
2012	Outstanding	$14,595,000	Improvements to the Communications System to provide retail telephone, CATV, and Internet service to the residents of the City
2015	Outstanding	$91,600,000	Refunded $96,855,000 of the Series 2007 Bonds

Source: Official Statements

The most recent bond ratings for debt issuances are included below. As the Communications System's financial performance continues to improve, it may lead to improved ratings for current and future Communications System bonds. During the Communications System 2015 Refunding, the Standard & Poor's (S&P) bond rating improved from an A to an A+ as shown in Table ES-2.

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 Issue	S&P Rating (1)	Moody's Rating (2)
LUS: Utilities Revenue Refunding Bonds 2012	AA-	A1
LPPA: Electric Revenue Refunding Bonds 2015	AA-	A1
Communications System: Revenue Refunding Bonds 2015	A+	A3

(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 Electric, Water, and Wastewater Systems (collectively the Utilities System) bond ordinance, and Communications System bond ordinance (collectively, the Bond Ordinances) set forth specific duties and responsibilities of the Consulting Engineer, which include advising Lafayette Utilities System (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 after the close of each fiscal year (FY).

On February 16, 2015, LCG retained NewGen Strategies and Solutions, LLC (NewGen) as the LUS Consulting Engineer. This Section of our Report describes the responsibilities of the Consulting Engineer with respect to the development of an annual comprehensive 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 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.

1.1 Requirements of Bond Ordinance

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 bond ordinance. The Communications System is governed by Article VIII-General Covenants of the Issuer of the Communications System bond ordinance. The Consulting Engineer is governed by Article VIII-Consulting Engineer of the Utilities System bond ordinance and Article IX-Consulting Engineer of the Communications System 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 bond ordinances 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.
- 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 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.

Purpose of this Report

The purpose of the Report is to fulfill Article VIII – Section 8.2 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 LUS 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 and 2012 revenue bonds. Communications System revenues are pledged to meet debt service obligations associated with the Communications System Series 2007, 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 the 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 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) adopted the Home Rule Charter (Charter) to consolidate the City and Parish governmental functions. The Charter also defined the new 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.

2.1 Governance

LCG includes a City-Parish Mayor-President and nine City-Parish Council members (Council), elected by the Parish to four-year terms of office. During FY 2016, Council members were as follows:

Table 2-1
LCG Parish-Council Members

	Council Members for Term 2012 – 2015	Council Members for Term 2016 – 2019 (1)
Mayor – President	Joey Durel	Joel Robideaux
District 1	Kevin Naquin	Kevin Naquin
District 2	Jay Castille	Jay Castille
District 3	Brandon Shelvin	Patrick Lewis
District 4	Kenneth P. Boudreaux	Kenneth P. Boudreaux
District 5	Jared Bellard	Jared Bellard
District 6	Andy Naquin	Bruce Conque
District 7	Donald L. Bertrand	Nanette Cook
District 8	Keith Patin	Liz Hebert
District 9	William G. Theriot	William G. Theriot

Source: LCG website
(1) Term began January 4, 2016.

In addition to being the governing authority for the City and Parish of Lafayette, the 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 LUS.

The City is the owner of the LUS 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 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 City-Parish 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 data 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 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.

2.2 Operating and Capital Budgeting

The Council approves the LCG Operating and Capital Budget annually. Each spring, the budgeting process begins with LUS preparing and submitting their proposed operating and capital budget to LCG. The budget may then be adjusted or presented to the Council for approval. Per the Charter requirements, the budget must be presented to the 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.

The operating portion of the budget contains projections of revenues and expenses. Each division within LUS estimates their expenses for the upcoming FY and submits their estimates to LUS management. LUS 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), referred to by LUS as the five-year Capital Outlay Program. The CIP is reviewed, updated, and budgeted annually.

Organization

The organizational structure of LCG, LUS, LPPA, LPUA, Communications System, and Utilities System is shown in Figure 2-1.

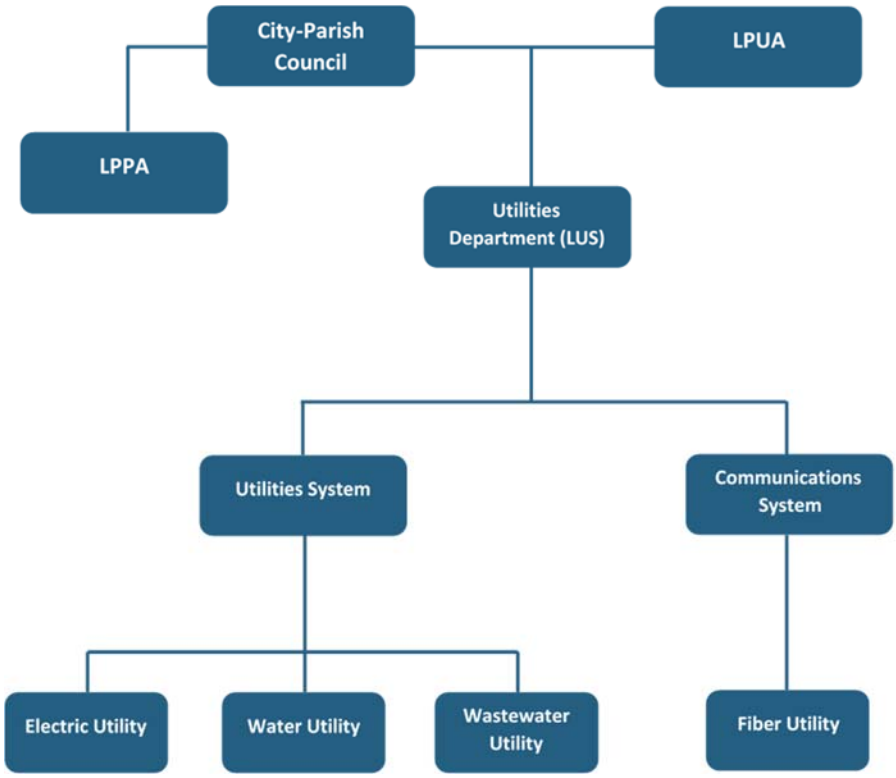


Figure 2-1: LCG and LUS Organizational Chart

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 FY 2016, the Utilities Department received services from LCG in the areas of accounting, payroll, budgeting, legal, printing, insurance, healthcare, information-technology (IT), human resources (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	2012	2013	2014	2015	2016
Utilities System					
Payments	$1,261,558	$1,372,906	$462,400	$841,623	$1,669,926
Recovery	490,557	193,031	233,032	501,349	25,317
Net Transactions	$771,001	$1,179,875	$229,368	$340,274	$1,644,609
Communications System					
Payments	$36,810	$25,712	$2,217	$2,615	$4,733
Recovery	5,910	0	1,555	0	5,000
Net Transactions	$30,900	$25,712	$662	$2,615	($267)

Source: Suzanne Siner, LCG

The large increase in Utilities System payments was primarily due to an increase in workers' compensation benefits.

2.5 Legal

LCG and ILOT

A class action lawsuit was filed against LCG in June 2016 that could total more than $400 million. This suit alleges that the City of Lafayette wrongfully collected in lieu of tax (ILOT) payments from LUS of over $400 million dollars since 1976. LUS makes an ILOT payment to the City annually, which is common, justified, and 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. Lafayette City-Parish Consolidated Government and LUS have denied all of the plaintiffs' allegations and maintain these claims are wholly without merit.

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 Federal Emergency Management Agency (FEMA) for reimbursement. The Louisiana state Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) acts as the auditor and approves which expenses are eligible to be reimbursed.

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. The Report also recommends that LUS only be reimbursed for the approximately $660,000 as directed by GOHSEP, given that the approximate $340,000 not being reimbursed will require additional supporting documentation. To date, LUS has not been reimbursed for the 2008 expenses and is awaiting the GOHSEP Director's decision, which will determine the level of reimbursement LUS will receive.

2.6 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 approximately 66,000 electric accounts, 56,000 water accounts, and 44,000 wastewater accounts.

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

LUS entered into an agreement 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 SLEMCO customers and serve new electric customers. The agreement defines the numbers of customers that can be acquired and specifies the payment for acquired customers.

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 only within the City limits. At the end of FY 2016 the Communications System served approximately 36 wholesale accounts and over 18,000 retail accounts with CATV, telephone, or Internet data, or some combination of the three. The Communications System continues to show notable positive growth each year.

2.7 Management and Organization

The Utilities Director is appointed by the City-Parish Mayor-President, subject to approval by LPUA and the Consulting Engineer.

As a Department of LCG, LUS is managed and operated in accordance with conditions included in bond resolutions and covenants. Of critical importance is the "Flow of Funds" that specifies how operating margins resulting from LUS operations are to be treated. Margins from LUS operations are first required to meet debt service obligations, then a formulaic approach is applied to determine amounts for capital improvements and replacements funding, and the payment amount to the LCG General Fund as in lieu of taxes (ILOT). LPUA has the responsibility to determine rates, approve the LUS budget, and issue debt as approved by the City-Parish Mayor-President and Council.

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 City-Parish Mayor-President as necessary or incidental to the operation of the Utilities System.

The current Utilities Director is Mr. Terry Huval. Mr. Huval graduated from the University of Louisiana at Lafayette with a B.S. in Electrical Engineering, and has served as Utilities Director since December 1994. He is also a registered Professional Engineer in the states of Louisiana and Texas. Mr. Huval also served as Past Chair of the American Public Power Association (APPA) and currently serves on the Louisiana Professional Engineering and Land Surveying Board.

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.

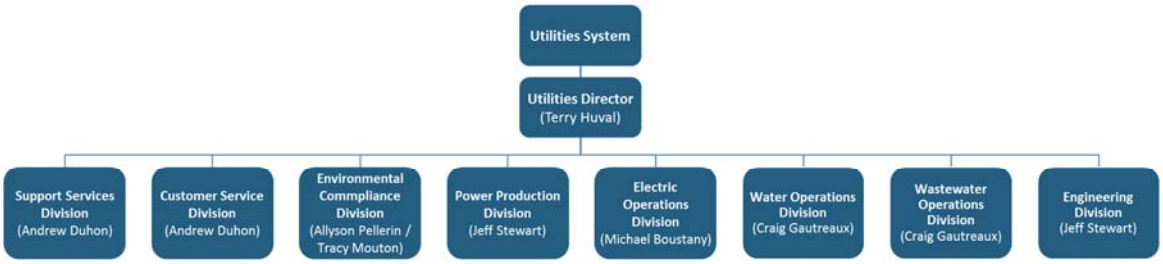


Figure 2-2: Utilities System Organizational Chart

Division managers reporting to the Utilities Director include*:*

- ***Andrew Duhon*** – *Customer & Support Services Manager*

  Mr. Duhon has 35 years of experience in the accounting field (10 years with various private and government entities and 25 years with the Utilities System). He received a Bachelor of Arts degree from the University of Louisiana-Lafayette and is an inactive certified public accountant. Mr. Duhon 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.

- ***Allyson Pellerin*** – *Environmental Compliance Manager (through June 30, 2016)*

  Ms. Pellerin has been in the environmental field with the Utilities System for 23 years, serving as the Environmental Compliance Manager for the past 15 years. Her education includes a Bachelor of Science in general studies/natural sciences with major course study in microbiology from the University of Louisiana-Lafayette. Ms. Pellerin is responsible for ensuring environmental compliance of all LUS business operations associated with the electric transmission and distribution, water, and wastewater operations.

- ***Tracy Mouton*** – *Environmental Compliance Manager (beginning July 1, 2016)*

Ms. Mouton has been in the environmental field with the Utilities System for 24 years, serving as the Environmental Compliance Manager since July. 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.

- ***Michael Boustany*** – *Electric Operations Manager*

  Mr. Boustany has spent his 32-year career in the electric power industry with LUS, working in distribution, transmission, substation engineering, control systems, and communications. He is a registered Professional Engineer in Louisiana. Mr. Boustany 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 Warehouse.

- ***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.

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

  Mr. Stewart has over 13 years of experience in the public utility industry. He is a registered Professional Engineer in Louisiana. 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.

Utilities System Staffing

As indicated in the Manning Table, Table 2-3, overall staffing levels are at budgeted levels for the Utilities System. Power Production Division had 2 more employees than the adopted budget, but Customer Service was two employees short resulting in exactly the budgeted number of employees.

Table 2-3
Lafayette Consolidated Government
2016 Budget
Manning Table by Utilities System Department

Utilities System	Personnel		
	Current	Projected	Adopted
Director's Office	2	2	2
Support Services	25	25	25
Customer Service	44	44	46
Environmental Compliance	17	17	17
Power Production	41	41	39
Electric Operations	94	94	94
Water Operations	68	68	68
Wastewater Operations	98	98	98
Engineering	77	77	77
Total Utilities System	467	467	467

Source: 2016 Budget

Communications System Organization Structure

The Director of the Utilities is responsible for operation and management of the Communications System. Communications Systems employees and facilities are organized separately from other LUS utility operations; however, several services such as engineering, accounting, billing, and reporting functions are shared among the Communications and Utilities Systems. 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 includes approximately 60 employees, reporting to 5 functional areas: Administration and Support, Operations, Warehouse, Business Support Services, and Engineering as shown below.

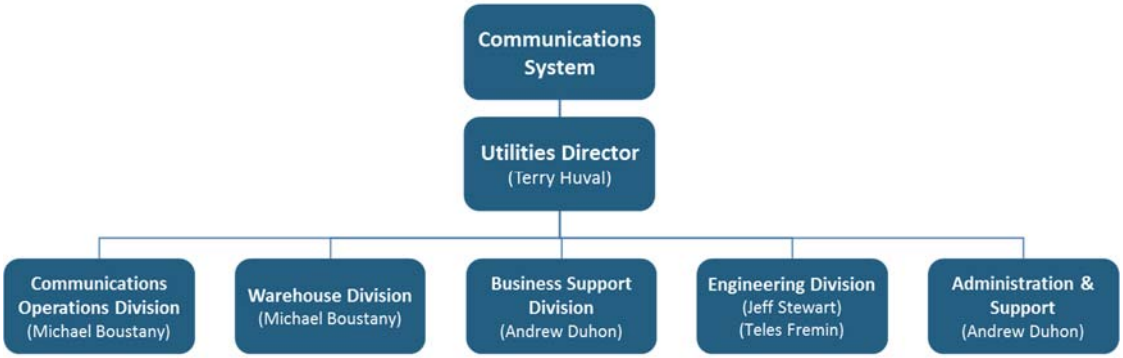


Figure 2-3: Communications System Organizational Chart

Division managers reporting to the Utilities Director include:

- ***Michael Boustany*** – *Communications Operations and Warehouse Manager*

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

- ***Andrew Duhon*** – *Administration & Support and Business Support Manager*

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

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

  Ms. Fremin has over 14 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 operation and reports to Mr. Huval.

Communications System Staffing

For the Communications System, current staffing levels are below budgeted levels with six vacant positions. As indicated in the manning table below, LUS is planning to increase staff by six positions. This increase is in recognition of a growing customer base and needs in Operations, Engineering, and Business Support Services.

Table 2-4
Lafayette Consolidated Government
2016 Budget
Manning Table by Communications System Department

	Personnel		
Communications System	Current	Projected	Adopted
Administration and Support	3	3	0
Operations	34	34	36
Warehouse	3	3	3
Business Support Services	7	7	12
Engineering	17	17	19
Total Communications System Department	64	64	70

Source: 2016 Budget

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 II competitiveness varies based on the compensation benchmarking source. There results align with recent salary competitiveness issues LUS has experienced in pursing electric linemen staffing vacancies. For the two Water and Wastewater Utility positions reviewed, current compensation appears to be substantially 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

The Utilities System operates Electric, Water, and Wastewater Systems. The Electric System operates power generation, transmission, distribution, and customer assets. The largest portion of LUS power generation capacity is provided by wholesale sales from LPPA. LPPA, thus LCG, is a 50% owner of Rodemacher Unit 2, which provides all of LPPA's wholesale power supply to LUS. 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.

In August 2016, southern Louisiana experienced major flooding that impacted LUS Utilities and Communications Systems operations. The Communications System did not experience any major outages or disruptions in service. However, the flood did impact Utilities System services to some customers as described in greater detail in the Report.

Customers

LUS serves customers primarily within the City limits. Each utility provides services to certain customers outside of the City limits and wholesale customers. During FY 2016, LUS served 66,325 electric customers, 55,851 water customers, and 44,269 wastewater customers, respectively. Combined LUS' customer growth since 2012 averaged 1.1% per year. Table 3-1 includes the historical customers served by each utility.

Table 3-1
Utilities System
Historical Number of Customers

Year	Electric	Water (1)	Wastewater
2012	63,911	53,088	42,049
2013	64,496	53,926	42,586
2014	65,262	54,637	43,068
2015	65,847	55,109	43,521
2016	66,325	55,851	44,269

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

Historical Revenues

LUS generated a total of $222,092,266 of operating and other revenues in FY 2016 comprised of $174,354,151 from electric services, $18,593,541 from water services, and $29,144,574 from wastewater services. FY 2016 revenues were approximately 3.2% lower than 2015, with

the electric revenues 4.2% lower. Water and wastewater revenues increased by 1.7% and 0.1%, respectively, from the previous year.

Table 3-2 includes historical revenues for each utility service.

Table 3-2
Utilities System
Historical Operating and Other Revenues

Year	Electric Revenues (1)	Water Revenues (2)	Wastewater Revenues (3)	Total Revenue
2012	$174,890,121	$17,803,423	$29,313,577	$222,007,121
2013	$188,071,217	$17,559,754	$28,893,980	$234,524,951
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

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

Historical Utilities Debt Service Coverage Ratio

Utilities System FY 2016 debt service includes the Series 2010 Bonds and Series 2012 Bonds. The debt service increased in 2013 as a result of the Series 2004 principal payments increasing and the issuance of the Series 2012 Bonds. Table 3-3 shows historical debt service and the associated debt service coverage ratio (DSCR). The DSCR exceeds the minimum requirement of 1.0.

Table 3-3
Utilities System
Historical Debt Service Coverage

Year	Operating Revenues (1)	Operating Expenses (2)	Balance Available for Debt Service	Debt Service (3)	Debt Service Coverage Ratio
2012	$222,007,121	$166,165,173	$55,841,948	$15,311,868	3.6
2013	$234,524,951	$168,415,411	$66,109,540	$22,917,286	2.9
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

Source: LUS Financial and Operating Statements, audited
(1) Includes interest income and other miscellaneous income.
(2) O&M and other expenses include customer service, and administrative and general costs. Operating expenses do not include ILOT, normal capital, special equipment, and other miscellaneous expenses.
(3) Debt service includes the 1996 LDEQ Debt, Series 2004 Bonds, Series 2010 Bonds, and Series 2012 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 regulates the FC on a month-to-month basis until the Utilities Director determines that eligible costs warrant an adjustment to the FC rate. The Utilities Director may adjust the FC rate monthly to ensure that the charge adequately recovers eligible costs as closely as possible. The FC includes the following items: Midcontinent Independent System Operator (MISO) market purchases less market sales, a portion of purchased power related transmission costs, LPPA fuel and fuel handling costs, reagent costs, Mercury and Air Toxic Standard (MATS) O&M costs, debt service associated with the rail cars, debt service associated with the MATS project, LUS fuel costs, hydro purchased power costs, capacity contract costs, and The Energy Authority (TEA) costs.

LUS conducted a rate study in FY 2016, which showed that the rates for the Electric, Water, and Wastewater Systems were insufficiently recovering all costs. As a result, rates for the Electric, Water, and Wastewater Systems increased November 1, 2016 and will increase again November 1, 2017. The rates being implemented in 2016 and 2017 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. The Electric System rates were approved by LPUA to increase by 2.8% in 2016 and 2.8% in 2017. The Water System rates were approved by LPUA to increase by 7.4% in 2016 and 7.2% in 2017. The Wastewater System rates were approved by LPUA to increase by 6.1% in 2016 and 5.7% in 2017.

Table 3-4 below provides the historical rate increases approved by the LPUA, but does not reflect the new rate increases as they go into effect the first day of FY 2017.

Table 3-4
Utilities System
Rate Adjustments

	2012	2013	2014	2015	2016
Electric Retail	0%	0%	0%	0%	0%
Water Retail	0%	0%	0%	0%	0%
Wastewater Retail	0%	0%	0%	0%	0%

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 2016 Budget, is shown in Table 3-5 and totals $106,792,000 over the five-year period. The Electric System five-year CIP totals $40.8 million. Please note that the FY 2016 CIP as contained in this Report does not include the capital costs associated with the Integrated Resource Plan (IRP) recommendations. The IRP, completed in November 2016, recommends the decommissioning of the Doc Bonin Plant, as well as the installation and operation of a new power plant at the Doc Bonin site.

The Water System five-year CIP totals $13.5 million of which the largest capital projects include the installation of pressure filters and building rehabilitation at water treatment facilities. These projects represent approximately $4.3 million of the five-year total.

The Wastewater System five-year CIP is a significant amount of the Utilities System CIP and represents 49% of the $106.8 million total. The Wastewater System five-year CIP totals $52.5 million. The largest capital projects are the South Sewage Treatment Plant (SSTP) expansion, SSTP odor control, and sludge handling improvements, NETP expansion, digester rehab, which represent approximately $30.9 million of the Wastewater System's total CIP.

Table 3-5
Utilities System
Projected CIP (1)

	2016	2017	2018	2019	2020	Total
Electric System						
Acquisitions	$100,000	$0	$3,000,000	$0	$0	$3,100,000
Production	1,115,000	460,000	310,000	110,000	110,000	2,105,000
Distribution	445,000	210,000	1,657,000	810,000	110,000	3,232,000
Substation	910,000	2,360,000	9,510,000	7,960,000	360,000	21,100,000
Transmission	10,000	585,000	1,895,000	1,010,000	3,070,000	6,570,000
General Plant	935,000	1,335,000	2,210,000	110,000	110,000	4,700,000
Total Electric	$3,515,000	$4,950,000	$18,582,000	$10,000,000	$3,760,000	$40,807,000
Water System						

Table 3-5
Utilities System
Projected CIP (1)

	2016	2017	2018	2019	2020	Total
Production	$810,000	$1,690,000	$5,085,000	$60,000	$60,000	$7,705,000
Distribution	2,040,000	1,605,000	460,000	1,110,000	610,000	5,825,000
Total Water	$2,850,000	$3,295,000	$5,545,000	$1,170,000	$670,000	$13,530,000
Wastewater System						
Treatment	$760,000	$12,085,000	$15,785,000	$6,460,000	$1,210,000	$36,300,000
Collection	5,610,000	4,150,000	1,635,000	4,025,000	735,000	16,155,000
Total Wastewater	$6,370,000	$16,235,000	$17,420,000	$10,485,000	$1,945,000	$52,455,000
Total Capital Program	$12,735,000	$24,480,000	$41,547,000	$21,655,000	$6,375,000	$106,792,000

Source: 2016 Budget
(1) Amounts are in 2016 dollars.

Utilities System's Budget to Actual Performance

In general, the Utilities System's actual 2016 financial performance aligned with the 2016 Budget, with the majority of variances in variable operating accounts that are managed with the FC. Table 3-6 summarizes the key Utilities System budget and actual accounts for FY 2016.

Table 3-6
Utilities System
Comparison of Budget to Actual Results – FY 2016

	Actual	Budget	Difference	Difference
Operating Revenues				
Electric Retail Sales	$91,631,825	$92,190,105	($558,280)	-0.6%
Electric Retail Fuel Adj.	78,153,587	97,048,932	(18,895,345)	-19.5%
Electric Wholesale Sales	200,753	0	200,753	0.0%
Water Sales	18,286,651	18,018,716	267,935	1.5%
Wastewater Sales	28,752,436	28,748,580	3,856	0.0%
Interest Income	793,793	450,000	343,793	76.4%
Miscellaneous Other	3,157,889	3,200,000	(42,111)	-1.3%
Billing for Services	815,162	1,200,000	(384,838)	-32.1%
Total Operating Revenue	$221,792,095	$240,856,333	($19,064,238)	-7.9%
Operating Expenses				
Purchased Power LPPA	$48,326,966	$81,076,899	($32,749,933)	-40.4%
Purchased Power Other	3,543,627	3,391,551	152,076	4.5%
Purchased Power MISO	55,468,362	87,580,695	(32,112,333)	-36.7%
Purchased Power MISO Sales	(23,357,459)	(67,663,457)	44,305,998	-65.5%
Production Fuel	1,362,568	1,705,206	(342,638)	-20.1%
Other O&M	74,404,575	80,084,297	(5,679,722)	-7.1%
ILOT	23,306,557	22,600,000	706,557	3.1%
Total Operating Expenses	$183,055,196	$208,775,191	($25,719,995)	-12.3%
Other Income (Expenses)				
Normal Capital	($7,434,313)	($6,059,500)	($1,374,813)	22.7%
Special Equipment	(1,874,622)	(1,552,765)	(321,857)	20.7%
Imputed Tax	823,878	1,000,000	(176,122)	-17.6%
Principal from Internal Loans	0	100,000	(100,000)	-100.0%
Interest from Internal Loans	901,003	901,003	(0)	0.0%
Grants	0	961,667	(961,667)	-100.0%
Interest on Long-Term Debt	(10,970,238)	(10,970,238)	1	0.0%
Principal on Long-Term Debt	(11,955,000)	(11,955,000)	0	0.0%
Total Other	($30,509,292)	($27,574,833)	($2,934,459)	10.6%
Cash Available for Capital	$8,227,607	$4,506,309	$3,721,298	82.6%

Source: LCG

The Utilities System FY 2016 actual revenues and expenses were lower than budgeted. The Utilities System collected $222 million in revenues compared to the budgeted $241 million. This difference in revenues is primarily attributable to lower FC revenue collection. Billing for services represent reimbursements for work orders. In 2016, LCG budgeted $1,200,000 as a placeholder as this expense is not under their control and is difficult to predict.

The purchased power and fuel expenses reflect the lower costs related to energy expenses passed through the FC. LUS is somewhat insulated and protected from the often changing and volatile fuel and purchased power expenses, as these expenses are passed through to customers on a periodic and 'one-to-one' basis. Other O&M expenses were lower than budget due to personnel salary expenses, as well as multiple other adjustments. Other Income (Expenses) were higher than budgeted primarily due to an increase in normal capital.

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 is a new customer service center on the North side of the City that opened in September 2016. The new customer service center has multiple drive through lanes to provide quick and easy access. Payment of all utility bills are accepted at the new location. The Pinhook Customer Service Center is on the south side of the City.

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. As of March 2016, the customer service staff is sufficient with very little 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 non-fuel revenue. 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 non-fuel revenues, 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. APPA publishes the *Public Power Pays Back* biannually. The most recently available report was published in 2016 utilizing 2014 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, 9.7% 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

	2012	2013	2014	2015	2016
ILOT Paid (1)	$21,596,096	$22,131,617	$22,073,833	$22,847,494	$23,306,557
Total Operating Revenues	$222,007,121	$234,524,951	$248,410,288	$229,448,195	$222,092,266
ILOT as a % of Revenues	9.7%	9.4%	8.9%	10.0%	10.5%

Source: LUS Financial and Operating Statements, audited
(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 approximately $29 million over the last five years primarily due to an increase in plant and deferred debits. The Deferred Debits increased significantly in 2013 as a result of the Series 2012 Bonds issue. The Series 2012 Refunding Bonds included a large premium, which was amortized in the 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 $61 million. In 2012, the 2004 Bonds were refunded, resulting in lower long-term debt, as shown on the 2013 balance sheet. Corresponding to the refunding bond premium, the long-term liabilities

increased in 2013 as well. In 2015, the long-term liabilities increased again due to GASB 68, which requires state and local governments to record net pension liability. Overall, the Retained Earnings has increased by $35 million over the last five years.

Table 3-8
Utilities System
Comparative Balance Sheet

	2012	2013	2014	2015	2016
Total Assets					
Utility Plant	$555,261,378	$570,516,066	$573,113,520	$573,057,425	$569,502,627
Bond and Special Funds	139,512,264	127,452,475	130,777,798	136,488,144	131,820,767
Current Assets	8,576,845	8,678,870	9,711,223	9,161,599	13,010,477
Accounts Receivable	29,803,271	31,604,074	28,913,398	24,582,490	27,665,322
Reserve for Uncollectible Accounts	(1,149,296)	(1,282,193)	(1,184,446)	(1,023,757)	(1,150,040)
Notes Receivable	31,431,044	27,848,160	27,798,160	27,723,160	27,623,160
Inventories	7,525,614	7,634,029	7,959,322	7,864,446	8,316,964
Deferred Debits	3,577,670	16,648,414	13,478,290	21,301,983	26,647,000
Total Assets	$774,538,789	$789,099,896	$790,567,265	$799,155,490	$803,436,278
Total Liabilities & Equity					
Long Term Debt	$274,935,000	$249,220,000	$237,865,000	$226,365,000	$214,410,000
Current Liabilities	23,506,566	26,345,595	25,708,228	24,471,474	28,334,541
Long Term Liabilities	7,049,228	31,528,007	28,498,808	51,363,714	56,581,937
Retained Earnings	469,047,995	482,006,295	498,495,230	496,955,303	504,109,800
Total Liabilities & Fund Equity	$774,538,789	$789,099,896	$790,567,265	$799,155,491	$803,436,278

Source: LUS Financial and Operating Statements, audited

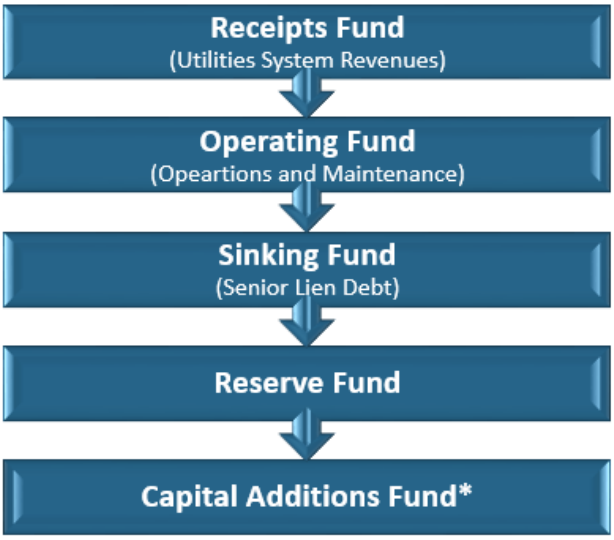
Fund Balances

Article V of the Bond Ordinances 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 decreased by $1.1 million or 0.8% in 2016. Figure 3-1 illustrates the LUS Flow of Funds.

Table 3-9
Utilities System
Fund Balances as of October 31, 2016 ($1,000)

	Receipts Fund	Operating Fund	Bond & Interest Fund	Capital Additions Fund	Bond Reserve Fund	2010 Construction Fund	Total
Beginning Balance	$1,065	$8,081	$0	$101,102	$23,640	$3,399	$137,287
Receipts	$233,806	$183,175	$22,925	$40,883	$25	$1	$480,815
Disbursements	$232,353	$180,781	$22,925	$44,951	$7	$886	$481,903
Ending Balance	$2,518	$10,475	$0	$97,034	$23,658	$2,514	$136,199

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 2012, the revenues and expenses have varied primarily due to the varying fuel and purchased power costs. The Net Operating Revenues have generally increased over the last five years. 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

	2012	2013	2014	2015	2016
Operating Revenues	$220,734,370	$232,281,011	$247,097,098	$228,021,885	$220,387,318
Operating Expenses	166,165,173	168,415,411	177,466,560	160,672,843	158,750,451
Net Operating Revenues	54,569,197	63,865,600	69,630,538	67,349,042	61,636,867
Depreciation	19,376,753	20,978,328	22,130,030	22,881,380	23,601,958
Net Operating Revenues after Depreciation	$35,192,444	$42,887,272	$47,500,508	$44,467,661	$38,034,910
Other Income					
Interest Income	$1,273,167	$2,243,940	$1,313,230	$1,426,311	$1,704,947
Unrealized Gain/Loss on Inv.	0	0	30,750	91,526	117,778
Amortization of Debt Premium	503,471	2,608,147	3,029,199	3,028,445	3,020,974
Water Tapping Fees	86,100	105,100	104,100	107,420	78,320
Communications Lease Income	0	0	97,073	36,952	27,648
Contributions in Aid of Construction	0	7,135	0	0	56,063
Misc. Non-Operating Revenue	8,869,047	5,408,764	2,877,693	3,414,729	2,566,471
Total Other Income	$10,731,784	$10,373,086	$7,452,045	$8,105,384	$7,572,201
Other Expenses					
Loss on Disposition of Property	$0	$0	$250,980	$313,714	$329,136
Interest Expense	11,042,341	9,438,459	9,180,021	10,623,334	10,970,238
Amortizations	1,957,407	3,030,662	2,916,327	2,675,715	2,256,610
Interest on Customer Deposits	0	13,831	11,746	3,206	821
Tax Collections/Non-Operating	308,182	322,829	0	0	0
Misc. Non-Operating Expense	788,059	1,830,478	1,921,605	1,383,331	1,589,252
Total Other Expenses	$14,095,989	$14,636,258	$14,280,680	$14,999,299	$15,146,057
Net Income Before ILOT	$31,828,239	$38,624,100	$40,671,873	$37,573,746	$30,461,053
ILOT	21,596,096	22,131,617	22,073,833	22,847,494	23,306,557
Net Income	$10,232,143	$16,492,483	$18,598,040	$14,726,252	$7,154,496

Source: LUS Financial and Operating Statements, audited

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 2012–2016. 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 $59 million was available for capital additions or reserves.

Table 3-11
Utilities System
Comparative Cash Flow

	2012	2013	2014	2015	2016	Five-Year Total
Operating Revenues	$220,734,370	$232,281,011	$247,097,098	$228,021,885	$220,387,318	$1,148,521,682
Operating Expenses	166,165,173	168,415,411	177,466,560	160,672,843	158,750,451	831,470,439
Net Operating Revenues	$54,569,197	$63,865,600	$69,630,538	$67,349,042	$61,636,867	$317,051,243
Debt Service	$15,311,868	$22,917,286	$23,333,915	$22,924,293	$22,925,238	$107,412,598
Balance After Debt Service	$39,257,329	$40,948,314	$46,296,623	$44,424,749	$38,711,630	$209,638,645
Less Normal Capital & Special Equipment	$2,384,671	$8,447,681	$8,512,201	$10,001,798	$9,309,935	$38,656,287
Less ILOT	21,596,096	22,131,617	22,073,833	22,847,494	23,306,557	111,955,597
Change in Cash due to Operations & ILOT	$15,276,562	$10,369,016	$15,710,588	$11,575,457	$6,095,137	$59,026,761

Source: LUS Financial and Operating Statements, audited

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 more than 66,000 customers. LUS operates power generation, transmission, substation, distribution, and customer facilities within and outside its service territory. The Electric System retail sales for 2016 were 2,027,945 megawatt-hours (MWh), 1.1% lower than 2015. 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)	Total Sales (MWh)
2012	1,970,448	132,272	2,102,720
2013	1,979,136	37,151	2,016,287
2014	2,027,115	1,014,675	3,041,789
2015	2,050,434	1,100,385	3,150,820
2016	2,027,945	872,154	2,900,099

Source: LUS Financial and Operating Statements, audited
(1) LUS makes wholesale sales with the LUS owned generating units and with LUS' contracted hydropower. Wholesale sales lower system purchases from MISO. 2016 Wholesale purchases represents MISO and hydropower purchases.

Since LUS became a full market participant as a Local Balancing Authority in 2013, TEA has been designated to handle day-ahead schedules. MISO membership has required LUS to modify the methods and processes the utility uses to purchase and sell power. Joining MISO contributed to the significant changes in Wholesale Sales from 2014 to 2016 as shown in Table 4-1.

As shown in Table 4-2, retail sales by customer class as of October 31, 2016 indicate that residential and commercial customers represent approximately 91% of Electric System sales. LUS commercial customer base is diverse, as no single customer represents more than 3% of LUS retail revenues.

Table 4-2
Electric System
Customer Class Statistics as of October 31, 2016

	Number of Customers	Percent of Total	Sales (kWh)	Percent of Total
Residential	53,874	81.2%	807,595,766	39.8%
Residential - Outside the City	887	1.3%	14,555,523	0.7%
Commercial without Demand - Small	7,740	11.7%	197,808,060	9.8%
Commercial Small and Large - Outside of City	157	0.2%	11,819,166	0.6%
Commercial with Demand - Large	1,244	1.9%	812,480,175	40.1%
Private Security Lighting	1,735	2.6%	6,828,239	0.3%
Street Lighting	2	0.0%	16,175,434	0.8%
Schools and Churches	430	0.6%	56,547,682	2.8%
Schools and Churches - Outside the City	0	0.0%	47,040	0.0%
University of Louisiana - Lafayette	82	0.1%	69,567,354	3.4%
Interdepartmental	175	0.3%	34,520,454	1.7%
Total Meters In Service	66,325	100.0%	2,027,944,893	100.0%

Source: LUS October 2016 Financial and Operating Statements

4.1 Production and Power Supply

The Electric System peak demand occurs in the summer and was 447 megawatts (MW) in 2016. LUS operates three power generation plants, while LPPA represents LUS' interest in a fourth power generating unit, Rodemacher Unit 2.

LUS generates electricity with three 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 Corporation (Cleco).

LUS is fully integrated into the MISO market through which it purchases additional electricity requirements and sells excess generation. LUS is party to a Resource Management Agreement (RMA) with TEA to market LUS' excess electric energy and capacity and to purchase power to meet the requirements of its customers, as required.

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)

	2012	2013	2014	2015	2016
Doc Bonin	484,016	139,796	0	0	0
T. J. Labbé	41,139	63,519	13,417	6,696	13,423
Hargis Hebert	27,787	47,016	12,540	14,120	21,848
Rodemacher Unit 2(1)	1,251,331	1,299,249	1,185,928	1,037,447	797,928
Total Generation	1,804,273	1,549,580	1,211,885	1,058,263	833,199

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

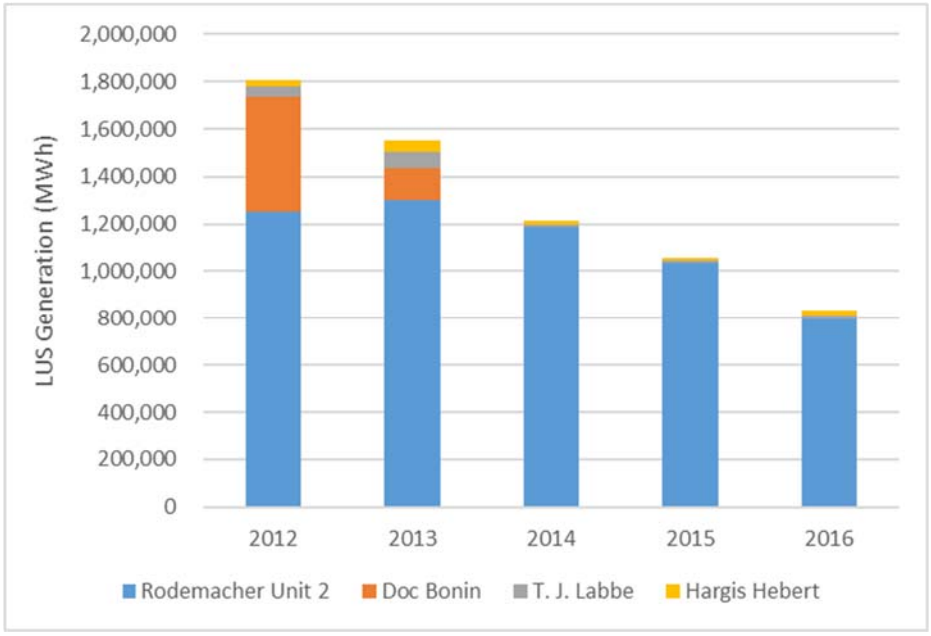


Figure 4-1: Electric Generation by Plant

When LUS joined MISO on December 19, 2013, MISO modified the methods and processes by which the Electric System generates, purchases, and sells power. In collaboration with TEA, LUS purchases power to meet load from the MISO market on an hourly basis. Simultaneously, LUS generation assets are economically dispatched into the market creating wholesale power sales for LUS. As seen in Figure 4-1, the generation at most LUS plants has been impacted by joining the MISO market as LUS now has access to lower cost market power. The Doc Bonin Plant units are unavailable and not offered into the MISO market. MISO approved the retirements of Doc Bonin Units 2 and 3 effective April 1, 2017. 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 with MISO.

Due to this access to lower cost power, elimination of the historical transmission congestion issues, and the status of Doc Bonin, the utilization of the Doc Bonin, Hargis Hebert, and T. J. Labbé peaking plants has decreased significantly since 2013. This 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
Doc Bonin Plant Total (1)	285	0	Gas/Oil
T. J. Labbé Plant Total	100	100	Gas
Hargis-Hébert Plant Total	100	100	Gas
Rodemacher Unit 2 (LPPA)	261	261	Coal
Total of All Units	746	461	

(1) All of the Doc Bonin Plant units are unavailable and not offered into the MISO market. The Doc Bonin Units will be retired, effective April 1, 2017.

Doc Bonin Plant

The Doc Bonin Plant consists of three natural gas-fired generating units. Each unit includes a conventional utility boiler, steam turbine generator, and the necessary auxiliary equipment. Heat rejection for each unit is provided by a dedicated mechanical draft cooling tower. The Water System provides makeup water for the cooling tower and supplies the plant's water treatment system for boiler water.

Unit 1 began commercial operation in 1964 and has a nameplate capacity of 54 MW. The Unit 1 boiler is a conventional utility boiler, manufactured by Babcock & Wilcox, capable of providing steam at 1,250 pound per square inch (psi) to the Westinghouse non-reheat, tandem compound bottom exhaust, steam turbine. Unit 1 is interconnected to the LUS transmission system at 69 kilovolts (kV).

Unit 2 began commercial operation in 1970 and has a nameplate capacity of 100 MW. The Unit 2 boiler is a conventional utility boiler, manufactured by Combustion Engineering, capable of providing steam at 1,800 psi to the General Electric tandem compound, bottom exhaust, steam turbine. Unit 2 is interconnected to the LUS transmission system at 69 kV.

Unit 3 began commercial operation in 1976 and has a nameplate capacity of 187 MW. The Unit 3 boiler is a conventional boiler manufactured by Babcock & Wilcox capable of providing steam at 1,800 psi to the General Electric tandem compound, bottom exhaust, steam turbine. Unit 3 is interconnected to the transmission system at 138 kV.

All of the Doc Bonin Plant units are not being offered into the MISO market and are scheduled for retirement. MISO approved the retirements of Doc Bonin Units 2 and 3 effective April 1, 2017. 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 with MISO.

The Doc Bonin and the Curtis Rodemacher generating plants were deemed economically obsolete. Curtis Rodemacher was retired several years ago and decommissioning efforts were initiated in the past. 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. Reserve requirements and annual funding of such a reserve would be based on a decommission study. A decommissioning study for Doc Bonin was completed in May 2016. The study provided costs estimates for varying levels of decommissioning.

In 2016, LUS hired a consultant to perform an IRP and evaluate overall power supply options, including plans for potentially replacing or repowering Doc Bonin. The study was completed in November 2016, and recommended developing and installing new natural gas fired reciprocating engines at the Doc Bonin site.

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 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 will continue, as needed, to maintain ownership and environmental compliance.

Doc Bonin Plant – Environmental Permits and Compliance

Table 4-5
Electric System
Doc Bonin Plant Key Permits

Permit	Regulatory Agency	Status
Title V Permit Part 70 Operating Permit	LDEQ	Expired. Did not renew.
Title IV Permit Acid Rain Program Permit	LDEQ	Expired. Did not renew.
LPDES Permit	LDEQ	Permit No. LA0005711 Expiration date: August 1, 2019
Clean Air Interstate Rule CAIR Permit	LDEQ	Expired. Did not renew.

Air Permit

LUS submitted letters, dated February 21, 2017, to the Louisiana Department of Environmental Quality (LDEQ) Air Permit Division and to the United States (U.S.) Environmental Protection Agency (EPA) Region 6 with official notification that the Doc Bonin Plant will be retired permanently effective April 1, 2017. The letter to LDEQ requests withdrawal of the air permit renewal applications that were submitted on May 20, 2016. The facility consists of three EGU:

EQT1 was put into cold storage on June 1, 2013; EQT2 was put into cold storage on June 29, 2014; and EQT3 was put into cold storage on June 29, 2014.

CSAPR NO_X Allocations (Ozone Season Only)

In July 2011, the U.S. EPA finalized the Cross State Air Pollution Rule (CSAPR) to replace the existing Clean Air Interstate Rule (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 U.S. EPA issued an interim final rule amending CSAPR compliance deadlines to align with the October 23, 2014 ruling that granted the U.S. 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 will be required in 2017 and beyond.

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. The 2015 through 2020 annual CSAPR NO_X allocations for the Doc Bonin Plant units are shown in the table below. LUS staff indicated that the Doc Bonin allowances may be available to the other LUS facilities.

Table 4-6
Electric System
Doc Bonin NO_X Ozone Season Emission Allocations

Unit	NO_X Allocation (tons)
Doc Bonin Unit 1	7
Doc Bonin Unit 2	84
Doc Bonin Unit 3	93

Compliance

Doc Bonin Plant has been in cold storage and therefore has not had any emissions in the past year.

Table 4-7 summarizes the key operating statistics for the Doc Bonin Plant over the past five years. The 2014-2016 generation statics reflect its suspended status.

Table 4-7
Electric System
Doc Bonin Plant Operating Statistics

Item	2012	2013	2014	2015	2016	Five-Year Average
Units 1 through 3						
Gross Capacity (MW)	285	285	285	285	285	285
Total Gross Generation (MWh)	523,854	156,856	0	0	0	136,142
Total Net Generation (MWh)	484,016	85,793	0	0	0	113,962
Total Gas Usage (MMBtu)	5,340,044	1,735,707	0	0	0	1,415,150
Net Heat Rate (Btu/kWh)	11,033	20,231	NA	NA	NA	15,632
Gross Capacity Factor (%)	21.0%	6.3%	0.0%	0.0%	0.0%	5.5%
Availability Factor (%)	64.8%	55.8%	0.0%	0.0%	0.0%	24.1%
Forced Outage Rate (%)	36.9%	40.2%	0.0%	0.0%	0.0%	15.4%
Number of Starts	4	3	0	0	0	1

Source: Johnathan Wilson, LUS

T. J. Labbé Plant

The T. J. Labbé Plant began operation in 2005 and consists of two natural gas-fired 48 MW General Electric model LM6000PC SPRINT combustion turbine generators (CTG). 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, as the natural gas supplier's delivery pressure is higher than the CTGs design inlet pressure. Pressure regulators reduce the delivery pressure to the required inlet levels at the CTG. The CTGs are capable of starting and reaching base load generation levels within 10 minutes. The plant is staffed 24-hours per day, 7 days a week. While the plant is staffed full-time, the CTGs are capable of remote startup and monitoring by the Doc Bonin Plant staff. The T. J. Labbé Plant is connected to the LUS transmission system at 230 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 two LM6000 CTGs are equipped with supplemental inlet air cooling and compressor intercooling using a proprietary GE SPRay INTercooled system called "SPRINT."

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 21 million operating hours on over 1,000 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.

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 4-8 shows the typical performance of the LM6000 units installed at the T. J. Labbé Plant.

Table 4-8
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

Table 4-9 summarizes the historical operating statistics for the T. J. Labbé Plant. Both units at T. J. Labbé were operated more in 2016 than in 2015 based on dispatch in the MISO market.

Table 4-9
Electric System
T. J. Labbé Plant Historical Operating Statistics

Generation Statistics	2012	2013	2014	2015	2016	Five-Year Average
Unit 1						
Gross Generation (MWh)	22,314	28,598	10,378	3,808	7,545	14,529
Net Generation (MWh)	21,711	25,154	9,714	3,253	5,934	13,153
Unit Capacity Factor (%)	5.3%	6.8%	2.3%	0.8%	1.4%	3.3%
Unit Service Factor (%)	7.0%	9.0%	4.6%	1.9%	3.5%	5.2%
Unit Starts	63	49	35	25	40	42
Availability Factor (%)	84.0%	95.0%	95.0%	95.1%	86.1%	91.0%
Forced Outage Rate (%)	39.8%	1.8%	4.3%	0.9%	2.6%	9.9%
Unit 2						
Gross Generation (MWh)	21,269	39,163	4,844	4,627	7,690	15,519
Net Generation (MWh)	19,428	38,793	3,707	3,445	6,234	14,321
Unit Capacity Factor (%)	5.1%	9.3%	0.9%	0.8%	1.4%	3.5%
Unit Service Factor (%)	7.0%	12.0%	2.5%	2.5%	3.5%	5.5%
Unit Starts	64	79	32	30	44	50
Availability Factor (%)	87.0%	99.0%	93.0%	94.5%	88.0%	92.3%
Forced Outage Rate (%)	2.7%	1.5%	44.4%	0.7%	23.3%	14.5%
Plant Total						
Net Generation (MWh)	41,139	63,947	13,421	6,697	12,168	27,474
Fuel Consumed (MMBtu)	655,900	706,006	169,181	102,712	174,198	361,599
Avg. Net Heat Rate (Btu/kWh)	15,944	11,044	12,605	12,421	12,976	12,998

Source: Johnathan Wilson, LUS

T. J. Labbé Plant - Environmental Permits and Compliance

Table 4-10 summarizes the key environmental permits for the T. J. Labbé Plant.

Table 4-10
Electric System
T. J. Labbé Plant Key Permits

Permit	Regulatory Agency	Status
Title V Permit Part 70 Operating Permit	LDEQ	Permit No. 1520-00128-V2 Expiration date: June 25, 2018
Title IV Permit Acid Rain Program	LDEQ	Permit No. 1520-00128-IV2 Expiration date: June 25, 2018

Air Permit

The T. J. Labbé Plant's Title IV and Title V Permit renewals were approved in 2013 and are set to expire on June 25, 2018. 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 RATA testing is required.

CSAPR NO_X Allocations (Ozone Season Only)

The 2015 through 2020 annual CSAPR NO_X Allocations for the T. J. Labbé units are as follows:

Table 4-11
Electric System
T. J. Labbé Plant NO_X Emission Allocations

Unit	NO_X Allocation (Tons)
T. J. Labbé Unit 1	27
T. J. Labbé Unit 2	15

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 General Electric model LM6000PC SPRINT CTGs (see LM6000PC SPRINT details above). Natural gas compressors are 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 of providing 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. As with the T. J. Labbé Plant, the Hargis-Hébert Plant is staffed full-time, but is capable of remote startup and monitoring from the Doc Bonin Plant. The Hargis-Hébert Plant is connected to the LUS transmission system at 69 kV. The plant has a 600 kW emergency generator for black start capability.

Table 4-12 summarizes the historical operating statistics for the Hargis-Herbert Plant. Similar to the T. J. Labbé Plant, the Hargis-Hébert Plant operated more in 2016 than in 2015 based on dispatch in the MISO market.

Table 4-12
Electric System
Hargis-Hébert Plant Operating Statistics

Generation Statistics	2012	2013	2014	2015	2016	Five-Year Average
Unit 1						
Gross Generation (MWh)	22,728	29,312	7,338	7,446	8,805	15,126
Net Generation (MWh)	22,162	29,006	6,803	6,867	7,593	14,486
Unit Capacity Factor (%)	5.4%	7.0%	1.6%	1.7%	1.7%	3.5%
Unit Service Factor (%)	6.0%	8.0%	3.8%	3.7%	4.6%	5.2%
Unit Starts	56	39	41	41	45	44
Availability Factor (%)	89.0%	96.0%	90.2%	89.0%	66.1%	86.1%
Forced Outage Rate (%)	54.8%	13.8%	11.0%	0.1%	82.5%	32.4%
Unit 2						
Gross Generation (MWh)	7,174	19,330	6,988	8,638	15,207	11,467
Net Generation (MWh)	5,624	17,583	5,744	7,251	12,986	9,838
Unit Capacity Factor (%)	1.7%	4.6%	1.4%	1.8%	3.0%	2.5%
Unit Service Factor (%)	2.0%	6.0%	3.8%	3.9%	7.9%	4.7%
Unit Starts	19	37	40	37	72	41
Availability Factor (%)	66.0%	97.0%	93.6%	89.0%	93.2%	87.8%
Forced Outage Rate (%)	8.9%	7.1%	2.0%	1.0%	18.0%	7.4%
Plant Total						
Net Generation (MWh)	27,786	46,589	12,547	14,118	21,852	24,578
Fuel Consumed (MMBtu)	297,321	509,688	169,544	183,321	280,858	288,146
Avg. Net Heat Rate (Btu/kWh)	10,700	12,070	13,514	11,659	12,853	12,159

Source: Johnathan Wilson, LUS

Hargis-Hébert Plant- Environmental Permits and Compliance

Table 4-13 summarizes the key environmental permits for the Hargis-Hébert Plant.

Table 4-13
Electric System
Hargis-Hébert Plant Key Permits

Permit	Regulatory Agency	Status
Title V Permit Part 70 Operating Permit	LDEQ	Permit No. 1520-00031-V2 Expiration date: June 25, 2018
Title IV Permit Acid Rain Program	LDEQ	Permit No. 1520-00131-IV2 Expiration date: June 25, 2018

Air Permit

The Hargis-Hébert Plant's Title IV and Title V Permit renewals were approved in 2013 and are set to expire on June 25, 2018. 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)

The 2015 through 2020 annual CSAPR NO_X Allocations for the Hargis-Hébert units are as follows:

Table 4-14
Electric System
Hargis-Hébert Plant NO_X Emission Allocations

Unit	NO_X Allocation (Tons)
Hargis-Hébert Unit 1	22
Hargis-Hébert Unit 2	17

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.

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 Louisiana Energy and Power Authority (LEPA) (20%) (the Joint Owners). The Agreement for Joint Ownership, Construction, and Operation (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 (PSC) on May 1, 1977 in which LPPA agrees to sell and the City agrees to purchase 100% of LPPA's share of the capacity and energy produced by Rodemacher Unit 2. According to the PSC, the LPPA costs are passed to LUS as purchased power costs, which are considered operating expenses. As a result of being defined as operating expenses, the LPPA expenses have priority over LUS debt. These contractual terms provide a higher level of security on the LPPA debt service than if the City had issued the 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 is not expected to materially impact 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 General Electric 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 a Selective Non-Catalytic Reduction (SNCR) System with urea injection improved NO_X control in 2013.

The plant recently 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 U.S. EPA MATS requirements.

Table 4-15 summarizes the historical operating statistics for Rodemacher Unit 2.

Table 4-15
LPPA
Historical Rodemacher Unit 2 Operating Statistics

Generation Statistics	2012	2013	2014	2015	2016	Five-Year Average
Gross Generation (MWh)	2,858,332	3,047,012	2,568,621	2,253,136	1,855,018	2,516,424
Station Service (MWh)	225,368	222,149	170,853	235,204	256,462	222,007
Net Generation (MWh)	2,632,964	2,824,863	2,397,768	2,017,932	1,598,556	2,294,417
Station Service (%)	7.9%	7.3%	6.7%	10.4%	13.8%	9.2%
Net Capacity Factor (%) (1)	61.7%	66.4%	55.8%	46.9%	37.0%	53.6%
Hours Available	7,933	7,515	5,626	7,580	7,308	7,192
Net Unit Heat Rate (Btu/kWh)	11,077	10,975	11,040	11,306	11,896	11,259
Availability Factor (%) (2)	90.3%	85.8%	64.2%	86.5%	83.2%	82.0%
Forced Outage Factor (%) (3)	2.5%	5.8%	1.3%	3.2%	2.4%	3.0%
Scheduled Outage Factor (%)	7.2%	8.4%	34.5%	10.2%	14.1%	14.9%

Source: LPPA Manager's Monthly Reports, audited
(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.

Although this is not expected of a base load type of generating facility, Rodemacher Unit 2's operations have declined over the past five years. The decrease in Rodemacher Unit 2's generation and capacity factors are primarily driven by MISO participation and access to the market. LUS joined MISO at the end of 2013; in 2014, there was a significant increase in the unit's scheduled outage time associated with the emissions upgrades resulting in lower generation. 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 the South Region of MISO. 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 decreased.

On February 16, 2012, the U.S. 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.

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

Coal is supplied by Arch Coal Sales Inc., Peabody CoalSales, and Rio Tinto 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., flyash 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 U.S. EPA finalized the Coal Combustion Residue 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 U.S. EPA ruling, Rodemacher Unit 2 will continue marketing and selling their coal ash for beneficial use. Additional information regarding the Coal Combustion Residue Rule is discussed in the Rodemacher Environmental Compliance Section below.

U.S. EPA Clean Air Act Greenhouse Gas Regulations

On October 23, 2015, the U.S. EPA finalized the Clean Power Plan (CPP): carbon dioxide (CO_2) emission guidelines for existing power plants. The CPP was intended to regulate greenhouse gas (GHG) emissions associated with Electric System generation. On February 9, 2016, the U.S. Supreme Court granted a stay on the CPP. Under the stay, the U.S. EPA cannot take actions to implement or enforce the CPP until pending legal challenges are resolved in the courts. The DC Circuit Court of Appeals heard the case in September 2016, and a decision is expected in spring 2017; appeals to the U.S. Supreme Court are anticipated. As such, the outcome is uncertain.

The implementation and financial impacts of the CPP are currently unknown, and the new U.S. EPA administration has expressed opposition to the CPP. In addition, the EPA Administrator recently sent a letter to state governors on March 30th, 2017 and noted they do not need to take any action to comply with the CPP in the near future. Additional information is included below regarding the CPP. 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 U.S. EPA also published the final New Source Performance Standard (NSPS) 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.

Clean Power Plan Emission Guidelines

If implemented, the CPP requires each state to submit an implementation plan to incorporate the CO_2 guidelines for existing power plants. Louisiana's goal is a 30.7% reduction on a rate basis (units of GHG per MWh), or by 17.7% on a mass basis (mass in tons GHG), by 2030, using 2012 as the baseline. Clean Air Act Section 111(d) is the basis for the regulation, and under

this section, state standards for existing sources must reflect the level of emissions performance achievable through the application of the best system of emission reduction (BSER), with significant flexibility in the design of their plans.

The U.S. EPA suggested three "Building Blocks" that states may utilize to achieve their state-specific emission targets:

1. Efficiency improvements at existing coal fired power plants
2. Increased generation from natural gas combined cycle plants
3. Increased generation from renewable and other low- or zero-carbon sources

Regarding Building Block 1, the final rule suggests that existing coal-fired units can achieve heat rate improvements in the range of 2.1% to 4.3%. States may develop plans using all or some of these approaches.

In addition, the final rule allows for "trading-ready" plans, meaning that States or regions can create market trading programs for CO_2 similar to the NO_X and sulfur dioxide (SO_2) programs already being used under CSAPR. Louisiana has not yet to determine its approach; the LDEQ website indicates that the agency will solicit public input via listening sessions.

The timeline for planning and implementation is long-term as written, and will be even longer term with the current delay. As noted on the LDEQ website, the CPP may be substantially modified or vacated in its entirety, which is appearing more likely given the new administration elected in November 2016. An Executive Order signed on March 17, 2017 included a review of the CPP, and a subsequent letter from the EPA Administrator to state governors on March 30th, noted they do not need to take any action to comply with the CPP in the near future.

Rodemacher Unit 2- Environmental Permits and Compliance

Table 4-16 summarizes the key environmental permits for Rodemacher Unit 2.

Table 4-16
LPPA
Rodemacher Unit 2 Key Permits

Permit	Regulatory Agency	Status
Title V Permit Part 70 Operating Permit	LDEQ	Permit No. 2360-00030-V2 Expiration date: October 14, 2018
Title IV Permit Acid Rain Program Permit	U.S. EPA	Permit No. 2360-00030-IV4 Expiration date: October 14, 2018
Clean Air Interstate Rule CAIR Permit	LDEQ	Permit No, 2360-00030-IR0 Expiration date: October 14, 2018
LPDES Permit	LDEQ	Permit No. LA0008036 Expiration date: October 1, 2019
Solid Waste Standard Type I Permit For metal cleaning waste pond, bottom ash pond and flyash pond	LDEQ	Permit No, P0005R1 Expiration date: November 18, 2026

Table 4-16
LPPA
Rodemacher Unit 2 Key Permits

Permit	Regulatory Agency	Status
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
Spill Prevention Control and Countermeasure Plan (SPCC)	U.S. EPA	Latest revision: December 2016
Facility Response Plan	U.S. EPA	Latest revision: July 20176
Hazardous Waste Generator	U.S. EPA	Permit No. LAD071941611

National Ambient Air Quality Standards

The Clean Air Act requires the U.S. 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 U.S. 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 are set to expire on October 14, 2018. The permits allow for the burning of coal, natural gas, and No. 2 fuel oil in Unit 2. However, coal is the predominant fuel.

The unit has a CEM System installed; annual CEM RATA testing is required.

CSAPR NO_X Allocations (Ozone Season only)

In July 2011, the U.S. 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 U.S. EPA issued an interim final rule amending CSAPR compliance deadlines to align with the October 23, 2014

ruling that granted U.S. 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 will be 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 2016 through 2020 CSAPR Ozone Season NO_X allocation for the Rodemacher Unit 2 is 1,102 tons.

CSAPR is not expected to impact operations at Rodemacher Unit 2 as the allocation is equivalent to recent emissions history and improved performance from the SNCR installation.

Table 4-17
LPPA
Rodemacher Unit 2 NO_X Ozone Season Emission Allocations

Unit	NO_X Ozone Season Allocation (Tons)
Rodemacher Unit 2	1,102

Compliance

Rodemacher Unit 2 reports compliance with the opacity requirements 99.95% of the time in the past year. Problems complying with the opacity limits experienced prior to 2010 apparently have been addressed satisfactorily. LUS staff indicates that there are no outstanding NOVs for non-compliance with opacity limits.

NO_X emissions under the Rodemacher Unit 2 Title IV Permit are limited to 0.46 lb/MMBtu. In addition, Rodemacher Unit 2 is allocated NO_X allowances under CSAPR, which applies to NO_X emissions during the Ozone Season (May through September).

Rodemacher Unit 2's historical NO_X emissions have been below permitted levels. The operation of Rodemacher Unit 2 will not be 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 0.20 lb/MMBtu in each of the past six years. During the Ozone Season, Rodemacher Unit 2 NO_X emissions that exceed CSAPR allocations of 1,102 tons would require purchase of additional allowances in the established market or transfer of allowances from another of the Owner's facilities.

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 need to show BART for SO_2 emissions. This topic is discussed further below under Regional Haze Rule.

Air Permit – Acid Rain Program

The U.S. EPA issued a Title IV permit, which addresses the Acid Rain Program provisions of the Clean Air Act as applicable to Rodemacher Unit 2. 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. 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 Owner's facilities. Emission allowances may be banked, transferred, purchased, or sold. 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 4-18
LPPA
Rodemacher Unit 2 SO_2 Emissions

Year	Annual Average (lb/MMBtu)	Permit Limit (lb/MMBtu)	Total Annual (tons/yr.)	Annual Allocation (tons/yr.)
2012	0.62	1.2	9,098	18,212
2013	0.56	1.2	9,127	18,212
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

Rodemacher Unit 2's historical SO_2 emissions have been below permitted levels. The operation of Rodemacher Unit 2 will not 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).

NO_X emissions under the Rodemacher Unit 2 Title IV Permit are limited to 0.46 lb/MMBtu. In addition, Rodemacher Unit 2 is allocated NO_X allowances under CSAPR, which requires the purchase of additional allowances if actual NOx emissions are greater.

Table 4-19
LPPA
Rodemacher Unit 2 NO_X Emissions

Year	Annual Average (lb/MMBtu)	Permit Limit (lb/MMBtu)	Total Annual (tons/yr.)	Ozone Season (tons/yr.)
2012	0.17	0.46	2,463	1,006
2013	0.18	0.46	2,636	1,053
2014	0.19	0.46	2,212	1,116
2015	0.14	0.45	1,754	845
2016	0.18	0.46	1,984	868

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 may be required to install BART to control particulate matter, SO_2, and NO_X emissions. Some of the effects of the Regional Haze Rule could require Rodemacher Unit 2 to install additional controls for these emissions. In 2012, the U.S. 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 eventually superseded by the approval of CSAPR in 2014. However, CSAPR, which in Louisiana only applies to NO_X emissions during the Ozone Season, recently replaced CAIR, which previously applied to annual emissions of SO_2 and NO_X, as well as ozone season NO_x. Previously, BART applicable sources complying with CAIR regulations were considered by the U.S. EPA to be in compliance with BART. Now, in Louisiana, sources will only comply with seasonal NO_X control under CSAPR. Therefore, BART applicable sources in Louisiana are no longer considered by U.S. EPA to have an SO_2 control equivalent to BART. As a result, emission sources that fall under Regional Haze Rule BART requirements must be evaluated for their effect on pertinent Class I areas and possibly require further evaluation for the necessity of installing BART.

Preliminary modeling is performed to determine the impact of BART eligible sources on visibility at Class I areas. If there is significant impact demonstrated, a BART controls analysis is performed using inputs taking into consideration such factors as cost of controls, amount of emission reductions, and degree of visibility improvement. The analysis considers the existing impairment of the Class I area and economic impacts to the facility, resulting in a dollar per incremental visibility improvement for each pollution control scenario evaluated. Emission control equipment, such as scrubbers, would need to be economically acceptable according to the regulatory agency judgement.

In February 2017, LDEQ submitted to the U.S. EPA a proposed state implementation plan (SIP) indicating how BART applicable EGUs in Louisiana would comply with the BART requirements. For Brame Energy Center, the SIP proposal document includes the U.S. EPA-acceptable visibility modeling results, which shows enough visibility impact on the pertinent Class 1 areas to warrant the BART controls analysis for the Rodemacher II unit. The SIP document also includes the BART analysis and its findings. LDEQ proposed in the SIP document that BART for

Rodemacher II will be continued operation of the existing dry sorbent injection system (DSI), but at enhanced mode. That is, the DSI system will be operated with increased reagent injection in order to meet a lower SO_2 limit. BART for NO_X was proposed as continuing participation in the CSAPR trading allowance trading program. After consideration of the LDEQ submittal, the U.S. EPA will propose by the public notice and comment procedure, an implementation plan for Louisiana by March 31, 2017. A motion has been filed to extend the deadline for comments to June 29, 2017. The U.S. EPA has targeted to finalize and publish the plan for Louisiana by year-end 2017.

The Mercury and Air Toxics Standard

On February 16, 2012, the U.S. 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 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 U.S. EPA's MATS requirements to the District of Columbia Circuit Court. The U.S. Supreme Court's decision did not prohibit the U.S. EPA from regulating mercury emissions; however, it did require the U.S. EPA to consider costs for those plants yet to meet the MATS requirements. The U.S. EPA subsequently submitted revised cost/benefit analyses, which was approved by the DC Circuit Court. In December 2015, the U.S. Supreme Court refused to grant a stay on MATS, thus MATS will be fully implemented. The court rulings on MATS do not affect Rodemacher Unit 2, as it is has completed an upgrade 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 U.S. 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 U.S. EPA determined that the 1982 steam electric power generating effluent guidelines do not adequately address the pollutants being discharged and have not kept pace with changes in the electric power industry. The U.S. 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 U.S. 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 U.S. 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 U.S. EPA finalized the 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, 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 the plants LPDES permits. However, as of April 24, 2017, the U.S. Court of Appeals for the 5th Circuit granted a request to place a 120 day hold on litigation of the implementation of the effluent guidelines. The U.S. EPA requested the temporary hold to provide the agency time to review and reconsider the rule and implementation. Power plants were to comply with the rule between years 2018 and 2023, but EPA's announcement on April 25, 2017, regarding the court ruling also postponed the compliance dates. During LDEQ's development of the Brame Energy Center's LPDES permit renewal, LDEQ incorporated applicable aspects of U.S. EPA's Guidance Document on this subject. Whether the changes will be in the renewed permit will depend on the outcome of EPA's review.

Coal Combustion Residue

Most of the Rodemacher Unit 2 coal combustion residue (e.g. flyash and bottom ash) is removed on a regular basis from the site by truck and sold for beneficial use. On December 19, 2014, the U.S. EPA finalized the Coal Combustion Residue (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 180 days after publication in the Federal Register. 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 U.S. 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 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” excludes 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 Flyash 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 2016 by Providence Engineering & Environmental Group LLC. The inspection

reports state that the reservoirs and slopes are in good conditions, and no 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 U.S. 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 facility response plan (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

Natural gas for the Doc Bonin, T. J. Labbé, and Hargis-Hébert Plants is provided under a base contract between Atmos Energy Marketing, LLC and TEA, acting on the behalf of LUS. The agreement was signed in February 2004 and automatically extends for 12-months following the end of the Delivery Period, unless terminated by either party. The latest Transaction Confirmation #7, for a Firm Supply of up to 20,000 MMBtu per day, establishes monthly and daily rates based on Henry Hub indices, plus 20 cents ($0.20) per MMBtu, plus Gulf South Pipelines current transmission tariff, plus taxes or assessments.

Natural gas supply to the Doc Bonin Plant 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 Rio Tinto Energy America. Both Arch Coal and Peabody CoalSales LLC filed for Chapter 11 bankruptcy in January and April 2016 respectively. Both Arch Coal's and Peabody CoalSales LLC mining operations and customer shipments were not interrupted. 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, 2016, LPPA's coal storage is 131,919 tons, or approximately 60 days at the historical five-year Average Capacity Factor of 54%. 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%.

Hydro Purchased Power

LUS has a long-term contract with the Southwestern Power Administration for U.S. Department of Energy hydro power. The bilateral agreement is for 22,320 MWh annually

and ends June 1, 2018. The hydropower is generated by 24 Corps of Engineers dams in the region.

Capacity Contracts

MISO's resource adequacy is based on the system coincident peak and reserves. As a MISO participant, LUS is required to maintain its relative share of capacity and reserves. With the economic suspension status of Doc Bonin during 2016 and the impending retirement, LUS did not have sufficient capacity to meet the MISO requirements. As such, LUS contracted for 40 MW of capacity through May 2020. In addition, due to potential capacity shortfalls, LUS has secured an additional 20 MW for FY2016/2017 and an additional 33 MW for FY2017/2018.

4.2 Transmission and Distribution

The Electric System has 47 miles of transmission lines and 989 miles of distribution lines. Transmission facilities operate at 69 kV, 138 kV, and 230 kV interconnecting with Entergy (at 230kV and 138kV) and Cleco (at 230 kV and 69 kV) systems. 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.

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. One new 69-13.8 kV, 18MVA substation, La Neuville, was constructed and placed in service in 2016, relieving load on the existing Flanders, Beadle, and Elks substations in the southern portion of Lafayette.

Another new substation, Moss Substation, in northeast Lafayette, is expected to begin construction late in 2017. The substation will be connected to the existing 69 kV Peck Substation and the existing 230 kV Pont Des Mouton Substation. Loading on both Peck and Pont Des Mouton will be relieved; in addition, the Moss Substation 230/69 kV interconnection will serve as another power flow path from the 230 kV system to the 69 kV system, bolstering resiliency and redundancy.

LUS is also researching the configuration of the Bonin 69 kV switchyard to better facilitate interconnection of the proposed new generation facilities.

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. A new 69 kV circuit was extended from the Hargis-Hébert Plant to La Neuville Substation. There were no other transmission circuit improvements in 2016.

The 989 miles of distribution include 474 miles of overhead and 515 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 in 2016 included:

- Energized feeders out of La Neuville Substation.

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. Two new neighborhoods were added in 2016; additional development in the area appears promising and can be served by the La Neuville Substation. LUS ordered a new substation transformer to replace the existing transformer at Peck Substation in 2016, with delivery set for 2017. The Peck Substation transformer will be reconditioned to be used as a spare transformer.

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

4.3 Advanced Metering Infrastructure

LUS has completed the implementation of an Advanced Metering Infrastructure (AMI) for its electric customers. It is also piloting a new project utilizing the existing Honeywell AMI (who purchased Elster, the meter manufacturer) to determine how customers may interact in real time with the Electric System. In 2016, LUS completed integration of the AMI data into its planning and system modeling software to analyze distribution system performance in order to optimize investment in improvements. In addition to the AMI metering system, the top 10 commercial customer meters are tested annually and new meters are spot checked upon receipt.

4.4 Historical Capital Improvement Program

LUS uses a capital work order system to track capital expenses. The historical capital shown in Table 4-20 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 4-20
Electric System
Historical CIP

	2012	2013	2014	2015	2016
Normal Capital & Special Equipment	$1,538,740	$5,613,028	$5,115,415	$6,418,252	$6,351,851
Series 2010 Bonds	20,351,646	11,129,481	4,138,917	3,225,065	729,576
Retained Earnings	2,656,008	2,680,489	7,928,337	4,284,528	5,990,441
Total Electric Capital	$24,546,394	$19,422,998	$17,182,668	$13,927,846	$13,071,867

Source: LUS, Status of Construction Work Order Reports

4.5 Operations and Related Performance

LUS is a member of MISO, which provides reliability and wholesale market grid operation for interconnected utilities in the Midwest region of the U.S. LUS is a Local Balancing Authority within the MISO Balancing Authority footprint.

Prior to 2014, transmission congestion issues negatively affected LUS operations. These issues included requirements to run a portion of the T. J. Labbé and Hargis-Hébert Plant's combustion turbines without market-competitive reimbursement. The completion of a significant transmission project with Cleco and Entergy in 2012, as well as the transition to MISO control and scheduling in 2013, have effectively eliminated transmission congestion issues to date, including curtailments and reduced requirements to run local generation.

TEA is registered as LUS' Market Participant in MISO and was instrumental in smoothing the transition to MISO and successful integration. TEA develops strategies for energy market participation to be evaluated and approved by LUS, as well as provides feedback on how the selected strategies worked compared to alternative strategies.

Dispatch and operations were fully staffed in 2016; after three 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 2016. 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. The flood of 2016 had minimal impact on LUS customers, with only 2,000 out of service, reflecting LUS' quality of construction and maintenance. The majority of outages were due to water entering pad-mount fuse cabinets.

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 4-21
Electric System
LUS Reliability Indices – Calendar Year

Year	SAIDI [1]	SAIFI	CAIDI [1]	MAIFI
2012	43.9	0.87	50.3	1.05
2013	30.5	0.66	46.0	0.96
2014	61.4 [4]	0.97 [4]	63.2 [4]	0.93 [4]
2015	49.5	0.88	56.1	0.93
2016	38.2	0.80	47.6	0.74
National Median [2]	69.0	1.58	82.0	NA
Regional Average[3]	60.9	0.85	69.1	NA

(1) Minutes per year.
(2) 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.
(3) 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.
(4) Vehicle Accidents (57), 1.3M customer minutes (34% overall of customer-minutes).

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 2016, 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.

In 2012, LUS began utilizing the fiber connections from the Communications System to monitor its Electric System, 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 (Smart Grid) includes an additional Outage Management System (OMS) offering additional features, such as notification of customers by phone, text, or email as to outage occurrences and estimated time for restoration of power. 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.

LUS adopted a direct and prescriptive approach to improving reliability performance: each year the distribution operations group addresses the five worst performing feeders as determined by these 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. 2,713 poles were inspected and 33 were identified for replacement and subsequently replaced in 2016.

Regular, detailed inspection and infrared thermal imaging of underground distribution facilities has been improved with a defined process that was updated in 2014. Main 600 amps 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 is now moving into testing bulk feeder cable sections. Infrared inspection across multiple components of the system resulted in repairs to 25 different distribution switch-related issues and 2 different transmission switch-related issues.

LUS maintains a program to check all of the vacuum switches and fuses on more than 500 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. Doble provides recommendations for determining and extending useful life or replacing units. Streetlights are presently being relamped 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 a Honeywell 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. A new fall arrest safety program commenced in March 2015.

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 Honeywell 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 90 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 North American Electric Reliability Corporation (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

In addition to cyber security discussed below, LUS physical security includes the use of security cameras, card swipes, and key pads at critical facilities. There were no modifications to the physical security systems in 2016.

4.6 Regulatory and Environmental Compliance and Issues

The Electric System's most recent NERC Critical Infrastructure Protection (NERC CIP) audit in the fall of 2016 was successful, with only two potential violations which have yet to be determined as actual violations. Southwest Power Pool (SPP) is LUS' compliance enforcement authority.

LUS worked with a new consultant in 2016 to prepare for the NERC CIP audit. Staff members took an active role in preparing Reliability Standards Audit Worksheets (RSAWS) and updating the facility policy/procedures; SPP auditors commented favorably on the preparation, dedication, and availability of LUS staff. LUS management feels that staff have more ownership of the process resulting in better performance across the organization.

NERC is also requiring internal controls by individual utilities; 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 coming in September 2017.

Individual personnel are assigned to the following categories within the LUS Electric Environmental Compliance division: 1) NERC compliance; 2) Spills, spill prevention control and countermeasure plans, 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 4-22
Utilities System
Contracts and Agreements

Contracts & Agreements Between	Date Signed/Renewed	Termination Date	Provisions
LPPA – Cleco, LEPA	November 15, 1982	June 30, 2032 or end of useful life	Joint ownership of Rodemacher Unit 2
LUS – Louisiana Generating	May 23, 1983	Upon 3 year notice	Interchange agreement for electric transmission
LUS – Entergy Louisiana	October 6, 1988	Upon 18 month notice	Interchange agreement for electric transmission
LCG – Cleco	1991	August 29, 2021 (1)	Interconnection agreement for delivery of power
LUS – SWEPCO	May 1, 1994	Terminated on August 10, 2013 due to joining MISO	Interchange agreement for electric transmission
LCG – LPPA	May 1, 1997	August 31, 2047 or when bonds have been paid	Purchase of power from LPPA's 50% share in Rodemacher Unit 2
LUS – Cloud Peak Energy	December 11, 2002	Upon 180 days' notice	Purchase of coal for Rodemacher Unit 2
LCG – Southwestern Power Administration (SPA)	January 1, 2004	May 31, 2018	Purchase of hydro power
LUS – SLEMCO	September 10, 2004	September 10, 2019	Customer acquisition agreement
LUS – Peabody Coalsales, LLC	November 7, 2007	60 days written notice	Purchase of coal for Rodemacher Unit 2
LUS – Arch Coal Sales, Inc.	August 4, 2009	Upon 30 days' notice	Purchase of coal for Rodemacher Unit 2
TEA – Crosstex	January 1, 2010	Terminated effective October 1, 2014	Emergency supply of natural gas for LUS generating facilities
LUS – GE	May 1, 2012	December 31, 2018	CT Maintenance Services
LCG – Entergy Gulf States	June 22, 2012	June 21, 2032; year to year thereafter	Interconnection agreement for delivery of power
LCG – MISO	December 26, 2012	2 years from Effective Date, thereafter 1 year terms	Agreement between Local Balancing Authorities and MISO
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

Table 4-22
Utilities System
Contracts and Agreements

Contracts & Agreements Between	Date Signed/Renewed	Termination Date	Provisions
LCG – MISO	February 4, 2013	Coincides with MISO Owners Agreement	Agency Agreement for Open Access Transmission Service
LCG – Other Transmission Facilities Owners	February 4, 2013	30 years from the earliest Effective Date for any signatory, thereafter 5 year terms	Agreement of Transmission Facilities Owners to Organize MISO
LUS – TEA	June 1, 2013	Upon 6-months' notice, but not prior to 48 months after the Effective Date	Power and Fuel Marketing
TEA – ATMOS	July 1, 2015	June 30, 2016 (2)	Supply of natural gas for Hargis Hébert Plant facilities
LUS – MISO	August 1, 2013	Upon 30 day notice	Agreement to procure satellite phone link
LUS – SPP	August 9, 2013	Upon mutual agreement	Firm point-to-point transmission service
LUS – MISO	September 25, 2013	2 years from Effective Date, thereafter 1 year terms	Modeling, Data, and Analysis reliability standards compliance obligations
LUS – 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
LUS – NRG	July 10, 2015	May 2020	40.0 MW of capacity from June 2016 – May 2020
LUS – TEA	March 7, 2016	May 2017	20.4 MW of capacity from June 2016 – May 2017
LUS – TEA	January 16, 2017	May 2019	33.0 MW of capacity from June 2017 – May 2019
TEA – ATMOS	August 12, 2015	June 30, 2016 (3)	Supply of natural gas for Doc Bonin Plant and T. J. Labbé Plant

(1) Notice of termination was not given within 3 years of initial expiration. Therefore, the term was automatically extended for five years.
(2) Automatic 1-year extension.
(3) Evergreen/Rollover provision.

4.8 Benchmarking

LUS' residential electric rates have historically been among the lowest in the state and surrounding region. The following tables and figures compare the average residential and commercial rates for the majority electric providers in the region. As shown in Table 4-23 and Figure 4-2, LUS residential rates are the lowest in the region. The residential rate comparison assumes a customer with a monthly energy usage of 1,000 kWh.

Table 4-23
Electric System
Residential Rate Comparison

Utility	Average $/kWh [1]
LUS	$0.0852
New Iberia [2]	$0.0886
Shreveport [3]	$0.0898
Lake Charles [4]	$0.0898
Baton Rouge [4]	$0.0898
Alexandria	$0.1018
New Orleans [5]	$0.1167

Source: LUS
(1) Based upon 1,000 kWh per month consumption.
(2) Served by Cleco.
(3) Served by SWEPCO.
(4) Served by Entergy Gulf States.
(5) Served by Entergy New Orleans.

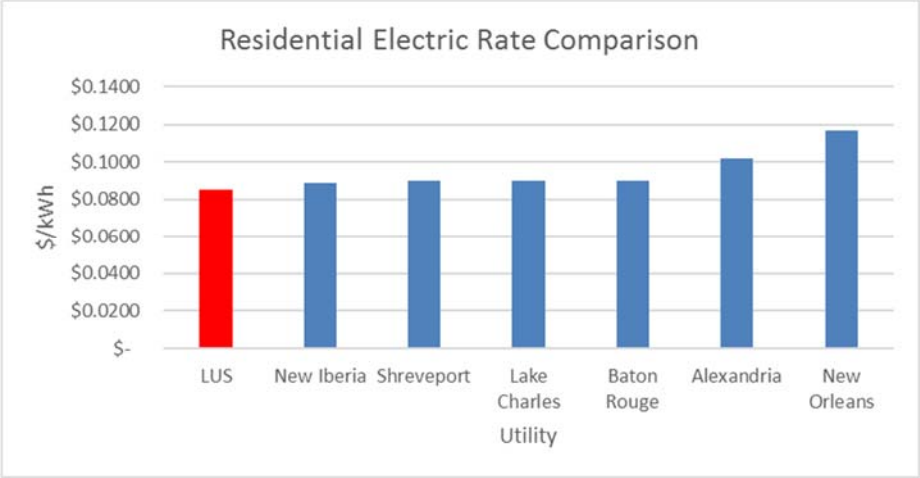


Figure 4-2: Electric System – Residential Rate Comparison

As shown in Table 4-24 and Figure 4-3, LUS commercial rates are the highest in the region. The commercial rate comparison assumes a 131 kW demand customer with a monthly energy usage of 48,144 kWh.

Table 4-24
Electric System
Commercial Rate Comparison

Utility	Average $/kWh [1]
Alexandria	$0.0420
Lake Charles [2]	$0.0542
Baton Rouge [2]	$0.0702
Shreveport [3]	$0.0798
New Orleans [4]	$0.0850
New Iberia [5]	$0.0921
LUS	$0.0930

Source: NewGen as of date 3/20/2017
(1) Based upon an average customer of 131 kW demand and 48,144 kWh per month.
(2) Served by Entergy Gulf States.
(3) Served by SWEPCO.
(4) Served by Entergy New Orleans.
(5) Served by Cleco.

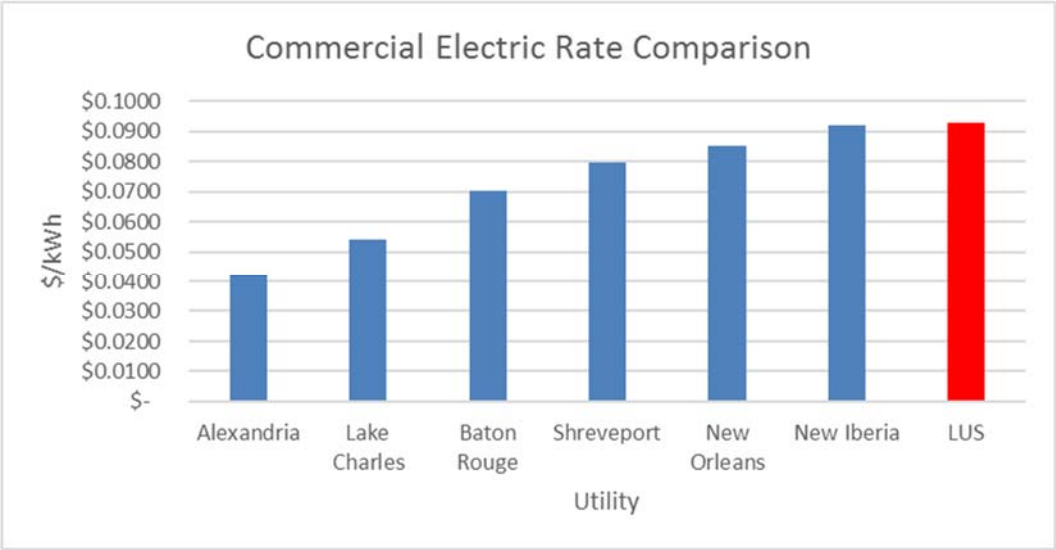


Figure 4-3: Electric System – Commercial Rate Comparison

Benchmarking Financial and Operating Statistics

Table 4-25 benchmarks selected financial and operating ratios for LUS with other large municipal electric utilities nationwide; the data was provided by the *APPA Financial and Operation Ratios of Public Power Utilities, 2015 Data published November of 2016*. The APPA report contains data based on region of the U.S. and based on 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 4-25. 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 2015, not 2016; however, both the 2015 and 2016 data for LUS was included.

LUS' Electric Revenue per kWh was lower than the National average and nearly equal to the Regional average. 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. 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.

LUS' Debt Service Coverage was higher than the National average but lower than the Regional average. LUS' Net Income per Revenue Dollar was higher than the Regional average in 2015 and 2016 while below the National average in 2016. The DSCR and net income metrics further illustrate LUS' financial stability and health.

Table 4-25
Electric System
Benchmarked Electric Utility Operating Ratios

		National	Regional	LUS	
Statistics	Basis	2015	2015	2015	2016
Revenue per kWh – All Retail Customers	Elec	$0.101	$0.088	$0.087	$0.084
Debt to Total Assets	Total LUS	0.467	0.411	0.378	0.373
Operating Ratio (Electric specific)	Elec	0.744	0.806	0.714	0.727
Current Ratio	Total LUS	3.64	3.55	2.5	2.4
Times Interest Earned	Elec	2.30	3.12	6.7	6.5
Debt Service Coverage	Elec	1.75	4.34	3.2	2.9
Net Income per Revenue Dollar ($)	Elec	$0.0760	$0.0530	$0.0760	$0.0501
Uncollectible Accounts per Revenue Dollar ($)	Total LUS	$0.0036	$0.0020	$0.0056	$0.0066
Total O&M Expense per kWh Sold	Elec	$0.0710	$0.0710	$0.0634	$0.0625
System Load Factor	Elec	61.0%	56.2%	49.6%	53.4%

4.9 Historical Financial Performance

Electric System debt service includes the Series 2010 Bonds and Series 2012 Bonds. Table 4-26 shows historical debt service and the associated DSCR. The DSCR exceeds the minimum requirement of 1.0.

Table 4-26
Electric System
Historical Debt Service Coverage

Year	Operating Revenues (1)	Operating Expenses (2)	Balance Available for Debt Service	Debt Service (3)	Debt Service Coverage Ratio
2012	$174,890,121	$137,884,929	$37,005,192	$10,740,043	3.4
2013	$188,071,217	$140,161,855	$47,909,362	$16,497,762	2.9
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

Source: LUS Financial and Operating Statements, audited
(1) Includes interest income and other miscellaneous income.
(2) O&M and other expenses include customer service, and administrative and general costs. Operating expenses do not include ILOT normal capital and special equipment, and other miscellaneous expenses.
(3) Debt service includes the Series 2004 Bonds, Series 2010 Bonds, and Series 2012 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. As of the end of FY 2016, LUS has collected revenues through the FC in excess of eligible costs by approximately $14.3 million.

LUS conducted 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 will increase again November 1, 2017. The rates being implemented in 2016 and 2017 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. The Electric System rates were approved by LPUA and LCG to increase by 2.8% in 2016 and 2.8% in 2017.

Table 4-27
Electric System
Rate Schedules

Rate Class	Serves	Effective Date	Customer Charge ($/month)	Demand Charge ($/kW)	Non-Fuel Energy Charge ($/kWh)
R-1	Residential	Nov 2010	$6.00	$0.00	$0.04010
R-1-O	Residential Non-City	Nov 2010	$6.60	$0.00	$0.04411
C-1	Small Commercial	Nov 2010	$10.00	$0.00	$0.05710
C-2	Large Commercial	Nov 2010	$50.00	$8.50	$0.01892

Source: LUS Rate Schedules

Revenue Analysis

Table 4-28 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 on a per kWh basis, while the FC revenue fluctuates. Figure 4-4 shows the historical revenues on a per kWh basis.

Table 4-28
Electric System
Historical Base Rate and Fuel Charge Revenue Detail

	2012	2013	2014	2015	2016
Revenues					
Retail Sales- Base Rate	$88,556,974	$88,860,207	$91,749,309	$92,626,681	$91,631,825
Retail Sales- Fuel Charge	76,824,304	93,158,373	105,375,603	84,910,901	78,153,587
Total	$165,381,279	$182,018,580	$197,124,912	$177,537,582	$169,785,412
Energy Sales					
Retail Sales (kWh)	1,970,448,303	1,979,135,504	2,027,114,665	2,050,434,389	2,027,944,893
Revenue per kWh					
Retail Sales- Base Rate	$0.0449	$0.0449	$0.0453	$0.0452	$0.0452
Retail Sales- Fuel Clause	0.0390	0.0471	0.0520	0.0414	0.0385
Total	$0.0839	$0.0920	$0.0972	$0.0866	$0.0837

Source: LUS Financial and Operating Statements, audited

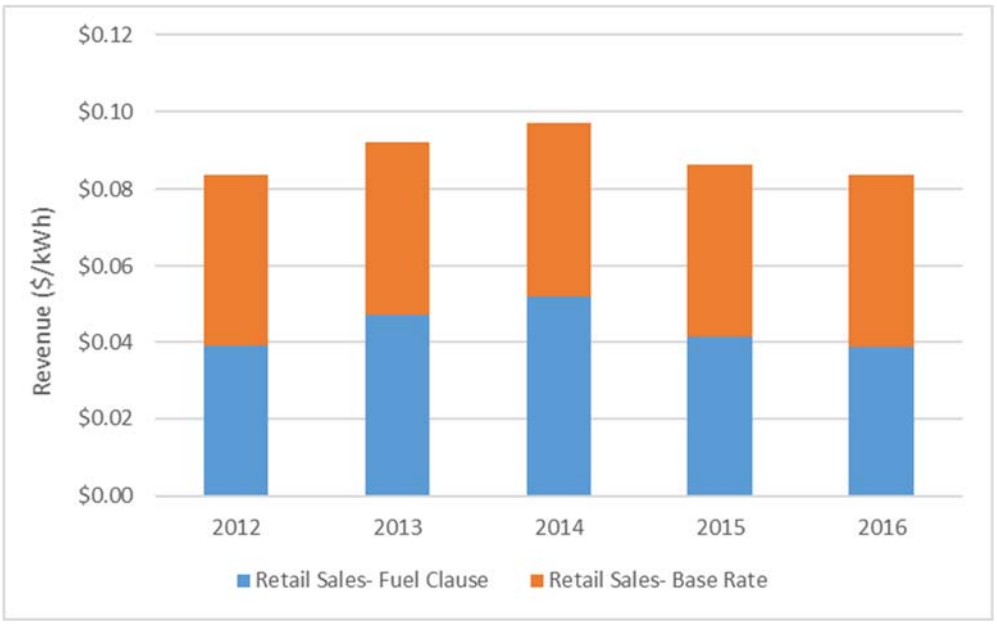


Figure 4-4: Electric Base Rates and FC Revenues per kWh of Sales

Electric Revenue Statistics

Table 4-29 shows the Electric System base rate revenues. Since 2012, the increase in total retail base rate revenues has averaged 0.9% annually.

The number of customers has consistently increased at approximately 0.9% per year with the highest customer growth in the Commercial customer class. The revenue per customer since 2012 has decreased slightly at approximately 0.1% per year.

The total retail energy sales have slightly increased with a 0.7% average annual growth. The energy sales per customer on average decreased by 0.2% per year. The residential and small commercial class has decreased their usage per customer on average by 0.4% per year. Increases in appliance efficiency and energy conservation measures contribute to this decrease and reflect broader energy and electric utility trends in the U.S. The revenue per kWh has remained relatively flat since 2012.

Table 4-29
Electric System
Base Rate Revenue Statistics

	2012	2013	2014	2015	2016
Revenues					
Residential	$36,284,670	$36,401,598	$37,712,108	$37,788,166	$37,245,915
Commercial	44,985,738	45,049,339	46,520,135	47,192,693	46,646,591
Schools & Churches	4,499,240	4,609,317	4,669,261	4,817,122	4,893,085
Other	2,787,327	2,799,952	2,847,805	2,828,700	2,846,234
Total	$88,556,974	$88,860,207	$91,749,309	$92,626,681	$91,631,825
Number of Customers					
Residential	52,788	53,309	53,884	54,345	54,761
Commercial	8,734	8,799	8,972	9,092	9,141
Schools & Churches	498	506	507	494	511
Other	1,891	1,881	1,900	1,916	1,912
Total	63,911	64,496	65,262	65,847	66,325
Revenue per Customer					
Residential	$687	$683	$700	$695	$680
Commercial	5,151	5,120	5,185	5,191	5,103
Schools & Churches	9,033	9,111	9,217	9,759	9,572
Other	1,474	1,488	1,499	1,476	1,489
Total ($/Customer)	$1,386	$1,378	$1,406	$1,407	$1,382
Sales (kWh)					
Residential	806,919,488	813,690,008	840,540,908	840,719,003	822,151,289
Commercial	991,742,866	987,001,925	1,009,864,890	1,030,069,827	1,022,107,401
Schools & Churches	115,467,953	122,095,405	118,426,044	123,668,657	126,162,076
Other	56,317,996	56,348,166	58,282,823	55,976,902	57,524,127
Total	1,970,448,303	1,979,135,504	2,027,114,665	2,050,434,389	2,027,944,893
Sales (kWh) per Customer					
Residential	15,286	15,264	15,599	15,470	15,014
Commercial	113,551	112,170	112,556	113,295	111,816
Schools & Churches	231,825	241,335	233,774	250,553	246,812
Other	29,776	29,950	30,681	29,210	30,088
Total	30,831	30,686	31,061	31,139	30,576
Revenue per kWh					
Residential	$0.0450	$0.0447	$0.0449	$0.0449	$0.0453
Commercial	0.0454	0.0456	0.0461	0.0458	0.0456
Schools & Churches	0.0390	0.0378	0.0394	0.0390	0.0388
Other	0.0495	0.0497	0.0489	0.0505	0.0495
Total ($/kWh)	$0.0449	$0.0449	$0.0453	$0.0452	$0.0452

Source: LUS Financial and Operating Statements, audited

Expense Analysis

Table 4-30 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 administrative and general expenses. Historically, the variable expenses have averaged 55% of the total expenses. Figure 4-5 shows the historical breakdown graphically.

Table 4-30
Electric System
Historical Fixed and Variable Expense Summary

	2012	2013	2014	2015	2016
Variable Expenses					
Fuel Cost - LUS	$18,535,522	$11,562,524	$1,906,092	$985,639	$1,363,817
Purchased Power Other	16,705,045	24,477,797	4,720,733	3,493,850	3,543,627
Purchased Power LPPA Fuel	42,059,893	42,482,048	37,201,705	33,966,979	26,658,901
Purchased Power MISO	0	0	79,392,491	62,181,834	55,468,362
Purchased Power MISO Sales	0	0	(39,221,191)	(29,667,313)	(23,357,459)
Total Variable - Production	$77,300,461	$78,522,369	$83,999,830	$70,960,989	$63,677,247
Fixed Expenses					
Production - Fixed	$30,896,771	$30,789,894	$29,573,186	$25,947,482	$28,570,660
Transmission	5,791,094	6,601,198	7,543,561	7,405,920	8,661,822
Distribution	9,431,893	10,118,173	11,042,653	11,899,551	11,613,300
Customer	3,237,859	2,889,502	2,807,800	2,744,901	2,868,750
A&G	11,226,852	11,240,720	12,120,845	11,048,079	11,302,414
Total Fixed	$60,584,469	$61,639,487	$63,088,046	$59,045,932	$63,016,947
Total Fixed & Variable	$137,884,929	$140,161,855	$147,087,876	$130,006,922	$126,694,194
Percent Variable	56%	56%	57%	55%	50%
Percent Fixed	44%	44%	43%	45%	50%

Source: LUS Financial and Operating Statements, audited

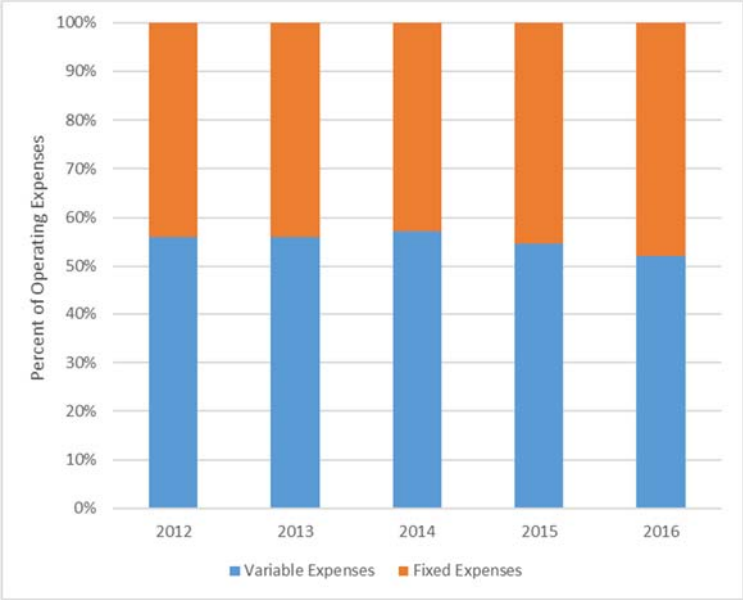


Figure 4-5: Fixed and Variable Breakdown of LUS Expenses

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 2016 billing data provided by LUS, the customer, demand, energy, and FC collected approximately $6 million, $18 million, $67 million, and $78 million, respectively. Although approximately 45% of LUS' costs are fixed over the five-year average in Table 4-30, only 14% of revenues are collected through fixed charges. Approximately 86% of retail revenues are recovered through variable rates.

4.10 Findings and Recommendations

- The Doc Bonin and the Curtis Rodemacher plants are currently economically obsolete. The Curtis Rodemacher Plant retired several years ago and decommissioning efforts were initiated in the past. Doc Bonin Plant is currently not operating and has been designated as a power station in economic suspension within MISO. In anticipation of the cost associated with fully decommissioning both power stations, LUS should establish a decommissioning reserve to cover the future costs of dismantling these units. As a decommissioning study for Doc Bonin was completed in May 2016, LUS now has a basis to develop the reserve. In addition, in 2016, LUS hired a consultant to perform an IRP and evaluate overall power supply options, including plans for potentially replacing or repowering Doc Bonin. The study was completed in November 2016, and recommended developing and installing new natural gas fired reciprocating engines at the Doc Bonin site.
- LUS' Electric System is highly reliable with reliability indices (i.e. SAIDI/SAIFI) significantly lower than the national average for electric utilities.

- Historically, the Utilities System CIP has been sufficient to sustain and improve the integrity and reliability of the system. The current CIP reflects certain deferred projects, which are not expected to have a material impact on the sufficiency of the CIP to maintain system reliability.
- As the Electric System became a MISO participant in December 2013, it has significantly benefited and improved LUS' power supply economics, operations, reliability, and eliminated prior transmission constraint issues. LUS has also realized greater flexibility in dispatching Rodemacher Unit 2 and its overall power supply mix.
- LUS worked with a new consultant in 2016 to prepare for the NERC CIP audit. Staff members took an active role in preparing RSAWS and internal policies/procedures; SPP auditors commented favorably on the preparation, dedication, and availability of LUS staff. LUS management feels that staff have more ownership of the process resulting in better performance across the organization.
- 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.
- A consistent approach to addressing the issue of replacing retirees and their knowledge base is key to the future success of the utility. Unfortunately, the problem is widespread for utilities across the country, further reducing the pool of available, qualified personnel. LUS is also constrained by civil service policies and therefore lags the competition in salaries. Compared with the regional oil and gas industry, LUS' advantages come down to job stability, location, quality of life, and home time.
- In terms of eliminating or re-allocating vacant positions, a personnel "slot" can move laterally or be down-graded within a utility division without Council approval. However, any reorganization (reducing plant manning, for example) requires civil service and 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.
- Important needs for staffing continue to include high voltage linemen, with five apprentice positions presently open; as of October 31, 2016, the ECS/NERC training coordinator position was filled, which is critical to keeping staff up to date on compliance and safety issues.
- 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.
- Electric System revenue collection mechanisms are misaligned with the cost structure. While approximately 45% of LUS' costs are fixed over the five-year average, only 14% of revenues are collected through fixed charges. Approximately 86% 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.

- The 2016 flood minimally impacted LUS customers, with only 2,000 out of service, reflecting LUS' quality of construction and maintenance. The majority of the outages were due to water entering pad-mounted fuse cabinets.
- In late FY2016, LPUA and LCG approved a phased in rate increase of 2.8% on November 1, 2016, and 2.8% on November 1, 2017.

SECTION 5
WATER SYSTEM

LUS provides potable water to approximately 55,851 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 2 water treatment facilities, 20 wells, elevated and ground treated-water storage, and 1,126 miles of distribution piping.

The LUS service area experienced severe rainfall and flooding in August 2016. 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.

Water System total sales in 2016 were 0.2% lower than 2015, driven by a decrease in retail water sales. Historical Water System volume sales are show in Table 5-1.

Table 5-1
Water System
Historical Retail and Wholesale Sales

Year	Retail Sales (1,000 gallons)	Wholesale Sales (1,000 gallons)	Total Sales (1,000 gallons)
2012	5,743,099	1,858,479	7,601,578
2013	5,494,648	1,893,375	7,388,023
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

Source: LUS Financial and Operating Statements, audited

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 U.S. 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 (the South and North Water Treatment Plants), 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 North Water Plant (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
Treatment Facilities (1)

Facility	Capacity (MGD) (1)
North Water Plant	20.8
South Water Plant	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	26.9

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

Sixteen deep well pumps located at the SWP and NWP provide the raw water supply for treatment at both facilities. The remaining four pumps are located remote 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 hypochlorite is added 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 Broussard, Youngsville, and Milton. 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 has purchased approximately eight acres adjacent to this site for the construction of ammonia removal facilities. At the current time, LUS is working on a pilot study at the Commission Boulevard site to determine the effectiveness of various technologies in the removal of the ammonia. Once the results of the study are completed, it is expected that design and construction of these additional facilities will occur as it is included in the LUS five-year CIP.

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.

5.3 Water Distribution and Storage

The water distribution system consists of 1,126 miles of pipe and the treated water storage totals approximately 15.25 MG. LUS also 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 4.3 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.

As the geographical service area and customer base have increased over the past several years, there has not been a corresponding increase in the amount and size of distribution lines. Current capacity and water pressure in the system is adequate. However, the past lack of distribution piping investment may become a limiting factor in the ability of LUS to provide sufficient water volume and pressure to meet the demands from future residential and commercial development. LUS has plans to address these future limitations and meet future capacity and pressure needs by constructing additional distribution improvements outlined in the CIP. Based on the FY2017 Adopted Operating and Capital Budget, distribution improvements for FY's 2017 to 2021 total $7.6 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.

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)

	2012	2013	2014	2015	2016
Miles of Main Lines	1,067	1,078	1,087	1,112	1,126
Number of Valves	21,638	22,167	22,493	22,793	23,230
Number of Hydrants	6,244	6,306	6,413	6,464	6,540

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 deployment for the Water System has experienced a relatively high level of malfunctions and meter failures. Although the meters are recording the water usage, the meters are not communicating the water usage to LUS for billing. Currently Honeywell is paying for manual meter reads to ensure uninterrupted water billing for LUS. Honeywell, via LUS, is actively replacing all meter modules in an effort to resolve performance problems, and as of March 2017, approximately 19% of the malfunctioning meters remain to be replaced. The replacement of the malfunctioning AMI water meters is expected to be completed in 2017; however, the schedule is dependent on the availability of replacement meters from the manufacturer. There is also a concern that the "gatekeepers," or devices that collect and transmit the meter data, may not be able to handle the amount of information collected. This is under investigation at the time of this Report.

While AMI water meter replacements continue, 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 agent 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

	2012	2013	2014	2015	2016
Normal Capital & Special Equipment	$704,254	$1,426,612	$1,980,021	$1,485,601	$1,433,461
Series 2010 Bonds	13,519,806	4,573,547	1,295,471	148,260	98,026
Retained Earnings	36,838	1,234,893	2,199,043	1,485,157	2,925,329
Total Capital	$14,260,898	$7,235,051	$5,474,535	$3,119,019	$4,456,815

Source: LUS, Status of Construction Work Order Reports.

5.6 Operations and Related Performance

Although the two water plants are each capable of producing over 20 MGD of treated water, the total amount of water delivered to customers is constrained by the distribution system limitations of maintaining acceptable pressure and sustained chlorine residual. LUS operates the two treatment plants for base load water treatment capacity with each plant producing an average of 10 to 12 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 2016, the system average day demand was 21.8 MGD, with a peak-day demand of 26.9 MGD.

The lost and not accounted for water increased from 6.4% of total treated water in 2015 to 7.4 % in 2016. 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

	2012	2013	2014	2015	2016
Not Accounted For	7.5%	11.0%	9.0%	6.4%	7.4%

Source: LUS Financial and Operating Statements, audited

The amount of lost and not accounted for water is within the range of acceptable industry standards of 15%, but this number may be affected by the ongoing issues with the installation and performance of the AMI meters. In addition, 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 Property Insurance Association of Louisiana (PIAL) in order to obtain or retain a higher fire insurance rating for the City. In addition, the 2013 LA DHH Emergency Rule was established to protect Water Systems from the effects of the Naegleria fowleri amoeba and has resulted in significant increases in flushing due to the requirement to maintain 0.5 milligram per liter (mg/l) of free or total chlorine to all extremities of the distribution system. The system also experienced two contractor-caused water main

breaks, both to a 12-inch pipe. This caused substantial water loss, and necessitated boil water notices due to the proximity of both breaks to local hospitals.

5.7 Regulatory and Environmental Compliance and Issues

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 NWP permit to discharge wastewater associated with the treatment of potable water is current and effective through January 1, 2020, at which point it is 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.

In November 2013, an LA DHH Emergency Rule for distribution systems went in to effect (which remains in effect at the time of this Report) requiring 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 of Louisiana. 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. Finally, the Water System has implemented the management and enforcement of 2014 LA DHH regulations for backflow prevention for individual users which were became null and void on January 1, 206. However, these regulations were adopted and enforced by the Louisiana State Uniform Construction Code Council. As the regulations may be re-implemented in future years as an Emergency Rule, LUS continues to maintain its backflow prevention program.

The tables below include excerpts from the 2015 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 2016	NA	NA	NA

Table 5-7
Water System
Monitored at Customer's Tap

Substance	Major Source in Drinking Water	U.S. EPA Designated Action Level (requires treatment) at 90th Percentile	LUS Results at 80th Percentile Testing
Lead	Corrosion of household plumbing systems; Erosion of natural deposits	15 ppb	1 ppb or less (1)

(1) No individual sample exceeded the Action Level.

Table 5-8
Water System
Contaminants Monitored in the Water Distribution System

DBP Contaminants	Typical Source	Maximum Contaminant Level	Maximum Contaminant Level Goal	LRAA	Range	Location
Haloacetic Acids (HAA5)	By-product of drinking water chlorination	60 ppb	0	2 ppb	0 – 2.6 ppb	Ambassador Caffery & W. Congress
Haloacetic Acids (HAA5)	By-product of drinking water chlorination	60 ppb	0	3 ppb	0 – 5.5 ppb	Gloria Switch Rd. & Arbor
Haloacetic Acids (HAA5)	By-product of drinking water chlorination	60 ppb	0	3 ppb	0 – 3.7 ppb	Kaliste Saloom & E. Broussard
Haloacetic Acids (HAA5)	By-product of drinking water chlorination	60 ppb	0	3 ppb	0 – 3 ppb	Thomas Nolan & Brigante
Haloacetic Acids (HAA5)	By-product of drinking water chlorination	60 ppb	0	2 ppb	0 – 1.6 ppb	Vennard & Valley View
Haloacetic Acids (HAA5)	By-product of drinking water chlorination	60 ppb	0	2 ppb	0 – 1.2 ppb	Walker & Doc Bonin
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	80 ppb	0	11 ppb	9.2 – 12.6 ppb	Ambassador Caffery & W. Congress
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	80 ppb	0	12 ppb	10.3 – 14.8 ppb	Gloria Switch Rd. & Arbor
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	80 ppb	0	11 ppb	8.3 – 12.9 ppb	Kaliste Saloom & E. Broussard

Table 5-8
Water System
Contaminants Monitored in the Water Distribution System

DBP Contaminants	Typical Source	Maximum Contaminant Level	Maximum Contaminant Level Goal	LRAA	Range	Location
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	80 ppb	0	8 ppb	3.5 – 14.1 ppb	Thomas Nolan & Brigante
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	80 ppb	0	10 ppb	7.9 – 12.8 ppb	Vennard & Valley View
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	80 ppb	0	9 ppb	8.3 – 9.3 ppb	Walker & Doc Bonin

Source: 2015 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
Coliform	Naturally present in the environment	MCL: Systems that collect 40 or more samples per month – no more than 5% positive monthly samples	0	In the month of November, 0.81% of samples returned as positive

Source: 2015 Water Quality Report

Table 5-10
Water System
Substances Monitored Before Any Treatment

Substance	Major Source in Drinking Water	U.S. EPA Designated Contaminant Level	U.S. EPA Designated Max Contaminant Level Goal	LUS Range	LUS Max
Arsenic	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes	10 ppb	0 ppb	2 ppb	2 ppb
Barium	Discharge of drilling wastes, discharge from metal refineries, erosion of natural deposits	2 ppm	2 ppm	0.37 ppm	0.16 -0.37 ppm
Fluoride	Erosion of natural deposits; discharge from fertilizer and aluminum factories	4 ppm	4 ppm	0.32 ppm	0.25 - 0.32 ppm
2-ethylhexyl Phthalate	Discharge from rubber and chemical factories	6 ppb	0 ppb	1.9 ppb	1.9 ppb
Nitrate-Nitrite	Runoff from fertilizer, use; leaching from septic tanks, sewage; erosion of natural deposits	10 ppm	10 ppm	0.059 ppm	0.031 – 0.059 ppm
Oxamyl	Runoff/leaching from insecticide used on apples, potatoes, and tomatoes	200 ppb	200 ppb	1.6 ppb	1.6 ppb
p-Dichlorobenzene	Discharge from industrial chemical factories	75 ppb	75 ppb	0.25 ppb	0.25 ppb
Combined Radium (-226 & -228)	Erosion of natural deposits	5 pCi/L	0 pCi/L	1.84 pCi/L	0.597 – 1.84 pCi/L
Gross Alpha, Incl. Radon & U				7.42 pCi/L	7.42 pCi/L
Gross Beta Particle Activity	Decay of natural and man-made deposits	50 pCi/L	0 pCi/L	4.83 pCi/L	1.43 – 4.83 pCi/L

Source: 2015 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 as a wholesale provider. Wholesale services are 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 Water District North, Water District South, the City of Scott, the City of Broussard, Milton Water System, and the Town of Youngsville. Water service to Water District North customers is billed by LCG in the name of the Water District North consistent with the applicable rate schedules. Both the North and South Water Districts construct their own additions and extensions according to standards set by LUS.

These wholesale customers represented 28% of the total water volume and 26% of total water sales revenue in 2016. 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. Each of the contracts is a long-term contract between 25 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 remaining contracts are set to expire after 2031.

One wholesale customer is pursuing an alternate water source and intends to self-produce all water needs by 2018. Tables 5-11 and 5-12 summarize the historical wholesale water volume sales and revenues by customer.

Table 5-11
Water System
Wholesale Water Sales by Customer (1,000 gallons)

Wholesale Customer	2012	2013	2014	2015	2016
Town of Scott	311,687	303,163	317,233	323,792	331,260
Town of Broussard	210,752	223,410	236,643	245,222	236,605
Town of Youngsville	175,531	206,380	252,036	306,747	314,452
Milton Water System	200,614	217,106	221,717	242,354	245,279
Water District North	434,875	447,185	454,474	458,144	458,802
Water District North - Wholesale	204,309	210,055	220,900	234,629	228,077
Water District South	320,711	286,076	301,352	305,657	303,152
Total Wholesale Water Sales	1,858,479	1,893,375	2,004,355	2,116,545	2,117,627
Total Water Sales (Wholesale and Retail)	7,601,578	7,388,023	7,430,763	7,536,303	7,520,277
Percent of Total Sales from Wholesale	24%	26%	27%	28%	28%

Source: LUS Financial and Operating Statements, audited

Table 5-12
Water System
Wholesale Water Revenues by Customer

Customer	2012	2013	2014	2015	2016
Town of Scott	$549,046	$541,993	$615,448	$637,536	$711,851
Town of Broussard	358,508	134,284	448,489	472,174	503,623
Town of Youngsville	310,367	363,542	490,485	589,515	665,814
Milton Water System	376,443	379,217	425,974	463,288	516,698
Water District North	1,132,361	1,126,195	1,188,663	1,208,192	1,210,188
Water District North - Wholesale	418,541	372,510	422,504	450,483	483,261
Water District South	545,570	507,673	572,712	584,882	645,213
Total Wholesale Water Revenues	$3,690,835	$3,425,414	$4,164,275	$4,406,071	$4,736,650
Total Water Revenues (Wholesale and Retail)	$17,704,385	$17,394,122	$17,746,170	$18,028,081	$18,286,651
% of Total Revenues from Wholesale	21%	20%	23%	24%	26%

Source: LUS Financial and Operating Statements, audited

Table 5-13 summarizes the terms of each wholesale customer agreement.

Table 5-13
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
Water 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		July 31, 2020
Milton Water System	April 28, 1997	40	April 28, 2037
City of Carencro (1)	March 28, 1980		
Town of Youngsville	December 24, 1998	40	December 24, 2038
Water District South	August 21, 1997	40	August 21, 2037

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 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 5-14
Water System
Residential Rate Comparison

Utility	Average $/1,000 gallon (1)
LUS	$2.20
Alexandria	$2.73
Lake Charles	$3.30
Shreveport	$3.86
Baton Rouge	$4.23
New Iberia	$4.79
New Orleans	$6.27

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

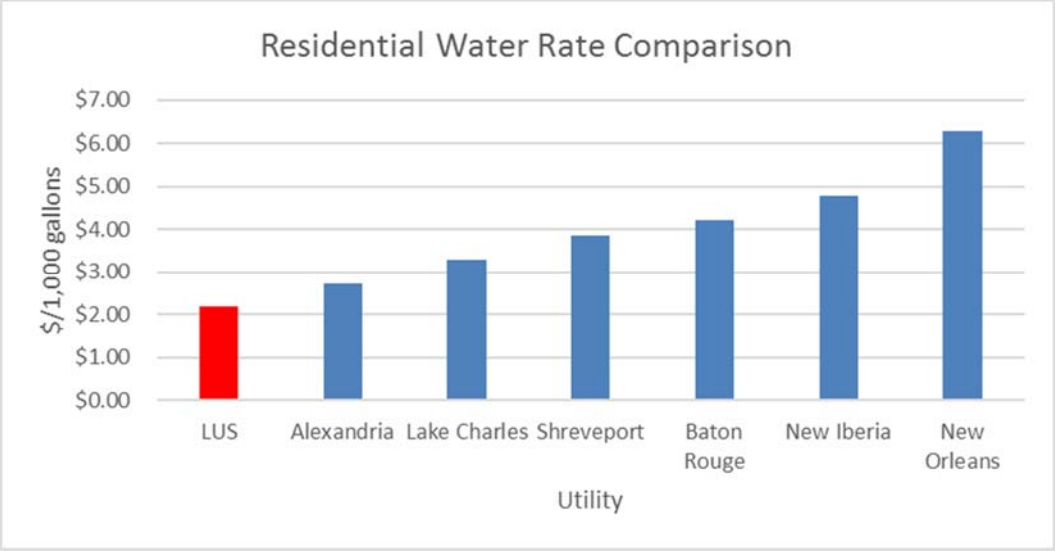


Figure 5-1: Water System – Residential Rate Comparison

Table 5-15
Water System
Commercial Rate Comparison

Utility	Average $/1,000 gallons (1)
LUS	$2.50
Alexandria	$3.07
Shreveport	$3.78
Baton Rouge	$3.87
New Iberia	$4.12
Lake Charles	$4.15
New Orleans	$6.65

Source: LUS
(1) Assumes monthly consumption of 30,000 gallons and a 2-inch meter.

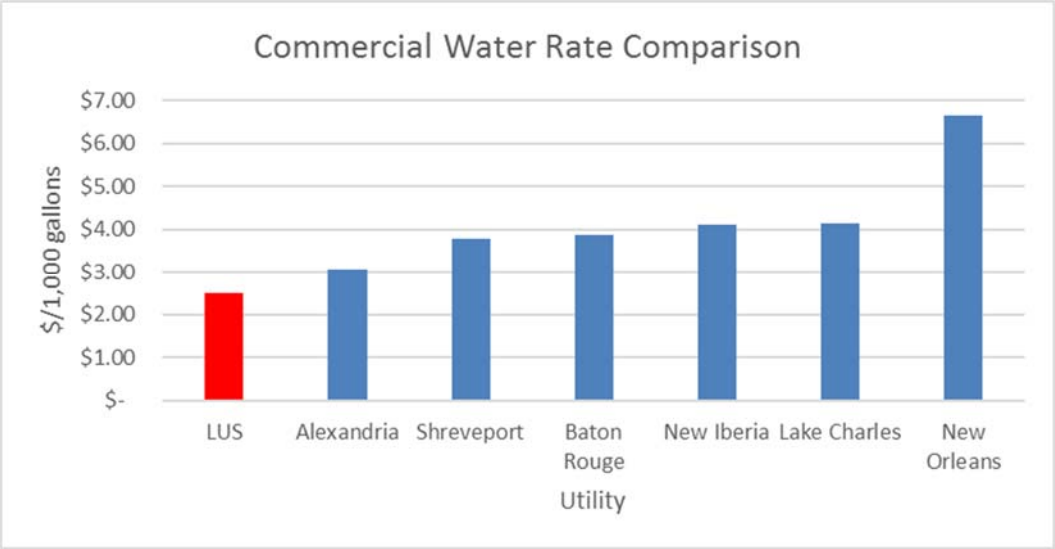


Figure 5-2: Water System – Commercial Rate Comparison

Benchmarking Financial and Operating Statistics

Table 5-16 benchmarks selected financial and operating ratios for LUS with other large municipal water utilities nationwide. The data was provided by the *AWWA Benchmarking Performance Indicators for Water and Wastewater, 2015 Data published 2016*. 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 5-16. 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 5-16, LUS has a healthy Debt to Total Equity compared to the National and Regional averages. LUS' current and historical DSCR is above that of the National and Regional average for water utilities. LUS' operating costs on a MGD basis are considerably lower than the regional average.

Table 5-16
Water System
Benchmarked Water Utility Operating Ratios

		National(1)	Regional	LUS	
Statistics	Basis	2015	2015	2015	2016
Operational Costs per MGD	Water	$2,957	$2,044	$1,620	$1,688
Debt to Equity (Total Assets)	Combined	0.36	0.35	0.38	0.37
Operating Ratio (O&M cost/ Operating revenue)	Water	0.58	0.55	0.73	0.75
Operating Ratio (O&M cost/ Operating revenue)	Combined	0.72	0.54	0.72	0.73
Cash Reserve Days (2)	Combined	272	215	60	64
Debt Service Coverage	Water	2.23	2.50	2.88	2.68
Debt Service Coverage	Combined	2.34	1.46	2.99	2.76

(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

Current Water System debt service includes the Series 2010 Bonds and Series 2012 Bonds. Table 5-17 shows historical debt service and the associated DSCR. The DSCR exceeds the minimum requirement of 1.0.

Table 5-17
Water System
Historical Financial Performance

Year	Operating Revenues [1]	Operating Expenses [2]	Balance Available for Debt Service	Debt Service [3]	Debt Service Coverage Ratio
2012	$17,803,423	$12,136,044	$5,667,379	$1,160,387	4.9
2013	$17,559,754	$11,948,312	$5,611,442	$1,802,140	3.1
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

Source: LUS Financial and Operating Statements, audited
(1) Includes interest income and other miscellaneous income.
(2) O&M and other expenses include customer service, and administrative and general costs. Operating expenses do not include ILOT normal capital and special equipment, and other miscellaneous expenses.
(3) Debt service includes the Series 2004 Bonds, Series 2010 Bonds, and Series 2012 Bonds.

Rate Structure

The Water System services retail and wholesale customers. Wholesale customers accounted for 26% of the water revenues in 2016.

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.

Wholesale

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

Table 5-18
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 2010	3/4	4.25	1.59	1.59	2.54	NA
			1	7.25	1.59	1.59	2.54	NA
			1 1/2	14.00	1.59	1.59	2.54	NA
			2	22.50	1.59	1.59	2.54	NA
			3	42.50	1.59	1.59	2.54	NA
			4	71.00	1.59	1.59	2.54	NA
			6	141.50	1.59	1.59	2.54	NA
			8	226.50	1.59	1.59	2.54	NA
W-1-O	Residential Non-City	Nov 2010	3/4	8.50	3.18	3.18	5.08	NA
			1	14.50	3.18	3.18	5.08	NA
			1 1/2	28.00	3.18	3.18	5.08	NA
			2	45.00	3.18	3.18	5.08	NA
W-2	Commercial	Nov 2010	3/4	4.25	NA	NA	NA	1.75
			1	7.25	NA	NA	NA	1.75
			1 1/2	14.00	NA	NA	NA	1.75
			2	22.50	NA	NA	NA	1.75
			3	42.50	NA	NA	NA	1.75
			4	71.00	NA	NA	NA	1.75
			6	141.50	NA	NA	NA	1.75
			8	226.50	NA	NA	NA	1.75
W-2-O	Commercial Non-City	Nov 2010	3/4	8.50	NA	NA	NA	3.50
			1	14.50	NA	NA	NA	3.50
			1 1/2	28.00	NA	NA	NA	3.50
			2	45.00	NA	NA	NA	3.50

Source: LUS Rate Schedules

LUS conducted 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, and will increase again November 1, 2017. The rates being implemented in 2016 and 2017 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. The Water System rates were approved by LPUA to increase by 7.4% in 2016 and 7.2% in 2017.

Water Retail Revenue Statistics

Table 5-19 shows the Water System revenues. Since 2012, the total retail revenues have decreased by an average annual rate of 0.5%.

The number of customers has consistently increased at approximately 1.2% per year with the highest customer growth in the residential customer class. The revenue per customer since 2012 has also steadily decreased at 1.7% annually.

The total retail gallon sales have decreased by average of 1.5% annually. The gallon sales per customer have also decreased overall by 2.7%. The residential class has decreased their usage per customer on average by 2.3% per year. Increases in plumbing fixture efficiency and conservation measures are likely contributing to this decrease.

Since 2012, the revenue per gallon has slightly increased at 1.0% per year.

Table 5-19
Water System
Retail Revenues by Class

	2012	2013	2014	2015	2016
Revenues					
Residential	$7,435,833	$7,401,378	$7,295,912	$7,463,132	$7,426,141
Commercial	5,421,822	5,360,595	5,211,797	5,091,137	5,092,632
Schools & Churches	475,915	445,175	443,622	461,676	500,405
Other	158,269	163,199	167,679	191,849	210,500
Total	$13,491,838	$13,370,347	$13,119,010	$13,207,794	$13,229,678
Number of Customers					
Residential	40,300	40,979	41,463	41,825	42,393
Commercial	6,316	6,386	6,448	6,451	6,550
Schools & Churches	302	298	299	290	297
Other	281	282	284	285	283
Total	47,199	47,945	48,495	48,851	49,524
Revenue per Customer					
Residential	$185	$181	$176	$178	$175
Commercial	858	839	808	789	777
Schools & Churches	1,577	1,492	1,483	1,592	1,683
Other	563	579	590	674	743
Total ($/Customer)	$286	$279	$271	$270	$267
Sales (1,000 gallons)					
Residential	2,861,325	2,824,456	2,744,325	2,779,361	2,737,573
Commercial	2,571,372	2,383,034	2,388,538	2,342,305	2,334,596
Schools & Churches	236,972	213,571	216,425	210,700	231,962
Other	73,430	73,587	77,120	87,392	98,519
Total	5,743,099	5,494,648	5,426,408	5,419,758	5,402,650
Sales (1,000 gallons) per Customer					

Table 5-19
Water System
Retail Revenues by Class

	2012	2013	2014	2015	2016
Residential	71	69	66	66	65
Commercial	407	373	370	363	356
Schools & Churches	785	716	724	726	780
Other	261	261	271	307	348
Total	122	115	112	111	109
Revenue per 1,000 gallons					
Residential	$2.60	$2.62	$2.66	$2.69	$2.71
Commercial	2.11	2.25	2.18	2.17	2.18
Schools & Churches	2.01	2.08	2.05	2.19	2.16
Other	2.16	2.22	2.17	2.20	2.14
Total ($/1,000 Gallons)	$2.35	$2.43	$2.42	$2.44	$2.45

Source: LUS Financial and Operating Statements, audited

Expense Analysis

Table 5-20 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 Administrative and General 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 5-20, 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 5-20
Water System
Historical Fixed and Variable Expense Summary

	2012	2013	2014	2015	2016
Variable Expenses					
Power & Pumping	$521,379	$567,455	$593,307	$514,060	$474,683
Purification	1,918,190	1,828,790	2,308,416	2,452,455	2,624,435
Total Variable Expenses	$2,439,569	$2,396,245	$2,901,723	$2,966,515	$3,099,118
Fixed Expenses					
Source of Supply	$169,170	$188,329	$186,174	$169,594	$185,999
Power & Pumping	305,082	430,958	323,339	313,576	327,040
Purification	1,384,245	1,387,306	1,579,886	1,703,658	1,853,514
Distribution	2,283,844	2,225,306	2,312,791	2,297,316	2,538,366
Customer	1,304,443	1,161,549	1,084,155	1,158,987	1,149,579
A&G	4,249,690	4,158,620	4,562,251	4,489,593	4,607,489
Total Fixed	$9,696,475	$9,552,067	$10,048,596	$10,132,724	$10,661,987
Total Fixed & Variable	$12,136,044	$11,948,312	$12,950,319	$13,099,239	$13,761,106
Percent Variable	20%	20%	22%	23%	23%
Percent Fixed	80%	80%	78%	77%	77%

Source: LUS Financial and Operating Statements, audited

5.11 Findings and Recommendations

- Water sales to wholesale customers have remained steady to increasing over the past five years. As wholesale water sales continue and are projected to increase, it will place added pressure on the distribution system, which could accelerate the need for capital upgrades. In addition to capital upgrades, additional wholesale customer sales volume management may be required to maintain adequate pressure in the system.
- While total water production remains stable, the wholesale water sales have increased at an annual average rate of approximately 3.3% and retail sales have declined. Wholesale customers have required an increasing percentage of the total water produced and this trend is expected to continue. 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.
- If the City of Broussard discontinues purchasing water from LUS when the contract expires in 2020, there will be a reduction in the amount of wholesale volume sales as well as a reduction in corresponding revenues. 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.

- Due to the changes to the Water System from growth and the potential withdrawal of Broussard from the system, LUS plans to update its Water System Master Plan, beginning sometime in late 2017.
- The Wholesale Water System sales volume has remained stable over the past few years; however, the corresponding revenues have increased due to wholesale rate increases.
- 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. 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.
- At the time of this Report, the State of Louisiana has rescinded the requirements of the backflow prevention program, however, these regulations were adopted and enforced by the Louisiana State Uniform Construction Code Council. LUS has already achieved compliance with the mandate, and will continue to follow these requirements.
- The AMI deployment for the Water System has experienced a relatively high level of malfunctions and meter failures. Honeywell continues to read all meters at no cost to the Water System. Honeywell has also agreed to replace all meter modules in an effort to resolve performance problems and approximately 19% of the remaining malfunctioning meters are left to be replaced. LUS should continue to work with Honeywell to resolve this issue. This includes the current investigation as to the capacity of the "gatekeepers" to collect and transmit data.
- 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.
- The LUS service area experienced severe rainfall and flooding in August 2016. The Water System experienced flooding at the South Water Plant, 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.

- In late FY2016, LPUA and LCG approved a phased in rate increase of 7.4% on November 1, 2016, and 7.2% on November 1, 2017.

SECTION 6
WASTEWATER SYSTEM

LUS provides wastewater services to 44,269 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. 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.

The LUS service area experienced severe rainfall and flooding in August 2016. The LUS Wastewater System experienced several sewage pump station outages due to flooding of electrical equipment. Generators were used to keep the pump stations operational while repairs were made. Although the flood event was severe, LUS experienced minimal damage to the Wastewater System.

Wastewater System collection volumes increased in 2016 by 9.3% from 2015 collection volumes. Collection volumes in 2016 are higher than the observed collection volumes over the 2012–2015 historical period. The increases to flows are attributed primarily to the frequency of wet weather events during the year in addition to an increase in customers. Historical Wastewater System collection volumes are shown in Table 6-1.

Table 6-1
Wastewater System
Historical Retail Collection

Year	Retail Collection (1,000 gallons) [1]
2012	5,448,397
2013	5,730,473
2014	5,476,065
2015	5,734,225
2016	6,267,402

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

6.1 Wastewater Treatment

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

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

	Reported 2016 (1)	Permitted Capacity
South Sewage Treatment Plant	5.67	7.0
East Sewage Treatment Plant	3.63	4.0
Ambassador Caffery Treatment Plant	6.53	6.0 (2)
Northeast Treatment Plant	1.28	1.5
Totals	17.1	18.5

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

South Sewage Treatment Plant

The SSTP is an activated sludge facility with a permitted capacity of 7.0 MGD, but is currently operating at an average flow of 5.0 MGD. There is approximately 5.0 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.

The SSTP is LUS' least efficient WWTP, but following the recent purchase of additional land surrounding the existing site, it is also the only treatment facility with sufficient acreage available for construction of additional retention and treatment facilities. LUS plans to expand the existing SSTP in order to be able to serve growth in the system, and to assimilate the potential addition of packaged 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.

Design plans have been prepared for construction of the expansion project, and design and construction of other projects to address such issues as expansion of influent head-works capacity, odor control, wet-weather flow retention or side-stream storage requirements, and increased sludge treatment capacity, all of which are included in the five-year 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 expected in March 2017. 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 U.S. 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. Fortunately, the abandoned tankage and structure remain intact and are capable of being refitted and restored to full operation.

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 I&I of the collection system.

6.2 Wastewater Collection

The collection system consists of 570 miles of gravity sewer collector pipes and interceptors, 12,313 sanitary sewer manholes, 179 sanitary sewer lift stations, and 89 miles of sewer force mains. Table 6-3 summarizes the Wastewater System collection system infrastructure.

Table 6-3
Wastewater System
Wastewater Collection System Infrastructure

	2012	2013	2014	2015	2016
Number of Connections	42,476	42,891	43,068	43,521	44,269
Miles of Pipe (1)	621	630	637	649	659
Number of Manholes	11,635	11,813	11,937	12,145	12,313
Number of Lift Stations	152	157	164	176	179

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

As the City 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 179 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 2016 is due to new development

throughout the LUS Wastewater System service area. As new development requests for inclusion into the Wastewater System that include sewer lift station facilities are submitted to LUS, 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 criticize 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 90 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 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, 15 package wastewater treatment plants are now operated and maintained as LUS' Wastewater System infrastructure, with two or three additional package plants likely to be added in 2017. Each of the package plants carries 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 packaged plant integration capacity will be provided by the future SSTP and Wastewater System expansions should those service areas be able to 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 (lift stations/interceptors).

Table 6-4
Wastewater System
Historical CIP

	2012	2013	2014	2015	2016
Normal Cap & Spec Equipment	$141,677	$1,408,042	$1,416,765	$2,097,944	$1,524,624
Series 2010 Bonds	7,023,329	5,982,907	933,223	2,984,526	98,009
Retained Earnings	175,978	2,490,121	1,554,647	2,174,335	2,294,350
Total Capital	$7,340,984	$9,881,071	$3,904,635	$7,256,805	$3,916,983

Source: LUS, Status of Construction Work Order Reports.

6.4 Operations and Related Performance

In 2016, the average daily wastewater volume treated by the four plants was 7.1 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. At times, 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 eight times in 2016.

These infrequent periods of flows exceeding ACTP's permitted levels are within the plant's treatment capacity limits and does not inhibit or negatively impact the Wastewater System's operations. It is not uncommon for wastewater utilities to occasionally exceed permitted discharge limits for brief periods of time during such events as emergency operations, accommodating repairs and replacements in the system, or during excessive precipitation events.

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'. LUS periodically addresses I&I issues at the most problematic areas through its renewal and replacement system. LUS continues to maintain a periodic Closed Circuit Television Video (CCTV) inspection program using remote cameras to inspect pipes for replacement. The CCTV work is performed by two professional service providers and represents approximately $300,000 per year in the annual Wastewater System O&M expense budget. Including CCTV work, LUS spends approximately $1 million per year on inspection and rehabilitation of sanitary sewer facilities. 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.

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 2016.

Waste sludge is transported and land 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.

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. While potential land has been identified, LUS has not yet pursued the purchase of a 300-acre site. 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. Class A sludge treatment relegates the biosolids useless as a fertilizer, thus would be disposed of as a soil amendment.

6.5 Regulatory and Environmental Compliance and 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 run the majority of the tests necessary for potable water quality reports and wastewater discharge monitoring reports (DMR). Some exceptions to this include specialty testing such as Whole Effluent Toxicity, toxicity characteristic leaching procedures (TCLP), HAA5, and TTHM. Environmental staff reports that current staffing levels are adequate 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.

All wastewater systems in Louisiana are required to file an annual Municipal Water Pollution Prevention (MWPP) 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. In 2016, LUS exceeded the design flow capacity at SSTP two times, ESTP one time, NETP one time, and ACTP eight times. Biological loading was exceeded only one time at the ESTP. The flow exceedances at SSTP, ESTP, and NETP 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. A portion of the eight flow exceedances at ACTP were due to temporary diversion of wastewater from the SSTP to ACTP to facilitate construction improvements to the collection system. These improvements have been completed, and the diversion has ceased

with all flows returning to SSTP. The completion of the 24-inch force main from ACTP to SSTP will also contribute to managing and reducing the number of exceedances each year. 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 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	2012	2013	2014	2015	2016
Flow					
South Plant	0	1	0	2	2
East Plant	0	1	0	3	1
Ambassador Caffery Plant (1)	9	4	6	5	8
Northeast Plant	0	0	0	0	1
Biological Loading					
South Plant	0	0	1	0	0
East Plant	0	0	0	0	1
Ambassador Caffery Plant	0	0	0	0	0
Northeast Plant	0	0	0	0	0

Source: LUS

(1) Flow exceedances are due in part to 1.5 MGD rerouted from SSTP to ACTP via the Verot School Rd. lift station to facilitate construction of improvements to the Old Maurice L.S. and the 24-inch F.M. This project was completed in 2015, and 2.0 MGD will be rerouted from ACTP back to SSTP.

The Clean Water Act of 1972 (CWA) requires all states to participate in the National Pollutant Discharge Elimination System (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 (CBOD) 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 (TMDL) standards set for the Vermilion River in 2003.

All LUS wastewater treatment plants were re-permitted in October and November 2014 at 10 mg/l CBOD, 15 mg/l TSS, and 5 mg/l NH_3. The LPDES permits are valid for five years. The quality of various discharge parameters of each treatment unit are recorded on DMRs and submitted monthly to LDEQ. The 2016 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 2016.

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 wastewater rates are slightly higher than the average of 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	$2.20
Lake Charles	$4.33
New Iberia	$4.78
Baton Rouge	$5.63
LUS	$6.45
Shreveport	$8.08
New Orleans	$8.35

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

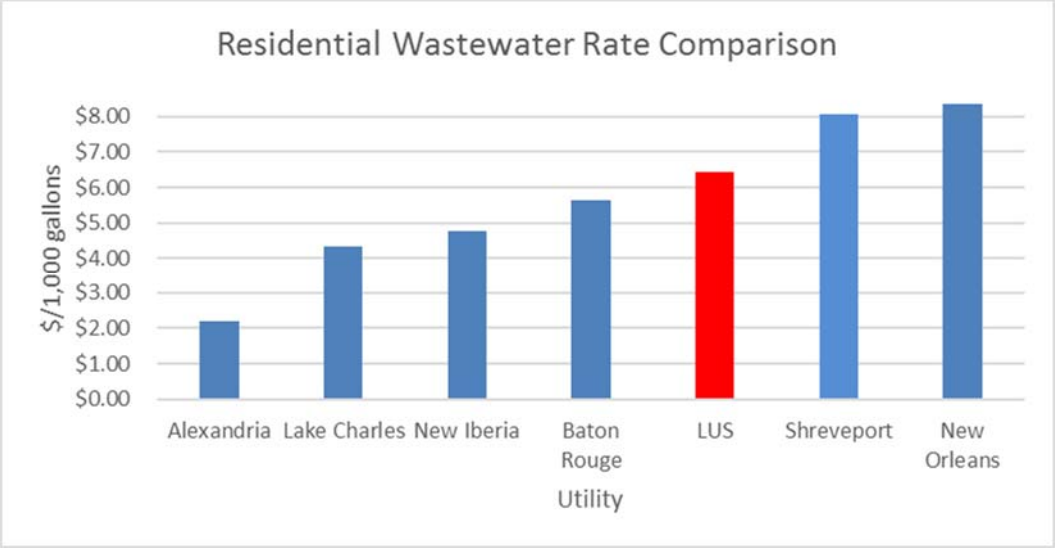


Figure 6-1: Wastewater System – Residential Rate Comparison

Table 6-7
Wastewater System
Commercial Rate Comparison

Utility	Average $/1,000 gallon (1)
Alexandria	$2.12
Lake Charles	$3.88
LUS	$6.20
Baton Rouge	$7.06
Shreveport	$7.46
New Orleans	$9.00

Source: LUS
(1) Assumes monthly consumption of 30,000 gallons and a 20-inch meter.

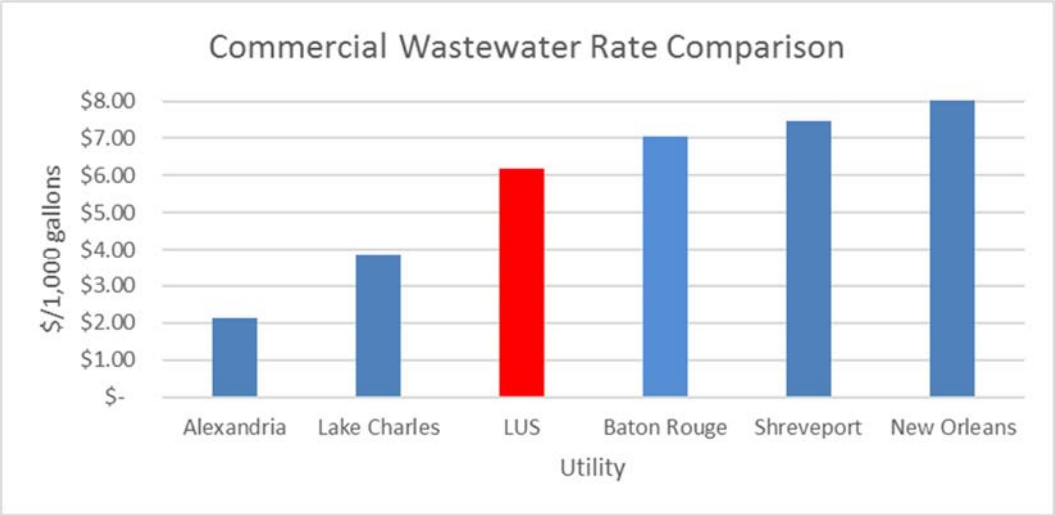


Figure 6-2: Wastewater System – Commercial Rate Comparison

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 Benchmarking Performance Indicators for Water and Wastewater, 2015 Data published 2016. 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 10,001 to 50,000 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 has a larger Debt to Equity compared to the National and Regional averages. LUS' current and historical DSCR for wastewater is significantly above that of the National and Regional average for wastewater utilities. However, LUS' operating costs are higher than regional and national averages, which also contributes to higher operating ratios and reduced cash reserve levels.

Table 6-8
Wastewater System
Benchmarked Wastewater Utility Operating Ratios

		National(1)	Regional	LUS	
Statistic	Basis	2015	2015	2015	2016
Operational Costs per MGD	Wastewater	$2,717	$2,059	$3,063	$2,919
Debt to Equity (Total Assets)	Combined	0.28	0.35	0.38	0.37
Operating Ratio (O&M cost/ Operating revenue)	Wastewater	0.66	0.53	0.62	0.64
Operating Ratio (O&M cost/ Operating revenue)	Combined	0.53	0.54	0.72	0.73
Cash Reserve Days (2)	Combined	332	215	60	64
Debt Service Coverage	Wastewater	1.25	1.63	2.47	2.35
Debt Service Coverage	Combined	7.40	1.46	2.99	2.76

(1) National AWWA benchmarks for wastewater and combined water and wastewater utilities with 10,001 to 50,000 customers to align with the Wastewater System customer served.
(2) Based on total O&M for Electric, Water, and Wastewater Systems less fuel and purchased power expenses.

6.8 Historical Financial Performance

Current Wastewater System debt service includes the Series 1996 LDEQ debt, Series 2010 Bonds, and Series 2012 Bonds. Table 6-8 shows historical debt service and the associated DSCR. The DSCR exceeds the minimum requirement of 1.0.

Table 6-9
Wastewater System
Historical Financial Performance

Year	Operating Revenues (1)	Operating Expenses (2)	Balance Available for Debt Service	Debt Service (3)	Debt Service Coverage Ratio
2012	$29,313,577	$16,144,199	$13,169,378	$3,411,437	3.9
2013	$28,893,980	$16,305,244	$12,588,736	$4,617,384	2.7
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

Source: LUS Financial and Operating Statements, audited.
(1) Includes interest income and other miscellaneous income.
(2) O&M and other expenses include customer service, and administrative and general costs. Operating expenses do not include ILOT, normal capital, special equipment, and other miscellaneous expenses.
(3) Debt service includes the 1996 LDEQ debt, the Series 2004 Bonds, Series 2010 Bonds, and Series 2012 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.

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 2010	$6.49	$5.52
S-1-O	Residential Non-City	Nov 2010	$6.72	$6.79
S-2	Commercial	Nov 2010	$16.14	$5.66
S-2-O	Commercial Non-City	Nov 2010	$24.31	$6.51

Source: LUS Rate Schedules

LUS conducted a rate study in 2016, which showed that the Wastewater System rates were insufficiently recovering all costs. As a result, the Wastewater System rates increased November 1, 2016 and will increase again November 1, 2017. The rates being implemented in 2016 and 2017 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. The Wastewater System rates were approved by LPUA to increase by 6.1% in 2016 and 5.7% in 2017.

Wastewater Revenue Statistics

Table 6-11 shows the Wastewater System revenues. Since 2012, the revenues have slightly decreased. This is expected as the wastewater billing units are tied to the Water System sales and the Water System sales have also slightly decreased over the five-year period. The number of customers consistently increased at approximately 1.3% per year with the highest customer growth in the residential customer class. The nearly flat revenues and increase in number of customers results in the revenue per customer steadily decreased at 1.6%. The total billed gallons decreased by an average of 1.2% annually. The billed gallons per customer also decreased, with an annual average of 2.5%. Since 2012, the revenue per gallon has increased on average 1% per year.

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 $400,000 in 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 evaluating options to begin recovering these previously uncollectible accounts, in addition to preventing and ensuring that the amount of uncollectible Wastewater revenue is reduced in the future.

Table 6-11
Wastewater System
Retail Revenues by Class

	2012	2013	2014	2015	2016
Revenues					
Residential	$15,407,570	$15,248,092	$15,239,932	$15,383,027	$15,428,467
Commercial	12,214,595	11,899,444	11,829,389	11,631,865	11,669,904
Schools & Churches	1,110,237	1,067,615	1,074,254	1,080,667	1,213,052
Other	129,268	167,412	172,821	209,198	211,356
Total	$28,861,669	$28,382,562	$28,316,395	$28,304,757	$28,522,778
Number of Customers					
Residential	36,539	37,060	37,494	37,919	38,569
Commercial	5,135	5,154	5,201	5,238	5,328
Schools & Churches	259	258	259	252	257
Other	116	115	115	114	115
Total	42,049	42,586	43,068	43,521	44,269
Revenue per Customer					
Residential	$422	$411	$406	$406	$400
Commercial	2,379	2,309	2,275	2,221	2,190
Schools & Churches	4,292	4,146	4,154	4,294	4,719
Other	1,115	1,453	1,502	1,843	1,838
Total	$686	$666	$657	$650	$644

Source: LUS Financial and Operating Statements, audited

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 Administrative and General 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

	2012	2013	2014	2015	2016
Variable Expenses					
Collection	$296,710	$360,500	$382,017	$365,217	$366,371
Treatment	1,377,004	1,331,869	1,466,968	1,391,904	1,350,099
Total Variable Expenses	$1,673,714	$1,692,369	$1,848,984	$1,757,121	$1,716,470
Fixed Expenses					
Collection	$3,147,379	$3,575,038	$3,498,088	$3,722,893	$4,095,630
Treatment	4,485,606	4,569,081	5,346,618	5,265,725	5,565,525
Customer	1,279,553	1,260,125	1,161,544	1,208,820	1,347,623
A&G	5,557,947	5,208,631	5,573,130	5,612,123	5,569,902
Total Fixed Expenses	$14,470,485	$14,612,875	$15,579,380	$15,809,562	$16,578,681
Total Fixed & Variable	$16,144,199	$16,305,244	$17,428,365	$17,566,682	$18,295,151
Percent Variable	10%	10%	11%	10%	9%
Percent Fixed	90%	90%	89%	90%	91%

Source: LUS Financial and Operating Statements, audited

6.9 Findings and Recommendations

- As wastewater collection and transmission infrastructure continues to age, I&I and system overflows will remain an important infrastructure issue. Efforts to address and control I&I and overflows should continue to be a priority.
- LUS staff reported in 2015 that water meter flow data required to assess water and wastewater billing rates to customers within a wholesale customer's service area was not provided to LUS by the wholesale customer in certain instances. According to LUS staff, this data was supplied as needed in 2016, which will assist in accurate billing to customers in these areas.
- SCADA control and feedback from the operating units, especially lift stations, has not been fully implemented, although progress was made in 2016. 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 if the lessors of the land begin cancelling agreements, and as additional outlying package treatment plants are integrated with the Wastewater System. 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 taken into consideration:

  - 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 would be in the $4.0 million range.

  - The cost for lime required in the Class A process will 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 currently plans an update to the Wastewater Master Plan in FY 2018–19 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 the near future, the Department will convert to a web-based version of the program. At this time, LUS' Environmental Compliance Department plans to implement that version of CityWorks 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.
- LUS is currently evaluating guidance from the U.S. EPA regarding national air emission standards for hazardous pollutants. The guidance is currently in a comment period, which ends in March 2017. Depending on the final guidance, criteria will be set that may require wastewater treatment facilities to have an air emissions permit. This process should be followed closely in the upcoming year to evaluate if LUS has any facilities that may fall under this guidance.
- The LUS service area experienced severe rainfall and flooding in August 2016. The LUS Wastewater System experienced several sewage pump station outages due to flooding of electrical equipment. Generators were used to keep the pump stations operational while repairs were made. Although the flood event was severe, LUS experienced minimal damage to the Wastewater System.
- 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 $400,000. 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 evaluating options to begin recovering these previously uncollectible accounts, in addition to preventing and ensuring that the amount of uncollectible Wastewater revenue is reduced in the future.
- In late FY2016, LPUA and LCG approved a phased in rate increase of 6.1% on November 1, 2016, and 5.7% on November 1, 2017.

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 (www.emma.msrb.org). 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

Any governmental entity that issues 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, 2016:

- Utilities Revenue Bonds, Series 2010
- Utilities Revenue Bonds, Series 2012

The continuing disclosure agreement for the outstanding bonds requires that specific tables contained in the Official Statements must be updated annually. This section contains the required tables. This section 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 approved 2017 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, 2016 through October 31, 2026. LUS provided actual historical data for the FY 2012 through FY 2016.

Information and Assumptions Relied Upon

The projected operating results for the Utilities System rely upon the following information and assumptions gather 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 means 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. As required, LUS will provide training to personnel to ensure the safety and reliability of the utility.

3. NewGen assumed LUS will maintain and renew any required permits or approvals related to the utility including power, 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.

5. MISO approved the retirements of Doc Bonin Units 2 and 3, effective April 1, 2017. In 2016, LUS hired a consultant to perform an integrated resource plan (IRP) and evaluate overall power supply options, including plans for potentially replacing or repowering Doc Bonin. The study was completed in November 2016, and recommended developing and installing new natural gas fired reciprocating engines at the Doc Bonin site. LUS has extended existing capacity contracts to meet near term capacity requirements, while the replacement of the Doc Bonin Plant will support longer term capacity requirements in MISO. Based on the IRP, we included the proposed natural gas fired reciprocating engines in our Projected Period.

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

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

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

9. NewGen assumed that all existing contracts will be honored.

10. NewGen assumed standard operating procedure for LUS and did not include the effects of any event outside of LUS' control including 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, LCG, LPPA, interviews with LUS, LCG, and Cleco staff, and visual observations of the Utilities System facilities. Data provided by LUS, LCG, LPPA, and Cleco includes historical financial and operating data for years 2012–2016, 2017 Budget, and an LPPA Operating and Capital Budget.

16. For MISO market purchases and sales, NewGen relied upon a MISO hourly price forecast developed by S&P Global Market Intelligence - SNL in 2016. 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 Rodemacher Unit 2, T. J. Labbé, and Hargis-Hébert generating plants. The planned new reciprocating engines at the Doc Bonin site were also included beginning in FY 2021. The structure of LUS electric rates enables the direct pass through of MISO power supply costs and fuel costs to customers.

17. Future costs associated with emissions or potential environmental compliance have not been included in the projected operating results. All operating expenses associated with environmental compliance are included in the Electric System FC rate and passed through to customers.

18. NewGen relied upon the most recent semi-annual Blue Chip Economic Indicator projection of Chained-GDP, dated March 2017. The GDP was used to escalate O&M expenses and capital. Per the Blue Chip forecast, the GDP is projected to be 2.1% over the Projected Period.

19. NewGen relied upon the most recent semi-annual Blue Chip Economic Indicator projection of 3-month Treasury bills to project interest rates for short-term investments.

20. Projected coupon rates associated with future Utilities System bonds were assumed to be 5% based on publicly available market data. NewGen assumed that future bond terms are 30 years with levelized 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 power costs that may be associated with the MISO market.

The Utilities System is capital intensive. Each system must be maintained and expanded to meet customer growth and increasing demands. 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 sales will grow at an average annual rate of approximately 1.0% over the Projected Period. Water retail sales are projected to grow at an average annual rate of approximately 1.3%, and wholesale sales are projected to grow at an average annual rate of approximately 1.2% over the Projected Period. Wastewater sales are a function of water 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 a MISO power market forecast developed by S&P Global Market Intelligence - SNL. 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, Hargis-Hébert Plant and the proposed reciprocating engines. Electric System production expenses include LPPA costs.

The structure of LUS electric rates and Schedule FC enables the direct pass through of LUS fuel costs, MISO power supply costs, eligible LPPA 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. LPPA fuel, O&M expenses, debt service associated with MATS upgrades, and debt service associated with rail cars are included in the FC calculation. Over the Projected Period, approximately 86% of LPPA debt service is 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

Utilities System debt service includes the Series 1996 LDEQ debt, Series 2010 Bonds, and Series 2012 Bonds. New debt service includes bond issues in years 2018, 2019, and 2024. Projected operating results assume future bond issues to meet Utilities System capital requirements. The projected debt service coverage ratio exceeds the minimum requirement of 1.0x.

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 historical data.

In Lieu of Tax

The Utilities System ILOT calculation provides for an ILOT payment equal to 12% of Non-fuel Revenues. 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 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 Non-fuel Revenues, 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. The tables contained in this report are based on the 2017 Budget. However, for the projections, certain adjustments were made based on information provided by LUS.

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. For the Utilities System, LUS has 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 Refunding 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

Table A-1
Utilities System LUS Income Statements

	2012	2013	2014	2015	2016
Operating Revenues					
Electric	$97,060,235	$93,111,312	$95,395,327	$96,291,739	$95,194,646
Electric Retail Fuel Adjustment	76,824,304	93,158,373	105,375,603	84,910,901	78,153,587
Water	17,704,385	17,394,122	17,746,170	18,028,081	18,286,651
Wastewater	29,145,030	28,617,205	28,579,957	28,791,165	28,752,436
Fiber	415	0	40	0	0
Total Operating Revenues	$220,734,370	$232,281,011	$247,097,098	$228,021,885	$220,387,318
Operating Expenses					
Electric Fuel & Purch Power	$93,334,902	$96,443,791	$105,679,639	$88,717,783	$85,345,312
Electric Other Production	14,862,330	12,868,472	7,893,377	8,190,689	6,902,595
Other Electric	29,687,697	30,849,592	33,514,860	33,098,450	34,446,286
Water	12,136,044	11,948,312	12,950,319	13,099,239	13,761,106
Wastewater	16,144,199	16,305,244	17,428,365	17,566,682	18,295,151
Fiber	0	0	0	0	0
Total Operating Expenses	$166,165,173	$168,415,411	$177,466,560	$160,672,843	$158,750,451
Net Operating Revenues	$54,569,197	$63,865,600	$69,630,538	$67,349,042	$61,636,867
Depreciation	$19,376,753	$20,978,328	$22,130,030	$22,881,380	$23,601,958
Other Income					
Interest Income	$1,273,167	$2,243,940	$1,313,230	$1,426,311	$1,704,947
Unrealized Gain/Loss on Invs	0	0	30,750	91,526	117,778
Amortization of Debt Premium	503,471	2,608,147	3,029,199	3,028,445	3,020,974
Water Tapping Fees	86,100	105,100	104,100	107,420	78,320
Communications Lease Income	0	0	97,073	36,952	27,648
Contributions in Aid of Construction	0	7,135	0	0	56,063
Misc. Non-Operating Revenue	8,869,047	5,408,764	2,877,693	3,414,729	2,566,471
Total Other Income	$10,731,784	$10,373,086	$7,452,045	$8,105,384	$7,572,201
Other Expenses					
Loss on Disposition of Property	$0	$0	$250,980	$313,714	$329,136
Interest Expense	11,042,341	9,438,459	9,180,021	10,623,334	10,970,238
Amortization on Plant	1,735,578	1,735,581	1,646,801	1,406,190	989,789
Amortization - Other	221,828	1,295,081	1,269,526	1,269,525	1,266,821
Interest on Customer Deposits	0	13,831	11,746	3,206	821
Tax Collections/Non-Operating	308,182	322,829	0	0	0
Misc. Non-Operating Expense	788,059	1,830,478	1,921,605	1,383,331	1,589,252

Table A-1
Utilities System LUS Income Statements

	2012	2013	2014	2015	2016
Total Other Expenses	$14,095,989	$14,636,258	$14,280,680	$14,999,299	$15,146,058
Net Income Before in Lieu of Tax	$31,828,239	$38,624,100	$40,671,873	$37,573,746	$30,461,053
ILOT	$21,596,096	$22,131,617	$22,073,833	$22,847,494	$23,306,557
Net Income	$10,232,143	$16,492,483	$18,598,040	$14,726,252	$7,154,496
Net Position, Beginning	$458,815,851	$465,513,812	$479,897,190	$482,229,051	$496,955,303
Net Position, Ending	$469,047,995	$482,006,295	$498,495,230	$496,955,303	$504,109,800

Appendix B
CONTINUING DISCLOSURES - LPPA

Introduction

Any governmental entity that issues 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, 2016:

- Electric Revenue Bonds, Series 2007
- Electric Revenue Bonds, Series 2012
- Electric Revenue Refunding Bonds, Series 2015

At the beginning of FY 2015, LPPA refunded the majority of the Series 2007 bonds. The continuing disclosures for the Electric Revenue Refunding Bonds, Series 2015, are also contained in this Report.

The continuing disclosure agreement for the outstanding bonds requires that specific tables contained in the Official Statements must be updated annually. This section contains the required tables. This section 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, 2016 through October 31, 2026 (the Projected Period). LPPA provided actual historical data for FY 2012 through FY 2016.

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 1.0% 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 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 43% 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.

The 2016 Rodemacher Unit 2 actual annual average coal price was escalated based on the S&P Global Market Intelligence - SNL coal price forecast. These assumptions were the basis for projecting LPPA fuel costs associated with the Rodemacher Unit 2. For Rodemacher Unit 2, NewGen relied upon a MISO hourly price forecast developed by S&P Global Market Intelligence - SNL in 2016. All other Operating Expenses were escalated at inflation.

Debt Service

An important LPPA non-fuel cost is related to debt service. Over the Projected Period, approximately 86% of LPPA debt service is passed through the LUS FC. LPPA fuel, O&M expenses, and debt service associated with MATS upgrades, and debt service associated with rail cars are included in the LUS FC calculation. LUS Electric System base rates recover the remaining LPPA debt service obligation.

LPPA debt service includes the Series 2007 Bonds, 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. 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 2007 Bonds and Series 2012 Bonds were used to purchase aluminum rail cars, 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. For the purposes of projections, the LPPA capital plan was adjusted in years 2020 and 2021. The total capital expenditures are the same, however there were slight adjustments in the timing of the projects.

Bond Reserve Fund and Cash Available

LPPA's current Bond Reserve Fund Balance is approximately $9.6 million as required by the bond ordinance. LPPA also maintains a Reserved and Contingency Fund of approximately $5.3 million and a Fuel Cost Stability Fund of approximately $4.5 million.

Cross Reference

In an effort to minimize duplication of data, the following table is provided to assist in cross referencing the information contained in the Continuing Disclosures with the information contained in this Report.

Lafayette Public Power Authority Electric Revenue Bond, Series 2007

Official Statement Section	Official Statement Page	Official Statement Table Title	Report Reference
Debt Service Requirements, page 5	5	Series 2007 Bonds Debt Service	Table B-1
Lafayette Public Power Authority, page 27-32	31	Unit No. 2 Operating Statistics	Table 4-15
	32	Annual Operating Expenses - LPPA's Share of Unit No. 2	Table B-2
Summary of Historical Operating Results of LPPA, page 32	32	Lafayette Public Power Authority Historical Revenues, Expenses, Balances Available for Debt Service	Table B-3
Trend in Finances, page 33	34	Lafayette Public Power Authority Summary Statements of Revenues, Expenses and Changes in Fund Net Position	Table B-4
	35	Lafayette Public Power Authority Summary Statements of Cash Flows	Table B-5
City of Lafayette Utilities System, page 37 - 57	41	Historical Electric Retail and Wholesale Sales (MWh)	Table 4-1
	41	Historical - Electric System Net Requirements	Table B-6
	43	Proposed Electric System Facilities (Five Year Plan)	Table 3-5
	44	Historical Water Retail and Wholesale Sales (000 Gallons)	Table 5-1
	45	Proposed Water System Facilities (Five Year Plan)	Table 3-5
	47	Historical Wastewater System Flows (000 Gallons)	Table 6-1
	48	Proposed Wastewater System Facilities (Five Year Plan)	Table 3-5
	49	Historical Number of Customers by System	Table 3-1
	49	Electric Customers by Classification	Table 4-2
	50	Largest Electric System Customers	Table B-7
	50	Largest Water System Customers	Table B-8
	50	Largest Wastewater System Customers	Table B-9
	51	LUS Electric Retail Rate Summary	Table 4-27
	51	LUS Water Retail Rate Summary	Table 5-18
	51	LUS Wastewater Retail Rate Summary	Table 6-9
	55	Schedule of Revenues, Expenses, and Retained Earnings	Table A-1

Lafayette Public Power Authority Electric Revenue Bond, Series 2007

Official Statement Section	Official Statement Page	Official Statement Table Title	Report Reference
	56	Summary Statement of Revenues, Expenses, and Changes in Fund Net Position	Table B-10
Appendix B-Financial & Statistical Data	B-2	Summary Debt Statement	See Appendix D

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 4-15
	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-7
	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-11
	43	Electric System Operations and Maintenance Expense Forecast	Table B-12
	44	Wastewater System Largest Retail Customers	Table B-9
	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-13
	47	Wastewater System Operations and Maintenance Expense Forecast	Table B-14
	49	Water System Largest Retail Customers	Table B-8
	49	Historical Water Retail and Wholesale Sales	Table 5-1 & B-15
	50	Proposed Water System Facilities (Five Year Plan)	Table 3-5

Lafayette Public Power Authority Electric Revenue Bond, Series 2012

Official Statement Section	Official Statement Page	Official Statement Table Title	Report Reference
	51	Water Sales and Revenue	Table B-15
	51	Water System Operations and Transmission and Maintenance Expense Forecast	Table B-16
	52	Electric System Sales and Revenues by Rate Class	Table 4-2 & 4-29
	53	Electric Residential Rate Comparison	Table 4-23
	53	Electric Commercial Rate Comparison	Table 4-24
	56	Lafayette Utilities Systems Income Statements	Table A-1
	57	Summary Statement of Revenues, Expenses, and Changes in Fund Net Position	Table B-10
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 4-15
	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	Table 4-2 & 4-29
	40	Electric Residential Rate Comparison	Table 4-23
	40	Electric Commercial Rate Comparison	Table 4-24
	41	Historical Electric Retail and Wholesale Sales	Table 4-1
	42	Electric Sales and Revenue	Table B-11
	43	Electric System Operations and Maintenance Expense Forecast	Table B-12
	46	Wastewater System Largest Retail Customers	Table B-9
	46	Wastewater System Residential Rate Comparison	Table 6-6
	47	Wastewater System Commercial Rate Comparison	Table 6-7

Lafayette Public Power Authority Electric Revenue Bond, Series 2015

Official Statement Section	Official Statement Page	Official Statement Table Title	Report Reference
	47	Historical & Projected Wastewater Retail Collection	B-13
	48	Wastewater Historical Sales & Projected Revenue	B-13
	49	Wastewater System Historical and Projected Operations & Maintenance Expense	B-14
	51	Water System Largest Retail Customers	Table B-8
	52	Water System Residential Rate Comparison	5-14
	52	Water System Commercial Rate Comparison	5-15
	53	Historical & Projected Water System Retail & Wholesale Sales	B-15
	54	Water Sales & Revenue	B-15
	55	Wastewater System Historical and Projected Operations & Maintenance Expense	B-15
	57	Lafayette Utilities Systems Income Statements	Table A-1
	58	Summary Statement of Revenues, Expenses, and Changes in Fund Net Position	Table B-10
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

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
11/1/2024	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
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

Table B-2
Annual Operating Expenses – LPPA's Share of Unit No. 2

	2012	2013	2014	2015	2016
LPPA Share (MWh)	1,251,331	1,299,249	1,185,928	1,037,447	797,928
Fuel	$42,059,893	$42,482,048	$37,201,705	$33,966,979	$26,658,901
Operations	2,372,222	2,457,540	2,311,923	2,577,179	2,799,380
Maintenance	4,124,193	5,723,382	9,767,676	5,286,052	5,857,500
Administrative & General	2,280,771	2,744,974	2,649,166	2,639,075	2,684,288
Total Operating Expenses	$50,837,080	$53,407,944	$51,930,471	$44,469,286	$38,000,069
Total Operating Expenses $/MWh	40.63	41.11	43.79	42.86	47.62
Total Operating Expenses Less Fuel $/MWh	7.01	8.41	12.42	10.12	14.21

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

	2012	2013	2014	2015	2016
Total Operating Revenues	$58,094,335	$60,403,471	$58,881,514	$51,723,772	$48,326,966
Total Operating Expenses	50,837,080	53,407,944	51,930,471	44,469,286	38,000,068
Net Operating Revenues	$7,257,255	$6,995,527	$6,951,043	$7,254,487	$10,326,898
Other Income	$277,343	$105,501	$79,783	$109,427	$190,946
Balance Available for Debt Service	$7,534,598	$7,101,029	$7,030,826	$7,363,914	$10,517,844
Debt Service	$6,786,640	$7,057,640	$7,060,106	$7,063,256	$6,888,039
Balance After Debt Service	$747,959	$43,389	($29,280)	$300,658	$3,629,805
Debt Service Coverage Ratio (1)	1.1	1.0	1.0	1.0	1.5

(1) 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

	2012	2013	2014	2015	2016
Operating Revenues					
Sales of Electric Energy					
City of Lafayette (LUS)	$58,094,335	$60,403,471	$58,881,514	$51,723,772	$48,326,966
Operating Expenses					
Production	$48,556,308	$50,662,970	$49,281,305	$41,830,211	$35,315,781
Administrative & General	2,280,771	2,744,974	2,649,166	2,639,075	2,684,288
Depreciation	1,730,705	2,154,909	1,799,880	1,423,481	1,453,184
Total Operating Expenses	$52,567,785	$55,562,852	$53,730,351	$45,892,767	$39,453,253
Non Operating Revenues (Expenses)					
Other [1]	$830,119	$465,716	$522,032	$503,446	($27,595)
Investment Earnings	277,343	105,501	79,783	109,427	190,946
Interest on Long Term Debt	(1,016,824)	(3,912,640)	(4,200,106)	(4,108,256)	(3,723,039)
Gain (Loss) on Disposition of Property	(158,389)	(2,694)	(89,914)	(227,456)	(123,848)
Total	($67,750)	($3,344,116)	($3,688,205)	($3,722,839)	($3,683,536)
Net Income (Loss) for the Period	$5,458,800	$1,496,503	$1,462,958	$2,108,166	$5,190,178
Fund Net Position Beginning [1]	$62,230,056	$66,346,215	$67,842,718	$69,305,675	$71,413,842
Fund Net Position, End of Year	$67,688,856	$67,842,718	$69,305,676	$71,413,842	$76,604,019

(1) The 2013 Fund Net Position Beginning balance for 2013 was restated in the 2013-2014 Financial Report

Table B-5
Summary Statements of Cash Flows

	2012	2013	2014	2015	2016
Cash Flows from Operating Activities					
Receipts from customers	$63,164,113	$55,157,891	$58,881,514	$51,723,772	$48,326,966
Payments to suppliers for goods & services	(54,137,875)	(56,755,015)	(41,029,452)	(42,928,870)	(38,041,403)
Payments to employees and for employee related costs	(409,130)	(420,225)	(413,944)	(382,355)	(424,247)
Net cash provided (used) by operating activities	$8,617,108	($2,017,349)	$17,438,118	$8,412,547	$9,861,316
Cash Flows from Capital and Related Financing Activities					
Proceeds from Issuance of Bonds	$0	$65,100,000	$0	$0	$29,035,000
Premium on Issuance on Bonds	0	10,327,627	0	0	2,077,808
Payment to escrow agent	0	0	0	0	(30,721,903)
Principal payments on bonds	(13,030,000)	(7,235,000)	(6,005,000)	(2,955,000)	(3,165,000)
Interest Paid	(2,157,076)	(2,683,187)	(6,351,072)	(4,108,256)	(3,723,039)
Debt issuance costs	(52,917)	(738,231)	0	(155,131)	(379,850)
Preliminary survey investigation costs paid	(1,528,517)	0	0	0	0
Proceeds from redesignation of capital assets	0	0	0	0	0
Purchase and construction of capital assets	(3,793,865)	(18,567,243)	(41,841,533)	(13,316,634)	(6,020,304)
Net cash provided (used) by capital and related financing activity	($20,562,375)	$46,203,966	($54,197,605)	($20,535,021)	($12,897,288)
Cash Flows from Investing Activities					
Sales (purchases) of investments - net	$6,473,528	($717,384)	$0	$0	($2,300,000)
Maturities of Investments	0	0	0	0	2,500,000
Interest Earnings	301,224	136,376	76,041	96,958	188,630
Other	0	0	0	0	0
Net Cash provided by investing activities	$6,774,752	($581,008)	$76,041	$96,958	$388,630
Net increase (decrease) in cash and cash equivalents	($5,170,515)	$43,605,609	($36,683,446)	($12,025,516)	($2,647,342)
Cash and cash equivalents, beginning of year	$42,888,454	$37,717,939	$81,323,548	$44,640,102	$32,614,586
Cash and cash equivalents, end of year	$37,717,939	$81,323,548	$44,640,102	$32,614,586	$29,967,244

Table B-6
Utilities System Historical Electric System Net Requirements

Year	Energy (MWh)	Peak (MW)	Load Factor
2012	2,111,517	474	51%
2013	2,071,816	458	52%
2014	2,103,145	460	52%
2015	2,113,090	486	50%
2016	2,098,293	447	53%

Table B-7
Largest Customers (Electric)

Customer	Type of Business	2016 Revenues
University of Louisiana	Higher Education	$4,069,103
Lafayette General Hospital	Health Care	2,727,532
Our Lady Of Lourdes	Health Care	1,907,356
Lafayette Consolidated Gov-Street Lighting	Local Government	1,585,497
Stuller Inc.	Jewelry Manufacturing	952,558
Wal-Mart Louisiana LLC - Store #531	Retail Shopping	865,476
Halliburton - Gulf Coast Campus	Refining / Petrochemical	803,106
Acadiana Mill	Shopping Center	779,129
University Hospital & Clinics Inc	Health Care	723,105
International Paper	Paper Products	$704,254

Table B-8
Largest Customers (Water)

Customer	Type of Business	2016 Revenues
University of Louisiana	Higher Education	$270,005
Lafayette General Hospital	Health Care	128,081
Our Lady Of Lourdes	Health Care	106,736
Borden Company	Dairy Products	70,316
Lafayette Parish Correctional Center	Correctional Facility	54,284
Bayou Shadows Apartments	Apartment Complex	45,736
Target Stores (North)	Retail Shopping	53,650
Advanced Polymer Systems	Polymer Manufacturer	36,963
South Point Apartments	Apartment Complex	36,965
Lafayette General Southwest	Health Care	$35,649

Table B-9
Largest Customers (Wastewater)

Customer	Type of Business	2016 Revenues
University of Louisiana	Higher Education	$719,208
Borden Company	Dairy Products	332,486
Lafayette General Hospital	Health Care	214,005
Our Lady Of Lourdes	Health Care	138,655
Bayou Shadows Apartments	Apartment Complex	137,695
Lafayette Parish Correctional Facility	Correctional Facility	133,140
South Point Apartments	Apartment Complex	111,090
Single Source Supply, LLC	Commercial Laundry Service	103,725
Pinhook South Apartments	Apartment Complex	96,990
Emberwood Apartments	Apartment Complex	83,470

Table B-10
Summary Statement of Revenue, Expenses, and Changes in Fund Net Position, City of Lafayette Utilities System, Five Years Ending October 31

	2012	2013	2014	2015	2016
Operating Revenues					
Charges for Services	$215,887,924	$228,128,999	$242,884,655	$223,635,505	$216,475,271
Miscellaneous	5,286,648	5,140,741	4,796,423	5,012,799	4,506,863
Total Operating Revenues	$221,174,572	$233,269,740	$247,681,078	$228,648,304	$220,982,134
Operating Expenses					
Production, Collection, & Cost of Services	$115,939,388	$117,650,679	$122,444,243	$106,150,834	$102,175,581
Transmission, Distribution & Treatment	23,341,508	24,853,589	27,674,617	28,292,560	29,733,282
Administrative & General & Customer	26,852,309	25,911,143	27,347,702	26,229,450	26,841,588
ILOT	21,596,096	22,131,617	22,073,833	22,847,494	23,306,557
Depreciation & Amortization on Plant	21,112,331	22,713,909	23,776,831	24,287,570	24,591,747
Total Operating Expenses	$208,841,631	$213,260,937	$223,317,226	$207,807,908	$206,648,755
Operating Income	$12,332,941	$20,008,803	$24,363,852	$20,840,397	$14,333,379
Non-Operating Revenues (Expenses)					
Investment Earnings	$1,184,124	$1,843,960	$1,343,980	$1,517,837	$1,822,725
Interest Expense	(10,770,301)	(8,139,223)	(7,432,094)	(8,867,619)	(9,216,905)
Gain (Loss) on sale/disposal of assets	(93,772)	(192,820)	(250,980)	(313,714)	(329,136)
Federal Grant Revenue	7,119,896	2,730,634	656,112	932,987	497,562
Hurricane	(253,536)	0	0	0	(510,963)
Non-employer pensions contributions	0	0	0	524,936	539,204
Other	221,252	233,994	(82,830)	91,428	(37,431)
Total Non-Operating Revenues (Expenses)	($2,592,337)	($3,523,455)	($5,765,812)	($6,114,145)	($7,234,944)
Income Before Contributions	$9,740,604	$16,485,348	$18,598,040	$14,726,252	$7,098,435
Capital Contributions	$491,540	$7,135	$0	$0	$56,063
Change in Net Position	$10,232,144	$16,492,483	$18,598,040	$14,726,252	$7,154,497
Net Position, Beginning [(1)]	$458,815,851	$465,513,812	$479,897,190	$482,229,051	$496,955,303
Net Position, Ending	$469,047,995	$482,006,295	$498,495,230	$496,955,303	$504,109,800

(1) The Net Position Beginning balance was restated each year.

Table B-11
Utilities System Electric Sales and Revenue

Year	Retail Sales (MWh)	Retail Sales: Base Rate Revenue	Retail Sales: FC Revenue	Other Revenue[1]	Total Operating Revenue
2012	1,970,448	$88,556,974	$76,824,304	$9,508,842	$174,890,121
2013	1,979,136	88,860,207	93,158,373	6,052,637	188,071,217
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	2,089,201	100,509,565	89,772,988	4,655,857	194,938,410
2018	2,112,391	107,316,511	92,269,254	5,014,829	204,600,594
2019	2,134,899	108,352,247	103,862,860	5,366,491	217,581,598
2020	2,157,185	109,367,166	110,253,702	5,311,845	224,932,712
2021	2,179,087	110,368,191	111,525,653	5,103,181	226,997,025
2022	2,201,045	111,380,641	117,711,903	5,162,320	234,254,864
2023	2,223,307	112,410,434	124,349,579	5,290,501	242,050,514
2024	2,245,971	113,459,061	132,242,762	5,484,358	251,186,181
2025	2,268,977	114,525,094	140,608,507	5,573,323	260,706,924
2026	2,292,284	$115,607,008	$148,860,953	$5,481,046	$269,949,007
Average Growth	1.0%	1.6%	5.8%	1.8%	3.7%

(1) Other Revenue includes Miscellaneous Operating Revenue and Interest Income.

Table B-12
Electric System Historical and Projected Operating Expenses

Year	Production	Transmission	Distribution	Customer Accounts, Service & Sales	Administrative & General	Total Operating Expenses
2012	$108,197,232	$5,791,094	$9,431,893	$3,237,859	$11,226,852	$137,884,929
2013	109,312,263	6,601,198	10,118,173	2,889,502	11,240,720	140,161,855
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	111,629,095	8,291,840	12,157,179	2,954,635	11,688,071	146,720,822
2018	113,654,367	8,462,564	12,542,480	3,028,770	11,933,521	149,621,702
2019 (1)	116,904,180	12,452,084	12,805,872	3,105,067	12,184,125	157,451,327
2020	128,459,043	13,058,580	13,074,795	3,183,600	12,439,992	170,216,010
2021	131,368,879	12,382,003	13,349,366	3,264,448	12,701,231	173,065,928
2022	134,311,498	7,412,467	13,629,703	3,347,694	12,967,957	171,669,319
2023	141,546,354	7,469,578	13,915,926	3,433,423	13,240,284	179,605,566
2024	150,160,279	7,554,203	14,208,161	3,521,724	13,518,330	188,962,697
2025	159,244,623	7,582,291	14,506,532	3,612,689	13,802,215	198,748,349
2026	$168,188,675	$7,611,484	$14,811,169	$3,706,414	$14,092,062	$208,409,805
Average Growth	4.7%	-0.9%	2.2%	2.6%	2.1%	4.0%

(1) Beginning in 2019, LUS will begin paying MISO Schedule 26a fees. The Cleco transmission contract expires in 2021. For the purposes of projections, we assumed this contract would be replaced with transmission service through MISO.

Table B-13
Wastewater Retail Sales and Revenue

Year	Retail Sales (1,000 gallons)	Retail Sales Revenue	Other Revenue[1]	Total Operating Revenue
2012	5,448,397	$28,861,669	$451,908	$29,313,577
2013	5,730,473	28,382,562	511,418	28,893,980
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	5,829,227	31,023,160	651,779	31,674,939
2018	5,915,563	33,296,265	709,819	34,006,084
2019	5,979,128	33,654,043	912,442	34,566,485
2020	6,073,409	34,184,713	1,003,297	35,188,010
2021	6,154,353	34,640,315	1,013,449	35,653,764
2022	6,229,022	36,823,421	1,070,280	37,893,700
2023	6,306,812	37,283,284	1,070,968	38,354,252
2024	6,380,194	37,717,089	1,122,997	38,840,086
2025	6,452,973	38,147,326	1,155,719	39,303,045
2026	6,525,909	$40,527,936	$1,090,541	$41,618,477

(1) Other Revenue includes Miscellaneous Operating Revenue and Interest Income.

Table B-14
Wastewater System Projected Operating Expenses

Year	Treatment	Collection	Customer Accounting, Collecting, Service and Info	Administrative & General	Total Operating Expenses
2012	$5,862,610	$3,444,089	$1,279,553	$5,557,947	$16,144,199
2013	5,900,950	3,935,538	1,260,125	5,208,631	16,305,244
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	7,000,177	4,569,865	1,367,333	5,760,683	18,698,058
2018	7,173,831	4,686,663	1,400,336	5,881,658	19,142,487
2019	7,360,715	4,819,987	1,434,247	6,005,172	19,620,121
2020	7,538,895	4,939,149	1,469,095	6,131,281	20,078,420
2021	7,698,055	5,039,717	1,504,911	6,260,038	20,502,721
2022	7,877,301	5,161,088	1,541,728	6,391,499	20,971,615
2023	8,062,331	5,286,960	1,579,578	6,525,720	21,454,589
2024	8,254,290	5,420,146	1,618,497	6,662,760	21,955,693
2025	8,451,268	5,558,012	1,658,521	6,802,678	22,470,479
2026	$8,651,330	$5,698,223	$1,699,687	$6,945,534	$22,994,774

Table B-15
Water Retail and Wholesale Sales and Revenue

Year	Retail Sales (1,000 gallons)	Wholesale Sales (1,000 gallons)	Retail Sales Revenue	Wholesale Sales Revenue	Other Revenue(1)	Total Operating Revenue
2012	5,743,099	1,858,479	$13,491,838	$3,690,835	$620,750	$17,803,423
2013	5,494,648	1,893,375	13,370,347	3,425,414	763,993	17,559,754
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	5,561,158	2,307,825	14,514,622	5,621,530	550,825	20,686,977
2018	5,640,618	2,408,057	15,793,730	5,954,618	523,231	22,271,580
2019	5,719,348	2,380,409	16,014,176	5,893,678	568,742	22,476,596
2020	5,798,246	2,390,894	16,235,088	5,922,923	615,056	22,773,067
2021	5,876,921	2,267,487	16,455,379	5,635,913	635,312	22,726,604
2022	5,951,135	2,326,231	17,674,871	6,069,971	656,471	24,401,314
2023	6,023,012	2,386,561	17,888,345	6,282,891	672,137	24,843,373
2024	6,093,745	2,448,519	18,098,424	6,443,510	692,159	25,234,092
2025	6,163,649	2,512,152	18,306,037	6,608,420	713,691	25,628,148
2026	6,232,827	2,577,506	$19,446,420	$7,061,434	$735,702	$27,243,556

(1) Other Revenue includes Miscellaneous Operating Revenue and Interest Income.

Table B-16
Water System Historical and Projected Operating Expenses

Year	Production Related	Distribution	Customer Accounting, Collecting, Service and Info	Administrative & General	Total Operating Expenses
2012	$4,298,067	$2,283,844	$1,304,443	$4,249,690	$12,136,044
2013	4,402,838	2,225,306	1,161,549	4,158,620	11,948,312
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	5,726,142	2,595,550	1,164,381	4,770,178	14,256,251
2018	5,939,284	2,653,914	1,191,952	4,870,352	14,655,502
2019	6,111,837	2,713,548	1,220,258	4,972,629	15,018,273
2020	6,293,148	2,774,524	1,249,323	5,077,055	15,394,050
2021	6,404,794	2,836,854	1,279,170	5,183,673	15,704,490
2022	6,614,416	2,900,342	1,309,824	5,292,530	16,117,112
2023	6,830,655	2,965,120	1,341,312	5,403,673	16,540,760
2024	7,056,188	3,031,277	1,373,659	5,517,150	16,978,275
2025	7,289,561	3,098,859	1,406,896	5,633,010	17,428,326
2026	$7,529,669	$3,167,900	$1,441,049	$5,751,303	$17,889,922

Appendix D
FINANCIAL & STATISTICAL DATA

LAFAYETTE CONSOLIDATED GOVERNMENT
REVENUE BONDS CONTINUING DISCLOSURE

Population of City of Lafayette

Year	Population
1940	19,210
1950	33,541
1960	40,400
1970	68,908
1980	81,961
1990	94,440
2000	110,257
2007	112,199
2008	111,088
2009	112,640
2010	120,623
2013	122,510
2014	126,066
2015	127,661

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
1997	471,750	2007	864,797
1998	503,704	2008	905,005
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

Source: Lafayette Parish Assessor's Office

LAFAYETTE CONSOLIDATED GOVERNMENT
REVENUE BONDS CONTINUING DISCLOSURE

Classification of Property	**2016 Assessed Valuation**
Real Estate	$1,919,888,154
Personal Property	643,842,567
Public Service Property	77,358,980
Total	$2,641,089,701

Source: Lafayette Parish Assessor's Office

Millage Rates

	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Parishwide Taxes:								
Schools	4.59	4.59	4.59	4.59	4.59	4.59	4.59	4.59
School District No. 1 -								
Special	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
School 1985 Operation	16.70	16.70	16.70	16.70	16.70	16.70	16.70	16.70
Courthouse & Jail Maintenance	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34
Library (2007-2016)	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.68
Library (2009-2018)	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.48
Library (2003-2012)	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.84
Health Unit Maintenance	0.99	0.99	0.99	0.94	N/A	1.61	0.80	N/A
Juvenile Detention Maintenance	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	1.82	1.82	1.82	1.82	1.68
Assessment District	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.44
Law Enforcement	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	1.58
Minimum Security Maintenance	2.06	2.06	2.06	2.06	2.06	2.06	2.06	1.90
Bridges and Maintenance	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	0.10	0.10	0.10	0.10	0.00	0.17
Maintenance	0.75	0.75	0.75	0.71	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
Public Improvement Bonds	3.40	3.00	3.00	3.00	3.00	3.00	2.75	2.75
Teche-Vermillion Water District	1.26	1.26	1.50	1.45	1.45	1.50	1.50	1.41
Mosquito Abatement & Control	1.50	1.50	1.50	1.50	0.50	1.50	1.50	N/A
Health Unit, Mosquito, Ect.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	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
Parish Tax (Outside Municipalities)	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	9.60	10.91	10.91	11.24	11.24
City of Lafayette	**17.84**	**17.94**	**17.94**	**17.94**	**17.94**	**17.94**	**17.94**	**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 2016 assessed valuations follow:

	Name of Taxpayer	Type of Business	2016 Assessed Valuation
1.	Frank's Casing Crew & Rental Tools	Oil & Gas Support Services	$24,038,874
2.	Stuller	Manufacturing	15,672,123
3.	Iberia Bank	Commercial Banking	14,725,219
4.	PHI Inc	Oil & Gas Support Services	12,067,443
5.	AT&T/ Bellsouth	Telecommunications	11,894,097
6.	Walmart/Sam's	Warehouse Clubs & Supercenters	11,042,576
7.	J P Morgan Chase	Commercial Banking	9,830,675
8.	Shell Oil	Oil & Gas E & P	9,210,273
9.	Service Chevrolet Inc	New Car Dealers	8,128,724
10.	AVR Realty Company	Real Estate Investments	7,984,109
			$124,594,113 *

* Approximately 7.91% of the 2016 assessed valuation of the City.

Source: Lafayette Consolidated Government

LAFAYETTE CONSOLIDATED GOVERNMENT
CASH AND INVESTMENTS
BALANCES AS OF OCTOBER, 2016

			CASH AND INVESTMENTS
	General Operating Funds:		
101	General Fund-City	$	39,763,119
102	Property Tax Escrow Fund		21,885
105	General Fund-Parish		2,047,776
126	Grants-Federal		(312,197)
127	Grants-State		(639,423)
162	Community Development		(91,097)
163	Home Programs		(5,320)
164	Urban Infill Home Program		144,753
165	Emergency Shelter Grant		(40,553)
170	WIA Grants		(71,533)
171	HUD Housing Loan Prog		196,727
181	FHWA Plan Grants		(14,061)
185	FHWA I-49 Grant		(34,763)
189	DOTD Travel Management		13,270
203	Municipal Transit System		998,646
204 & 205	Heymann Performing Arts Center		(24,138)
206	Animal Control Shelter		6,273,876
207	Traffic Safety		286,936
209	Combined Golf Courses		(359,541)
252	State Seized/Forfeited Property		12,209
253	Fed Narc Seized /Forfeited Property		13,569
255	Criminal Non-support		(134,736)
260	Road & Bridge Maintenance		13,996,977
261	Drainage Maintenance		11,028,660
263	Library Fund		39,476,758
264	Courthouse Complex		5,947,948
265	Juvenile Detention Facility		3,463,100
266	Public Health Unit		553,095
268	Criminal Court		169,952
269	Combined Public Health		6,933,428
271	Mosquito Abatement		1,398,639
272	Justice Department Federal Equitable Sharing Fund		504,591
277	Court Services Fund		(36,227)

LAFAYETTE CONSOLIDATED GOVERNMENT
CASH AND INVESTMENTS
BALANCES AS OF OCTOBER, 2016

			CASH AND INVESTMENTS
297	Parking Program		84,707
299	Codes & Permits		496,316
550	Environmental Services		552,707
551	CNG Service Station		83,795
601	Payroll		3,010,815
605	Unemployment Compensation		5,540
607	Group Hospitalization		15,296,124
640	Hurricane Katrina		115,811
641	Hurricane Rita		331,383
643	Hurricane Gustav		(556,241)
644	Hurricane Isaac		(196,711)
645	2016 August Flood		(975,059)
701	Central Printing		(173,298)
702	Central Vehicle Maintenance		472,733
	Total General Operating Funds	$	**150,030,948**
	Debt Service Funds:		
215	1961 City Sales Tax Trust Fund	$	1,700
222	1985 City Sales Tax Trust Fund		0
290	TIF City Sales Tax Trust Fund-MM101		637,541
291	TIF City Sales Tax Trust Fund-MM103		3,090,712
302	1961 Sales Tax Bond Sinking Fund		7,328,529
303	1961 Sales Tax Bond Reserve Fund		13,113,803
304	1985 Sales Tax Bond Sinking Fund		3,974,797
305	1985 Sales Tax Reserve Fund		8,853,169
356	Contingency Sinking-Parish		4,491,840
357	2011 Certificates of Indebt		182,445
358	2012 Limited Tax Refund		10,581
801	Consolidated Sewerage Sinking Fund		313,854
821	Consolidated Paving Districts Sinking Fund		414,917
	Total Debt Service Funds	$	**42,413,888**

LAFAYETTE CONSOLIDATED GOVERNMENT
CASH AND INVESTMENTS
BALANCES AS OF OCTOBER, 2016

			CASH AND INVESTMENTS
	Construction Funds:		
401	Sales Tax Capital Improvement Fund	$	38,603,511
407	2010 Parish General Obligation Bonds		5,965,637
436	2009A Sales Tax Bond Construction		3,655,600
437	2009B Sales Tax Bond Construction		9,697,157
438	2010 Sales Tax Bond Construction		15,035,679
440	2013 Sales Tax Bond Construction		10,811,066
	Total Construction Funds	$	**83,768,651**
	Other:		
602	Firemen Pension & Relief	$	0
603	Police Pension & Relief		0
614	Risk Management		2,175,993
	Total Other	$	**2,175,993**

LAFAYETTE CONSOLIDATED GOVERNMENT
CASH AND INVESTMENTS
BALANCES AS OF OCTOBER, 2016

			CASH AND INVESTMENTS
	Utility System Funds:		
501	Receipts Fund	$	1,944,581
502	Operation and Maintenance		7,213,603
503	Bond & Interest		0
504	Capital Additions Fund		96,996,965
505	Security Deposit Fund		8,616,452
506	Bond Reserve Fund		23,642,295
530	2010 Bond Construction Fund		2,514,869
	Total Utilities System Funds	$	**140,928,766**
	LPPA Funds:		
520	LPPA Revenue Fund	$	11,401,058
521	LPPA Operating Fund		8,566,048
522	LPPA Fuel Cost Stability Fund		4,500,000
523	LPPA Bond Reserve Fund		9,570,972
524	LPPA Reserve & Contingency Fund		5,283,318
525	LPPA Bond Interest & Principal Fund		21,409
527	LPPA 2012 Bond Construction Fund		99,225
	Total LPPA Funds	$	**39,442,030**
	Communications System Funds:		
531	Receipts Account	$	160,221
532	Operating Account		2,911,934
533	Debt Service Account		0
535	2012A Bond Account		11,827
536	2012B Bond Account		28,438
537	Capital Additions Account		6,181,290
538	Security Deposits Account		106,233
	Total Communications System Funds	$	**9,399,943**
	TOTAL ALL FUNDS	$	**468,160,218**

LAFAYETTE CONSOLIDATED GOVERNMENT
REVENUE BONDS CONTINUING DISCLOSURE
ECONOMIC INDICATORS

Per Capita Personal Income

	2009	2010	2011	2012	2013	2014	2015
Lafayette Parish	$ 43,016	$ 45,939	$ 47,184	$ 52,028	$ 50,015	$ 51,608	$ 49,496
Louisiana	36,348	37,227	38,506	40,527	40,819	42,030	42,947
United States	39,376	40,277	42,453	44,266	44,438	46,049	48,112

Effective Buying Income

Median Household
Effective Buying Income

Year	Lafayette Parish	City of Lafayette	Louisiana	Nation
2015	$ 51,981	$ 47,830	$ 45,727	$ 55,775

Sources: U.S. Census Bureau

Employment

Year	Labor Force	Employment	Unemployment	Parish Rate	State Rate
2000	97,296	93,576	3,720	3.8	5.0
2001	99,779	95,858	3,921	3.9	5.4
2002	98,393	94,021	4,372	4.4	5.9
2003	98,015	93,388	4,627	4.7	6.2
2004	98,729	94,633	4,096	4.1	5.5
2005	104,531	99,393	5,138	4.9	6.7
2006	107,321	104,331	2,990	2.8	3.9
2007	109,628	106,741	2,887	2.6	3.8
2008	112,272	108,865	3,407	3.0	4.4
2009	111,806	106,286	5,520	4.9	6.6
2010	113,352	106,781	6,571	5.8	7.5
2011	114,282	107,967	6,315	5.5	7.3
2012	117,262	111,949	5,313	4.5	6.4
2013	119,526	113,992	5,534	4.6	6.4
2014	121,654	115,656	5,998	4.9	6.4
2015	119,830	113,143	6,687	5.6	6.2
2016	115,489	108,340	7,149	6.1	6.2

Source: Louisiana Department of Labor

LAFAYETTE CONSOLIDATED GOVERNMENT
REVENUE BONDS CONTINUING DISCLOSURE

The preliminary figures for the Parish for December 2016 were reported as follows:

Year	Labor Force	Employment	Unemployment	Parish Rate	State Rate
December 2016	111,492	105,654	5,838	5.2	*5.4

* The seasonally adjusted rate was 6.1

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 2014	December 2015	December 2016
Mining	23.4	17.5	14.9
Construction	11.2	11.9	11.8
Manufacturing	20.1	17	14.4
Trade, Transporation, & Utilities	45.7	44.4	43.8
Information	2.7	2.7	2.8
Financial Activities	12.1	10.9	10.7
Professional And Business Services	24.3	21.5	20.5
Educational and health Services	29.8	30.0	30.1
Leisure and Hospitality	21.6	21.9	21.9
Other Services	7.5	7.4	7.5
Government	26.2	26.4	26.7
Total	217.8	219.1	205.1

Source: U.S. Bureau of Labor Statistics

LAFAYETTE CONSOLIDATED GOVERNMENT
REVENUE BONDS CONTINUING DISCLOSURE
ANNUAL AVERAGE LAFAYETTE PARISH CONCURRENT ECONOMIC INDICATORS 2012, 2013, 2014, 2015 AND SECOND QUARTER 2016
(All data not seasonally adjusted)

	2012	2013	2014	2015	2016:2
EMPLOYMENT					
Total	**137,564**	**139,937**	**141,663**	**137,602**	**130,214**
Accommodation and Food Services	12,816	13,379	14,154	14,384	14,624
Administrative and Waste Services	5,566	6,363	6,584	6,567	5,962
Agriculture,Forestry, Fishing, and Hunting	90	94	89	83	84
Arts, Entertainment, and Recreation	2,154	2,153	2,228	2,324	2,370
Construction	6,407	6,528	6,579	6,834	5,913
Educational Services	7,924	7,942	7,894	7,802	7,643
Finance & Insurance	3,093	3,139	3,200	3,283	3,418
Health Care and Social Services	20,683	20,855	20,336	20,519	21,181
Information	2,557	2,630	2,561	2,337	2,314
Management of Companies and Enterprises	2,926	2,991	3,180	3,062	2,598
Manufacturing	9,110	9,849	10,051	9,257	7,924
Mining	16,392	15,866	16,415	13,425	10,370
Other Services, except Public Administration	3,215	3,201	3,201	3,270	3,190
Professional & Technical Services	8,649	8,886	8,835	8,407	7,565
Public Administration	3,559	3,560	3,592	3,680	3,686
Real Estate and Rental and Leasing	4,477	4,382	4,082	3,551	3,096
Retail Trade	16,267	16,685	17,163	17,771	18,162
Transportation & Warehousing.	3,772	3,984	3,779	3,493	3,155
Utilities	500	495	462	458	439
Wholesale Trade	7,352	6,882	7,250	7,074	6,513

	Annual	Annual	Annual	Annual	Quarterly
EARNINGS ($ in Thousands)					
Total	**$6,588,106**	**$6,749,064**	**$7,127,334**	**$6,747,390**	**$1,454,143**
Accommodation and Food Services	214,474	231,234	248,865	247,617	60,294
Administrative and Waste Services	187,917	231,118	245,497	275,439	52,866
Agriculture,Forestry, Fishing, and Hunting	3,327	4,426	3,630	3,587	863
Arts, Entertainment, and Recreation	32,334	33,495	34,720	36,483	9,386
Construction	314,765	327,843	351,041	366,092	75,241
Educational Services	320,637	321,588	322,979	319,053	77,304
Finance & Insurance	190,872	202,634	221,910	228,264	55,555
Health Care and Social Services	842,580	872,397	891,176	925,857	237,686
Information	115,670	118,913	122,866	113,508	26,815
Management of Companies and Enterprises	201,693	259,200	301,173	290,137	53,628
Manufacturing	508,459	530,805	569,632	508,203	100,845
Mining	1,451,170	1,389,066	1,507,778	1,201,440	214,062
Other Services, except Public Administration	111,314	114,294	116,983	116,017	27,990
Professional & Technical Services	543,361	565,915	593,471	574,890	113,319
Public Administration	165,719	163,666	172,111	180,335	46,075
Real Estate and Rental and Leasing	290,430	285,238	265,335	225,269	42,207
Retail Trade	460,014	463,407	485,057	504,636	125,227
Transportation & Warehousing.	175,701	197,766	196,204	175,591	37,344
Utilities	26,591	26,389	26,421	26,373	6,556
Wholesale Trade	429,333	408,262	449,027	427,346	90,781

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 Parish School System	Education	4,586
2.	Lafayette General Health	Health Care	4,026
3.	Wood Group Production Services	Oil and Gas	2,990
4.	Lafayette Consolidated Government	Public Administration	2,500
5.	University of Louisiana-Lafayette	Education	2,006
6.	WHC Inc	Oil and Gas	1,700
7.	Wal-Mart Stores, Inc.	Retail Trade	1,642
8.	Our Lady of Lourdes Reg Med Ctr	Health Care	1,533
9.	Schlumberger	Oil and Gas	1,244
10.	Stuller Inc.	Manufacturing	1,210

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
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
Crescent Bank & Trust
CUSA Federal Credit Union
Family Savings Credit Union
Farmers-Merchants Bank & Trust Company
Farmers State Bank & Trust Company
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 Credit Union
Lenco Finance
Lourdes Hospital FCU
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
U L Credit Union
Washington State Bank
Whitney Bank
Woodforest National Bank

Source: Lafayette Economic Development Authority

STATEMENT OF DIRECT, OVERLAPPING, UNDERLYING
AND PARTIALLY UNDERLYING BONDED DEBT AS OF NOVEMBER 2, 2016
(The accompanying notes are an integral part of this statement.)

Notes	Name of Issuer & Issue	Interest Rates (%)	Dated Date	Final Maturity Date	Principal Outstanding	Principal Amount Due Within One Year
(1)	**Direct Debt of the City of Lafayette, State of Louisiana**					
(2)	Public Improvement Sales Tax Bonds, Series 2007A	4.25	8/01/07	3/01/17	$ 560,000	$ 560,000
(2)	Taxable Public Improvement Sales Tax Build America Bonds, Series 2009A	5.24-7.08	8/18/09	3/01/33	24,370,000	1,045,000
(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 Bonds, Series 2011	2.5-5.0	6/28/11	3/01/36	26,535,000	435,000
(2)	Public Improvement Sales Tax Refunding Bonds, Series ST-2011A	3.75-5.0	6/01/11	3/01/26	12,595,000	965,000
(2)	Public Improvement Sales Tax Refunding Bonds, Series ST-2011C	3.0-5.0	12/08/11	3/01/27	6,350,000	520,000
(2)	Public Improvement Sales Tax Refunding Bonds, Series ST-2012A	2.0-4.0	6/01/12	3/01/28	7,320,000	1,600,000
(2)	Public Improvement Sales Tax Bonds, Series 2013	3.0-5.0	6/21/13	3/01/38	14,460,000	430,000
(2)	Public Improvement Sales Tax Refunding Bonds, Series 2014A	4.0-5.0	10/17/14	3/01/30	16,295,000	800,000
(2)	Public Improvement Sales Tax Refunding Bonds, Series 2014C	5.0	12/05/14	3/01/24	21,585,000	2,460,000
(2)	Public Improvement Sales Tax Refunding Bonds, Series 2015A	2.43	12/18/15	3/01/25	3,550,000	290,000
(2)	Public Improvement Sales Tax Refunding Bonds, Series 2016D	2.0-4.0	2/26/16	3/01/32	12,915,000	75,000
(3)	Public Improvement Sales Tax Bonds, Series 2007B	4.5	8/01/07	5/01/17	70,000	70,000
(3)	Taxable Public Improvement Sales Tax Build America Bonds, Series 2009B	5.24-7.23	8/18/09	5/01/34	22,040,000	850,000
(3)	Public Improvement Sales Tax Refunding Bonds, Series ST-2011B	3.0-4.25	6/01/11	5/01/26	8,900,000	730,000
(3)	Public Improvement Sales Tax Refunding Bonds, Series ST-2011D	3.0-5.0	12/08/11	5/01/27	9,230,000	720,000
(3)	Public Improvement Sales Tax Refunding Bonds, Series ST-2012B	2.0-5.0	6/01/12	5/01/28	12,015,000	815,000
(3)	Public Improvement Sales Tax Refunding Bonds, Series 2014B	2.0-3.375	9/26/14	5/01/30	1,720,000	95,000
(3)	Public Improvement Sales Tax Refunding Bonds, Series 2015	5.00	2/06/15	5/01/24	10,445,000	1,440,000
(3)	Public Improvement Sales Tax Refunding Bonds, Series 2016A	3.0-5.0	2/26/16	5/01/25	21,745,000	2,695,000
(3)	Public Improvement Sales Tax Refunding Bonds, Series 2016E	2.63	2/26/16	5/01/32	1,740,000	15,000
(4)	Utilities Revenue Bonds, Series 1996	2.95	8/22/96	11/01/17	1,155,000	1,155,000
(4)	Utilities Revenue Bonds, Series 2010	3.75-5.0	12/15/10	11/01/35	76,635,000	2,610,000
(4)	Utilities Revenue Refunding Bonds, Series 2012	5.0	1/11/13	11/01/28	136,620,000	8,660,000
(5)	Certificates of Indebtedness, Series 2011	3.65	5/11/11	5/01/26	4,405,000	360,000
(6)	Communications System Revenue Bonds, Series 2007	4.250-5.0	6/28/07	11/01/17	4,125,000	4,125,000
(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	90,660,000	4,045,000
(7)	Taxable Limited Tax Refunding Bond, Series 2012	3.75	3/02/12	5/01/28	33,345,000	2,240,000

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

Notes	Name of Issuer & Issue	Interest Rates (%)	Dated Date	Final Maturity Date	Principal Outstanding	Principal Amount Due Within One Year
(8)	**Overlapping Debt of the Parish of Lafayette, State of Louisiana**					
(9)	General Obligation Bonds, Series 2010	3.0-5.0	1/12/11	3/01/35	$22,055,000	$ 730,000
(9)	General Obligation Refunding Bonds, Series 2010	3.0-5.0	1/12/11	3/01/26	9,255,000	740,000
(9)	General Obligation Refunding Bonds, Series 2012	3.0-4.0	5/03/12	3/01/28	14,455,000	930,000
(9)	General Obligation Refunding Bonds, Series 2014	3.0-5.0	8/01/14	3/01/30	10,470,000	545,000
(10)	**Overlapping Debt of the Parish School Board of the Parish of Lafayette, State of Louisiana**					
(5)	Certificates of Indebtedness, Series 2007	3.61	12/17/07	11/01/17	795,000	795,000
(5)	Refunding Certificates of Indebtedness, Series 2010	3.06	12/29/10	11/01/23	1,997,000	259,000
(5)	Certificate of Indebtedness, Series 2015	2.2	8/17/15	11/01/22	8,685,000	1,350,000
(12)	Public School Refunding Bonds, Series 2008	4.0-5.0	6/30/08	4/01/19	17,775,000	5,640,000
(12)	Public School Refunding Bonds, Series 2010	3.0-4.0	5/27/10	4/01/21	4,365,000	810,000
(13)	Limited Tax Bonds (Taxable QSCB), Series 2009	0.8	12/11/09	10/01/24	10,000,000	(a)
(13)	Limited Tax Bonds (Taxable QSCB), Series 2011	0	3/01/11	10/01/26	10,000,000	(a)
(13)	Limited Tax Bonds (Taxable QSCB), Series 2012	0	4/03/12	3/01/27	1,460,775	(a)
(13)	Limited Tax Revenue Bonds, Series 2012A	2.0-5.0	1/04/13	3/01/32	26,435,000	1,260,000
(14)	**Overlapping Debt of the Law Enforcement District of the Parish of Lafayette, State of Louisiana**					
(15)	Limited Tax Revenue Bonds, Series 2012	2.0-4.0	3/01/12	3/01/32	18,095,000	805,000
(16)	Revenue Anticipation Note, Series 2016	2.0	10/04/16	6/30/17	4,000,000	4,000,000
(17)	**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	4,000,000	50,000
(18)	**Underlying Debt of Lafayette Public Power Authority**					
(19)	Electric Revenue Bonds, Series 2007	4.0	12/06/07	11/01/17	685,000	685,000
(19)	Electric Revenue Bonds, Series 2012	2.0-5.0	12/21/12	11/01/32	55,540,000	2,510,000
(19)	Electric Revenue Refunding Bonds, Series 2015	2.0-5.0	11/13/15	11/01/32	28,945,000	95,000
(20)	**Partially Underlying Debt of Lafayette Parish Waterworks District North, Lafayette Parish, Louisiana**					
(21)	Water Revenue Refunding Bonds, Series 2013	2.95	1/29/13	10/01/27	3,713,000	351,000
(22)	**Partially Underlying Debt of Lafayette Parish Waterworks District South, Lafayette Parish, Louisiana**					
(21)	Water Revenue Refunding Bonds, Series 2011	2.9	12/21/11	8/01/21	1,790,000	347,000
(21)	Water Revenue Bonds, Series 2013	3.2	8/08/13	8/01/28	1,440,000	20,000

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

NOTES

(1) The 2016 total assessed valuation of the City of Lafayette, State of Louisiana is approximately $1,575,850,272, 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 2016 total assessed valuation of the Parish of Lafayette, State of Louisiana is approximately $2,641,089,701, of which approximately $2,259,086,547 is taxable.

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

(10) The 2016 total assessed valuation of the Parish School Board of the Parish of Lafayette, State of Louisiana is approximately $2,641,089,701, of which approximately $2,259,086,547 is taxable.

(11) Payable from available funds of the Parish School Board of the Parish of Lafayette, State of Louisiana.

(12) 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.

(13) 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.

(14) The 2016 total assessed valuation of the Law Enforcement District of the Parish of Lafayette, State of Louisiana is approximately $2,641,089,701, of which approximately $2,259,086,547 is taxable.

(15) 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.

(16) Secured by and payable from a pledge of all revenues accruing to the Sheriff's General Fund for the fiscal year ending June 30, 2017.

(17) The 2016 total assessed valuation of the Lafayette Parish Bayou Vermilion District, State of Louisiana is approximately $2,641,089,701, of which approximately $2,259,086,547 is taxable.

(18) The Lafayette Public Power Authority is parishwide, and levied no *ad valorem* taxes in 2016.

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

(20) 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 2016.

(21) 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.

(22) 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 2016.

(NOTE: The above statement excludes the outstanding indebtedness of the Lafayette Airport Commission, the Lafayette Economic Development Authority [formerly the Lafayette Harbor, Terminal and Industrial Development District], the Lafayette Public Trust Financing Authority, Lafayette Industrial Development Board, Lafayette I-10 Corridor District at Mile Marker 103, District No. 4 Regional Planning and Development Commission, and all operating and capital leases.)

SUMMARY DEBT STATEMENT AS OF NOVEMBER 2, 2016

A. Debt of the City of Lafayette

Type of Obligation	Principal Outstanding
Sales Tax Bonds	$238,080,000
Utilities Revenue Bonds	$214,410,000
Communications System Revenue Bonds	$109,380,000
Taxable Revenue Bonds	$33,345,000
Certificates of Indebtedness	$4,405,000

B. Debt of the Parish of Lafayette

Type of Obligation	Principal Outstanding
Unlimited Ad Valorem Tax Bonds	$60,235,000

C. Debt of the Lafayette Parish School Board

Type of Obligation	Principal Outstanding
Sales Tax Bonds	$70,035,775
Certificates of Indebtedness	$11,477,000

D. Debt of The Law Enforcement District

Type of Obligation	Principal Outstanding
Limited Tax Revenue Bond	
Lafayette Parish Law Enforcement District	$18,095,000
Revenue Anticipation Note	
Lafayette Parish Law Enforcement District	$4,000,000

E. Debt of the Lafayette Public Power Authority

Type of Obligation	Principal Outstanding
Electric Revenue Bonds	$85,170,000

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

Type of Obligation	Principal Outstanding
Water Revenue Bonds	$3,713,000

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

Type of Obligation	Principal Outstanding
Water Revenue Bonds	$3,230,000

(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.)