BURNS McDONNELL

2021 Consulting Engineer's Comprehensive Annual Report

LUS
LAFAYETTE UTILITIES SYSTEM

LUSFIBER

Lafayette
CONSOLIDATED GOVERNMENT

Lafayette Utilities System and LUS Fiber

Consulting Engineer's Comprehensive Annual Report
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prepared for

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LIST OF ABBREVIATIONS

Abbreviation	Term/Phrase/Name
°F	Degrees Fahrenheit
A&G	Administrative and General
ACE	Affordable Clean Energy
ACSR	Aluminum-conductor steel-reinforced cable
ACTP	Ambassador Caffery Treatment Plant
ADMS	Advanced Distribution Management System
AMI	Advanced Metering Infrastructure
AO	Administrative Order
APPA	American Public Power Association
AWIA	America's Water Infrastructure Act
AWWA	American Water Works Association
BOD5	Biological oxygen demand
Bond Ordinances	General Bond Ordinance
Bonin	Louis "Doc" Bonin Generation Station
BPA	Blanket Purchase Agreement
Burns & McDonnell	Burns & McDonnell Engineering Company, Inc.
CAFR	Comprehensive Annual Financial Report
CAIDI	Customer Average Interruption Duration Index
CATV	Cable television
CBRS	Citizens Broadband Radio Service
CCR	Coal Combustion Residuals
CCR	Consumer Confidence Report
CCTV	Closed-circuit television video
CEMS	Continuous emission monitoring system
Charter	Home Rule Charter
CIP	Capital Improvement Program
City/Lafayette	City of Lafayette, Louisiana
CMOM	Capacity, Management, Operations, and Maintenance Program
CO2	Carbon dioxide
Commission Boulevard	Commission Boulevard Remote Site
CPP	Clean Power Plan
CSAPR	Cross State Air Pollution Rule
DA	Deaerator
DBPR	Disinfectants and Disinfection Byproducts Rule
Demin	Demineralized water
DSC	Debt service coverage
DSCR	Debt service coverage ratio

Abbreviation	Term/Phrase/Name
DVR	Digital video recorder
EDA	U.S. Department of Commerce's Economic Development Administration
EGU	Electric Generating Unit
ELG	Effluent limitation guidelines
EMMA	Electronic Municipal Market Access
EMS	Energy management system
EPA	Environmental Protection Agency
ERP	Emergency Response Plan
ESP	Electro-static precipitator
ESRI	Environmental Systems Research Institute
ESTP	East Sewage Treatment Plant
Fair Completion Act	The Local Government Fair Completion Act
FC	Fuel Charge
FCC	Federal Communications Commission
FCI	Faulted circuit indicators
FEMA	Federal Emergency Management Agency
FGD	Flue gas desulfurization
FRP	Facility Response Plan
FTTP	Fiber-to-the-premises
FWH	Feed water heater
FY	Fiscal year
GAC	Granular activated carbon
Gbps	Gigabits per second
GE	General Electric
GIS	Geographic information system
Gloria Switch	Gloria Switch Remote Site
GOHSEP	Governor's Office of Homeland Security and Emergency Preparedness
GPON	Gigabit passive optical network
GSU	Generator step-up
HAA5	Five haloacetic acids
HP	High pressure
HPBX	Hosted voice
HPC	High pressure combustion
HSE	Hot section exchanges
I&I	Inflow and infiltration
ICAP	Installed capacity
ILOT	In lieu of tax
IRP	Integrated resource plan
ISP	Internet service providers

Abbreviation	Term/Phrase/Name
kV	Kilovolts
LA DHH	Louisiana Department of Health and Hospitals
lb/hr	Pounds per hour
LCG	Lafayette City-Parish Consolidated Government
LCRR	Lead and Copper Rule Revisions
LDEQ	Louisiana Department of Environmental Quality
LiDAR	Light Detection and Ranging
LP	Low pressure
LPDES	Louisiana Pollutant Discharge Elimination System
LPPA	Lafayette Public Power Authority
LPSC	Louisiana Public Service Commission
LPSC Rules	LPSC Cost Allocation and Affiliate Transaction Rules
LPUA	Louisiana Public Utilities Authority
LRZ	Local Resource Zone
LS	Lift stations
LSL	Lead service line
LTE	Long-term evolution
LUS	Lafayette Utilities System
LUS Fiber	Communications System
MAIFI	Momentary Average Interruption Frequency Index
Mbps	Megabits per second
MCL	Maximum contaminant levels
MCR	Maximum continuous rating
MG	Million gallons
MGD	Million gallons per day
MISO	Midcontinent Independent System Operator, Inc.
MRDL	Maximum residual disinfectant level
MRDLG	Maximum residual disinfectant level goal
MSGP	Multi-Sector General Permit
MSRB	Municipal Securities Rulemaking Board
MV	Medium voltage
MVA	Megavolt amperes
MW	Megawatts of electricity
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industry Classification System
NERC	North American Electric Reliability Corporation
NERC CIP	NERC Critical Infrastructure Protection
NETP	Northeast Treatment Plant
NOV	Notice of Violation

Abbreviation	Term/Phrase/Name
NOx	Nitrous oxide
NSPS	New Source Performance Standards
NTEC	Navajo Transitional Energy Company
NWP	North Water Treatment Plant
O&M	Operations and Maintenance Expense
O&P	Operations and Planning
OLT	Optical terminal
OMS	Outage Monitoring System
OSI	Open Systems International, Inc.
Parish	Lafayette Parish
PCCC	Permanently Ceasing Coal Combustion
PFAS	Polyfluoroalkyl substances
PIAL	Property Insurance Association of Louisiana
POMS	Power Outage Monitoring System
PON	Passive optical network
POTW	Publicly owned treatment works
PRB	Powder River Basin
PRI	Primary Rate Interface
psig	Pounds per square inch gauge
PVC	Polyvinyl chloride
RATA	Relative Testing Accuracy Audit
RCRA	Resource Conservation and Recovery Act
Report	Consulting Engineer's Comprehensive Annual Report
RRA	Risk and Resilience Assessment
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SBR	Sequencing batch reactors
SCADA	Supervisory control and data acquisition
SEC	Securities and Exchange Commission
SNCR	Selective non-catalytic reduction
SO2	Sulfur dioxide
SPCC	Spill Prevention, Control, and Countermeasure
SPRINT	General Electric's Spray Intercooling system
SSTP	South Sewage Treatment Plant
STG	Steam turbine generator
SWP	South Water Treatment Plant
SWPA	Southwestern Power Administration
TAS	Turbine Air Systems

Abbreviation	Term/Phrase/Name
TDS	Total dissolved solids
TEA	The Energy Authority
TIER	Times interest earned ratio
TPL	Transmission planning
TSS	Total suspended solids
TTHM	Total trihalomethanes
UCMR	Unregulated Contaminant Monitoring Rule
UF	Ultra filtration
Utilities System	Lafayette Utilities Systems Electric, Water, and Wastewater Systems
VSV	Variable stator vane
WWTP	Wastewater treatment plants

EXECUTIVE SUMMARY

Introduction

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

LCG retained Burns & McDonnell Engineering Company ("Burns & McDonnell") as the LUS and LUS Fiber Consulting Engineer in January 2021. The analyses and investigations completed by Burns & McDonnell, in collaboration with CTC Technology & Energy ("CTC") – a telecommunications consulting firm assisting Burns & McDonnell, in the performance of its due diligence review and assessments of LUS and LUS Fiber are similar to prior reviews conducted by other firms. Therefore, the organization, content, conclusions, and recommendations contained within this Report are similar to previous reports, but may differ from those included in reports completed prior to 2021. LCG operates on a fiscal year, beginning November 1 and ending on October 31 of the following year. Unless otherwise stated, all data in this Report is presented on a FY basis.

In preparation of this Report, Burns & McDonnell relied upon information provided by LUS, LUS Fiber, LCG, and Cleco Corporate Holdings (Cleco). Consulting engineers from Burns & McDonnell and CTC conducted site visits to LUS and LUS Fiber's system assets and conducted virtual interviews with LUS, LUS Fiber, and Cleco management in February 2021.

Bond Ordinance Requirements

LUS, LUS Fiber, and Lafayette Public Power Authority ("LPPA") have bond ordinance requirements which are described in more detail in Section 2 of this Report. As of October 31, 2020, the City is paying debt service on outstanding bonds for LUS (Series 2010, 2012, 2017 and 2019), LUS Fiber (Series 2012 and Series 2015), and LPPA (Series 2012 and 2015). This Report addresses several covenants and continuing disclosures included in the Bond Ordinances including but not limited to condition of the

assets, operation of the system, accounting and financial compliance, and financial performance of LUS and LUS Fiber. Continuing disclosures are included in Sections 8 through 12 of this report.

Utilities System Overall Performance

LUS continued to experience modest customer growth across all three utility systems in FY 2020 with total customer count growth slightly over one percent. LUS experienced some declines in sales per customer in early spring 2020 due to the COVID-19 pandemic; however, use per customer has begun to resume back to pre-pandemic levels.

LUS experienced a 6 percent decline in total system revenues in FY 2020, primarily due a 7.5 percent reduction in electric revenues. Water revenues increased by nearly 1 percent, while wastewater revenues realized a decline of approximately 3 percent. The decrease in revenues was due to declines both in reduced use per customer in the commercial classes and a lower fuel charge. No rate changes occurred in FY 2020.

LUS FY 2020 revenues and expenses were both lower than originally budgeted which helped to maintain strong cash flows. Lower revenues were offset by lower operating expenses including lower power supply expenses, lower water and wastewater production costs, and temporary reductions in non-variable O&M expenses. In addition to lower expenses, actual capital spending was less than anticipated for FY 2020.

LUS's financial performance remained relatively strong in FY 2020 and steadily improved throughout the year. LUS continues to maintain a strong debt service coverage ("DSC") ratio over 3.0 and has sufficient cash to fund its operating and capital expenditures.

Communications System Overall Performance

Since 2016, the Communications System's number of accounts increased at a compound annual rate of 4.9 percent, totaling 20,412 retail accounts in 2019. At the current customer levels, the Communications System generates sufficient revenues to meet operating and maintenance expenses, debt service, capital improvements, inter-utility loan payments, imputed taxes, and all other financial obligations. The Communications System's operating expenses are holding steady while revenue continues to grow. Further, LUS Fiber's profit margin is sufficient to allow the Communications System to spend $2 million per year on continued network expansion.

The Communications System's cash flow reserves are sufficient to cover all remaining liabilities related to the 2018 to 2019 attest audit, and revenue trends suggest LUS Fiber will continue to generate positive cash flow beyond 2022, when bond payments will grow from $9.4 million to $10.6 million per year.

Over the past year, the COVID-19 pandemic has accelerated the cord-cutting trend (both in the Lafayette market and nationwide), leading to higher-than-expected churn of video subscribers. However, growth in the Communications System's internet subscribers and migration of existing customers to higher bandwidth tiers has more than made up for shrinking video revenue.

As of the writing of this Report, LUS Fiber has achieved a residential internet take-rate (i.e., the percentage of eligible premises that subscribe to service) in line with what other fiber-to-the-premises operators (both municipally owned and private) have achieved in other markets with a capable cable competitor. Increased demand for upload capacity—which is a competitive advantage of the Communications System's fiber technology—may help fuel continued growth.

From a technical standpoint, the network has sufficient excess network capacity to support numerous additional lit and/or dark fiber customers. And given that most of the Communications System's costs are fixed and do not vary when new customers are added, revenues associated with customer growth above current levels likely will further improve the system's financial performance.

In addition, following its submittal of a strong application, LUS Fiber was recently awarded a $3.1 million grant from the U.S. Department of Commerce's Economic Development Administration ("EDA") to fund additional network expansion in Lafayette, St. Martin, and Iberia Parishes.

Utilities System Director and Interim Director

The current Interim Utilities Director is Mr. Lowell Duhon. Mr. Duhon graduated from the University of Louisiana at Lafayette with a B.S. and master's in business administration. Prior to serving as the Interim Utilities Director, Mr. Duhon was the Chief Administrative Officer of LCG. Mr. Duhon has been serving in this interim role since October 2019 and will continue to fulfill this role until LUS and LCG hire a permanent Utilities Director. LUS has started the process of recruiting a permanent Utilities Director. Burns & McDonnell will be fulfilling its obligation as Engineer of Record in supporting LUS in the identification and selection of the permanent Utilities Director in FY 2021.

Communications System Director and Interim Director

At the end of March 2021, Lafayette Mayor-President Josh Guillory named Ryan Meche, who was serving in the role of Engineer III with LUS Fiber, as LUS Fiber's new Director. Mr. Meche graduated from the University of Louisiana at Lafayette with a Bachelor of Science in Electrical Engineering and is a registered Professional Engineer in Louisiana. Mr. Meche has been an employee of LUS for 16 years. From October 14, 2019, to the end of March 2021, the Interim Communications System Director was Ms. Kayla Miles. Ms. Miles graduated from the University of Louisiana at Lafayette with a Bachelor of Arts

in Public Relations. Prior to serving as the Interim Communications System Director, Ms. Miles was the Communications Support Services Administrator for Communications System.

Utilities System Observations and Recommendations

Based upon the information and assumptions relied upon, as included within this Report, the general observations and recommendations for the Utilities System are presented below.

- Based on physical observations of the system and review of records, LUS is maintaining the properties in a manner consistent with utility practices.
- LCG, LUS, and LPPA have an efficient management structure in place to maintain the utility property and maintain adequate accounting and financial records for each of the three utility systems.
- LUS prepares budgets and has budgetary control measures that have enabled the utility to maintain strong financials over the last five years. Revenues were sufficient to meet all financial obligations including debt payment, operating expenses, ILOT payments, and capital funding requirements. LUS has maintained competitive utility service rates while exceeding its minimum 1.0 DSC ratio.
- LUS has been deploying the necessary capital for the repair, replacement, and expansion of the utility systems. Based on Burns & McDonnell's review of the historical and projected capital improvement plan, LUS is making necessary repairs, renewals, replacements, extensions, betterments, and improvements of each of the utility systems.
- For each of the utility systems, LUS is striving to maintain competitive salaries to recruit and retain talented engineers, managers, operators, technicians, and financial staff. The managers and staff in place within LUS appear to be well organized and committed to successfully running the utilities.

Electric Utility System

Based upon the information and assumptions relied upon, as included within this Report, the general observations and recommendations for the Electric Utility System are presented below.

- Based on visual inspection of facilities, records audit, and interviews of LUS staff, the LUS distribution and transmission system is in good condition, maintained properly and in accordance with prudent utility and industry practices.
- LUS is proactive and strategic in its cyclical inspection, maintenance, and replacement of equipment.
- The LUS transmission and distribution planning and construction practices are proactive and aligned with a focus on reliability, resiliency, and efficient operation of the system.

- The LUS distribution system consistently outperforms regional and national averages for system reliability and availability, which reflects its intentional and proactive maintenance, planning, and construction practices.
- Revenues were sufficient to meet all financial obligations including operating expenses, LUS and LPPA debt service, capital improvements, ILOT payments, and required reserves. LUS's electric system operating, expense, debt, revenue, and related ratios reflect a financially stable and healthy utility that is currently offering competitive, lower than market average rates.
- The Utilities System CIP has been sufficient to sustain and improve the integrity and reliability of the system.
- LUS and Burns & McDonnell completed an IRP in FY 2020. The IRP had several recommendations which included the retirement of Rodemacher No. 2 from coal-fired operation at the end of 2027, the potential construction of a new LUS owned simple cycle gas turbine power plant at the existing Doc Bonin site in 2028, and the addition of utility scale solar which would be procured through a power purchase agreement. LUS continues to evaluate its power supply alternatives based on the results of the IRP, and initiate progress where needed.
- LUS has performed exceptionally well in FY 2020 even with sustaining two hurricanes. LUS's performance on the four reported indices is consistent or significantly better than typical national median performance reported by both regional and national benchmarks. LUS has performed well in NERC CIP audits, NERC 693 operational audits, and LDEQ environmental inspections.
- The organizational structure and management of the Electric System engineering and operations areas appears to be strong based on initial observations, interviews, organizational structures, and manpower within each department.

Water Utility System

Based upon the information and assumptions relied upon, as included within this Report, the general observations and recommendations for the Water Utility System are presented below.

- Total water production has remained generally stable but overall retail water sales have declined.
- Retail sales reductions have been partially offset by wholesale sales increases, with wholesale sales representing 28 to 30 percent of total sales over the last five years. LUS coordinates closely with its wholesale customers regarding growth for planning purposes and should continue to do so.
- With relatively steady water production and a general decline in water sales, unaccounted for water

has increased from 7.4 percent in 2016 to 12.5 percent in 2020. Overall unaccounted for water (i.e. losses) on a percentage basis have increased over the last four years.

- Within its next rate study, LUS should evaluate the possibility of increasing its fixed cost recovery in its Water System revenue streams to improve overall revenue stability. Such a change can be accomplished in a revenue-neutral way, meaning rates would still produce the same overall Water System revenue under normal conditions. This change could be phased-in over time to mitigate customer impact.
- Water produced by the two Commission Boulevard groundwater wells is not softened or treated for iron and manganese removal prior to entering the distribution system. Areas of the distribution system where this groundwater blends with softened water from the North and/or South Water Treatment Plants has been observed to cause aesthetic issues with water being delivered to customers. LUS utilizes automatic flushing in these areas of the distribution system; however, robust monitoring or operational changes in the system may be necessary to prevent these events from occurring until the new Commission Boulevard Water Treatment Facility is constructed and operational. The treatment plant improvements are scheduled to be completed in 2022.
- The 16-inch pipeline leaving the North Water Treatment Plant into the distribution system presents a hydraulic limitation (or "bottleneck") on the amount of water that can be pumped out of the treatment plant. This in turn, reduces the ability to utilize the full treatment capacity of the plant. Burns & McDonnell recommends potential solutions to mitigate this bottleneck for this pipeline be evaluated in the future. This would allow LUS to utilize the full treatment capacity of the plant to meet increasing demands in the system.
- Annual programs are in place for inspection of elevated water towers and for inspection and testing of groundwater production wells. Through discussion and observations, it appears that a programmatic proactive maintenance approach is not applied consistently across all LUS water assets. Proactive maintenance results in extended asset life and reduces the likelihood and duration of unexpected downtime or failures. LUS should evaluate its water system assets to estimate remaining service life and likelihood of failure. The results of that assessment should be used to further develop capital improvement planning to address critical assets over a long-term period, with targeted strategies to address high-priority items. This effort should include planning for renewal and replacement of aging infrastructure over its anticipated service life.
- LUS should begin preparing for operational changes brought about by recent LCRR, specifically in developing an LSL inventory and revisions to lead and copper sampling locations and protocol. An

LSL Replacement Plan must be developed if LSL are present in the distribution system. LUS should evaluate LCRR requirements as soon as possible to confirm operating and capital obligations associated with compliance.

- Due to the continued increasing trend in unaccounted for water, Burns & McDonnell recommends that LUS consider studying water loss in more detail or performing a Water Audit for Water Loss Control for improved management of non-revenue water. LUS is currently finalizing contract negotiations with Water Company of America, who provides usage/system analysis for water customers and the contract will include studying water losses associated with retail usage.

Wastewater Utility System

Based upon the information and assumptions relied upon, as included within this Report, the general observations and recommendations for the Wastewater Utility System are presented below.

- Similar to the Water System, LUS should evaluate the possibility of increasing its fixed cost recovery in its Wastewater System revenue streams to improve overall revenue stability. Such a change can be accomplished in a revenue-neutral way, meaning rates would still produce the same overall Wastewater System revenue under normal conditions. This change could be phased-in to mitigate customer impact.
- It is important that cleaning, inspection, and rehabilitation of the wastewater collection system be continued to comply with the requirements of the AO. The rate of such work needs to be resumed to meet the required 10 percent per year, which is an increase from the 8 percent performed in 2018 and 2019. It is unknown if the EPA will take exception to the requirements of the AO and CMOM due to COVID-19, and until some confirmation is provided, it should not be assumed that exception will be given. Additionally, collection system rehabilitation should be performed at a pace of 7.7 percent of the system per year; which is a much higher rate than the reported 1.6 percent in 2018.
- The CMOM program implemented in response to the AO has established a framework for programmatic proactive maintenance of LUS's collection system assets. Proactive maintenance results in extended asset life and reduces the likelihood and duration of unexpected downtime or failures. As part of its efforts to implements its CMOM program, LUS should evaluate its wastewater system assets to estimate remaining service life and likelihood of failure. The results of that assessment should be used to further develop capital improvement planning to address critical assets over a long-term period, with targeted strategies to address high-priority items. This effort should include planning for renewal and replacement of aging infrastructure over its anticipated service life.

- LUS currently has agreements for access to areas totaling more than the area physically required to contain all produced biosolids, because the land-use agreement structures require LUS to accommodate farming activities, which reduces the availability of these spaces. LUS may evaluate new, or restructured, land-use agreements to provide better availability of land or flexibility for the application of biosolids.
- LUS should evaluate a mechanical dewatering device, or process unit, at the NETP to remove water prior to lime stabilization. This WWTP generates biosolids at approximately 2 to 3 percent solids by weight, and the other three WWTPs produce biosolids at approximately 22 to 27 percent solids by weight after processing with mechanical equipment. This is also anticipated to alleviate some challenges with the frequency of land application.
- Due to regional contaminant loading to the Vermillion River, the LDEQ has imposed a hold on new and additional contaminant loading to the river. Simultaneously, population growth and development within the LUS service area has increased, and therefore wastewater flows to the LUS WWTPs have also increased. As a confluence of these factors, it is recommended that a treatment process evaluation of the four WWTPs be completed to identify the risks that LUS faces with respect to meeting LPDES loading limits, and what improvements may reduce LUS loading to the river. The evaluate should consider potential changes to treatment costs at each of the plants in total and on a per unit of wastewater treated basis.

Communications System Observations and Recommendations

Based upon the information and assumptions relied upon, as included within this Report, the general observations and recommendations for the Communications System are presented below.

- Based on visual inspection of facilities, records audit, and interviews of LUS Fiber staff, the LUS Fiber communication network is in good condition, maintained properly and in accordance with industry practices.
- At the current customer levels, the Communications System generates sufficient revenues to meet operating and maintenance expenses, debt service, capital improvements, inter-utility loan payments, imputed taxes, and all other financial obligations, with a sufficient profit margin to allow the Communications System to spend $2 million per year on continued network expansion.
- LUS Fiber's future revenue growth is primarily constrained by the Communications System's ability to expand into nearby underserved areas. LUS Fiber should consider refinancing existing debt and continuing to pursue federal and state grant opportunities to accelerate expansion and further grow its

customer base.

- In light of the competitive nature of the broadband marketplace, LUS Fiber should offer staff compensation in line with what private providers offer, and create a more tiered management structure with firmly established lines of accountability.
- LUS Fiber has taken over direct management of customer service personnel, giving the Communications System more control over the customer-facing side of the organization. LUS Fiber should continue developing customer service department to serve as a secondary sales and retention department.
- LUS Fiber's network has sufficient excess capacity to support numerous additional enterprise customers. However, LUS Fiber may need to simplify its pricing and align its enterprise service offerings with the service categories most commonly used in the enterprise data service marketplace. LUS Fiber should also consider a competitive procurement to assess the market of entities that could help with marketing and sales to enterprise customers.
- Historically, a large segment of consumers preferred to bundle home internet service with cable television and voice service. However, consumers are increasingly substituting over-the-top video services for traditional cable television subscriptions, and the pandemic accelerated this trend. LUS Fiber should revisit its video strategy, ideally prior to the next major headend and video equipment refresh. LUS Fiber should also consider whether adding a mobile service offering will increase the competitiveness of its bundles.
- To continue to improve customer satisfaction and financial performance, LUS Fiber management needs additional visibility into the costs and response times associated with various aspects of network installation, maintenance, and repair. Tracking these metrics will allow management to monitor performance over time and set improvement goals.

Revenue Bond History and Ratings

LUS, LUS Fiber, and LPPA have issued and successfully paid its bond holders for over 70 years. A summary of the outstanding bonds are presented in Table ES-1.

Table ES-1: LUS, LPPA, and LUS Fiber Outstanding Bond Summary

Entity	Date Issued	Authorized Amount	Application of Proceeds
LUS	2010	$86,080,000	Improvements to the Electric System to alleviate the Acadian Load Pocket, Development of AMI to benefit the Electric and Water Systems, and collection improvements for the Wastewater System. The Series 2010 Bonds matured on November 1, 2020.
LUS	2012	$153,960,000	Advanced refunding of a portion of 2004 Bonds, Reserve Fund
LUS	2017	$59,465,000	Majority refunding of 2010 Bonds
LUS	2019	$58,065,000	Additions, extensions, and improvements to the Utilities System.
LPPA	2012	$65,100,000	Installation of MATS equipment, SNCR, and other improvements to Rodemacher Unit 2
LPPA	2015	$29,035,000	Refunded $28,325,000 million of the 2007 Bonds
LUS Fiber	2012	$14,595,000	Improvements to the Communications System to provide retail telephone, CATV, and Internet service city residents
LUS Fiber	2015	$91,600,000	Refunded $96,855,000 of the Series 2007 Bonds

Source: LUS

The most recent bond ratings for debt issuances are included 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's performance to update their credit ratings. The most recent bond rating date for S&P was April 9, 2019 while Moody's last affirmation date was January 1, 2021.

Table ES-2: Recent Bond Ratings

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

Source: LUS, Moody's, S&P

1.0 SCOPE OF REVIEW

1.1 Introduction

The Lafayette Consolidated Government ("LCG," "City," or "City of Lafayette") retained Burns & McDonnell Engineering Company ("Burns & McDonnell"), in collaboration with CTC Technology & Energy ("CTC"), as its Consulting Engineer in January 2021. LCG operates two departments, Lafayette Utilities System ("LUS") and its communications system known as LUS Fiber.

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

This section of the Report describes the responsibilities of the Consulting Engineer with respect to the development of a Comprehensive Annual Report for the Utilities System and Communications System. The analyses and investigations completed by Burns & McDonnell in the performance of its due diligence review and assessments of LUS and LUS Fiber are similar to prior reviews conducted by other firms. Therefore, the organization, content, conclusions, and recommendations contained within this Report are similar to previous reports. LCG operates on a fiscal year, beginning November 1 and ending on October 31 of the following year. Unless otherwise stated, all data in this Report is presented on an FY basis.

1.2 Requirements of Bond Ordinances

Utilities System and Communications System outstanding bonds, presented in Table ES-1, are governed by nearly identical Bond Ordinances. The Utilities System is governed by Article VII-Covenants of the Issuer of the Utilities System General Bond Ordinance. The Communications System is governed by Article VIII-General Covenants of the Issuer of the Communications System General Bond Ordinance. The Consulting Engineer is governed by Article VIII-Consulting Engineer of the Utilities System General Bond Ordinance and Article IX-Consulting Engineer of the Communications System General Bond

Ordinance. These articles are pertinent to the content of this Report. A summary of each article is described in the following subsections of this report.

1.2.1 Lafayette Utilities System – Article VII

LUS must comply with Article VII of the Utilities System General Bond Ordinance which lists 12 covenants. The 12 covenants that LUS are required to meet are listed below.

- Section 7.1 – Operation Covenant where, among other things, the Issuer (LUS) agrees to operate the Utilities System in a businesslike manner.
- Section 7.2 – Maintenance of Utilities System, Disposition where, among other things, the Issuer agrees to maintain the Utilities System and all parts thereof in good condition and will operate the same in an efficient and economical manner.
- Section 7.3 – No Competitive Facilities, the Issuer shall not hereafter construct, acquire, or operate any plants, structures, facilities, or properties which will provide like services of the utility system in the Issuer and the areas currently served by the respective systems in competition with and not as part of the Utilities System unless such construction, acquisition, or operation, in the judgement of the Issuer, does not materially impair the ability of the Issuer to comply with Section 5.1.
- Section 7.4 – Obligation to Connect Sewerage Users where, among other things, the Issuer agrees to require every owner, tenant, or occupant of each lot or parcel of land to connect with the Utilities system and to cease to use any other method for the disposal of sewage, sewage water, or other polluting matter.
- Section 7.5 – No Free Service where, among other things, the Issuer will not permit free water, electricity, or sewage service to be supplied by the Utilities System.
- Section 7.6 – Operating Budget where, among other things, before the first day of each FY the Governing Body shall prepare, approve, and adopt in the manner prescribed by law … a detailed budget of the Revenues, Bond Service Requirement, and Cost of Operations and Maintenance ("O&M") for the next succeeding FY.
- Section 7.7 – Rate Covenant where, among other things, the Issuer will fix, charge, and collects such rates, rentals, fees, and charges for the use of and for the services and products provided by the Utilities System. The Issuer shall maintain a 1.0 debt service coverage ratio ("DSCR").
- Section 7.8 – Books and Records where, among other things, the Issuer shall keep separately identifiable financial books, records, accounts, and data concerning the operation of the Utilities System.
- Section 7.9 – Reports and Annual Audits where, among other things, the Issuer shall require that an

annual audit of the accounts and records with respect to the Utilities System be completed as soon as reasonably practicable at the end of the FY by a qualified independent certified public accountant.

- Section 7.10 – Insurance and Condemnation Awards where, among other things, the Issuer shall carry adequate fire, windstorm, explosion, and other hazard insurance on the components of the Utilities System. The Issuer may, upon appropriate authorization by its Governing Body, self-insure against such risks on a sound actuarial basis.
- Section 7.11 – Enforcement of Collections where, among other things, the Issuer will diligently enforce and collect the fees, rates, rentals, and other charges for the use of the products, services, and facilities of the Utilities System.
- Section 7.12 – Additions to Utilities System where, among other things, the Issuer may add to the Utilities System any facilities or equipment purchased, acquired, or constructed for the purpose of improving or renovating any element of the then-existing Utilities System.

1.2.2 Lafayette Utilities System – Article VIII

Article VIII of the Utilities System General Bond Ordinance lists three requirements of the Consulting Engineer. These requirements are listed below.

- 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 its 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.

1.2.3 LUS Fiber – Article VIII

Article VIII of the Communications System General Bond Ordinance lists nine covenants of the Issuer. These covenants are listed below.

- Section 8.1 – Operation Covenant where, among other things, the Issuer agrees to operate the Communications System and Utilities System in a businesslike manner.
- Section 8.2 – Maintenance of Communications System, Disposition where, among other things, the Issuer agrees to maintain the Communications System and Utilities System and all parts thereof in good condition and will operate the same in an efficient and economical manner.
- Section 8.3 – Operating Budget where, among other things, before the first day of each FY the Governing Body shall prepare, approve, and adopt in the manner prescribed by law…a detailed budget of the Revenues, Bond Service Requirement, and Cost of O&M for the next succeeding FY.
- Section 8.4 – Rate Covenant where, among other things, the Issuer will fix, charge, and collects such rates, rentals, fees, and charges for the use of and for the services and products provided by the Communications System. The Issuer shall maintain a 1.0 DSCR. Should there be a Credit Event, the Issuer will fix, charge, and collects such rates, rentals, fees, and charges for the use of and for the services and products provided by the Utilities System to provide sufficient revenues to pay the Communications System debt service.
- Section 8.5 – Books and Records where, among other things, the Issuer shall keep separately identifiable financial books, records, accounts, and data concerning the operation of the Communications System.
- Section 8.6 – Reports and Annual Audits where, among other things, the Issuer shall require that an annual audit of the accounts and records with respect to the Communications System and Utilities System be completed as soon as reasonably practicable at the end of the FY by a qualified independent certified public accountant.
- Section 8.7 – Insurance and Condemnation Awards where, among other things, the Issuer shall carry

adequate fire, windstorm, explosion, and other hazard insurance on the components of the Communications System and Utilities System. The Issuer may, upon appropriate authorization by its Governing Body, self-insure against such risks on a sound actuarial basis.

- Section 8.8 – Enforcement of Collections where, among other things, the Issuer will diligently enforce and collect the fees, rates, rentals, and other charges for the use of the products, services, and facilities of the Communications System and Utilities System.
- Section 8.9 – No Free Service where, among other things, the Issuer will not permit free service to be supplied by the Communications System and Utilities System.

1.2.4 LUS Fiber – Article IX

Article IX of the Communications System General Bond Ordinance lists two requirements of the Consulting Engineer which are listed below.

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

1.3 Purpose of the Report

The purpose of the Report is to fulfill the Utilities System General Bond Ordinance Article VIII and the Communications System General Bond Ordinance Article IX as described above and to comply with

Electronic Municipal Market Access ("EMMA") reporting requirements. EMMA is a resource for investors and is operated by the Municipal Securities Rulemaking Board ("MSRB"). The MSRB is a primary regulator of municipal markets. The MSRB establishes rules that securities firms, banks, and municipal advisors must follow when engaging in municipal securities transactions and advising investors and state and local governments. Section 8 – Continuing Disclosures, with Section 9 – Continuing Disclosures-Utilities System, Section 10 – Continuing Disclosures-Lafayette Public Power Authority ("LPPA"), Section 11 – Continuing Disclosures- Communications System, and Section 12 – Financial and Statistical Data meet the EMMA reporting requirement.

1.4 Report Organization

Outstanding debt obligations are supported by two separate revenue pledges. The electric, water, and wastewater utility revenues of the Utilities System are pledged to meet debt service obligations associated with the Utilities System Series 2010, 2012, 2017, and 2019 Bonds. Communications System revenues are pledged to meet debt service obligations associated with the Communications System Series 2012 and 2015 Bonds. Given these two distinct pledges, the Report has been organized as presented below.

- Section 1 – Scope of Review, as presented within this section.
- Section 2 – Governance, Organization, Management, and Revenue Pledge describes the organizational structure and management team of LUS, which oversees the operation of the Utilities System and Communications System, including the governance and shared services provided by LCG.
- Section 3 – Utilities System provides an overview of the combined electric, water, and wastewater operations that comprise the Utilities System, including historical financial performance.
- Section 4 – Electric System provides an in-depth review of Electric System operations, system condition, rate comparisons, performance benchmarking, and financial performance and contribution to the Utilities System revenue pledge.
- Section 5 – Water System provides an in-depth review of Water System operations, system condition, rate comparisons, and financial performance and contribution to the Utilities System revenue pledge.
- Section 6 – Wastewater System provides an in-depth review of Wastewater System operations, system condition, rate comparisons, and financial performance and contribution to the Utilities System revenue pledge.
- Section 7 – Communications System provides an in-depth review of the LUS Fiber Internet, telephone, and cables businesses including an assessment of market share, service offerings, price

competitiveness, and financial performance in support of the Communications System revenue pledge.

- Section 8 – Continuing Disclosure section providing an overview of EMMA and the required continuing disclosures.
- Section 9 – Continuing Disclosure section presenting updated financial information similar to that presented in official statements of outstanding bond issues for the Utilities System.
- Section 10 - Continuing Disclosure section presenting updated financial information similar to that presented in official statements of outstanding bond issues for LPPA.
- Section 11 - Continuing Disclosure section presenting updated financial information similar to that presented in official statements of outstanding bond issues for the Communications System.
- Section 12 - Continuing Disclosure section presenting relevant financial and statistical information.

1.5 Statement of Limitations

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2.0 GOVERNANCE, ORGANIZATION, AND MANAGEMENT

2.1 Governance

The Lafayette Parish (the "Parish") electorate and the City of Lafayette, Louisiana, ("City" or "Lafayette") adopted the Home Rule Charter ("Charter") to consolidate the City and Parish governmental functions as of 1996. The Charter defined the LCG departmental structure. LCG manages and operates the Utilities System and Communications System through its departmental structure. The Utilities Department is responsible for the Utilities System while the Communications Department is responsible for the Communications System management and operations. Other LCG departments perform certain functions to and provide support for LUS operations, such as the Chief Administrative Officer, which includes human resources, the Office of Finance and Management, which includes accounting, budget management, purchasing and property management, and risk management and group insurance, and the Legal Department. The City owns the Utilities System and the Communications System assets. LCG operates on a FY beginning November 1 and ending on October 31 of the following year. While LUS was governed under the 1996 Home Rule Charter during the FY 2019 period, in January 2020, a new Home Rule Charter was implemented which modified the governance structure to that which is described in this report.

Now, LCG is currently governed by a Mayor-President and City-Parish Council members that are elected by the Parish and the City to four-year terms of office. The Lafayette City Council consists of five members who are serving as the governing authority for the City and the Lafayette Parish Council consists of five members who are serving as the governing authority for the Parish. The City Council and the Parish Council, jointly, serve as the governing authority for LCG. The Mayor-President leads LCG along with the City Council and Parish Council. The City Council is the governing authority for LUS, LPPA, and LUS Fiber. The Mayor-President appoints the Director of Utilities and Communications, with such appointment for the Director of Utilities subject to ratification by the City Council. Certain provisions provided by LCG to the City and Parish are shared such as finance, accounting, administration, human resources, legal, and insurance . The Mayor-President and Chief Administrative Officer supervise the administration of departments, offices, and agencies of LCG. Certain departments of LCG are involved in day-to-day support of the management of LUS. The current members of the City-Parish Council are presented in Table 2-1.

Table 2-1: City-Parish Council Members

City Council	Parish Council
Pat Lewis	Bryan Tabor
Andy Naquin	Kevin Naquin
Liz Hebert	Joshua Carlson
Nanette Cook	John J. Guilbeau
Glenn Lazard	Abraham Rubin, Jr.

The City Council is the governing authority of LPPA. LPPA is a political subdivision of the State of Louisiana and was created in 1976 for the purpose of financing electric generation facilities to provide power to the City's electric system. LPPA provides the output of these generating facilities to LCG through a wholesale power sales agreement. The only generating facilities owned by LPPA include Rodemacher No. 2 which is described in more detail in the Electric Utility Section of this Report.

The City is the owner of the Electric System (including generation, transmission, and distribution facilities), the Water System (including supply, treatment, distribution, and storage facilities), and the Wastewater System (including wastewater collection and treatment facilities) (collectively, the Utilities System), as well as the Communications System. Upon consolidation of the City and Parish governing authorities into LCG, it was specifically recognized that the Charter should accommodate for the governing of LUS, which is a City utility system. The Electric Utility, Water System, and Wastewater System are financed by the Utilities System revenue bonds.

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

Internet carriers. The Communication System consists of a separate Communications Services Enterprise Fund with a separate and distinct set of accounts, funds, and bond pledges. The Communication System is financed by the Communication System revenue bonds.

2.2 Operating and Capital Budgeting

The budgeting process begins in early April of each year with each LCG department preparing and submitting their proposed operating and capital budgets. Many departments begin working on their own budgets prior to April. By the end of July, the administration of LCG presents a proposed budget to the City-Parish Council for consideration. The City-Parish Council then holds a series of budget review meetings where changes may be considered to the proposed budget. Per the Charter requirements, the budget must be presented to the City-Parish Council at least 90 days prior to the beginning of each FY and adopted no later than the second to last regular meeting of the FY. A final budget is typically adopted in late September.

The operating portion of the budget contains projections of revenues and expenses. Each division within LUS and LUS Fiber estimates their expenses for the upcoming FY and submits their estimates to LUS and LUS Fiber management. LUS and LUS Fiber management then compile the projections for each division and submit the document to LCG. Each year, the Utilities System and Communications System develop a five-year capital improvement program (CIP). The CIP is reviewed, updated, and budgeted annually. These budgets are normally finalized after the completion of this Report. Forecasts of revenues, expenses, and capital contained within the continuing disclosures within this report are based on previous budgets and projections which are subject to change during the budgeting process.

2.3 Insurance

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

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

The Property & Casualty Claims section is self-insured and self-administered for all lines of coverage including auto and general liability, error and omissions, and property. Workers' compensation was self-

insured and self-administered until September 1, 2015. Since September 1, 2015, workers' compensation was handled by a third-party administrator.

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

The City-Parish Nurse/Wellness section is responsible for the health and well-being of LCG employees including physicals, health screens, and vaccinations. This section also sees employees for job related injuries and oversees the Hazardous Materials and Lead Abatement medical surveillance program. In FY 2020, the nurse's position was eliminated and the function is now outsourced to another company.

The Communications System has its own insurance policy 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

Utilities System	2016	2017	2018	2019	2020
Payments	$1,669,926	$1,877,879	$591,520	$803,662	$791,194
Recovery	25,317	113,451	21,322	222,171	211,855
Net Transactions	$1,644,609	$1,764,428	$570,199	$581,491	$579,339
Communications System					
Payments	$4,733	$8,412	$14,299	$1,193	$160
Recovery	5,000	0	1,051	0	0
Net Transactions	-$267	$8,412	$13,248	$1,193	$160

2.4 Legal

2.4.1 LCG and Payment in Lieu of Tax

In June 2016, a class action lawsuit was filed against LCG, which challenged the validity of LCG collecting payments in lieu of tax ("ILOT") from LUS. More specifically, this suit alleges that the City wrongfully collected ILOT payments from LUS of over $400 million dollars since 1976. LUS makes an ILOT payment to the City annually, which is a common industry practice for municipal owned utilities. Plaintiffs claim these payments were a disguised ad valorem tax assessed upon customers of LUS in violation of Louisiana Law. LCG and LUS have denied all the allegations and maintain these claims are wholly without merit. The ILOT suit was dismissed by the trial court, and the dismissal was affirmed on appeal on December 30, 2020. Plaintiffs have filed for writs with the Louisiana Supreme Court, and LCG/LUS has filed an opposition. If the Court rejects the writ application, a decision may be forthcoming shortly; if they grant the writ application, they may decide the matter at this time, or call it up for briefing and oral argument, which would likely take 6 to 9 months.

2.4.2 LUS Fiber Services to LUS

LUS Fiber provides communication services to LUS. In April 2018, LUS self-reported that it paid for services from LUS Fiber, but had not fully utilized those services. After that reporting, LUS and LUS Fiber have conducted investigations which are discussed in more detail in Section 7 of this Report.

2.5 Emergency Events and Reimbursements

Local governments like LUS, and certain types of non-profit organizations, are eligible to receive reimbursements for natural disasters such as hurricanes, flooding, tornadoes, and other events. LUS is eligible to receive reimbursement from the Federal Emergency Management Agency ("FEMA") and the Louisiana State Governor's Office of Homeland Security and Emergency Preparedness ("GOHSEP"). When a natural disaster occurs, LUS organizes, performs, and pays for the prompt restoration of utility service and clean up. Often, this includes hiring and paying contractors. After the event, LUS submits receipts and invoices to FEMA for reimbursement. The GOHSEP acts as the auditor and approves expenses eligible for reimbursement. Those natural disasters for which LUS has recently experienced and is awaiting reimbursement from FEMA and GOHSEP are described in the following subsections.

2.5.1 Hurricane Gustav, 2008

Hurricane Gustav made landfall September 1, 2008, near Cocodrie, Louisiana (located southwest of the City). Lafayette Parish sustained major damage as a result of the strong winds and rainfall associated with the storm. Approximately 40 percent of the retail electric customers of LUS lost power during the storm;

however, all services were restored within a 72-hour time frame. When Hurricane Gustav hit, LUS hired a contractor, J.W. Didado, to assist with the utility restoration and clean-up. LUS paid J.W. Didado approximately $1 million. Other utilities also paid J.W. Didado at the same time, and because of anomalies in the reimbursement documentation, GOHSEP conducted an in-depth analysis. GOHSEP, through their auditing process, filed an audit report on March 9, 2016, stating that approximately $660,000 of the expenses of LUS 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 continuing to cooperate with GOSHEP/FEMA. The report recommended that LUS should implement a method to identify the use of contractors by multiple sub grantees during the same time periods. LUS recorded a deferred debit on the balance sheet of $1,868,215. As of October 31, 2020, LUS is awaiting reimbursement of $378,908.

2.5.2 Hurricane Isaac, 2012

Hurricane Isaac hit southern Louisiana in August 2012. LUS experienced the effects of Hurricane Isaac, creating numerous outages over a 24-hour period. Weather conditions contributed to an increase in lightning and tree related outages, which affected customer outages. The claim is currently being processed by GOHSEP. LUS recorded a deferred debit on the balance sheet of $182,218. As of October 31, 2020, LUS is awaiting reimbursement of $140,898.

2.5.3 Flooding of 2016

In August 2016, southern Louisiana experienced major flooding, which impacted the Utilities and Communications Systems operations. The Water, Wastewater, and Communications Systems experienced only minor disruptions in service and minimal damage to system infrastructure. The Communications System did not experience any major outages. The Water System experienced flooding at the South Water Plant ("SWP") due to flood water rising past the elevation of the wells' sanitary seals. The SWP was shut down for a brief period so that testing could determine if the well water was affected by flood waters. Testing showed that the water was safe, and the Water System was able to meet demand even under the flood conditions. However, this event prompted many repairs and rehabilitation efforts at the plant. Updates implemented at the SWP include FEMA recommended steel shipping doors to prevent water entering filter gallery, building rehabilitation, and roof repair. LUS recorded a deferred debit on the balance sheet of $630,364. The claim is currently being processed by GOHSEP. During 2019, LUS was reimbursed $497,611 however no additional reimbursement was made in 2020. As of October 31, 2020, LUS is awaiting reimbursement of $132,753.

2.5.4 Hurricane Barry, 2019

Approximately 5,000 homes were affected by Hurricane Barry. Within two days, LUS was back to normal operations. LUS recorded a deferred debit on the balance sheet of $1,031,267. The claim is currently being processed by GOHSEP. As of October 31, 2020, LUS is still awaiting on the full reimbursement amount of $1,031,267. The Communications System experienced no major outages as part of Hurricane Barry. However, there were repairs needed of several access cables to restore service to several hundred customers in addition to power supply failures. Communications System returned to normal operation within three days. As of October 31, 2020, Communications System is still awaiting reimbursement on the full amount of $21,032.

2.5.5 Hurricane Laura, 2020

Hurricane Laura hit on August 27, 2020 near Cameron, LA as a Category 4 storm. During the event, LUS had nearly 15,000 customers impacted and restored service in approximately one and one-half days. The total damage caused by Laura was approximately $2.50 million with $1.99 million in expenses incurred by LUS and LUS Fiber in FY 2020. The majority of the damages caused by the storm were on the electric system, however some costs were borne by water, wastewater and fiber. As of October 31, 2020, LUS and LUS Fiber were processing additional invoices and compiling data for FEMA submission. Expenses associated with this event will be incurred over two fiscal years, FY2020 and FY2021.

2.5.6 Hurricane Delta, 2020

On October 9,2020, Hurricane Delta made landfall as a Category 2 storm near Creole, LA. Lafayette Parish sustained major damage as a result of strong winds and heavy rainfall affecting almost 70% of LUS customers. LUS customers' services were restored within three and one-half days by 400+ LUS employees and the assistance of over 300 mutual aid partners and contractors. The majority of the damages caused by the storm were on the electric and fiber systems with minor issues in water and wastewater. Hurricane Delta caused approximately $7.1 million in restoration expenses for LUS and LUS Fiber with $4.2 million incurred in FY2020. As of October 31, 2020, LUS and LUS Fiber were processing additional invoices and compiling data for FEMA submission. Expenses associated with this storm will be incurred over two fiscal years, FY2020 and FY2021.

2.5.7 Winter Storm, 2021

In February of 2021, the entire central U.S., including the City of Lafayette, experienced a significant winter storm resulting in abnormally low temperatures. The impacts of the storm on the utilities have not yet been quantified, but will be discussed in next year's annual report.

2.6 Service Territory

LUS provides electric, water, and wastewater utility service to customers primarily within the City limits. LUS also services some electric, water, and wastewater customers outside the City limits but within the Parish limits. As of October 31, 2020, LUS served 69,364 electric accounts, 57,412 water accounts, and 46,133 wastewater accounts.

LCG has franchise agreements and street lighting agreements with the City of Broussard and the City of Youngsville for electric service. LUS provides street lighting service to both cities and provides services to new residential and commercial developments within these cities.

LUS serves retail water customers inside and outside the City limits while providing wholesale water for other parish water distribution companies which are described in more detail later in this report.

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

The Communications System services are generally offered within the City limits, but have expanded to new subdivisions outside the City. At the end of October 2020, the Communications System served approximately 34 wholesale accounts and over 20,000 retail accounts with CATV, telephone, Internet, or some combination of the three. The Communications System continues to show notable positive growth each year. The Communications System attained franchise status in November 2017 throughout the Parish and offers communications service to the City of Broussard, City of Youngsville, City of Carencro, and unincorporated areas in the Parish. The Communications System is continuing to build out targeted areas and was recently awarded a grant to build out the Communications System to serve new underserved areas in neighboring Parishes.

2.7 Management and Organization

The Utilities System is a department of LCG and is managed and operated in accordance with the Charter and provisions of the current Utilities System General Bond Ordinance. The “Flow of Funds” set forth in the General Bond Ordinance specifies how to treat revenues and related margins resulting from LUS operations. Available margins, once O&M expenses have been paid, are first required to meet debt service and reserve fund obligations, then a formula is applied to determine amounts for capital improvements and replacements funding, and the payment amount to the City’s General Fund as ILOT. The Lafayette Public Utilities Authority (“LPUA”) historically approved LUS budgets and issued debt as approved by the Mayor-President and City-Parish Council. Beginning in January 2020, the City Council

assumed LPUA's responsibilities with respect to the Utilities System, in addition to approval of rates and has been fulfilling this responsibility through most of FY 2020.

The Communications System is a separate department of LCG and is managed and operated in accordance with the Charter and provisions of the current Communications System General Bond Ordinance. The "Flow of Funds" set forth in the General Bond Ordinance specifies how to treat revenues and related margins resulting from Communications System operations. Available margins, once O&M expenses were paid, are first required to meet debt service and reserve fund obligations, then a formula is applied to determine amounts for capital improvements and replacements funding, and the Imputed taxes. Historically LPUA approved the Communications System budgets, and issued debt as approved by the Mayor-President and City-Parish Council. Beginning in January 2020, the City Council assumed LPUA's responsibilities with respect to the Communications System and has been fulfilling this responsibility through most of FY 2020.

The Utilities Director and Communication System Director are both appointed by the Mayor-President with the Director of Utilities appointment subject to ratification by the City Council. The Consulting Engineer advises the LUS in its appointment of a Chief Operating Officer of the Utilities System, per the ordinance requirements, and has been fulfilling this role in FY 2021 as LUS considers permanent placements for the position.

2.7.1 LUS Organizational Structure

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.

LUS is managed by the Utilities Director. The Utilities Director is responsible for the management and operations of the LUS electric utility, water utility, and wastewater utility. More specifically, the Utilities Director oversees and manages electric production and distribution, water treatment and distribution, wastewater collection and treatment, utility engineering services, supervision of construction work for LUS, maintaining utility equipment in cooperation with the central garage, reading, billing and, collection of all utility meters, and other such activities as may be directed by the Mayor-President as necessary or incidental to the operation of LUS.

The current Interim Utilities Director is Mr. Lowell Duhon. Mr. Duhon graduated from the University of Louisiana at Lafayette with a B.S. and master's in business administration. Prior to serving as the Interim

Utilities Director, Mr. Duhon was the Chief Administrative Officer of LCG. Prior to LCG, Mr. Duhon had experience as a Financial Consultant. Mr. Duhon has been serving in this interim role since October 2019 and will continue to fulfill this role until LUS and LCG hire a permanent Utilities Director. LUS has started the process of recruiting a permanent Utilities Director.

Division managers reporting to the Interim Utilities Director are presented below along with their credentials.

- Jeffrey Stewart – Engineering & Power Supply Manager, Power Production Manager: Mr. Stewart has over 19 years of experience at LUS and continues to serve as the Engineering & Power Supply Manager. In this position, Mr. Stewart is responsible for the supervision of all day-to-day engineering activities including Civil Engineering, Power Marketing, System Engineering and Substation Engineering, Network Engineering, Environmental Compliance associated with power generation, and the Primary Authorized Officer for North American Electric Reliability Corporation ("NERC") Compliance.
- Alison Alleman – Customer & Support Services Manager: Ms. Alleman has over 20 years of experience at LUS. Ms. Alleman has been serving as the Customer & Support Services Manager on an interim basis since May 2020 and permanently since November 2020. She holds a Bachelor of Science in Finance degree and a Master of Business Administration degree from the University of Louisiana at Lafayette. She is responsible for various support and customer service functions within the Utilities Department including financial monitoring and planning, rates, revenue assurance, employee development, meter services, utility conservation, customer service, business support services, and administration support services.
- Tracy Mouton – Environmental Compliance Manager: Ms. Mouton has worked in the environmental field with the Utilities System for 27 years, serving as the Environmental Compliance Manager since July 2016. Her education includes a Bachelor of Science in Biology with a minor in chemistry from Jackson State University in Jackson, Mississippi. Ms. Mouton is responsible for ensuring environmental compliance of all LUS business operations associated with water and wastewater operations.
- Gregory A. Labbé – Electric Operations Manager: Mr. Labbé has worked with LUS for 35 years and held several positions in the Electric Operations Section. Mr. Labbé is responsible for the day-to-day operation of the electric transmission and distribution system including Transmission and Distribution Operations, Field Operations, Energy Control, Substations and Communication, Facilities

Management, and the Warehouse. Mr. Labbé is a graduate of T.H. Harris Technical School in Opelousas, Louisiana.

- Craig Gautreaux – Water and Wastewater Operations Manager: Mr. Gautreaux has 36 years of experience in the civil engineering and wastewater operations industry (5 years with a private consulting firm, and 31 years with the Utilities System). Mr. Gautreaux has a master's degree in civil engineering and 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.

2.7.1.1 LUS Staffing

LUS reviews its overall staffing requirements annually and budgets overall staffing level in its annual budgetary process to continue to provide reliable and cost-effective services to customers. The LUS staffing levels by department have been relatively stable over the last several years and appear reasonable for the size and complexity of the organization. At the end of 2020 there were several vacancies across the organization with some departments having more vacancies than others, such as the T&D group. LUS is working to fill those positions and has recently hired four additional linemen with plans to bring in additional linemen over the coming year. The personnel tables by department are contained in the LCG 2020 Budget and the LCG 2021 Budget. Table 2-3 presents the number of employees by department at the end of FY 2020 as well as the budgeted number of employees in FY 2020 and FY 2021.

Table 2-3: LUS Number of Personnel by Department

	Personnel		
	October 31, 2020	2020 Budget	2021 Budget
Director's Office	2	2	2
Support Services	25	28	27
Customer Service	40	44	31
Environmental Compliance	15	17	17
Power Production	30	35	35
Electric Operations	82	94	94
Water Operations	58	61	62
Wastewater Operations	92	98	98
Engineering	75	81	81
Total Utilities System	419	460	447

Source: 2020 Budget, 2021 Budget, LUS Org Chart

2.7.2 LUS Fiber Organizational Structure

At the end of March 2021, Lafayette Mayor-President Josh Guillory named Ryan Meche, previously the Engineering Manager, as LUS Fiber's new Director. Mr. Meche graduated from the University of

Louisiana at Lafayette with a Bachelor of Science in Electrical Engineering and is a registered Professional Engineer in Louisiana. Mr. Meche has been an employee of LUS for 17 years.

From October 14, 2019, to the end of March 2021, the Interim Communications System Director was Ms. Kayla Miles. Ms. Miles graduated from the University of Louisiana at Lafayette with a Bachelor of Arts in Public Relations. Prior to serving as the Interim Communications System Director, Ms. Miles was the Communications Support Services Administrator for Communications System.

From November 1, 2018 through October 14, 2019, the Interim Communications System Director was Ms. Teles Fremin. Ms. Fremin graduated from the University of Louisiana at Lafayette with a Bachelor of Science in Electrical Engineering and is a registered Professional Engineer in Louisiana. Ms. Fremin has been an employee of LUS for 19 years.

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

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

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

The Communications System employs approximately 83 employees, reporting to 5 functional areas: Administration and Support, Operations, Warehouse, Business Support Services, and Engineering. Division managers reporting to the Communications System Director include the following staff members.

- Ryan Meche – Director of Communications: Mr. Meche graduated from the University of Louisiana at Lafayette with a Bachelor of Science in Electrical Engineering and is a registered Professional Engineer in Louisiana. Mr. Meche has been an employee of LUS for 16 years. He is responsible for overseeing all matters regarding Communications System.

- Teles Fremin – Chief Communications Engineer: Ms. Fremin has over 19 years of experience in the public utility industry and telecommunications industry. She is a Professional Engineer and has her Bachelor of Science in Electrical Engineering from the University of Louisiana at Lafayette. Ms. Fremin is responsible for all day-to-day system component operations and all engineering tasks and responsibilities.
- Ronald Frye – Communications Field Operations Supervisor: Mr. Frye has over 25 years of experience in the Communications Operations and the Construction Field. He is responsible for the Communication System operations including maintenance and operation of the Communications System outside plant, installations, and warehouse operations.
- Kayla Miles - Communications Support Services Administrator: Ms. Miles has a B.S. in Public Relations from the University of Louisiana at Lafayette and a background marketing and public relations, business development, and customer support. She is responsible for overseeing business operations, which include sales and marketing, finance, and regulatory matters.

2.7.2.1 LUS Fiber Staffing

The staffing table below reflects the fact that the Business Support Services division took over direct management of twelve customer service personnel in FY2021. In the past, these twelve positions were included in the LUS manning table, and LUS Fiber covered the cost of these positions through the Administrative and General expense line item in LUS Fiber's budget, in accordance with LCG's cost allocation plan. These positions were not included as LUS Fiber staffing counts in the previous years' projected budget, creating the appearance of staffing level above target levels. However, setting aside the additional customer service staff, the Communications System is understaffed in each functional area by a total of six personnel.

Table 2-4: LUS Fiber Number of Personnel by Department

	Personnel		
	October 31, 2020	2020 Budget	2021 Budget
Administration & Support	1	2	4
Operations	31	37	34
Warehouse	2	3	3
Business Support Services & Customer Service	10	13	22
Engineering	17	22	20
Total Communications System	61	77	83

Source: 2020 Budget, 2021 Budget, LUS Org Chart

2.8 Pay Scale Review

LUS and LUS Fiber annually administers employee performance reviews and salary planning. Salary adjustments take effect on November 1 of each year, with changes realized during the first full pay period of the new FY. Compensation parameters are associated with the job titles and job descriptions, which specify skill and responsibility levels of various employees throughout LUS and LUS Fiber. Like previous years, Burns & McDonnell conducted a review of compensation for various job descriptions within LUS and LUS Fiber. This review did not take into consideration other key benefits included in an overall compensation package such as job stability, sick leave benefits, and retirement benefits which will often overcome 10 to 15 percent differences between for-profit and not for profit entities competing for the same talent. The positions benchmarked are listed below.

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

Based on the review, LUS is compensating its employees at a level comparable to other employers in the State of Louisiana. Within the electric, water, and wastewater utilities, the median regional salaries compared reasonably well with each LUS classification with all positions having a compensation rate within 10 percent of the regional median. Based on feedback from LUS, hiring and retaining electric lineman has been a challenge; however, LUS is working with regional schools to train and hire new staff.

Based on the review, LUS Fiber is compensating its employees at a level slightly below the regional median salaries reviewed. Two classifications compared were only a few percent lower and the other two classifications more than 10 percent below the regional median salary. LUS Fiber will need to closely examine its salaries in comparison to other regional telecommunication providers so that it can continue to hire and retain well qualified analysts, technicians, and support specialists.

3.0 UTILITIES SYSTEM FINANCIAL REVIEW

3.1 System Description

LUS operates Electric, Water, and Wastewater Systems. The Electric System operates power generation, transmission, distribution, and customer assets. The Water System includes raw water treatment plants, distribution system, and customer assets. The Wastewater System includes sewage treatment plants, collection piping, and customer assets. This section of the Report provides a summary of the historical financial condition of LUS through the end of FY 2020.

3.2 Customers

LUS serves customers both within the City limits and outside the City. The Water system has wholesale agreements with several cities that are described later in this report. The Electric system has franchise agreements with the City of Broussard and City of Youngsville which allow LUS to provide service in those cities. The historical number of customers served by each utility is provided in Table 3-1. LUS has experienced modest growth over the last five years.

Table 3-1: Historical Utility Customers

Year	Electric	Water	Wastewater	Total
2016	66,325	55,851	44,269	166,445
2017	66,860	56,302	44,830	167,993
2018	67,243	56,564	45,019	168,826
2019	68,495	58,316	45,623	172,434
2020	69,364	57,412	46,133	172,909

Source: LUS Financial and Operating Statements

3.3 Historical Revenues

LUS generates revenues primarily from the sale of the utility services it provides. The electric utility represents approximately 75 percent of the revenues and costs of LUS while the water and wastewater utilities represent the remaining 25 percent. The historical revenues have been relatively stable for all three utilities over the last five years. Only the electric utility experienced a noticeable reduction in FY 2020 due to the COVID-19 Pandemic, however it should be noted that the revenue reduction was combined with a commensurate reduction in fuel and purchased power expenses. The historical revenues by utility are presented in Table 3-2 and include revenues from base rates, fuel charges, interest income, and other miscellaneous revenues.

Table 3-2: Historical Operating and Other Revenues

Year	Electric Revenues	Water Revenues	Wastewater Revenues	Total Revenues
2016	$174,354,151	$18,593,541	$29,144,574	$222,092,266
2017	$176,060,504	$19,822,196	$30,790,307	$226,673,006
2018	$180,955,690	$21,736,544	$32,379,226	$235,071,461
2019	$179,965,886	$21,369,475	$32,038,772	$233,374,132
2020	$166,467,519	$21,696,556	$31,122,710	$219,286,785

Source: LUS Financial and Operating Statements

3.4 Debt Service Coverage

LUS currently has several outstanding bonds that were issued for the purposes of making improvements and expansions to the three utility systems. LUS has a minimum DSC ratio of 1.0 as required by the Bond Ordinances and has continued to adequately maintain its DSC over the last five years. LUS has been making payments on the Series 2019 Bonds, Series 2017 Bonds, Series 2012 Bonds, and Series 2010 Bonds. The Series 2010 Bonds were fully redeemed by the Series 2017 Bonds on November 1, 2020. Table 3-3 presents the historical debt service coverage ratio for LUS.

Table 3-3: Historical Debt Service Coverage

Year	Operating Revenues	Operating Expenses	Net Available Revenues	Debt Service	Debt Service Coverage Ratio
2016	$222,092,266	$158,750,451	$63,341,815	$22,925,238	2.8
2017	$226,673,006	$165,998,482	$60,674,525	$21,341,835	2.8
2018	$235,071,461	$164,165,246	$70,906,215	$21,427,905	3.3
2019	$233,374,132	$152,839,402	$80,534,731	$22,732,925	3.5
2020	$219,286,785	$143,498,541	$75,788,244	$25,374,000	3.0

Source: LUS Financial and Operating Statements

3.5 Rate Adjustments

The current rates for LUS are presented in the LCG Code of Ordinances, Article III – Rates and Charges, Division 1. The electric, water, and wastewater utilities each have their own tariffs for each customer class and are comprised of both fixed charges and variable charges. Rates are adjusted through rates studies that are conducted every few years with rate recommendations approved by the City-Parish Council. The fuel charge within the electric utility is adjusted monthly based on the cost of fuel and purchased power and the Utility Director monitors and manages the fuel charge on a month-to-month basis to adequately recover eligible costs. The most recent rate study was completed in 2016. The study demonstrated that the utility rates would have been insufficient to recover the three utilities' costs. Therefore, each utility required a series of rates increases to be implemented over several years. As

demonstrated by the historical DSC analysis, the rate increases have provided the required revenues to be in compliance with Bond Covenants, maintain adequate cash balances, and fund the capital and operating costs of the utility. The historical approved total rate revenue adjustments by utility are presented in Table 3-4.

Table 3-4: LUS Historical Rate Adjustments

	2016	2017	2018	2019	2020
Electric Retail	0.0%	2.8%	2.8%	0.0%	0.0%
Water Retail	0.0%	7.4%	7.2%	0.0%	0.0%
Wastewater Retail	0.0%	6.1%	5.7%	0.0%	0.0%

3.6 Operating and Capital Budgets

LUS prepares and submits the proposed operating and capital budget to LCG annually for approval. The operating section of the budget includes projections of revenues and expenses for the upcoming FY. The operating projections for the upcoming FY are finalized subsequent to the completion of this Report.

The CIP is included within the FY 2021 Budget and is presented in Table 3-5 as provided by LUS. The total forecasted CIP over the next five years is largely concentrated in FY 2021 and FY 2023. A large portion of the capital spending included over the first three years is being funded by the Series 2019 Bonds proceeds. Additional details on the nature of the projects within the CIP are provided later within this Report for each utility.

Table 3-5: LUS 2021 Budget Projected Capital Improvement Plan

	2021	2022	2023	2024	2025	Total
Electric						
Acquisitions	$675,000	$400,000	$0	$0	$0	$1,075,000
Production	$1,530,000	$1,130,000	$380,000	$380,000	$880,000	$4,300,000
Distribution	$4,025,000	$2,035,000	$1,035,000	$1,035,000	$1,035,000	$9,165,000
Substation	$925,000	$1,225,000	$1,225,000	$925,000	$925,000	$5,225,000
Transmission	$10,000	$10,000	$10,000	$10,000	$10,000	$50,000
General Plant	$5,115,000	$2,635,000	$910,000	$760,000	$260,000	$9,680,000
Total Electric	$12,280,000	$7,435,000	$3,560,000	$3,110,000	$3,110,000	$29,495,000
Water						
Production	$1,380,000	$1,430,000	$830,000	$2,980,000	$2,230,000	$8,850,000
Distribution	$3,210,000	$1,060,000	$1,685,000	$1,585,000	$760,000	$8,300,000
Total Water	$4,590,000	$2,490,000	$2,515,000	$4,565,000	$2,990,000	$17,150,000
Wastewater						
Treatment	$16,660,000	$910,000	$7,260,000	$610,000	$6,360,000	$31,800,000
Collection	$6,215,000	$3,155,000	$8,645,000	$2,745,000	$2,745,000	$23,505,000
Total Wastewater	$22,875,000	$4,065,000	$15,905,000	$3,355,000	$9,105,000	$55,305,000
Total Capital Program	$39,745,000	$13,990,000	$21,980,000	$11,030,000	$15,205,000	$101,950,000

Source: LUS 2021 Adopted Budget

3.7 LUS System Budget and Actual Performance

As part of this Report, Burns & McDonnell compared the LUS FY 2020 budgets to the FY 2020 actual results. This section presents the results of the LUS budget and actual accounts for FY 2020. The categories presented are similar to those in the FY 2020 Budget and may be slightly different than others found within the Report. LUS performed better than expected during FY 2020 even with the COVID 19 pandemic as demonstrated in Table 3-6.

Table 3-6: LUS Comparison of FY 2020 Budget and Actual Results

	2020 Actual (millions)	2020 Adopted Budget (millions)	Difference (millions)	Difference (%)
Operating Revenues				
Electric Retail Sales	$98	$101	($3)	-3.3%
Electric Retail Fuel Adj.	$65	$81	($16)	-19.9%
Electric Wholesale Sales	$0	$0	($0)	-10.1%
Water Sales	$21	$22	($1)	-3.9%
Wastewater Sales	$30	$32	($2)	-6.8%
Interest Income	$3	$2	$1	81.6%
Miscellaneous Other	$2	$3	($1)	-24.4%
Total Operating Revenue	$219	$241	($22)	-9.1%
Operating Expenses				
Purchased Power LPPA	$37	$55	($18)	-32.2%
Purchased Power Other	$18	$18	$0	2.5%
Purchased Power MISO	$32	$57	($25)	-44.1%
Purchased Power MISO Sales	($16)	($40)	$24	-60.6%
Production Fuel	$2	$2	($0)	-13.0%
Other O&M	$69	$83	($13)	-15.9%
ILOT	$25	$24	$1	3.7%
Total Operating Expenses	$168	$199	($31)	-15.6%
Other Income (Expenses)				
Normal Capital & Spec Equip	($6)	($10)	$4	-39.3%
Principal from Internal Loans	$1	$1	($0)	-13.9%
Interest from Internal Loans	$1	$1	$0	3.3%
Interest on Long Term Debt	($10)	($11)	$1	-7.3%
Principal on Long Term Debt	($12)	($14)	$2	-12.8%
Total Other	($27)	($34)	$6	-19.3%
Cash Available for Capital	$24	$9	$15	180.2%

Source: LUS Financial and Operating Statements

The electric utility experienced lower electric sales volumes and revenues; however, those were offset by lower wholesale power costs. The overall non-power costs reductions also helped offset the lower retail revenues. The water utility saw a slight increase in total revenues with reductions in operating costs that helped support cash flows. The wastewater utility revenues and O&M expenses both declined compared

to budget; however, the overall net result supported a slight increase to operating cash flows providing more cash for capital than was budgeted for FY 2020.

3.8 LUS Shared Services

Shared services for LUS are provided by the Customer Service & Support Service divisions. These divisions provide financial planning, rates, meter services, customer service, and administration and business support services for all three of LUS's utilities. The cost of these services is assigned and shared across the Electric, Water, and Wastewater Systems in the establishment of rates and charges. The customer service staff has experienced turnover that is typical within the industry and LUS is working with Civil Service to implement an apprenticeship program to increase employee retention. . The Support Services division is a smaller group and has experienced low turnover. .

3.9 Payment In Lieu of Tax

LUS makes an annual ILOT payment to the City. ILOT payments by municipally owned utilities are commonly used by local governments across the country to collect taxes and/or franchise fees that would be collected if an investor-owned utility were operating the utility franchises within the city. The LUS ILOT calculation provides for an ILOT payment of up to 12 percent of the Receipts Fund. The non-fuel revenues are the gross receipts less fuel costs and other miscellaneous items. To be eligible to make the ILOT payment, LUS must first pass an ILOT Test. The purpose of the test is to ensure that LUS has sufficient cash to meet capital obligations. If cash available after debt service, less 7.5 percent of the non-fuel revenues, is greater than 12 percent of the Receipts Fund, LUS passes the test and makes the ILOT payment to the City. Should LUS fail the ILOT Test, LUS pays an amount equal to the amount of cash available after debt service, less 7.5 percent of the non-fuel revenues. The American Public Power Association ("APPA") benchmarks ILOT as a percentage of revenue across the country as well as the West South Central Region, as defined by APPA, in which LUS is located. The median ILOT for this region is 11.9 percent while LUS has paid an average ILOT rate of 10.5 percent over the last 5five years as presented in Table 3-7.

Table 3-7: LUS Historical ILOT Payments

	2016	2017	2018	2019	2020
ILOT Paid [(1)]	$23,306,557	$22,568,235	$23,708,786	$25,051,002	$24,679,711
Total Operating Revenues	$222,092,266	$226,673,006	$235,071,461	$233,374,132	$219,286,785
ILOT as a percent of Revenues	10.5%	10.0%	10.1%	10.7%	11.3%

Source: LUS Financial and Operating Statements

(1)Represents ILOT paid for the Utilities System including electric, water, and wastewater systems.

3.10 Accounting and Financial Statements

LUS accounting responsibilities are managed and performed by LCG, including the selection of accounting software and related financial reporting. LCG prepares monthly Financial and Operating Statements for LUS which are also provided to the Engineer of Record monthly. These statements include a balance sheet, income statement, revenues and expenses, and other detailed operating statistics. The final audited financial statements contained in the Comprehensive Audited Financial Report ("CAFR") Statements are typically not available until April of the following fiscal year which is when this Consulting Engineer's Report is also completed. The detailed data contained within this Report is based upon the monthly Financial and Operating Statements provided to the Engineer of Record and may vary from the tables in the CAFR. Based on information contained in previous CAFRs and CERs the differences are generally not material.

3.10.1 Balance Sheet

The historical balance sheet for LUS is presented in Table 3-8. LUS assets have continued to grow as the utility systems each continue to grow to serve new customers. Bond funds increased considerably in 2019 as result of the 2019 Series Bonds and have remained high in 2020 and will remain high until the bond funded projects are completed. Retained earnings have grown steadily over the last year few years while the debt to equity ratio has been relatively stable.

Table 3-8: LUS Historical Balance Sheet

Total Assets	2016	2017	2018	2019	2020
Utility Plant	$ 569,502,627	$ 566,271,981	$ 565,059,332	$ 561,320,749	$ 561,005,523
Bond and Special Funds	131,820,767	124,504,455	132,262,607	213,449,976	216,710,984
Current Assets	13,010,477	8,885,760	8,780,394	10,183,720	9,110,701
Accounts Receivable	27,665,322	29,668,893	28,439,772	28,657,295	28,520,766
Reserve for Uncollectible Accounts	(1,150,040)	(1,215,674)	(1,090,028)	(941,530)	(799,310)
Notes Receivable	27,623,160	27,181,093	26,529,343	25,686,227	24,706,574
Inventories	8,316,964	8,981,327	9,097,936	9,444,953	10,671,253
Deferred Debits	26,647,000	27,838,831	22,227,147	23,962,998	23,542,330
Total Assets	$ 803,436,278	$ 792,116,667	$ 791,306,504	$ 871,764,388	$ 873,468,821
Total Liabilities & Equity					
Long Term Debt	$ 214,410,000	$ 195,915,000	$ 184,110,000	$ 229,805,000	$ 215,615,000
Current Liabilities	28,334,541	24,734,800	24,900,222	27,266,441	33,950,669
Long Term Liabilities	56,581,937	60,358,386	62,946,218	73,987,500	66,914,126
Retained Earnings	504,109,800	511,108,482	519,350,063	540,705,447	556,989,025
Total Liabilities & Fund Equity	$ 803,436,278	$ 792,116,667	$ 791,306,504	$ 871,764,388	$ 873,468,821

Source: LUS Financial and Operating Statements

3.10.2 Fund Balances

Article V of the LUS General Bond Ordinance dictates the funds and accounts of LUS and defines the 'Flow of Funds.' Article V creates several funds which are presented in Table 3-9. The flow of funds proceeds in the following order: Receipts Fund, Operating Fund, Sinking Fund, Reserve Fund, and Capital Additions Fund. Funds may be created as new bonds are issued. Table 3-9 summarizes the beginning balance, receipts, disbursements, and ending balances of the required funds cash balances. First, 7.5 percent of non-fuel revenues are transferred to capital costs of LUS. Then 12 percent of total deposits in the Receipts Fund are transferred to the General Fund of the Issuer. Then funds are used to pay amounts due on Subordinated indebtedness with remaining funds used for other purposes under the General Ordinances.

Table 3-9: LUS Fund Balances as of October 31, 2020 ($1,000)

	Receipts Fund	Operating Fund	Bond & Interest Fund	Capital Additions	Bond Reserve Fund	2019 Bond Construction Fund	Total
Beginning Balance	$ 809	$ 8,000	$ -	$ 115,419	$ 17,278	$ 70,810	$ 212,316
Receipts	246,094	269,650	25,374	54,067	50	660	595,895
Disbursements	246,118	269,650	25,374	46,454	0	4,264	591,860
Ending Balance	$ 785	$ 8,000	$ -	$ 123,032	$ 17,328	$ 67,206	$ 216,351

Source: LUS Financial and Operating Statements

3.10.3 Income Statement

The LUS Income statement is presented in Table 3-10. Over the last five years LUS net operating revenues after depreciation have increased with system growth and several rate increases that were implemented in 2017 and 2018 to improve financial conditions as determined in the 2016 rate study. In FY 2020, LUS experienced a reduction in overall revenues which was largely driven by lower electric sales and electric revenues. The 5.5 percent was offset by a corresponding reduction in operating expenses which helped to maintain net operating revenues during FY 2020. Net income was largely lower due to increases in miscellaneous non-operating expenses resulting from two hurricanes, higher interest expense from the Series 2019 Bonds, and reductions in interest income from lower market interest rates.

Table 3-10: Historical Income Statement

	2016	2017	2018	2019	2020
Operating Revenues	$ 220,387,318	$ 224,652,384	$ 232,203,121	$ 228,678,339	$ 216,381,978
Operating Expenses	158,750,451	165,998,482	164,165,246	152,839,402	143,498,542
Net Operating Revenues	$ 61,636,867	$ 58,653,902	$ 68,037,875	$ 75,838,938	$ 72,883,436
Depreciation	23,601,958	23,960,817	24,555,286	25,130,355	25,189,698
Net Operating Revenues after Depreciation	$ 38,034,910	$ 34,693,086	$ 43,482,589	$ 50,708,583	$ 47,693,737
Other Income					
Interest Income	$ 1,704,947	$ 2,020,622	$ 2,868,340	$ 4,695,793	$ 2,904,807
Unrealized Gain/Loss on Invs	117,778	(283,409)	(46,380)	399,671	(139,572)
Amortization of Debt Premium	3,020,974	2,995,867	3,544,254	3,639,998	3,769,742
Water Tapping Fees	78,320	64,240	72,240	56,760	61,540
Communications Lease Income	27,648	25,378	0	0	11,379
Contributions in Aid of Construction	56,063	128,155	304,557	0	140,856
Misc. Non Operating Revenue	2,566,471	3,335,924	4,188,986	3,141,166	3,633,306
Total Other Income	$ 7,572,201	$ 8,286,777	$ 10,931,997	$ 11,933,388	$ 10,382,059
Other Expenses					
Loss on Disposition of Property	329,136	369,488	398,883	309,767	290,397
Interest Expense	10,970,238	8,916,835	9,622,905	10,362,925	11,184,000
Amortizations	2,256,610	2,046,774	2,304,183	2,187,756	1,986,896
Interest on Customer Deposits	821	1,688	4,307	5,331	1,834
Tax Collections/Non Operating	0	0	0	0	0
Misc Non Operating Expense	1,589,252	3,182,762	2,844,559	3,369,807	3,649,380
Total Other Expenses	$ 15,146,058	$ 14,517,546	$ 15,174,837	$ 16,235,585	$ 17,112,507
Net Income Before in Lieu of Tax	30,461,053	28,462,316	39,239,748	46,406,385	40,963,290
ILOT	23,306,557	22,568,235	23,708,786	25,051,002	24,679,711
Net Income	$ 7,154,496	$ 5,894,081	$ 15,530,962	$ 21,355,383	$ 16,283,579

Source: LUS Financial and Operating Statements

3.10.4 Cash Flow Statement

The LUS historical cash flows are presented in Table 3-11. LUS, like many other municipals, is primarily focused on net cash flows and cash balances and traditionally set rates based on meeting cash targets including, but not limited to, debt service coverage. Except for FY 2020, LUS has realized a steady increase in its change in cash due to operations and ILOT. The lower change in cash due to operations in FY 2020 is attributed to the same factors discussed in the net income statement section of this Report.

Table 3-11: LUS Historical Cash Flows

	2016	2017	2018	2019	2020	Five-Year Total
Operating Revenues	$ 220,387,318	$ 224,652,384	$ 232,203,121	$ 228,678,339	$ 216,381,978	$ 1,122,303,140
Operating Expenses	158,750,451	165,998,482	164,165,246	152,839,402	143,498,542	785,252,122
Net Operating Revenues	$ 61,636,867	$ 58,653,902	$ 68,037,875	$ 75,838,938	$ 72,883,436	$ 337,051,018
Debt Service	22,925,238	21,341,835	21,427,905	22,732,925	25,374,000	113,801,903
Balance After Debt Service	$ 38,711,630	$ 37,312,067	$ 46,609,970	$ 53,106,013	$ 47,509,436	$ 223,249,116
Less Normal Capital & Special Equipment	9,309,935	4,890,913	5,032,337	6,979,931	11,144,716	37,357,833
Less ILOT	23,306,557	22,568,235	23,708,786	25,051,002	24,679,711	119,314,291
Change in Cash due to Operations and ILOT	$ 6,095,137	$ 9,852,919	$ 17,868,847	$ 21,075,080	$ 11,685,009	$ 66,576,992

Source: LUS Financial and Operating Statements

4.0 ELECTRIC UTILITY SYSTEM

4.1 Electric Utility Summary

The City owns and operates an Electric System providing reliable power to approximately 70,000 retail customers. LUS operates power generation, transmission, substation, distribution, and customer facilities within and outside its service territory. Table 4-1 presents the historical Electric System retail sales, wholesale sales, and wholesale purchases over the last five years.

Table 4-1: Electric System Historical Retail and Wholesale Sales

Year	Retail Sales (MWh)	MISO Market Sales (MWh)	MISO Market Purchases (MWh)
2016	2,027,945	872,154	2,098,275
2017	1,980,653	898,205	2,042,686
2018	2,031,847	1,153,292	2,108,460
2019	2,004,310	1,132,482	2,036,411
2020	1,917,040	736,830	1,987,674

Source: LUS Financial and Operating Statements

LUS has been a full market participant as a Local Balancing Authority and Transmission Owner within the Midcontinent Independent System Operator, Inc. ("MISO") since 2013. Participation in the MISO market requires a buy-all/sell-all type of transaction for energy. LUS purchases all its energy requirements to serve its load from the MISO market. Correspondingly, MISO dispatches the LUS generation units and all the generation is sold into the MISO market. The MISO Market Purchases represent purchases from the MISO market to serve LUS retail load. As presented in Table 4-2, retail sales by class as of October 31, 2020, indicate that residential and commercial customers represent approximately 90 percent of Electric System sales. The LUS commercial customer base is diverse, with no single customer representing more than 2 percent of LUS electric retail revenues.

Table 4-2: Electric System Customer Class Statistics as of October 31, 2020

	Number of Customers	Percent of Total	Sales (kWh)	Percent of Total
Residential	56,440	81.4%	813,404,514	42.4%
Residential - Outside the City	972	1.4%	15,985,869	0.8%
Commercial without Demand-Small	8,063	11.6%	177,403,666	9.3%
Commercial Small and Large - Outside the City	173	0.2%	14,478,770	0.8%
Commercial with Demand - Large	1,249	1.8%	725,503,529	37.8%
Private Security Lighting	1,741	2.5%	6,919,550	0.4%
Street Lighting	2	0.0%	16,866,743	0.9%
Schools and Churches	440	0.6%	50,779,859	2.6%
Municipal-General Fund	3	0.0%	257,491	0.0%
University of Louisiana - Lafayette	102	0.1%	60,807,708	3.2%
Interdepartmental	181	0.3%	34,631,827	1.8%
Total	69,364	100.0%	1,917,039,526	100.0%

Source: LUS Financial and Operating Statements

4.2 Power Supply Summary

LUS provides energy and capacity to its customers through owned resources and power supply contracts. The total peak demand for LUS was approximately 441 megawatts ("MW") in 2020 and is expected to grow to 500 MW by 2036 based on load forecasts conducted within a recent integrated resource plan ("IRP"). LUS is forecasted to experience long-term load growth around two tenths of a percent, which is consistent with other utilities' load forecasts in the region. LUS owns and operates two power generation facilities in Lafayette: T.J. Labbe and Hargis-Hebert. Both facilities have two natural gas-fired combustion turbines to provide capacity and energy. These four natural gas-fired combustion turbines are interconnected to the transmission system within the City of Lafayette. In addition to the power plants which LUS owns, LUS also has several power purchase agreements in place to provide capacity and energy to meet its load. Through the LPPA, Lafayette owns 50 percent of Rodemacher No.2, which is a coal-fired unit with a capacity of approximately 500MW located near Boyce, Louisiana. Rodemacher No.2 is operated by Cleco Corporate Holdings, LLC as part of the Brame Energy Center. Table 4-3 presents the approximate installed capacity ("ICAP") for the power supply resources owned by LUS.

Table 4-3: LUS Power Supply Resources (Net Capacity)

LUS Power Plants		
Unit	Fuel	Installed Capacity (ICAP, MW)
Hargis-Hebert 1	Natural Gas	47
Hargis-Hebert 2	Natural Gas	47
TJ Labbe 1	Natural Gas	48
TJ Labbe 2	Natural Gas	47
LUS Power Purchase Agreements		
Unit	Fuel	Installed Capacity (ICAP, MW)
Lafayette Public Power Authority (LPPA) Rodemacher No.2	Coal	246
Southwest Power Administration	Hydro	18
NRG	Capacity only	40

As illustrated by the list above, LUS has a diverse power supply portfolio consisting of coal, natural gas, and hydroelectric resources. The Southwest Power Administration contract consists of hydroelectric resources and is expected to operate until 2033.

Within the recent IRP conducted in 2019-2020, the long-term operation of Rodemacher No.2 was specifically evaluated due to the ongoing environmental regulations which impact coal-fired units, as well as the associated economics. Within the IRP evaluation, long-term operation of Rodemacher No.2 utilizing coal as a fuel was higher cost compared to other power supply alternatives. As such, LUS has expressed a desire to potentially retire Rodemacher No.2 from coal-fired operation at the end of 2027. However, Rodemacher No.2 is co-owned between multiple utilities. No firm retirement date has been set by the co-owners. If the co-owners elect to retire Rodemacher No.2, LUS will need to replace the capacity and energy from Rodemacher No.2 when retired with new power supply resources. LUS has already started evaluating alternatives in anticipation of replacing Rodemacher No.2.

In addition to the plants above, LUS has two retired power plant facilities consisting of the Louis "Doc" Bonin Generation Station ("Bonin") (the site of the LUS operations center) and the Curtis Rodemacher Generation Station. Both plants were retired as they became economically obsolete. The Bonin facility was retired in 2017 and has gone through various decommissioning and demolition efforts. The Bonin facility had four fuel oil tanks located on-site that have been demolished, removed, and remediated. LUS has plans to remove the cooling towers, specifically the cooling tower for Unit 3 to provide additional space for electrical switchyard/substation expansions. The remediation has been completed for the cooling towers and LUS is currently evaluating demolition alternatives.

The Curtis Rodemacher facility is a retired natural gas-fired steam plant. The plant was retired in 1993 from power generation. The facility was retired-in-place and LUS continues to monitor the facility and address issues as they arise associated with lead-based paint, asbestos, and other maintenance requirements. The Rodemacher facility is adjacent to the Pinhook substation. LUS continues to evaluate potential opportunities for repurposing the facility for LUS uses.

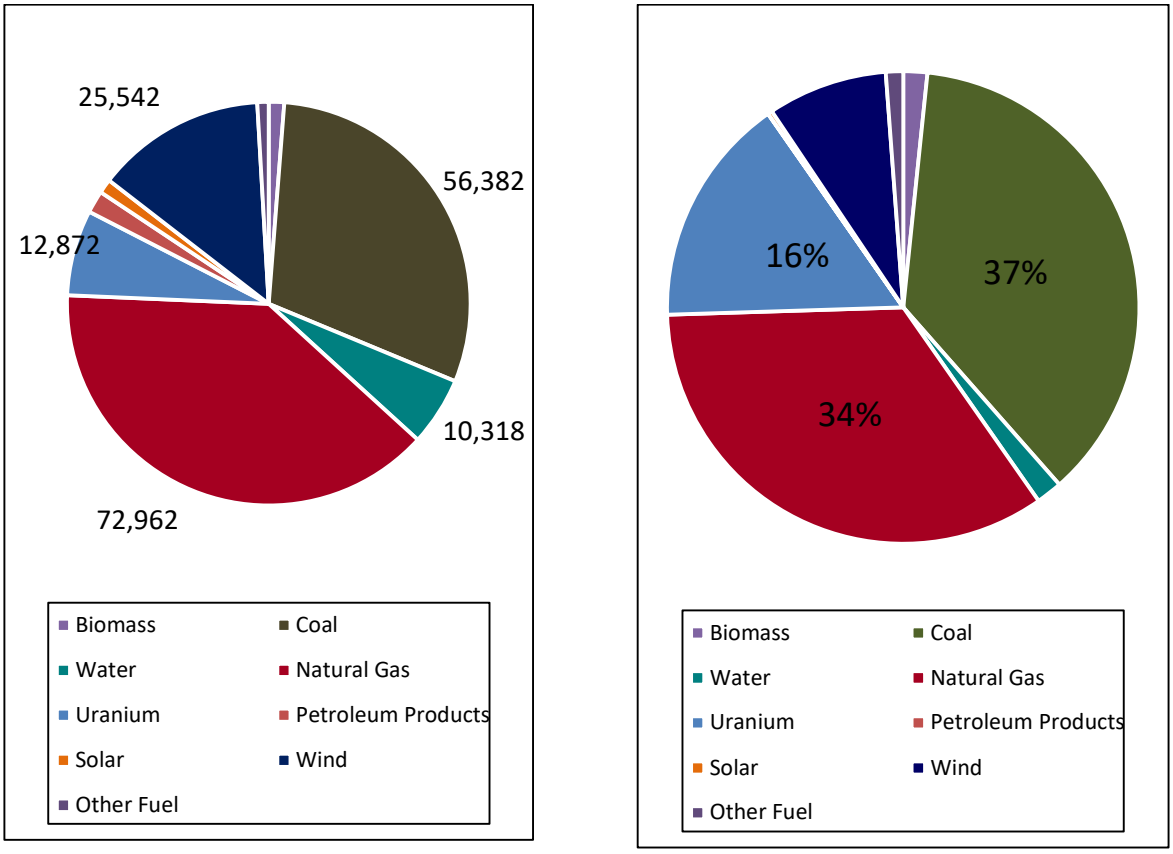
4.2.1 MISO Wholesale Market

The power grid, consisting of power generation and transmission lines, is operated by independent system operators across many areas of the country. Within the central part of the country, MISO is the system operator. MISO is charged with the reliable operation of the grid. MISO initiated its integrated marketplace on April 1, 2005. On December 18, 2013, LUS officially joined MISO, along with several other utilities which formed the MISO South region and was integrated into MISO's transmission system. MISO is separated into three areas: North, Central, and South. LUS operates in the MISO South region. The MISO market is made up of numerous utilities operating in 15 states and the Canadian province of Manitoba as illustrated in Figure 4-1.

Figure 4-1: MISO Market Area

MISO has a wide range of capacity and energy resources including fossil fuel, renewable, and nuclear generation. The capacity and energy mix of resources within MISO for 2019 is presented in Figure 4-2.

Figure 4-2: MISO 2019 Summer Capacity (MW) and Generation (%) by Fuel Type

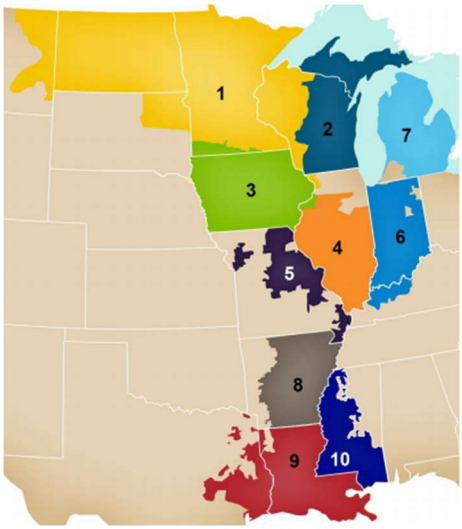


MISO South is more heavily based on natural gas resources compared to the other two MISO regions, which rely more heavily on coal-fired resources. MISO North has the most extensive wind generation within the MISO footprint.

Utilities typically acquire all their energy from the market and sell energy from their resources into the market when it is accepted for dispatch, rather than self-scheduling resources. LUS has retained The Energy Authority ("TEA") as its power and fuel marketer. TEA is registered as the market participant for LUS. TEA has the responsibility to assist LUS in developing a strategy for procuring and selling energy within the MISO market.

To provide sufficient capacity near load centers, MISO is divided into nine Local Resource Zones ("LRZ"), as presented in Figure 4-3 below. A utility must obtain enough capacity within its LRZ to meet MISO's requirements. LUS is in LRZ 9.

Figure 4-3: MISO Load Resource Zones[1]



Recently, wholesale energy prices have remained low due to several factors including relatively low load growth, significant addition of wind resources (MISO had 20.5 GW of wind installed as of June 30, 2019)[2], and low price of natural gas. According to LUS, the 2020 load cost were some of the lowest that the utility had experienced in the last decade. As discussed above, LUS dispatches its power generating facility into the MISO market. Table 4-4 presents the historical electric generation for each plant.

[1] MISO, *2020/2021 Planning Resource Auction (PRA) Results*, April 2020, https://cdn.misoenergy.org/2020-2021%20PRA%20Results442333.pdf
[2] MISO, *Planning Year 2020-2021 Wind & Solar Capacity Credit*, December 2019, https://cdn.misoenergy.org/2020%20Wind%20&%20Solar%20Capacity%20Credit%20Report408144.pdf

Table 4-4: Electric Generation by Plant (MWh)

	2016	2017	2018	2019	2020
T.J. Labbe	13,423	16,738	17,974	13,755	17,976
Hargis Hebert	21,848	22,972	22,928	22,934	21,807
Rodemacher Unit 2	797,928	825,089	1,062,984	1,045,878	656,054
Total Generation	833,199	864,799	1,103,886	1,082,567	695,837

4.2.2 T.J. Labbe Plant

4.2.2.1 Plant Description

The T.J. Labbé Plant began commercial operation in 2005 and consists of two General Electric ("GE") simple cycle LM6000 PC aeroderivative combustion turbines. The turbines each have a nominal net output of 48 MW each. The turbines utilize GE's Spray Intercooling ("SPRINT") system. The SPRINT system works by spraying atomized water directly into the air stream in the compressor stages to cool the air and increase the mass flow through the turbine, thereby increasing the electrical output of the generator. The combustion turbines also utilize water injection to control nitrous oxides ("NOx") emissions.

The combustion turbines use natural gas as the fuel source, which is supplied by the TransCanada interconnect pipeline. T.J. Labbé has three 50 percent gas compressors on site, but they are not used as gas supply pressure to the site is sufficient to run the combustion turbines without compression.

To improve combustion turbine performance during warmer weather conditions, each unit is also equipped with an inlet chiller system. A Turbine Air Systems ("TAS") chiller system provides chilled water to coils in the inlet filter house to cool inlet air entering the turbine, thereby increasing the mass flow through the turbine, and increasing power output. The chiller can cool the inlet air down to 48°F for optimum performance up to an ambient temperature of 90°F.

The exhaust stacks are equipped with continuous emission monitoring system ("CEMS") to ensure that the turbines comply with emissions limits.

The facility is equipped with a 600-kW emergency generator that provides black start capability.

4.2.2.2 Performance and Statistics

The LM6000 is a proven machine with years of operating experience. The first LM6000 turbine was installed in 1992 and the 1,200 units installed world-wide have logged over 39 million operating hours. The LM6000 PC can start and reach based load within 10 minutes. The turbines also have the capability

of ramping at 50 MW/min. The flexible operating profile makes these combustion turbines ideal units to service peak demand loads. Table 4-5 and Table 4-6 present the historical operating statistics for the last five years for T.J. Labbé.

Table 4-5: Unit 1 Historical Operating Statistics

Generation Statistics	2016	2017	2018	2019	2020	5-year Average
Gross Generation (MWh)	7,545	10,648	12,084	8,848	9,377	9,700
Net Generation (MWh)	5,934	9,998	11,494	8,128	8,779	8,867
Average Heat Rate (Btu/kWH) (Note 1)	12,976	11,353	10,702	13,425	12,661	12,404
Unit Capacity Factor (%)	1.4%	2.4%	2.6%	2.2%	2.4%	2.2%
Unit Service Factor (%)	3.5%	5.5%	5.6%	4.5%	4.7%	4.7%
Unit Starts	40	52	51	73	63	56
Availability Factor (%)	86.1%	95.2%	87.1%	92.6%	93.9%	91.0%
Forced Outage Rate (%)	2.6%	1.2%	1.5%	0.0%	0.2%	1.1%

Note 1: Average Heat Rate is for the entire T.J. Labbé plant and not specific to Unit 1.

Table 4-6: Unit 2 Historical Operating Statistics

Generation Statistics	2016	2017	2018	2019	2020	5-year Average
Gross Generation (MWh)	7,690	8,228	8,143	8,586	9,634	8,456
Net Generation (MWh)	6,234	6,741	6,749	7,079	8,082	6,977
Average Heat Rate (Btu/kWH) (Note 1)	12,976	11,353	10,702	13,425	14,464	12,404
Unit Capacity Factor (%)	1.4%	1.6%	1.9%	2.2%	2.3%	1.9%
Unit Service Factor (%)	3.5%	4.6%	5.0%	4.3%	4.8%	4.5%
Unit Starts	44	54	45	72	70	57
Availability Factor (%)	88.0%	83.8%	59.9%	93.2%	97.6%	84.5%
Forced Outage Rate (%)	23.3%	71.6%	86.8%	0.0%	2.2%	36.8%

Note 1: Average Heat Rate is for the entire T.J. Labbé plant and not specific to Unit 2.

The historical performance data from T.J. Labbé are in line with typical industry benchmarks for similar type units. Overall, the reliability and availability of the units is considered good.

4.2.2.3 Recent and Planned Upgrades and Maintenance

LUS has chosen to perform the major maintenance inspections more frequently than the original recommendation by GE due to feedback from other LM6000 owners in the industry. Plant personnel indicated that the combustion turbines undergo a borescope inspection twice a year, once in Spring and once in Fall. It is also documented that units will receive a borescope inspection if there is a trip where the cause is not readily known. Hot section exchanges ("HSE") are scheduled every 15,000 hours instead of the original recommendation of 25,000 hours. The major overhauls are scheduled every 30,000 hours instead of the original recommendation of 50,000 hours. Variable stator vane ("VSV") bushings are changed every 10,000 hours instead of the original recommendation of 12,500 hours. High pressure combustion ("HPC") stage 1 blades are changed every 15,000 hours and the HPC stage 3-5 blades are changed every 1,000 starts. Although the more frequent major maintenance activities result in a higher O&M cost for the facilities, the low number of operating hours per year for each of the units means that each unit has only undergone one HSE to date and no major overhauls have been completed.

LUS has also continued to perform regular maintenance on the balance of plant equipment at T.J. Labbé. This includes upgrades to the chiller system such as motor overhauls (completed one chiller motor overhaul in 2020 and plan to complete one per year) and modifications to chiller coils to improve the ability to quickly drain and refill to prevent coil leaks due to freezing. LUS has also focused on painting various equipment and structures to prevent corrosion.

4.2.2.3.1 T.J. Labbé Unit 1

In Spring of 2020, the Unit 1 combustion turbine was sent to a GE facility to undergo upgrades to the air oil seals on the compressor side bearings. The unit was experiencing low oil pressure and higher vibration. This is an upgrade that the other LM6000 units in LUS's fleet have all already undergone. The unit was out of service for approximately two weeks. Unit 1 also had the fall borescope inspection conducted by TransCanada Turbines on November 4, 2020. At the time of the inspection, Unit 1 had experienced 1,001 fired starts and 20,992 fired hours. During the borescope inspection, the inlet/compressor, combustion, turbine, and exhaust sections were evaluated. All sections were considered serviceable, and no major concerns were noted.

The Unit 1 combustion turbine also received a hot section exchange inspection in 2013. At the time of the inspection, the unit had experienced 17,520 fired hours and 548 fired starts. During the inspection, the HPT rotor assembly, and the stage 1 and 2 nozzle assemblies were replaced. The combustor has no visual defects detected. The combustor for Unit 1 was previously replaced in 2011 when the unit was at 16,784 fired hours and 477 fired starts.

The unit has not yet received a major overhaul given its limited operating hours. The first major overhaul is planned for 30,000 hours.

4.2.2.3.2 T.J. Labbé Unit 2

In 2020, the Unit 2 combustion turbine underwent a borescope inspection in the Spring and in the Fall. The Spring borescope inspection was conducted by GE and the Fall borescope inspection was conducted by TransCanada Turbines. At the time of the Spring inspection, Unit 2 had experienced 1,012 fired starts and 14,105 fired hours. At the time of the Fall inspection, Unit 2 had experienced 1,080 fired starts and 14,521 fired hours. During each borescope inspection, the inlet/compressor, combustion, turbine, and exhaust sections were evaluated. All sections were considered serviceable, and no major concerns were noted.

Unit 2 combustion turbine also received a hot section exchange inspection in 2015. At the time of the inspection, the unit had experienced 12,475 fired hours and 729 fired starts. During the inspection, the engine was shipped to Houston to receive a hot section replacement. The combustion chamber, the HPT rotor, and the stage 1 and 2 nozzle assemblies were also replaced. A new VBV expansion joint was installed.

The turbine was sent to a GE facility to undergo improvements to the air oil seals in Spring 2017. The unit has not yet received a major overhaul given its limited operating hours. The first major overhaul is planned for 30,000 hours.

4.2.2.4 Fuel Supply

Natural gas is delivered to T.J. Labbé at pressures in the range of 675 psig plus or minus 20 psig. As such, the three 50 percent natural gas compressors at Labbe are not needed and have been permanently bypassed and decommissioned in Spring 2017. The natural gas is delivered through a fuel gas strainer, gas flow meter, a primary and secondary shut off valve, a fuel gas manifold, and goes to the fuel nozzles.

Natural gas from the TransCanada pipeline is procured on behalf of LUS by The Energy Authority (TEA) who also bids the units in as MISO market participants. The quantity and price of gas is determined daily based on day-ahead nominations. T.J. Labbé does not have firm gas supply.

4.2.2.5 Water Supply

Water treatment at each site consists of chemical treatment, granular activated carbon (“GAC”) pre-filtration, cartridge filtration, reverse osmosis, and mixed bed demineralizer systems. The water treatment

system is used to meet the facilities' 143 gpm makeup water requirement for lost system water due to chiller cooling towers, water injection for NOx control, and for the SPRINT system.

City water supply is delivered under pressure to the inlet of the pre-filtration skid. Prior to entering the filtration system, the feed water supply is dosed with sodium meta bi-sulfite to remove chlorine. The GAC filter removes organic matter and any residual chlorine from the feed water supply prior to its use in the reverse osmosis system. The reverse osmosis system removes most of the dissolved solids from the feed water by using a high-pressure pump to force water through a membrane that removes contaminants. Each reverse osmosis train consists of two passes. The second pass outlet is tied to a mixed bed demineralizer which removes the remaining dissolved solids and silica from the feed water. The demineralized ("demin") water is stored in a 180,000-gallon storage tank at each site. Each site contracts with a third party to regenerate the mixed bed and carbon filters.

Additionally, T.J. Labbé has wastewater discharge restrictions, so there is a wastewater storage tank on site that manages the discharge.

4.2.2.6 Plant Transmission Delivery

Power at T.J. Labbé is generated by two 72 megavolt amperes ("MVA"), 13.8 kilovolts ("kV") turbine generators. Each generator sends electricity to a generator step-up ("GSU") transformer via cable bus systems. The GSUs at T.J. Labbé step the 13.8 kV power up to 230 kV. Each of the turbine generators also send electrical power to auxiliary transformers that drop the voltage down to 4.16 kV. The 4.16 kV from the auxiliary transformers is sent to the medium voltage ("MV") switchgear where it is relayed to the station service transformers and the chiller system. The station service transformers further step down the voltage from 4.16 kV to 480 kV for station auxiliaries such as fans, pumps, and motors.

4.2.2.7 Plant Staffing and Operations

The facility is staffed 24 hours per day, 7 days a week, but can also be started and monitored remotely at the Hargis-Hébert facility.

4.2.2.8 Environmental Permits and Compliance

The Labbé plant holds current air permits for Title V and Acid Rain, as shown in Table 4-7. The Acid Rain permit requires quarterly reports on emissions of NO_x, sulfur dioxide ("SO_2"), and carbon dioxide ("CO_2"). NO_x from the turbines is measured by CEMS with annual CEMS Relative Accuracty Testing Audit ("RATA") testing. The turbines are classified as "gas-fired" under Acid Rain since fuel oil combustion is less than 10 percent of the annual capacity. However, the turbines may exceed this 10

percent threshold and become classified as "oil-fired." Additional monitoring would be required as "oil-fired" units. However, the units do not currently have the ability to operate using fuel oil.

The Title V permit includes limits that make the facility a minor source for the Prevention of Significant Deterioration ("PSD") program by limiting emissions of CO and NO_x. The facility is a minor source of HAPs. The two turbines can burn natural gas, and the one black start generator burns fuel oil. The permit allows the facility to operate as a peaking plant, meaning that while actual emissions are low, the permit allows for significant operation as needed as long as the ton per year limits are not exceeded (239.11 tpy CO and 241.37 tpy NO_x). Actual emissions for 2020 were less than 10 tons NO_x. The Title V permit allows fuel oil operation even though the turbines are not capable of burning fuel oil without a physical modification.

As presented in Table 4-8, Labbé holds sufficient allowances for its 2020 emissions under the Cross State Air Pollution Rule ("CSAPR") for the May to September ozone season. A separate CSAPR permit is not required. Excess allowances from Bonin were transferred to Labbé.

No excess emission events occurred in 2020 and no Notice of Violations ("NOVs") were issued. All required quarterly, semi-annual, and annual reports were submitted. Deviations were reported for data availability occurred several times in 2020.

Table 4-7: T. J. Labbé Air Permits

Permit Description	Permit Number	Issue Date	Expiration Date	Renewal Application Deadline
Title V Operating Permit	1520-00128-V4	August 23, 2018	August 23, 2023	February 23, 2023
Acid Rain Permit	1520-00128-IV3	August 23, 2018	August 23, 2023	February 23, 2023

Source: LUS

Table 4-8: T. J. Labbé Emission Allowances

NO_x Allowances Held (tons)	2020 Ozone Season NO_x Emissions (tons)	SO_2 Allowances Held
661	4	1067

Source: LUS

4.2.3 Hargis-Hebert Plant

4.2.3.1 Plant Description

Hargis-Hébert began commercial operation in 2006 and is nearly identical to T.J. Labbé. Hargis-Hebert consists of two GE simple cycle LM6000 PC aeroderivative combustion turbines. The turbines each have a nominal net output of 48 MW each. The turbines utilize GE's SPRINT system for increased power output and water injection to control NOx emissions.

The combustion turbines use natural gas as the fuel source, which is supplied by the Gulf South pipeline. Gas supply pressure to the site is sufficient to run the combustion turbines without compression.

To improve combustion turbine performance during warmer weather conditions, each unit is also equipped with an inlet chiller system. A TAS chiller system is capable of cooling the inlet air down to 48°F for optimum performance up to an ambient temperature of 90°F.

The exhaust stacks are equipped with CEMS to ensure that the turbines comply with emissions limits.

The facility is equipped with a 600-kW emergency generator that provides black start capability.

4.2.3.2 Performance and Statistics

Table 4-9 and Table 4-10 present the historical operating statistics for the last five years for Hargis-Hebert.

Table 4-9: Unit 1 Historical Operating Statistics

Generation Statistics	2016	2017	2018	2019	2020	5-year Average
Gross Generation (MWh)	8,805	12,882	12,613	14,088	12,876	12,253
Net Generation (MWh)	7,593	12,168	11,822	13,494	12,301	11,476
Average Heat Rate (Btu/kWH) (Note 1)	12,853	12,064	11,354	11,956	13,438	12,333
Unit Capacity Factor (%)	1.7%	2.9%	3.0%	3.7%	3.2%	2.9%
Unit Service Factor (%)	4.6%	6.5%	7.8%	6.5%	5.9%	6.3%
Unit Starts	45	63	51	91	63	63
Availability Factor (%)	66.1%	83.7%	94.5%	90.7%	94.0%	85.8%
Forced Outage Rate (%)	82.5%	17.7%	1.8%	0.3%	0.0%	20.5%

Note 1: Average Heat Rate is for the entire Hargis-Hebert plant and not specific to Unit 1.

Table 4-10: Unit 2 Historical Operating Statistics

Generation Statistics	2016	2017	2018	2019	2020	5-year Average
Gross Generation (MWh)	15,207	12,318	12,429	12,571	9,008	12,307
Net Generation (MWh)	12,986	10,809	10,906	11,000	7,638	10,668
Average Heat Rate (Btu/kWH) (Note 1)	12,853	12,064	11,354	11,956	13,438	12,333
Unit Capacity Factor (%)	3.0%	2.7%	2.9%	3.5%	2.4%	2.9%
Unit Service Factor (%)	7.9%	7.0%	7.6%	6.7%	4.6%	6.8%
Unit Starts	72	59	50	88	55	65
Availability Factor (%)	93.2%	94.2%	94.3%	87.6%	91.6%	92.2%
Forced Outage Rate (%)	18.0%	17.6%	0.0%	0.0%	0.0%	7.1%

Note 1: Average Heat Rate is for the entire Hargis-Hebert plant and not specific to Unit 2.

The historical performance data from Hargis-Hebert are in line with anticipated values that Burns & McDonnell has observed in the industry. Overall, the reliability and availability of the units are considered to be good.

4.2.3.3 Recent and Planned Upgrades and Maintenance

LUS has chosen to perform the major maintenance inspections more frequently than recommended by GE due to feedback from other LM6000 owners in the industry. Inspection schedules are the same as for T.J. Labbé. Due to safety concerns related to COVID-19, LUS chose to cancel spring borescope inspections at Hargis-Hebert. This decision was discussed with GE and due to the relatively low number of starts and run-hours it was determined to be a low risk. Normal fall borescopes were completed.

LUS has also continued to perform regular maintenance on the balance of plant equipment at Hargis-Hebert. This includes upgrades to the chiller system such as motor overhauls and modifications to chiller coils to improve the ability to quickly drain and refill to prevent coil leaks due to freezing. LUS has also focused on painting various equipment and structures to prevent corrosion.

4.2.3.3.1 Hargis-Hebert Unit 1

In Fall of 2020, the Unit 1 combustion turbine underwent a borescope inspection conducted by GE on October 22, 2020. At the time of the inspection, Unit 1 had experienced 1,228 fired starts and 18,738 fired hours. During the borescope inspection, the inlet/compressor, combustion, turbine, and exhaust sections were evaluated. All sections were considered serviceable and no major concerns were noted.

The Unit 1 combustion turbine also received a hot section exchange inspection in 2013. At the time of the inspection, the unit had experienced 14,917 fired hours and 870 fired starts. During the inspection, the hot section was replaced except for the combustion chamber.

The unit has not yet received a major overhaul given its limited operating hours. The first major overhaul is planned for 30,000 hours.

4.2.3.3.2 Hargis-Hebert Unit 2

In Fall of 2020, the Unit 1 combustion turbine underwent a borescope inspection conducted by GE on October 21, 2020. At the time of the inspection, Unit 2 had experienced 1,309 fired starts and 18,043 fired hours. During the borescope inspection, the inlet/compressor, combustion, turbine, and exhaust sections were evaluated. All sections were considered serviceable, and no major concerns were noted.

In 2012, Unit 2 received a hot section exchange performed by GE. At the time of the inspection, Unit 2 had experienced 14,680 operating hours and an unreported number of starts. The whole hot section was overhauled for the inspection. Repairs were made to the gaskets and oil pumps, and the unit was returned to good operating condition.

The unit has not yet received a major overhaul given its limited operating hours. The first major overhaul is planned for 30,000 hours.

4.2.3.4 Fuel Supply

Natural gas is delivered to Hargis-Hebert at pressures in the range of 675 psig plus or minus 20 psig. Hargis-Hebert does not have compressors, but the plant does have dew point heaters. The natural gas is delivered through a fuel gas strainer, gas flow meter, a primary and secondary shut off valve, a fuel gas manifold, and goes to the fuel nozzles.

Natural gas from the Gulf South pipeline is procured on behalf of LUS by TEA who also bids the units in as MISO market participants. The quantity and price of gas is determined daily based on day-ahead nominations. Hargis-Hebert does not have firm gas supply.

4.2.3.5 Plant Transmission Delivery

Power is generated by two 72 MVA, 13.8 kV turbine generators. Each generator sends electricity to a GSU transformer via cable bus systems. The GSUs at Hargis-Hebert step the 13.8 kV power up to 69 kV. Each of the turbine generators each also send electrical power to auxiliary transformers that drop the voltage down to 4.16 kV. The 4.16 kV from the auxiliary transformers is sent to the MV switchgear

where it is relayed to the station service transformers and the chiller system. The station service transformers further step down the voltage from 4.16 kV to 480 kV for station auxiliaries such as fans, pumps, and motors.

4.2.3.6 Water Supply

Water treatment at each site consists of chemical treatment, GAC pre-filtration, cartridge filtration, reverse osmosis, and mixed bed demineralizer systems. The water treatment system is used to meet the facilities' 143 gpm makeup water requirement for lost system water due to cooling towers, water injection for NOx control and for the SPRINT system.

At each site, the city water supply is delivered under pressure to the inlet of the pre-filtration skid. Prior to entering the filtration system, the feed water supply is dosed with sodium meta bisulfite to remove chlorine. The GAC filter removes organic matter and any residual chlorine from the feed water supply prior to its use in the reverse osmosis system. The reverse osmosis system removes most of the dissolved solids from the feed water by using a high-pressure pump to force water through a membrane that removes contaminants behind. Each reverse osmosis train consists of two passes. The second pass outlet is tied to a mixed bed demineralizer which removes the remaining dissolved solids and silica from the feed water. The demin water is stored in a 180,000-gallon storage tank. Each site contracts with a third party to regenerate the mixed bed and carbon filters. Due to low water pressures, the City has recently added a well near the Hargis-Hebert site that is untreated. The location of the well causes a higher percentage of untreated water to be supplied to Hargis-Hebert and the conductivity of the water is too high for the reverse osmosis system. Hargis-Hebert has recently installed carbon filters and green sand filters to manage to conductivity.

4.2.3.7 Plant Staffing and Operations

The facility is staffed 24 hours per day, 7 days a week, but can also be started and monitored remotely at the T.J. Labbe facility

4.2.3.8 Environmental Permits

The Hargis-Hebert plant holds current air permits for Title V and Acid Rain, as shown in Table 4-11. The Acid Rain permit requires quarterly reports on emissions of NO_x, SO_2, and CO_2. NO_x from the turbines is measured by CEMS with annual CEMS RATA testing. The turbines are classified as "gas-fired" under Acid Rain since fuel oil combustion is less than 10 percent of the annual capacity. However, the turbines may exceed this 10 percent threshold and become classified as "oil-fired." Additional monitoring would

be required as "oil-fired" units. However, the units do not currently have the ability to operate using fuel oil.

The Title V permit includes limits that make the facility a minor source for the PSD program by limiting emissions of CO and NO_x. The facility is a minor source of HAPs. The two turbines can burn natural gas, and the one black start generator burns fuel oil. The permit allows the facility to operate as a peaking plant, meaning that while actual emissions are low, the permit allows for significant operation as needed as long as the ton per year limits are not exceeded (239.11 tpy CO and 241.37 tpy NO_x). Actual emissions for 2020 were less than 13 tons NO_x. The Title V permit allows fuel oil operation even though the turbines are not capable of burning fuel oil without a physical modification.

As shown in Table 4-12, Hargis-Hebert holds sufficient allowances for its 2020 emissions under the CSAPR for the May to September ozone season. A separate CSAPR permit is not required. Excess allowances from Bonin were transferred to Hargis-Hebert.

LDEQ conducted a Title V permit inspection on June 19, 2020, which resulted in finding three areas of concern from operations in 2019 (related to calibration gases and natural gas sampling) and a warning letter. No excess emission event occurred in 2020 and no NOVs were issued. All required quarterly, semi-annual, and annual reports were submitted. Deviations were reported for data availability in February and in June of 2020.

Table 4-11: Hargis-Hebert Air Permits

Permit Description	Permit Number	Issue Date	Expiration Date	Renewal Application Deadline
Title V Operating Permit	1520-00128-V4	August 17, 2018	August 17, 2023	February 17, 2023
Acid Rain Permit	1520-00131-IV3	August 17, 2018	August 17, 2023	February 17, 2023

Source: LUS

Table 4-12: Hargis-Hebert NOx Emission Allocations

NO_x Allowances Held (tons)	2020 Ozone Season NO_x Emissions (tons)	SO_2 Allowances Held
617	4	1,223

Source: LUS

4.2.4 Rodemacher Unit 2

4.2.4.1 Plant Description

Rodemacher Unit 2 is a coal-fired steam electric generating unit located at the Brame Energy Center in Lena, Louisiana with an output of approximately 523MW (gross). Rodemacher Unit 2 entered commercial operation in 1982 and is jointly owned by LPPA (50 percent), Cleco (30 percent), and LEPA (20 percent). LPPA's ownership share of Rodemacher Unit 2 is 261.5 MW of capacity and the related energy output. Rodemacher Unit 2 is operated by Cleco, but each owner dispatches their share of the total capacity. Each owner self-schedules Rodemacher Unit 2 at minimum load and then economically dispatches the remaining capacity into the MISO market. LPPA has a power sales contract with the City of Lafayette in which the City agrees to purchase all of LPPA's share of the capacity and energy produced by Rodemacher Unit 2.

The Joint Ownership Agreement defines the LPPA's authority regarding decision making and operation of Rodemacher Unit 2. Cleco is required to provide relevant information to the Joint Owners regarding finances, operations, and future decisions. The Joint Owners require more than 50 percent ownership approval for any major changes regarding operations or finances. LPPA's 50 percent ownership stake provides the authority to reject major changes or request further analysis. This reduces the risk of the other owners could make changes that would adversely impact LPPA. The Joint Owners Agreement is effective through June 30, 2032.

Rodemacher Unit 2 generates electric power using a pulverized coal-fired, natural circulation, reheat boiler manufactured by Foster Wheeler. The boiler has a maximum continuous rating ("MCR") of 3,800,000 pounds per hour ("lb/hr") of steam at the superheater outlet pressure of 2,620 pounds per square inch gauge ("psig") and temperature of 1,005 degrees Fahrenheit ("°F"). The reheater is designed for an operating temperature of 1,005°F. The coal arrives on site via rail with rotary dump cars. Coal is prepared for the boiler by 5 roller wheel coal mills.

The boiler has a balanced draft furnace with combustion air being supplied by two 50 percent forced draft fans. The boiler was initially designed to burn various types of coal and natural gas, but primarily burns Powder River Basin ("PRB") coal and starts up on natural gas. Rodemacher Unit 2 has one motor driven startup boiler feed pump capable of allowing the unit to achieve approximately 330 MW and one 100 percent capacity turbine driven boiler feed pump capable of operating between minimum load and full load. Feedwater and condensate are heated to economizer inlet conditions utilizing four low pressure ("LP") feed water heaters ("FWHs"), a deaerator ("DA"), and two high pressure ("HP") feedwater

heaters. Rodemacher Unit 2 also utilizes a GE steam turbine generator ("STG"), which is a four casing, single reheat, tandem compound, four flow condensing unit. The generators are rated at 496 MVA. Cooling water for the Units is circulated through a two-shell single pass condenser. Cooling water for the steam turbine condenser and closed cooling water system is supplied by Lake Rodemacher. Lake Rodemacher is a man-made lake built specifically for Brame Energy Center.

For emissions controls, Rodemacher Unit 2 utilizes a selective non-catalytic reduction ("SNCR") system with urea injection for NO_x reduction and an electro-static precipitator ("ESP") for 99.5 percent removal of fly ash. Rodemacher Unit 2 also uses a dry sorbent injection system for acid gas control and added a fabric filter baghouse for additional particulate emissions controls to comply with EPA Mercury and Air Toxic Standards ("MATS") requirements.

4.2.4.2 Performance and Statistics

Table 4-13 summarizes the historical operating statistics for the last five years for Rodemacher Unit 2.

Table 4-13: Rodemacher Unit 2 Historical Operating Statistics

Generation Statistics	2016	2017	2018	2019	2020	5-year Average
Gross Generation (MWh)	1,855,018	1,987,052	2,555,929	2,532,781	1,614,522	2,109,060
Net Generation (MWh)	1,598,556	1,734,980	2,278,751	2,269,151	1,394,805	1,855,249
Average Heat Rate (Btu/kWH)	11,896	11,524	11,385	11,085	12,263	11,631
Unit Capacity Factor (%)	36.7%	40.0%	52.7%	52.6%	32.2%	42.8%
Availability Factor (%)	83.2%	75.6%	89.5%	90.1%	70.7%	81.8%
Forced Outage Rate (%)	2.4%	9.5%	3.2%	2.4%	4.0%	4.3%

Source: LPPA Manager's Monthly Reports

Rodemacher Unit 2 has been a relatively reliable unit with average Forced Outage Rates over the last five years less than five percent. In 2020, the forced outage rate was in line with previous years, but the capacity factor for the unit was lower. The reduction in capacity factor is partially due to lower market pricing in MISO which has been due to low natural gas prices. Another contributing factor was an extended planned outage that occurred in September and October.

4.2.4.3 Recent and Planned Upgrades and Maintenance

A major steam turbine inspection is scheduled every six years, which is in line with industry standards. Rodemacher Unit 2 underwent a major steam turbine overhaul in the fall of 2020. This included maintenance activities associated with the main turbine values, inspection of turbine components, and replacing a row of LP turbine blades. The total outage duration was 102 days.

Rodemacher Unit 2 has continued to monitor and maintain the boiler tubes and duct work. The last boiler chemical clean was in 2016. Tube samples are taken annually to determine when chemical cleaning is needed. The drum is inspected annually, and no major issues have been found.

The site is attempting to reduce or eliminate copper in the condensate and feedwater system which has caused copper deposition in the HP turbine. Feedwater heaters 3, 4, 6, and 7 have been replaced with stainless steel tubes and feedwater heaters 1 and 2 are still copper nickel alloy. There are plans to replace FWHs 1 and 2 in 2021.

The condenser is manually cleaned during each spring outage and is backwashed every other week.

No major maintenance activities are planned for the next few years.

4.2.4.4 Fuel Supply and Ash Handling

The Joint Owners purchase coal from Arch Coal Sales, Inc., Navajo Transitional Energy Company ("NTEC"), and Peabody COALSALES, LLC. The coal is sourced from the Powder River Basin in Wyoming. LPPA owns two unit-trains for rail transportation to the facility. The existing contracts allow the coal to either be rejected or allows for a price adjustment if the heat content is too low or the sulfur content is too high. The bottom ash and fly ash from Rodemacher Unit 2 is removed from site by truck and sold for beneficial reuse by Charrah, Inc. The Joint Owners have an agreement with Charrah through 2025.

4.2.4.5 Plant Transmission Delivery

Rodemacher Unit 2 sends electric power from the switch station via five transmission lines, all of which operate at 230kV. The transmission lines service Clarence, Leesville, Rapides, Sherwood, and St. Landry. LUS has had firm transmission agreement for the plant since it was commissioned. LUS has decided to terminate the firm transmission agreement with Cleco and will save $6 million to $7 million per year. LUS provided notice three years ago. LUS will have a slight increase in network integrated transmission service ("NITS"), but expects to save a significant amount from this change. This will happen in FY 2021. NITS is not expected to increase any more than $1 million per year. The net savings from this is $4 million to $5 million per year. This transmission savings is O&M savings.

4.2.4.6 Water Supply

Water is supplied from Lake Rodemacher. The water is pretreated with ultra-filtration ("UF") and then sent through a RO and a demineralizer. There are two 250,000-gallon aluminum tanks that hold the demin water. Hydrazine and phosphate are used to treat boiler water in the drum. The lake is self-contained and is not subject to 316.B requirements.

4.2.4.7 Plant Staffing and Operations

Cleco provides maintenance and operations staffing for Rodemacher Unit 2. The unit is staffed 24 hours a day, 7 days a week.

4.2.4.8 Future Decommissioning and Conversion

Rodemacher Unit 2 would require significant modifications by 2027 in order to comply with CCR and ELG rules and continue to operate utilizing coal. Due to the cost associated with these modifications, the Joint Owners have decided that prior to the required compliance date, Rodemacher Unit 2 will stop utilizing coal in the future. The Joint Owners are still evaluating whether Rodemacher Unit 2 should be retired or converted to burn natural gas. Either alternative is expected to be a major expenditure and LUS would be responsible for 50 percent of the total cost.

4.2.4.9 Environmental Permits and Compliance

4.2.4.9.1 EPA Clean Air Act Greenhouse Gas Regulation

On January 19, 2021, the United States Court of Appeals for the District of Columbia Circuit vacated the Trump Administration's Affordable Clean Energy ("ACE") Rule, which had in turn replaced the Clean Power Plan ("CPP") of the Obama Administration. The Biden Administration is expected to start fresh in implementing its own climate change agenda. No drafts have been proposed at this time.

4.2.4.9.2 New Source Performance Standards

New Source Performance Standards ("NSPS") for Greenhouse Gas Emissions for Electric Generating Units (40 CFR Subpart TTTT) does not apply to Rodemacher 2 since it did not commence construction after January 8, 2014.

4.2.4.9.3 Environmental Permits and Compliance

Table 4-14 summarizes the key environmental permits for Rodemacher Unit 2.

Table 4-14: Rodemacher Unit 2 Key Permits

Permit Description	Permit Number	Regulatory Authority[1]	Expiration Date	Renewal Application Deadline
Title V Operating Permit	2360-00030-V4	LDEQ	February 20, 2024	August 20, 2022
Acid Rain Permit	2360-00030-IV5	EPA	February 20, 2024	August 20, 2022
LPDES Permit[2]	LA0008036	LDEQ	September 30, 2019	Submitted March 13, 2019
Solid Waste Standard Type I Permit (metal cleaning waste pond, bottom ash pond, and fly ash pond)	P-0005R1	LDEQ	November 18, 2026	Must renew every 10 years.
Solid Waste Standard Type I (coal sedimentation pond)	P-0062R1	LDEQ	November 18, 2026	Must review every 10 years.
Radioactive Material License	LA-3719-L01	LDEQ	May 31, 2023	30 calendar days prior to expiration
Spill Prevention, Control, and Countermeasure ("SPCC") Plan	N/A	EPA	Last revised December 2019	Plan review must be completed every 5 years.
Hazardous Waste Generator ("RCRA")[3]	LAD071941611	EPA	N/A	N/A

Source: LUS
[1] LDEQ = Louisiana Department of Environmental Quality, EPA = U.S. Environmental Protection Agency
[2] Facility operating under existing Louisiana Pollution Discharge Elimination System (LPDES) permit (administratively continued)
[3] RCRA = Resource Conservation and Recovery Act

4.2.4.9.4 National Ambient Air Quality Standards

The Clean Air Act requires EPA to set National Ambient Air Quality Standards ("NAAQS") for pollutants that are common in outdoor air, considered harmful to public health and the environment. Rapides Parish is currently designated as attainment for all criteria pollutants; however, the Parish to the south (Evangeline) is non-attainment for SO_2. EPA updates the NAAQS every five years. The $PM_{2.5}$ NAAQS is the subject of current scientific inquiry and a reduction of the standard is possible during the next review. A lowering of the $PM_{2.5}$ NAAQS would create new non-attainment areas and could affect the operation of any coal-fired boiler.

4.2.4.9.5 Air Emissions and Opacity Limitations

Unit 2 operates utilizing coal, natural gas, and number 6 fuel oil to generate up to 523 MW (gross). Emissions are controlled by activated carbon injection, dry sorbent injection, fabric filter baghouse, and a selective non-catalytic reduction control device.

SO_2 and NO_2 emissions are covered in the Acid Rain permit. Emissions are lower than the limits, as presented in Table 4-15 and Table 4-16. The SO_2 limit was lowered to comply with the Regional Haze Rule State Implementation Plan. Emissions controls were added to comply with CSAPR and MATS. The SNCR has been installed and is used during the ozone season (May 1to September 30). Rodemacher received 995 tons for the NO_x ozone season allocations in 2020. For 2021, 2022, and 2023 Rodemacher 2 will only receive 875 NO_x ozone season allocations. LUS will monitor the run hours during the ozone season to stay below the allocations issued to LPPA. LPPA should have approximately 283 allowance in the bank prior to distribution of 2021.

The final CSAPR changes were signed March 15, 2021, which encourage plants to increase use of NO_x controls by turning them on more often and/or using more reagent to achieve a lower NO_x rate when they are operating. Rodemacher 2 will likely need to increase use of the SNCR to decrease emissions.

No excess emission event occurred in 2020 and no NOVs were issued. All required quarterly, semi-annual, and annual reports were submitted. Deviations were reported for data availability occurred several times in 2020.

Table 4-15: LPPA Rodemacher Unit 2 SO_2 Emissions

Year	Annual Average (lb/MMBtu)	Permit Limit (lb/MMBtu)	Total Annual (tpy)	Annual Allocation (tpy)
2016	0.28	1.2	3,133	18,212
2017	0.27	1.2	2,887	18,212
2018	0.33	1.2	4,726	18,212
2019	0.24	0.3	3,040	18,212
2020	0.24	0.3	1,649	18,212

Source: LUS

Table 4-16: LPPA Rodemacher Unit 2 NO_2 Emissions

Year	Annual Average (lb/MMBtu)	Permit Limit (lb/MMBtu)	Total Annual (tpy)	Ozone Season (tpy)
2016	0.18	0.46	1,984	868
2017	0.15	0.46	1,581	674
2018	0.22	0.46	3,268	1,488
2019	0.22	0.46	2,706	1,033
2020	0.18	0.46	1,257	699

Source: LUS

4.2.4.9.6 Allocations

Brame Energy Center holds sufficient allowances for its emissions, as shown in Table 4-17.

Table 4-17: Rodemacher Unit 2 Emission Allocations (LUS Portion Only)

NO_x Allowances Held (tons)	2020 Ozone Season NO_x Emissions (tons)	SO_2 Allocations (tons)	2020 SO_2 Emissions (Tons)
497.5	332.37	9,106	795.81

Source: LUS

4.2.4.9.7 Cooling Water Supply and 316(b) Regulation

Cooling tower and boiler makeup water is pumped from a screened water intake structure at Lake Rodemacher. Rainfall and storm water runoff provides makeup to Lake Rodemacher for water lost to evaporation. As determined by LDEQ, Lake Rodemacher is not subject to Section 316(b) of the Clean Water Act because it was constructed to support power generation operations and is not considered "waters of the State."

4.2.4.9.8 Wastewater Discharge Permit

Louisiana Pollutant Discharge Elimination System ("LPDES") Permit No. LA0008036 authorizes the discharge of operational wastewaters and storm water from the Brame Energy Center to surface waters of the State. Although the LPDES Permit expired on September 30, 2019, a timely renewal application was submitted on March 13, 2019, and Cleco provided additional information requested by LDEQ on March 24, 2020. The conditions of the expired permit are administratively continued until the effective date of a new permit, as governed by LAC 33:IX.2321.

The LPDES Permit establishes monitoring, reporting, and recordkeeping requirements for wastewater and storm water discharges, including effluent limitations specific to wastewater types and outfall locations.

Based on review of the EPA ECHO and LDEQ online systems, the facility has no outstanding NOVs or material compliance issues associated with the LPDES Permit.

4.2.4.9.9 Wastewater Effluent Limitation Guidelines

When a 2009 study found the effluent limitation guidelines ("ELGs"), established in 1982, to be ineffective to address metals and other pollutants discharged from steam electric power generating facilities, the EPA finalized new ELGs (40 CFR 423) on September 30, 2015, which focused on wastewater streams generated by coal-fired steam electric plants: flue gas desulfurization ("FGD"), fly ash, bottom ash, flue gas mercury control, and gasification of fuels including coal and petroleum coke. In September 2017, the compliance dates for FGD wastewater and bottom ash transport water ELGs were postponed for two years to allow EPA additional time to review and reconsider the rule for these two effluent streams. However, the November 1, 2018 compliance date for fly ash transport water and flue gas mercury control wastewater remained in effect. Cleco indicated that the ELGs for these two wastewater streams are met with existing plant equipment and procedures.

In November 2019, the EPA issued the 2019 Proposed Revision to the Steam Electric Effluent Guidelines for FGD wastewater and bottom ash transport water, which changed the technology basis for treatment of these effluent streams, revised the voluntary incentives program for FGD wastewater, and added subcategories for high-low facilities, low utilization boilers, and boilers retiring by 2028. The 2019 revision established a December 31, 2023 compliance deadline for bottom ash transport water and a December 31, 2025 compliance deadline for FGD wastewater. These proposed revisions were finalized as the 2020 Steam Electric Reconsideration Rule, were published in the Federal Register on October 13, 2020, and became effective on December 14, 2020.

On December 2, 2020, Cleco notified LDEQ of its intent to comply with the site-specific alternative to initiation of closure due to permanent cessation of a coal-fired boiler by a date certain for the Bottom Ash Pond at the Brame Energy Center, pursuant to 40 CFR § 257.106(i)(18). In accordance with 40 CFR § 257.103(f)(2), Cleco submitted a demonstration seeking to qualify for these alternative closure requirements to the EPA on November 12, 2020. A revised demonstration was submitted to the EPA on November 25, 2020.

On January 8, 2021, Cleco submitted responses to LDEQ's request for additional information, including a copy of Rodemacher Unit 2's Notice of Planned Participation per 40 CFR 423.19(f). As communicated to LDEQ, Cleco plans to permanently cease coal-fired operation of Rodemacher Unit 2, the only unit at the facility that discharges bottom ash transport water, by the third quarter of 2027 in order to achieve

complete closure of the associated CCR impoundments prior to the October 17, 2028 CCR Part A deadline. Therefore, the facility would be classified as an Electric Generating Unit ("EGU") Permanently Ceasing Coal Combustion ("PCCC") by December 31, 2028.

As communicated by LDEQ, the final ELGs will be implemented in the renewed LPDES Permit.

4.2.4.9.10 Coal Combustion Residuals

On December 19, 2014, the EPA finalized the Coal Combustion Residuals ("CCR") Rule, and it was published in the Federal Register (40 CFR 257) on April 17, 2015 and became effective on October 14, 2015. Rodemacher Unit 2 has two surface impoundments (Fly Ash Pond and Bottom Ash Pond) subject to the CCR Rule. Because the final CCR Rule classifies coal ash as solid waste rather than hazardous waste, Rodemacher Unit 2 continues to market and sell most of its fly ash and bottom ash for beneficial use. Although the CCR Rule redefined beneficial use, it does not affect beneficial use applications that were initiated before October 2015.

The CCR Rule also establishes minimum 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 and notification requirements. CCR surface impoundments that do not receive CCR after the effective date of the rule, but still contain water, are still subject to applicable regulatory requirements.

The final CCR Rule required the owner or operator of an existing CCR surface impoundment to document, no later than October 17, 2016, whether the impoundment was constructed to meet the liner requirements included in 40 CFR 257.71. To comply with this requirement, Cleco obtained certification from a qualified professional engineer (Providence Engineering and Environmental Group LLC) attesting that both the Fly Ash Pond and the Bottom Ash Pond meet the requirements of the final CCR Rule. Additionally, a CCR Groundwater Monitoring Program was established to verify the integrity of the pond liners, as required by the CCR Rule.

Annual inspections of the Fly Ash Pond and Bottom Ash Pond were conducted in December 2020 by Providence Engineering and Environmental Group LLC. The Fly Ash Pond inspection found the reservoir to be in satisfactory condition; however, minor corrective actions were noted to be required on the exterior and interior slopes due to ground disturbance caused by feral hogs. The Bottom Ash Pond inspection report states that the reservoir and slopes are in satisfactory condition, and no corrective actions were needed. Annual inspections and maintenance will continue until pond closure is complete.

4.2.4.9.11 Oil Storage and Spill Prevention

The SPCC Plan for the Brame Energy Center was written in accordance with State and Federal regulations, including Title 33, Part IX Chapter 9 of the Louisiana Administrative Code (LAC 33:IX.Chapter 9) and 40 CFR 112. The SPCC Plan establishes operating procedures, best management practices, equipment, and other requirements to prevent the discharge of oil from non-transportation-related onshore and offshore facilities. The SPCC Plan must be reviewed at least every five years and was most recently revised in December 2019.

The Facility Response Plan ("FRP") regulation (40 CFR 112.20) applies to those facilities that may reasonably be expected to cause substantial harm to the environment by discharging oil. The FRP for the Brame Energy Center addresses 40 CFR 112.20.f.1.ii (i.e., those facilities whose total oil storage capacity is greater than or equal to 1 million gallons). LPPA has no ownership interest in, nor liability for, the fuel oil storage tanks on the Brame Energy Center site.

4.2.5 Retired Sites of Bonin and Rodemacher

The Bonin site is retired from electric generation. The Bonin site is the location of the LUS operations center. The Bonin plant still has the existing switchyard and gas transmission line to the site. LUS is considering using the Bonin site for future gas-fired generation, however no final decisions have been made by LUS. Curtis Rodemacher was retired in June 2000 and ongoing site monitoring includes periodic inspections, with asbestos abatement and lead paint removal as required.

4.2.5.1 Environmental

The Acid Rain and Title V permits for the Doc Bonin facility were withdrawn in February 2017. The facility had three EGUs. Unit 1 last operated on June 22, 2011, and was put into cold storage on June 1, 2013. Unit 2 last operated on July 5, 2013, and was put into cold storage on June 29, 2014, and Unit 3 last operated on August 27, 2013, and was put into cold storage on June 29, 2014. CSAPR allowances were transferred to Labbé and Hargis-Hebert. In 2016, MISO agreed to the retirement of Bonin since Units 2 and 3 were not needed for reliability.

LUS submitted a Request for Termination of its LPDES Permit (No. LA0005711), which authorized the discharge of operational wastewaters and stormwater from the Doc Bonin facility, on May 5, 2019. In response, LDEQ issued a letter on August 16, 2019, stating that the LPDES Permit has been allowed to expire, and the permit number has been removed from the LDEQ system. Prior to LPDES Permit termination, LUS applied for permit authorization under LDEQ's Storm Water Multi-Sector General

Permit ("MSGP") for continued coverage of stormwater discharged from the Doc Bonin site. The MSGP (No. LAR05Q054) was authorized on April 24, 2019.

The Doc Bonin site is no longer required to adhere to regulated materials storage and spill response requirements from the EPA and LDEQ, as fuel oil tanks and other regulated materials storage vessels have been removed from the site. Contaminated soil from historic fuel oil storage has also been removed.

4.2.6 Hydroelectric Purchased Power

LUS has a power purchase agreement in place with the Southwestern Power Administration ("SWPA"). The power purchase agreement provides LUS with 22,320 MWh of energy supply from hydroelectric power generation. The power purchase agreement is through May 31, 2033. As one of four Power Marketing Administrations in the United States, Southwestern markets hydroelectric power in Arkansas, Kansas, Louisiana, Missouri, Oklahoma, and Texas from 24 U.S. Army Corps of Engineers multipurpose dams.[3]

4.2.7 Power Purchase Agreements

LUS had a power purchase agreement with Exelon Generation Company, LLC for energy. The contract expired on December 31, 2020. The contract was based on a purchase of 50MW each hour at a 100 percent load factor. LUS, through The Energy Authority, Inc. (the power marketer for LUS), had a contract with STX Services B.V. for the renewable energy credits associated with the Exelon Generation energy. It also expired on December 31, 2020.

4.2.8 Capacity Contracts

As a MISO participant, LUS is required to procure sufficient capacity to meet its load requirements. This capacity can be procured through owned resources or power purchase contracts. In order to meet its resource adequacy (i.e. capacity) requirements, LUS has been purchasing short-term capacity contracts. Below provides a summary of LUS recent and current capacity contracts.

- NRG: June 2016 through May 2020 for approximately 40 MW
- TEA: June 2020 through May 2021 for 80MW
- NRG: June 2021 through May 2022 for 68MW

4.3 Transmission and Distribution

The LUS electric system consists of approximately 47 miles of transmission lines (69 kV and above),

[3] https://www.swpa.gov/

1,019 miles of distribution lines (13.8 kV) and a few hundred miles of secondary and street light lines (600V and below). The transmission and distribution lines are connected by 15 substations which are further described in the following sections.

4.3.1 Transmission System Description

The transmission lines operate at three voltage classes: 230 kV, 138 kV, and 69 kV, on a variety of structure types and configurations, but most commonly steel or wood mono poles, with the former being the most common new construction practice. The 230 kV feeds the Pont Des Mouton, Mall, Flanders, Beadle, and Elks distribution substations. It also connects the generation at T.J. Labbe Plant and ties to Cleco (at Pont Des Mouton and T.J. Labbe Plant substations), and Entergy (at T.J. Labbe Plant substations). The 138 kV is limited to at or near Doc Bonin Plant and Flanders substations and serves primarily to create additional ties to Cleco, at Flanders substation, and Entergy, at Doc Bonin Plant substation. 69 kV is LUS's most common transmission voltage, as it serves the Warehouse, Luke, St George, Gilman, Peck, Guilbeau, Perard, Sewer, Pinhook, La Neuville, and Elks substations as well as the Hargis-Hebert Plant.

4.3.2 Substations Description

LUS's typical substation configuration includes a single bus, looped transmission configuration with provisions for up to two 69/13.8 kV or 230/13.8 kV transformers, each serving up to four 13.8 kV circuits, normally configured. Both the transmission system and distribution circuits are typically protected by breakers within each substation. All substations other than La Neuville have two transformers. The LUS system has a total of 86 distribution circuits as of February 2021.

4.3.3 Distribution System Description

The 1,019 miles of distribution lines include approximately 480 miles of overhead and 526 miles of underground primary. The overhead distribution lines are typically constructed with single wood pole (creosote-treated, yellow pine) construction, 336 aluminum-conductor steel-reinforced cable ("ACSR") or similar backbone conductor, and normally open ties to other, neighboring circuits. The underground distribution lines (primary and secondary) consist of jacketed cable in polyvinyl chloride ("PVC") conduit.

4.3.4 Inspections & Maintenance

LUS has several cyclical inspection programs, focused on specific types/categories of equipment, as a part of its proactive maintenance practices. Table 4-18 outlines key transmission, substation, and distribution inspection and maintenance programs and their associated cycle durations.

Table 4-18: Maintenance and Inspection Programs

Asset Class	Program	Cycle (years)
Transmission	Pole inspections*	8
	Breaker maintenance	5
	Tree trimming / vegetation management (69 kV)	1+
	Tree trimming / vegetation management (230 kV)	1
Substation	General maintenance (transformers)	5
	Relay maintenance (microprocessor)	5
	LTC maintenance (transformers)	3
	Relay maintenance (electromechanical)	2
	Oil testing / sampling (transformers)	1
Distribution	Pole inspections*	8
	Major underground equipment inspection	8
	Tree trimming / vegetation management	4
	Capacitor testing	1
	Cable partial discharge testing	as needed

*includes grounding/ohm testing

LUS's inspection and maintenance cycles are consistent with industry and regional best practices. Generally, maintenance work is performed by LUS crews, promoting system awareness and knowledge while new construction work is typically performed by contract crews. Much of the inspection work is executed by contractors as well, such as Osmose for pole inspections and Doble for transformer testing.

4.3.5 System Planning and Studies

LUS Staff perform annual planning assessments on both the transmission and distribution systems to assess system capacity, adequacy, and reliability.

4.3.5.1 Transmission Planning Studies

The transmission assessments are completed in accordance with applicable NERC standards such as NERC TPL-001-4 and in collaboration with MISO staff. The results of the 2019 NERC TPL-001-4 showed no performance criteria violations after existing mitigation plans for Planning Events P1 through P7 or for any Extreme Events. The study found that six LUS non-BES breakers did not have adequate interrupting capability and therefore needed replacement. The study also found that generation capacity at the retired Bonin site during a contingency can reduce loading on some nearby system elements. Overall, the LUS study results were consistent with MISO findings and continued compliance with NERC transmission planning ("TPL") standards.

4.3.5.2 Distribution Planning Studies & Practices

LUS utilizes a model export process from its Environmental Systems Research Institute ("ESRI") geographic information system ("GIS") to the Easton CYME Power Engineering Software to facilitate

load flow, short circuit, and protection coordination studies on its distribution system. Its distribution planners regularly update these models with current system topology and load levels to test system adequacy, reliability and to scope system improvement projects. LUS performs a robust annual contingency analysis to verify the system capability to serve N-1 contingency scenarios of:

- Loss of a substation transformer
- Loss of a distribution feeder
- Loss of a distribution substation

In the event of these contingencies, the system must allow for operator or crew reconfiguration while maintaining equipment operating limits and power quality limits. This practice is well aligned with LUS expectations for system reliability, availability, and operability.

4.3.6 Maintenance & System Improvement Projects

In 2020, as a part of cyclical inspections and maintenance, LUS 1) replaced 13 transmission poles and 89 distribution poles that failed Osmose inspections, 2) upgraded transmission relating at Sewer, Perard, and Guilbeau substations, 3) installed 138 kV and 230 kV SF6 breakers to replace oil breakers of the same voltage class, and 4) replaced several 15 kV oil breakers with vacuum breakers. Additionally, LUS deployed aerial photography and Light Detection and Ranging ("LiDAR") technology to assess and analyze the age and condition of LUS transmission lines and right-of-way. Further, to improve operations, safety, and reliability, LUS completed the following projects in 2020:

- Installed 1,905 feet of 600amp underground along Town Center Pkwy.
- Installed 1,386 feet of 600amp overhead along Duhon Rd.
- Reconductored 960 feet' of overhead, installed 537 feet of overhead, installed 1,017 feet of underground to create a loop feed on Polly Lane and create a backfeed for Polly Lane Apartments.
- Installed 2,400 feet of 600amp underground and 1,300 feet of 600amp overhead to connect PDM Substation with Warehouse substation.
- Reconductored 6,430 feet of copper overhead to improve feeders on a list of the 5 worst feeders in Lafayette.

LUS maintains little to no backlog of inspection and maintenance related replacements and prioritizes these projects as they occur.

4.3.7 Planned Maintenance & System Improvement Projects

The following projects are planned in the near term to serve new load, continue ongoing maintenance, or target worst performing feeders:

- Construct the new 230 kV / 69 kV / 13.8 kV Moss Substation and associated feeder reconductoring. This station will be connected to the existing 69kV transmission line from Gilman to Peck, and the existing 230kV station Pont Des Mouton. This station will relieve loading on Pont Des Mouton and Peck stations as well as serve as another path for power to flow from the 230kV system to the 69kV system adding resiliency and redundancy.
- Bus differential relaying upgrades at the T.J. Labbe switchyard (NERC Compliance).
- Replace aged wooden 230kV structures from Beadle-Elks with monopole steel line.
- Construct new PDM feeder # 3555.
- Reconductor circuit # 2555/8560.
- Transformer relaying upgrades at the following stations: Guilbeau, Sewer, Perard.
- Feeder relaying upgrades at the following stations: Guilbeau, Perard.
- Sewer T80B transformer replacement to be completed spring 2021.
- Inspect and rehab 230kV Steel transmission structures for deterioration.

4.3.8 Operations and Related Performance

The dispatch and operations groups were fully staffed in 2020, and up-to-date with required training for compliance with the NERC PER standards. LUS has certified internal staff facilitating NERC compliance and certification for the group.

4.3.8.1 EMS and SCADA Upgrades

In 2020, LUS upgraded its energy management system ("EMS") and supervisory control and data acquisition ("SCADA") systems (hardware and software), by Open Systems International, Inc. ("OSI"). The previous systems were aging, becoming cost prohibitive to maintain, and were no longer supported by maintenance or service contractors. The upgrades included: 5 workstations, 15 servers, 4 switches, and 4 firewalls. The resulting enabled EMS features include:

- Automated baseline generation tools.
- Security patch assessment tools.
- Big data historian.
- SCADA playback mode.
- Corporate read-only viewing capabilities.

Concurrent with the EMS and SCADA systems upgrades, LUS completed an ECS control room renovation. The upgrades included:

- Installation of a digital map board replacement for the analog map board.

- Datapath audio/video connections to display the state of the electric system on the digital map board.
- Replacement of the existing operator desks with two Winsted stand/sit consoles, and two stationary consoles.
- Addition of a dedicated conference room to improved sound control and operator training activities.

The new SCADA and EMS increase the speed and efficiency of operation functions, enable better reporting for management and stakeholder awareness, and simplify future maintenance operations.

4.3.9 Reliability

FY 2020 was an abnormally busy storm season for LUS. In FY 2020, LUS experienced four major storm event days. The major events days were as follows:

- January 11 – Tornado
- August 27 – Hurricane Laura
- October 9 – Hurricane Delta
- October 10 – Hurricane Delta

Excluding the major event days, which is the prevailing industry practice for comparisons between utilities, the LUS system consistently outperforms regional and national averages for system reliability and availability, reflecting its established, intentional, and proactive maintenance, planning, and construction practices. Table 4-19details the annual reliability performance of the LUS system over the last five years, for each of the four major reporting categories (System Average Interruption Duration Index ("SAIDI"), System Average Interruption Frequency Index ("SAIFI"), Customer Average Interruption Duration Index ("CAIDI"), and Momentary Average Interruption Frequency Index ("MAIFI")). The table includes national and regional municipal utility averages for reference

Table 4-19: LUS Electric System Reliability Metrics

Year	SAIDI	SAIFI	CAIDI	MAIFI
2016	38.2	0.80	47.6	0.74
2017	34.2	0.59	58.4	0.91
2018	31.9	0.72	44.2	0.83
2019	39.7	0.74	53.6	0.57
2020	26.6	0.65	40.8	0.70
National Median (1)	42.3	0.69	71.3	N/A
Regional Average (2)	93.6	1.17	62.9	N/A

1. Averages for 2018 triennial, American Public Power Association "Evaluation of Data Submitted in APPA's 2018 Distribution System Reliability and Operations Survey", Michael Hyland Alex Hofmann, Tyler Doyle and Ji Yoon Lee, July 2019.
2. APPA Region 4 (OK, AR, TX, LA) results for 2018 survey, American Public Power Association "Evaluation of Data Submitted in APPA's 2018 Distribution System Reliability and Operations Survey".

LUS has several initiatives that support a continued focus on system reliability. System operations has longer term plans to further utilize its Outage Monitoring System ("OMS") and enable its operators by allowing manual operator control of feeder reclosers for contingency switching. Longer term these operations will be automatically executed quickly and without operator intervention. These advances and continued expansion of communicating faulted circuit indicators ("FCI") and capacitor banks will enable near-term Advanced Distribution Management System ("ADMS") capabilities. LUS annually targets the top five worst performing feeders for detailed analysis and investment to improve reliability.

4.3.10 System Security

A detailed evaluation of the Utilities System security measures is beyond the intent of this Report. However, LUS facilities have physical security in place such as fencing, automatic gates, security checkpoints, keypads, etc. LUS security practices include employee and contractor background checks, routine training, and standard entry procedures for all electric facilities. There were no modifications to the physical security systems in 2020.

4.4 Historical Capital Improvement Program

LUS uses a capital work order system to track capital expenses. The historical capital presented in Table 4-20 reflects investment in infrastructure funded by the Series 2010 and Series 2019 Bonds and retained earnings. The Series 2010 Bonds were issued for multiple projects including the Acadiana Load Pocket transmission project and Advanced Metering Infrastructure ("AMI") projects. The Series 2019 Bonds are available to support various capital projects including fuel supply improvements, chiller coil replacement, breaker replacements, substation improvements, switchyard improvements, and street lighting upgrade.

Table 4-20: Electric System Historical CIP

	2016	2017	2018	2019	2020
Normal Capital & Special Equipment	$6,351,851	$1,565,194	$2,136,589	$3,468,467	$7,142,480
Series 2010 Bonds	729,576	0	0	0	0
Series 2019 Bonds	0	0	0	241,628	3,123,162
Retained Earnings	5,990,441	2,499,043	5,752,782	4,331,810	4,026,770
Total Electric Capital	$13,071,867	$4,064,237	$7,889,370	$8,041,906	$14,292,412

Source: LUS Financial and Operating Statements

4.5 Regulatory Compliance

NERC is a regulatory authority whose mission is to assure the reliability and security of the bulk power system in North America. NERC develops and enforces reliability and security standards including the Critical Infrastructure Protection (NERC CIP). The NERC CIP plan consists of standards and requirements covering the security of electronic perimeters and the protection of critical cyber assets, as

well as personnel and training, security management, and disaster recovery planning. The Electric System's most recent NERC CIP audit was completed in November 2019 with zero areas of concern. LUS's NERC 693 Reliability audit in 2017 was successful, with no violations. SERC was assigned as LUS's regional compliance enforcement authority as of December 2, 2017. SERC Reliability Corporation conducted an Operations and Planning off-site audit of 2020 LAFA, NCR01114 from May 18, 2020 through September 10, 2020 in which there were zero areas of concern and zero recommendations were made. Additionally, SERC also conducted a review of LUS as a balancing authority and transmission operator due to the new EMS. A report was issued by certification review team and determined that LUS does not require a new certification. LUS is in compliance with all applicable NERC CIP and Operations and Planning ("O&P") 693 standards.

LUS, also known as LAFA, remains registered with NERC as a Balancing Authority, Transmission Operator, Transmission Owner, Transmission Planner, Generator Operator, Generator Owner and Distribution Provider. LAFA, also has delegation agreements with MISO through Coordinated Functional Registration or Joint Registration Organizations Agreement. In 2011, LAFA established a formal program for internal compliance, supported by management and the Lafayette City council.

The formation of LAFA's NERC Compliance Section was established to meet the continuing evolution of in-scope regulatory standards and to provide oversight and assistance to Subject Matter Experts. LAFA's NERC Compliance consist of a full-time NERC Analyst, an Electric Reliability & Environmental Compliance Administrator, and several Subject Matter Experts with various departments.

4.6 Contracts and Agreements

LUS maintains many 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 4-21provides a summary of the key contracts that are in place for LPPA and LCG.

Table 4-21: Electric System LPPA and LCG Key Contracts and Agreements

Contracts & Agreements Between	Date Signed/Renewed	Termination Date	Provisions
LPPA Contracts			
LPPA – Cleco, LEPA	November 15, 1982	June 30, 2032 or end of useful life	Joint ownership of Rodemacher Unit 2
LCG – LPPA	May 1, 1997	August 31, 2047 or when bonds were paid	Purchase of power from LPPA's 50 percent share in Rodemacher Unit 2
LPPA – Peabody	November 7, 2007	60 days' written notice	Purchase of coal for Rodemacher Unit 2
LPPA – Arch Coal Sales, Inc.	August 4, 2009	Upon 30 days' notice	Purchase of coal for Rodemacher Unit 2
LPPA - Navajo Transitional Energy Company, LLC	December 11, 2002	Upon 180 days' notice	Purchase of coal for Rodemacher Unit 2
LPPA – Cleco – LEPA – Charah Inc	March 1, 2015	February 29, 2020; may be renewed for 1- or 5-year period	Sale of byproducts (ash) for reuse
MISO Related Contracts			
LCG – Other Transmission	January 4, 2013	Coincides with MISO Owners Agreement	Supplemental Agreement between Transmission Facilities Owners and MISO regarding Independent System Operator (ISO) services and functions
LCG – Other Transmission Facilities Owners	February 4, 2013	30 years from the earliest Effective Date for any signatory, therafter 5-year terms	Transmission Owner Agreement for LUS in MISO
LCG – MISO	February 4, 2013	Coincides with MISO Owners Agreement	Agency Agreement for Open Access Transmission Service
LCG – MISO	August 1, 2013	Upon 30-day notice	Agreement to procure satellite phone link
LCG – MISO	September 25, 2013	2 years from Effective Date, thereafter 1-year terms	Modeling, Data, and Analysis reliability standards compliance obligations primarily related to NERC requirements
LCG – Other Transmission Facilities Owners	December 10, 2013	5 years from Effective Date, thereafter 1-year term	Settlement Agreement between Transmission Owners and MISO on Filing Rights
LCG – Midwest ISO Transmission Owners	January 25, 2018	Withdrawal from MISO	Cost sharing for attorneys and consultants related to MISO.
TEA and Fuel Contracts			
LCG – TEA	June 1, 2013	Upon 6-months' notice, but not prior to 48 months after the Effective Date	Power and Fuel Marketing
TEA – Centerpointe	March 28, 2019	June 30, 2020 with 1 year extension option	Supply of natural gas for Hargis Hébert Plant
TEA –Centerpointe	July 15, 2109	June 30, 2020 with 2 year extension option	Supply of natural gas for T. J. Labbé Plant and Doc Bonin Plant sites
Capacity, Energy and Renewable Contracts			
LCG – NRG	July 10, 2015	May 2020	40.0 MW of capacity from June 2016 – May 2020
LCG – TEA	January 16, 2017	May 2019	33.0 MW of capacity from June 2017 – May 2019
LCG – TEA	February 22, 2018	May 2019	11.8 MW of capacity from June 2018 – May 2019
LCG – TEA	December 2018	May 31 2020	43.8 MW of capacity from June 2019 – May 2020
LCG – Exelon Generation Company, LLC	August 7, 2018	December 31, 2020	Energy contract for 50 MW at 100% load factor from January 1, 2019 through December 31, 2020.
LCG – SPA	June 1, 2018	May 31, 2033	Purchase of hydroelectric power
LCG – SPP	August 9, 2013	September 1, 2018	Firm point-to-point transmission service. Contract was not renewed.
LCG – STX Services B.V. (via TEA)	August 3, 2018	December 31, 2020	RECs from January 1, 2019 through December 31, 2020.
LCG - NRG	June 1, 2020	May 31, 2020	80 MW of capacity from June 2020 – May 2021
LCG - TEA	March 1, 2020	March 31, 2021	50 MW on-peak 30 MW off-peak energy contract at 100% load factor for March 2020
LCG - TEA	October 1, 2020	October 31, 2021	50 MW 7x24 energy contract at 100% load factor for March 2020
Transmission Related Contracts			
City – Louisiana Generating (Cajun Electric)	May 23, 1983	Upon 3-year notice	Interchange agreement for electric transmission
City – Entergy Louisiana	October 6, 1988	Upon 18-month notice	Interchange agreement for electric transmission
LCG – Entergy Gulf States	June 22, 2012	June 21, 2032; year to year thereafter	Interconnection agreement for delivery of power
LCG – Cleco	1991	August 31, 2021 [(1)]	Interconnection agreement for delivery of power. Transformer lease agreement (Cleco rents transformer space to serve Breaux Bridge) Firm transmission service point to point (expires August 31, 2021). LCG legal is working on the amendment to terminate firm transmission service.
Miscellaneous Contracts			
LCG – SLEMCO	September 10, 2004	September 10, 2019	Contract expired. Negotiations ongoing.
LCG – TransCanada	January 18, 2019	January 18, 2024	CTG Maintenance Services.
LCG – City of Broussard	December 18, 2015	December 17, 2038	Franchise Agreement
LCG – City of Broussard	December 18, 2015	December 17, 2038	Streetlighting Agreement
LCG – City of Youngsville	July 7, 2017	November 30, 2026	Franchise Agreement
LCG – City of Youngsville	July 7, 2017	November 30, 2026	Streetlighting Agreement

Source: LUS

4.7 Utility Benchmarking

LUS compares favorably with its regional and national peers when benchmarking electric rates and financial performance. The following sections benchmark LUS's electric rates and financial performance.

4.7.1 Utility Rates Benchmark

LUS's residential and commercial electric rates have consistently been among the lowest in the region and continued to follow that trend into FY 2020. The following tables compare the average residential and commercial electric rates in the region as of October 31, 2020. Table 4-22 presents LUS and its regional peers' average electric rate based on a usage of 1,000 kWh per month. Table 4-23 presents the LUS commercial rate benchmark based on S&P Global data through 2019. While the fuel portion of the rate changes on a monthly basis based on LUS's cost of fuel and purchased power, the non-fuel rates have not been adjusted since FY 2018.

Table 4-22: Electric System Residential Rate Comparison

Utility	Average Rate ($/kWh)
New Orleans – Cleco	$0.1082
New Orleans - Entergy	$0.1082
Shreveport – SWEPCO	$0.1044
New Iberia - Cleco	$0.0998
Alexandria	$0.0949
Baton Rouge – Entergy	$0.0933
Lake Charles – Entergy	$0.0933
LUS	$0.0892

Source: LUS

Table 4-23: Electric System Commercial Rate Comparison

Utility	Average Rate ($/kWh)
New Iberia – Cleco	$0.1092
Alexandria	$0.0959
Shreveport – SWEPCO	$0.0941
New Orleans – Entergy New Orleans	$0.0880
Baton Rouge – Entergy Louisiana	$0.0830
Lake Charles – Entergy Louisiana	$0.0830
LUS	$0.0822

Source: S&P Global Retail Average Retail Rate Summary for Louisiana

4.7.2 Financial and Operating Statistics Benchmark

LUS benchmarks itself against other national and regional municipal electric utilities. Table 4-24 presents selected financial and operational ratios for LUS's electric utility with other national and regional utilities. The data is based on APPA Financial and Operating Ratios of Public Power Utilities, 2019 Data

published in 2021. The APPA report contains data based on regions of the U.S. and the number of electric customers served by the utility. LUS was benchmarked against other Southwest regional utilities since Louisiana falls within the southwest region. The majority of LUS's operating ratios are within an acceptable range of both national and regional benchmarks. LUS's revenue per kWh has remained consistently below benchmarks even with recent rate increases. The financial ratios including debt to total assets, current ratio, times interest earned ratio ("TIER"), and DSC have all remained within an acceptable range. Considering the COVID-19 pandemic in FY 2020, LUS continued to retain a stable uncollectable accounts per revenue dollar which is a testament to the strength of the customers and community. The system load factor has always been lower than national and regional averages due to a higher proportionate share of Residential customers to commercial customers as expected.

Table 4-24: Benchmarked Electric Utility Operating Ratios

Statistic	Basis	U.S. 50,000 - 100,000 Customers National 2019	Southwest U.S. Regional 2019	LUS 2018	LUS 2019	LUS 2020
Revenue per kWh – All Retail Customers	Elec	$0.108	$0.091	$0.087	$0.087	$0.085
Debt to Total Assets	Total LUS	0.509	0.415	0.344	0.380	0.362
Operating Ratio (Electric specific)	Elec	0.763	0.724	0.725	0.663	0.673
Current Ratio	Total LUS	3.28	2.48	2.56	2.37	1.84
Times Interest Earned	Elec	2.53	2.63	7.44	8.49	7.34
Debt Service Coverage	Elec	2.09	1.49	3.05	3.65	3.15
Net Income per Revenue Dollar ($)	Elec	$0.0430	$0.0630	$0.0645	$0.1140	$0.0856
Uncollectible Accounts per Revenue Dollar ($)	Total LUS	$0.0012	$0.0012	$0.0060	$0.0052	$0.0048
Total O&M Expense per kWh Sold	Elec	$0.0770	$0.0670	$0.0646	$0.0596	$0.0584
System Load Factor	Elec	65.5%	60.8%	52.9%	51.4%	51.3%

4.8 Historical Financial Performance

The LUS electric utility has maintained strong financial performance over the last five years. The electric utility is responsible for nearly 80 percent of the total LUS utility revenues, so strong performance is important for the overall financial health of LUS. The electric system has provided sufficient debt service coverage over the last five years for the Series 2010 Bonds, Series 2012 Bonds, Series 2017 Bonds, and Series 2019 Bonds. The Series 2010 Bonds were fully redeemed as of November 1, 2020. The historical operating revenues, expenses, and debt service coverage calculations are presented in Table 4-25. Operating revenues include interest income and miscellaneous income. Operating expenses do not include ILOT, normal capital spend and special equipment costs, and other miscellaneous expenses.

Table 4-25: Electric System Historical Debt Service Coverage

Year	Operating Revenues	Operating Expenses	Net Revenues Available for Debt Service	Debt Service	Debt Service Coverage Ratio
2016	$174,354,151	$126,694,194	$47,659,957	$16,503,966	2.9
2017	$176,060,504	$133,347,125	$42,713,378	$15,655,298	2.7
2018	$180,955,690	$131,167,858	$49,787,833	$16,337,720	3.0
2019	$179,965,886	$119,400,682	$60,565,203	$16,615,466	3.6
2020	$166,467,519	$112,044,248	$54,423,272	$17,255,061	3.2

Source: LUS Financial and Operating Statements

4.8.1 Rate Structures

LUS's electric utility rates include customer charges, demand charges, and energy charges like many other electric utilities. The electric rates are reviewed periodically with the most recent rate study completed in FY 2016. The rate classes include residential, commercial, industrial, schools and churches, a university special contract rate, street lighting rates, and private area lighting. The residential class and small commercial class rates do not currently have demand charges while the other classes do.

Each rate class includes a fuel charge rider which recovers the variable cost of fuel and purchased power from customers monthly. Schedule Fuel Charge (FC) protects LUS from financial risk of unforeseen and volatile fluctuations in the wholesale power market which LUS operates. All operating expenses associated with environmental compliance, fuel, and purchased power are included in the FC and passed directly to customers in their monthly bills. More specifically, the FC recovers the net cost of MISO market purchases and sales, wholesale transmission costs, LPPA fuel costs, LPPA rail car debt, LPPA MATS debt, LPPA MATS O&M, LPPA reagents, LUS power plant fuel costs, hydro purchased power costs, and TEA power marketing costs.

The current electric rates are presented in Table 4-26. The base electric rates (i.e. non-FC rates) have not changed since FY 2018. LUS periodically performs rate studies so that rates continue to generate revenues that are sufficient to recover its operating expenses and pay its outstanding debt obligations.

Table 4-26: Electric System Rate Schedules

Rate Class	Serves	Effective Date	Customer Charge ($/month)	Demand Charge ($/kW-month)	Non-Fuel Energy Charge ($/kWh)
R-1	Residential	Nov-17	$8.00	$0.00	$0.04764
R-1-O	Residential Non-City	Nov-17	$8.80	$0.00	$0.05240
C-1	Small Commercial	Nov-17	$10.00	$0.00	$0.06176
C-2	Large Commercial	Nov-17	$50.00	$8.50	$0.02098
SC-1	Schools and Churches	Nov-17	$10.00	$0.00	$0.05220

Source: LUS Rate Tariffs

4.8.2 Revenue Analysis

As described in the rates section of this Report, LUS generates revenues from base rates and the FC rider. The FC is adjusted as required to recover LUS's fuel and purchased power cost as defined in the ordinances and described previously. Table 4-27 presents the historical base rate and FC revenue over the last five years. Base rate revenues have steadily increased due to increased sales and base rate increases implemented in FY 2017 and FY2018. The FC revenues have fluctuated with wholesale market prices and fuel costs along with increases in energy sales. In FY 2020, the wholesale power market prices dropped which reduced the FC rate. A reduction in overall retail sales of four percent resulted in a reduction in overall base rate revenues and FC revenues.

Table 4-27: Historical Base Rate and Fuel Charge Revenues

	2016	2017	2018	2019	2020
Revenues					
Retail Sales- Base Rate	$91,631,825	$94,552,196	$102,886,777	$100,836,993	$97,878,860
Retail Sales- Fuel Clause	78,153,587	76,829,537	72,872,661	73,101,002	65,117,850
Total	$169,785,412	$171,381,733	$175,759,439	$173,937,995	$162,996,710
Energy Sales					
Retail Sales (kWh)	2,027,944,893	1,980,653,304	2,031,847,230	2,004,309,990	1,917,039,526
Revenue per kWh					
Retail Sales- Base Rate	$0.0452	$0.0477	$0.0506	$0.0503	$0.0511
Retail Sales- Fuel Clause	$0.0385	$0.0388	$0.0359	$0.0365	$0.0340
Total	$0.0837	$0.0865	$0.0865	$0.0868	$0.0850

Source: LUS Financial and Operating Statement**s**

4.8.3 Revenue Statistics

As described previously, LUS provides service through multiple rate schedules which are updated periodically. LUS has experienced customer growth in all classes between FY 2016 and 2020. However, the energy usage per customer has been on a steady decline over the last five years due to more efficient homes and businesses and lower usage appliances. FY 2020 experienced a noticeable use per customer decline in the Commercial rate classes and schools due to the COVID-19 pandemic; however, that temporary reduction has already begun to subside by the reopening of businesses and schools which started in late FY 2020 and continued into early FY 2021. These trends in reduction in use per customer over the last five years and during FY 2020 are consistent with the majority of utilities across the United States. Table 4-28 presents the historical base rate revenues and sales in total and per customer by classification.

Table 4-28: Historical Base Rate Revenue Statistics

	2016	2017	2018	2019	2020
Revenues (non Fuel)					
Residential	$37,245,915	$39,500,029	$45,868,752	$44,867,081	$45,249,322
Commercial	46,646,591	47,150,242	48,685,466	47,517,635	44,934,325
Schools & Churches	4,893,085	4,996,497	5,308,787	5,210,732	4,638,383
Other	2,846,234	2,905,428	3,023,773	3,241,545	3,056,830
Total	$91,631,825	$94,552,196	$102,886,777	$100,836,993	$97,878,860
Number of Customers					
Residential	54,761	55,227	55,535	56,769	57,412
Commercial	9,141	9,204	9,285	9,285	9,484
Schools & Churches	511	522	518	527	541
Other	1,912	1,908	1,905	1,915	1,926
Total	66,325	66,860	67,243	68,495	69,364
Revenue per Customer					
Residential	$680	$715	$826	$790	$788
Commercial	5,103	5,123	5,243	5,118	4,738
Schools & Churches	9,572	9,578	10,250	9,891	8,567
Other	1,489	1,523	1,587	1,692	1,587
Total ($/customer)	1,382	1,414	1,530	1,472	1,411
Sales (kWh)					
Residential	822,151,289	790,227,214	845,855,856	830,153,367	829,390,383
Commercial	1,022,107,401	1,008,350,471	1,000,509,799	988,791,647	917,385,965
Schools & Churches	126,162,076	124,728,756	127,870,744	126,428,653	111,587,567
Other	57,524,127	57,346,863	57,610,831	58,936,323	58,675,611
Total	2,027,944,893	1,980,653,304	2,031,847,230	2,004,309,990	1,917,039,526
Sales (kWh) per Customer					
Residential	15,014	14,309	15,231	14,623	14,446
Commercial	111,816	109,562	107,753	106,498	96,728
Schools & Churches	246,812	239,097	246,894	239,978	206,103
Other	30,088	30,055	30,246	30,771	30,460
Total	30,576	29,624	30,216	29,262	27,638
Revenue per kWh					
Residential	$0.0453	$0.0500	$0.0542	$0.0540	$0.0546
Commercial	0.0456	0.0468	0.0487	0.0481	0.0490
Schools & Churches	0.0388	0.0401	0.0415	0.0412	0.0416
Other	0.0495	0.0507	0.0525	0.0550	0.0521
Total	$0.0452	$0.0477	$0.0506	$0.0503	$0.0511

Source: LUS Financial and Operating Statements

4.8.4 Expense Analysis

LUS's electric utility incurs both variable and fixed operating expenses. Variable expenses generally fluctuate with how much power is generated, delivered, and used while fixed operating expenses do not. Variable operating expense include fuel, LPPA fuel, and wholesale purchased power and sales. Fixed operating expenses that do not change with the amount of energy consumed include power production labor and maintenance, distribution labor and maintenance, customer service and sales expense, and administrative and general expenses. Table 4-29 presents the historical operating expenses for LUS's- electric utility system. In FY 2020, the MISO wholesale market prices were low which resulted in

lower purchased power costs, lower generation fuel consumption and generation sales. Fixed production costs have been on a steady decline due to cost reductions at Doc Bonin, Hargis-Hebert, and Labbé power plants which has helped to keep rates low when combined with previous rate increases.

Table 4-29: Historical Fixed and Variable Expenses

Variable Expenses	2016	2017	2018	2019	2020
Fuel Cost - LUS	$1,363,817	$1,967,322	$3,020,362	$2,369,957	$1,945,110
Purchased Power Other	3,543,627	3,926,250	3,637,576	15,569,793	18,203,665
Purchased Power LPPA Fuel	26,658,901	26,620,153	29,566,005	27,808,739	19,288,183
Purchased Power MISO	55,468,362	64,942,619	67,855,286	46,658,114	32,103,265
Purchased Power MISO Sales	(23,357,459)	(29,186,362)	(36,621,122)	(32,525,010)	(15,696,107)
Production - Variable	$63,677,247	$68,269,981	$67,458,107	$59,881,593	$55,844,116
Fixed Expenses					
Production - Fixed	$28,570,660	$28,706,647	$26,998,804	$24,491,422	$21,809,812
Transmission	8,661,822	9,192,823	9,275,422	8,612,596	8,438,158
Distribution	11,613,300	12,283,787	12,143,206	11,837,879	10,990,219
Customer	2,868,750	2,917,554	2,828,513	2,690,275	2,742,846
A&G	11,302,414	11,976,332	12,463,806	11,886,918	12,219,098
Total Fixed	$63,016,947	$65,077,144	$63,709,751	$59,519,089	$56,200,132
Total Fixed & Variable	$126,694,194	$133,347,125	$131,167,858	$119,400,682	$112,044,248
Percent Variable	50%	51%	51%	50%	50%
Percent Fixed	50%	49%	49%	50%	50%

Source: LUS Financial and Operating Statements

4.8.5 Recovery of Costs

Fixed and variable costs are recovered through retail demand rates, energy rates, and customer charges billed to customers. Commercial and Residential customers are both billed customers charges to recover customer related fixed costs. Residential and Small Commercial customers are billed energy charges to recover both fixed costs and variable utility costs. Large commercial customers are billed demand charge to recover fixed demand costs and energy charges to recover energy related costs. Approximately 50 percent of LUS's costs are fixed, however only 15 percent of its revenues are recovered through fixed charges. Utilities across the U.S. are gradually moving towards rate structures that recover more from higher customer charges and demand charges, however upgrades to metering and billing are required before making that transition.

4.9 Findings and Recommendations

Based on the analysis described herein, Burns & McDonnell provides the following observations:

- Based on visual inspection of facilities, records audit, and interviews of LUS staff, the LUS distribution and transmission system in good condition, maintained properly and in accordance with prudent utility and industry practices.
- LUS is proactive and strategic in its cyclical inspection, maintenance, and replacement of equipment.

- The LUS transmission and distribution planning and construction practices are proactive and aligned with a focus on reliability, resiliency, and efficient operation of the system.
- The LUS distribution system consistently outperforms regional and national averages for system reliability and availability, which reflects its intentional and proactive maintenance, planning, and construction practices.
- Revenues were sufficient to meet all financial obligations including operating expenses, LUS and LPPA debt service, capital improvements, ILOT payments, and required reserves. LUS's electric system operating, expense, debt, revenue, and related ratios reflect a financially stable and healthy utility that is currently offering competitive, lower than market average rates.
- The Utilities System CIP has been sufficient to sustain and improve the integrity and reliability of the system.
- LUS and Burns & McDonnell completed an IRP in FY 2020. The IRP had several recommendations which included the retirement of Rodemacher No. 2 in 2028, the construction of a new LUS owned simple cycle gas turbine power plant at the existing Doc Bonin site in 2028, and the addition of utility scale solar which would be procured through a power purchase agreement. LUS is progressing through each of these initiatives.
- LUS has performed exceptionally well in FY 2020 even with sustaining two hurricanes. LUS's performance on the four reported indices is consistent or significantly better than typical national median performance reported by both regional and national benchmarks. LUS has performed well in NERC CIP audits, NERC 693 operational audits, and LDEQ environmental inspections.
- The organizational structure and management of the Electric System engineering and operations areas appears to be strong based on initial observations, interviews, organizational structures, and manpower within each department.
- LUS has indicated that it is working to fill multiple vacancies in specific departments with electric lineman being an ongoing challenge. The Electric System management team is working with local schools to hire and retain strong talent that appreciate the benefits provided by a more stable municipal utility business when compared to the oil and gas business of the gulf coast. LUS has recently begun the process for searching for a permanent utility director.
- The electric system revenue recovery structure, like most electric utilities, is misaligned. LUS recovers nearly 85 percent of its revenues through variable charges when 50 percent of its costs are fixed. This creates a systemic problem when energy usage per customer is declining but customer growth is increasing. Long term, LUS will need to address this issue with rate restructuring.

5.0 WATER UTILITY SYSTEM

5.1 Water Utility Summary

LUS provides potable water supply, water treatment, transmission, and distribution of finished potable water. Raw water supply is obtained from the Chicot aquifer. Key water infrastructure includes four water treatment facilities, 19 ground water wells, elevated and ground treated-water storage, and 1,153 miles of distribution mains.

LUS performs all water metering and customer service. In 2020, LUS provided water service to 57,412 meters representing residential, commercial, industrial, and wholesale customers. Water System total sales declined 0.7 percent in 2020; with retail water sales decreasing 1.4 percent, while wholesale water sales increased 0.9 percent. Historical Water System volume sales are presented in Table 5-1.

Table 5-1: Historical Retail and Wholesale Sales Volumes

FY	Retail Sales (1,000 gallons)	Wholesale Sales (1,000 gallons)	Total Sales (1,000 gallons)
2016	5,402,650	2,117,627	7,520,277
2017	5,382,447	2,161,051	7,543,498
2018	5,363,552	2,256,911	7,620,462
2019	5,148,605	2,171,928	7,320,533
2020	5,075,882	2,191,571	7,267,453

Source: LUS Financial and Operating Statements

5.2 Water Supply Summary

Nineteen groundwater wells within the Chicot aquifer provide water supply to four water treatment facilities: South Water Treatment Plant (“SWP”), North Water Treatment Plant (“NWP”), Commission Boulevard Remote Site (“Commission Boulevard”), and Gloria Switch Remote Site (“Gloria Switch”) as summarized in Table 5-2. The Chicot aquifer is the sole source of supply for LUS, and groundwater produced is generally of high quality and characterized by the USGS as having a “very hard” level of hardness. Treatment processes employed by LUS are discussed in detail in Section 5.3.

Table 5-2: Summary of Well Capacity

Well No.	Capacity (MGD)	Well No.	Capacity (MGD)
South Water Treatment Plant		North Water Treatment Plant	
1	2.59	7	2.88
2	2.59	9	2.88
3	2.59	12	2.81
4	2.59	14	3.03
5	2.59	16	2.95
6	4.04	19	2.88
7	4.04	21	2.88
		22	2.88
Total Production Capacity	21.0	Total Production Capacity	23.2
Firm Production Capacity[1]	17.0	Firm Production Capacity[1]	20.2
Commission Boulevard Remote Site		Gloria Switch Remote Site	
23	1.44	24	1.44
25	2.45	26	2.31
Total Production Capacity	3.89	Total Production Capacity	3.75
Firm Production Capacity[1]	1.44	Firm Production Capacity[1]	1.44

[1] Firm capacity assumes the largest well is out of service.

The Chicot aquifer system underlies approximately 9,950 square miles of southwestern Louisiana and provides approximately 800 million gallons per day ("MGD") of freshwater for municipal, commercial, industrial, and agricultural uses through approximately 2,300 groundwater wells. In the 2018 Triennial Report (LDEQ, 2018), the water quality of the Chicot aquifer was sampled in 22 wells (one well of which is owned by LUS) located in 13 parishes between July 2016 and June 2017. Field and analytical sampling results, as summarized in the Triennial Report, indicate no EPA maximum contaminant levels ("MCLs") were exceeded and that the secondary MCLs were exceeded in at least one well for chloride, pH, color, iron, and total dissolved solids ("TDS"). Secondary MCLs are not enforceable by the EPA and are aesthetic in nature. Treatment processes are employed by LUS to address several of these secondary MCLs as described in Section 5.3. EPA designated the Chicot aquifer as a sole-sourced aquifer, meaning it supplies at least 50 percent of the drinking water for its service area and there are no reasonably available alternate supplies should the aquifer become contaminated[4].

[4] https://deq.louisiana.gov/assets/docs/Water/Triennial_reports/AquiferSummaries_2015-2018/10ChicotAquiferSummary18FINAL.pdf

5.2.1 Well Completions

LUS's deep wells are each equipped with a line shaft vertical turbine pump with a surface-mounted motor. LUS reported that an independent contractor inspects wells once per year and cleaning/rehabilitation is performed as required to maintain well pumping capacity.

5.3 Water Treatment and Production

Four facilities provide treatment and/or disinfection of raw groundwater prior to entering the distribution system for public consumption. Treatment facility capacities and major processes are described in the following sections and summarized in Table 5-3.

Table 5-3: Water Treatment Capacity

Water Treatment Facility	Primary Treatment Processes	Treatment Capacity (MGD)
South Water Treatment Plant	Lime Softening Coagulation and Filtration Disinfection	24.0
North Water Treatment Plant	Lime Softening Coagulation and Filtration Disinfection	20.8
Commission Boulevard Remote Site	Stabilization Disinfection	2.8
Gloria Switch Remote Site	Iron and Manganese Removal Stabilization Disinfection	3.8
Total Treatment Capacity		51.1
Highest Recorded Production		33.8

Source of data: LUS

5.3.1 South Water Treatment Plant

Groundwater produced by water supply wells (Well 1 through Well 7) is combined at the head of the SWP located at 810 W. Broussard Road where raw water is oxidized, softened, filtered, and disinfected. The SWP was built in the 1980s and in 1990 production capacity was expanded by addition of a third treatment unit (rated approximately 8 MGD), additional filtration, and a second finished water clear well and high service pump station. The current treatment capacity of 24 MGD exceeds the total water well production capacity at this facility by 3 MGD.

Three softening basins (also referred to as treatment unit) receive hydrated lime and alum in the mixing zone. Settled effluent from the basins is gravity fed to one of the eight filters. Filtered water is temporarily stored in one of two finished water clearwells and pumped into the distribution system. Disinfection at the SWP is provided by chlorine gas.

Waste streams including clarifier blowdown, backwash, and filter-to-waste are temporarily stored in a backwash recycle tank where decant water is pumped back to the treatment units. Settled solids are pumped from the backwash recycle tank to a digester for further thickening. Thickened treatment residuals are hauled and land-applied at local farmland.

Emergency power is provided by an on-site emergency diesel generator capable of powering the full plant. At the time of the field visit, a construction project was under way to improve the control building roof and enhance the structural integrity of the control building walls.

5.3.2 North Water Treatment Plant

Groundwater produced by water supply wells (Well 7 through Well 22) is combined at the head of the NWP located at 200 N Buchanan Street in Lafayette where it is treated utilizing processes similar to the SWP. The NWP was built in the 1929 and expanded and/or improved several times since then. The current treatment capacity is 20.8 MGD which is very close to the firm capacity of the wells feeding raw water to this facility.

Five softening basins receive hydrated lime and alum in the mixing zone and settled effluent is gravity fed to 1 of the 15 filters. Filtered water is temporarily stored in 1 of 3 finished water clearwells or an on-site 3.0-M gallon ground storage tank and pumped into the distribution system. Disinfection at the NWP is also provided by chlorine gas. Treatment plant waste streams at the NWP are handled similarly to the SWP and residuals are similarly land applied.

Emergency power is provided by an on-site emergency diesel generator capable of powering approximately one fourth of the full plant power demand. It was noted by LUS staff that operations staff prefer to work at this location during hurricane or inclement weather events due to the robust concrete construction of the operations building.

The 16-inch finished water pipeline that conveys water out of the NWP to the distribution system presents a hydraulic bottleneck and limits LUS’s ability to utilize the full production capacity of the plant.

At the time of the field visit, a construction project was under way to replace the high service pump station main header. Four high service pumps were temporarily out of service for this project limited pumping capacity.

A LDEQ incident report dated October 3, 2020, indicated that a release of lime powder occurred during bulk tank transfer procedures. The report indicates 2 to 3 lbs of lime had accumulated on the tank roof during transfer. The spilled material was cleaned up via vacuum and no environmental impact occurred.

5.3.3 Commission Boulevard Remote Site

Groundwater produced by water supply wells (Well 23 and Well 25) is disinfected with sodium hypochlorite and dosed with phosphate at the Commission Boulevard Remote Site (located 204 Commission Boulevard) prior to entering the distribution system. Groundwater pumped at this location contains elevated levels of ammonia which will be addressed by a new water treatment facility that LUS intends on constructing at this location. The new treatment facility has already been designed and will utilize a biological process to remove ammonia and remove iron and manganese using oxidation and Greensand filtration similar to the Gloria Switch Remote Site. Pilot testing was conducted and determined these treatment processes to be successful at removing the targeted contaminants. Disinfection will be converted to chlorine gas as part of the project. The new water treatment plant will be located adjacent to the Commission Boulevard Remote Site and construction is scheduled to commence this year.

5.3.4 Gloria Switch Remote Site

Groundwater produced by water supply wells (Well 24 and Well 26) is treated and disinfected at the Gloria Switch Remote Site located at 1708 W Gloria Switch Road, Carencro, Louisiana. Groundwater is dosed with sodium hypochlorite and permanganate for oxidation upstream of Greensand filtration for iron and manganese removal. Phosphate is then added for stabilization and additional sodium hypochlorite provides disinfection residual. A 0.75-M gallon ground storage tank is located on site adjacent and provides supply to the high service pump station.

LUS staff noted that the Greensand media should be replaced in the future due to the presence of “mud balls.” Mud balls in granular filter media can form over time when filter media is not being cleaned (via backwashing) thoroughly.

Emergency power is provided by an on-site emergency diesel generator capable of providing the full plant power demand.

5.4 Water Distribution and Storage

Water main lines primarily consist of ductile iron, polyethylene, PVC, asbestos cement, and cast iron; however, other materials are also present in the system. There are 224 sample stations located throughout the distribution system. The distribution system assets including main lines, valves, and hydrants are summarized in Table 5-4.

Table 5-4: Water Distribution System Assets

Asset	2016	2017	2018	2019	2020[1]
Miles of Main Lines	1,126	1,164	1,170	1,145	1,153
Number of Valves	23,230	23,435	23,607	23,755	24,112
Number of Hydrants	6,540	6,579	6,616	6,685	6,614

Source of data: LUS Internal Memorandum, December 21, 2020

[1]Total number includes City of Lafayette and North Water District

During 2020, approximately 9.1 miles of new water mains were installed in the City of Lafayette and 0.2 miles of new mains in the North Water District.

Water is stored in numerous ground storage or elevated storage tanks located at the treatment plant sites and throughout the distribution system, as summarized in Table 5-5.

Table 5-5: Water Storage Facilities

Location	Storage Type	Storage Volume (MG)
Treatment Facilities		
South Water Treatment Plant	Ground Storage – Concrete Clearwell	0.225
	Ground Storage – Concrete Clearwell	0.5
	Ground Storage – Concrete Tank	2.0
	Total Storage	2.725
North Water Treatment Plant	Ground Storage – Concrete Clearwell	0.3
	Ground Storage – Concrete Clearwell	0.3
	Ground Storage – Concrete Clearwell	0.3
	Ground Storage – Concrete Tank	3.0
	Total Storage	3.9
Gloria Switch Remote Site	Ground Storage – Concrete Tank	0.75
	Total Storage	0.75
Distribution System		
Fabacher	Ground Storage – Concrete Tank	2.0
Bertrand	Elevated Multi-Column	0.3
Walker Road	Elevated Multi-Column	1.0
Guilbeau	Elevated Multi-Column	1.0
South Park	Elevated Composite	1.0
North Park	Elevated Composite	1.0
	Total Storage	6.3
	Total System Storage	13.675

Source of data: LUS

LUS staff indicated that additional ground storage is required at the SWP because the existing 2.0 M gallon tank has a leak in the tank floor. The tank is operated 24 hours per day, so it cannot be removed from service for the repairs to be performed.

The 2 M gallon Fabacher ground storage tank has an adjacent high service pump station with a sodium hypochlorite storage and dosing system. A 1,000-gallon sodium hypochlorite tank was augmented with a 100-gallon tank because boosting the chlorine residual at this location is rarely needed. LUS staff noted that the two 3.6 MGD single-speed high service pumps provide too much pressure, which would be alleviated with the addition of variable frequency drives.

LUS uses contracted tank inspection services on an annual basis to inspect each elevated storage tank. As a result of recent tank inspection, the Guilbeau tank was repainted, and the North Park and South Park tanks were cleaned out.

5.4.1 Operations and Related Performance

Gross water production in 2020 was 8,340 million gallons ("MG") or an average of 22.9 MGD. Unaccounted for water is calculated by subtracting the Total Water Sales by the Total Water Distributed and represents the volume of water lost in the distribution system. These losses can be attributed to physical losses (i.e., pipe or tank leakage) or non-physical losses (i.e., under-billed or un-billed volume). In 2020, unaccounted for water was 12.5 percent which is over 5 percent increase from the lowest value in the past five years occurring in 2017.

Table 5-6: Production and Unaccounted for Volumes

Item	2016	2017	2018	2019	2020
Total Water Produced (1,000 Gal)	8,153,707	8,150,356	8,430,630	8,272,102	8,340,279
Plant Use (1,000 Gal)	31,200	31,200	31,200	31,200	31,200
Total Water Distributed (1,000 Gal)	8,122,507	8,119,156	8,399,430	8,240,902	8,309,079
Total Water Sales (1,000 Gal)	7,520,277	7,543,498	7,620,462	7,320,533	7,267,453
Not Accounted for (1,000 Gal)	602,230	575,658	778,968	920,369	1,041,626
Unaccounted for Water	7.4%	7.1%	9.3%	11.2%	12.5%

Source of data: LUS Financial and Operating Statements

Distribution system hydrant testing occurs twice per year as required by the Property Insurance Association of Louisiana ("PIAL") and is necessary to maintain the utility's Class II PIAL fire rating. In previous reports, it was noted that distribution system flushing was required to meet the Louisiana Department of Health and Hospitals Emergency Rule governing the minimum disinfectant residual of 0.5 mg/L chlorine in the distribution system was an attributing factor to the rise in unaccounted for water. Discussions with LUS staff indicate that automatic line flushing at 10 to 12 locations of the distribution system is also necessary to mitigate water quality concerns. Flushing is performed at night and is controlled with automatic timers.

Due to the continued increasing trend in unaccounted water, LUS should consider studying water loss in more detail or performing a Water Audit for Water Loss Control for improved management of non-revenue water.

5.5 Historical Capital Improvement Program

LUS tracks capital expenses through its capital work order system. Historical capital improvements program expenditures presented in Table 5-7 reflect investments in infrastructure funded by the Series 2010 and Series 2019 Bonds and retained earnings. The Series 2010 Bonds were used for the Water System AMI projects and improvements to the water production system. The Series 2019 Bonds are available to support various capital projects including building rehabilitation and improvements, ground storage tank and treatment plant upgrades. Major capital improvements completed in FY2020 included water tower painting, filter gallery painting and replacement, replacement of 2" galvanized mains, maintenance building expansion and phosphate chemical system, and armoring of the South plant operations building.

Table 5-7: Historical Capital Improvement Program

	2016	2017	2018	2019	2020
Normal Capital & Special Equipment	$ 1,433,461	$ 1,448,745	$ 1,630,841	$ 1,526,170	$ 2,382,861
Series 2010 Bonds	98,026	0	0	0	0
Series 2019 Bonds	0	0	0	0	1,003,625
Retained Earnings	2,925,329	1,704,416	791,664	786,874	633,431
Total Water Capital	$ 4,456,815	$ 3,153,161	$ 2,422,504	$ 2,313,045	$ 4,019,917

Source of data: LUS Financial and Operating Statements

5.6 Environmental and Regulatory Compliance

The following sections provide an overview of environmental and regulatory compliance associated with the water system. Environmental compliance for the water system is provided by LUS Environmental and Compliance staff including sample collection, analysis, and reporting.

5.6.1 Water Quality

The EPA requires water utilities to perform specific annual water quality sampling and summarize results in an annual Consumer Confidence Report which is then made available to the public.[5] The 2019 water quality report indicates no MCL exceedances were observed in the 2019 calendar year. A Louisiana Drinking Water Watch search was performed and indicates there were no water system deficiencies found, as presented in Table 5-8.

[5] The 2019 Consumer Confidence Report can be found at https://www.lus.org/water-quality.

Table 5-8: Drinking Water System Violations

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

Source of data: LUS 2019 Consumer Confidence Report

Triennial lead and copper sampling was performed by LUS in 2019 and was not required in the 2020 calendar year. For reference, the 2019 lead and copper sampling results are provided in Table 5-9. There are zero sites that reported lead or copper concentrations above EPA Designated Action Levels. Section 5.6.3 discusses recent revisions to the Lead and Copper Rule.

Table 5-9: 2019 Triennial Lead and Copper Sampling

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

Source of data: 2019 Triennial Lead and Copper Sampling

The EPA Stage 2 Disinfectants and Disinfection Byproducts Rule ("DBPRs") requires sampling of regulated contaminants including total trihalomethanes ("TTHM") and five haloacetic acids ("HAA5"). LUS is required to sample six distribution system monitoring locations quarterly. Results of the DBPR sampling are summarized in Table 5-10. No TTHM or HAA5 samples exceeded the respective MLC or MCLG.

Table 5-10: Disinfection Byproducts Monitored in Distribution System

DBP	Typical Source	Maximum Contaminant Level (MCL)	Maximum Contaminant Level Goal (MCLG)	Locational Running Annual Average (LRAA)	Range	Location
Haloacetic Acids (HAA5)	By-product of drinking water chlorination	60 ppb	0 ppb	4.4 ppb	2.8-4.9 ppb	Ambassador Caffery & W. Congress
				5.0 ppb	4.3-5.9 ppb	Gloria Switch Rd. & Arbor
				6.3 ppb	2.8-10.1 ppb	Kaliste Saloom & E. Broussard
				7.2 ppb	6.5-8.3 ppb	Thomas Nolan & Brigante
				3.5 ppb	1.5-3.8 ppb	Vennard & Valley View
				2.9 ppb	1.4-3.3 ppb	Walker & Doc Bonin
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	80 ppb	0 ppb	9.8 ppb	7.5-9.1 ppb	Ambassador Caffery & W. Congress
				11.0 ppb	8.1-12.0 ppb	Gloria Switch Rd. & Arbor
				8.7 ppb	8.0-9.6 ppb	Kaliste Saloom & E. Broussard
				18.4 ppb	12.7-21.1 ppb	Thomas Nolan & Brigante
				9.1 ppb	7.4-8.6 ppb	Vennard & Valley View
				6.4 ppb	5.8-7.1 ppb	Walker & Doc Bonin

Source of data: LUS 2019 Consumer Confidence Report
ppb: parts per billion

Chlorine gas and sodium hypochlorite are disinfectants used at each of LUS's treatment facility locations to control microbes within the distribution system. The minimum allowable free chlorine concentration in the distribution system, set by Louisiana Department of Health and Hospitals ("LA DHH"), is 0.5 ppm and the maximum residual disinfectant level ("MRDL") and maximum residual disinfectant level goal ("MRDLG") are both 4 ppm. A summary of chlorine in the distribution system is included in Table 5-11.

Table 5-11: Distribution System Disinfectant

Disinfectant	Typical Source	MRDL	MRDLG	Highest RRA	LUS Range
Chlorine	Water additive to control microbes	4 ppm	4 ppm	1.6 ppm	0.52-2.2 ppm

Source of data: LUS 2019 Consumer Confidence Report

Drinking water in the distribution system is also sampled and analyzed for microbes. The results of the microbiological sampling are summarized in Table 5-12.

Table 5-12: Microbiologicals Monitored in Distribution System

Microbiologicals	Typical Source	Maximum Contaminant Level (MCL)	Maximum Contaminant Level Goal (MCLG)	Result
None Detected	NA	NA	NA	NA

Source of data: LUS 2019 Consumer Confidence Report

Raw groundwater was also sampled and analyzed for barium, fluoride, combined radium (-226 and -228) and gross beta particle activity. The results of the sampling are summarized in Table 5-13.

Table 5-13: Constituents Monitored Before Treatment

Constituent	Major Source in Drinking Water	Maximum Contaminant Level (MCL)	Maximum Contaminant Level Goal (MCLG)	LUS Max	LUS Range
Barium	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes	2 ppm	2 ppm	0.28 ppm	<RL-0.28 ppm
Fluoride	Erosion of natural deposits; discharge from fertilizer and aluminum factories	4 ppm	4 ppm	0.2 ppm	<RL-0.2 ppm
Combined Radium (-226 & -228)	Erosion of natural deposits	5 pCi/L	0 pCi/L	1.5 pCi/L	0.0-1.5 pCi/L
Gross Beta Particle Activity	Decay of natural and man-made deposits	50 pCi/L	0 pCi/L	2.5 pCi/L	<RL-2.5 pCi/L

Source of data: LUS 2019 Consumer Confidence Report

EPA requires monitoring of specific contaminants under the Unregulated Contaminant Monitoring Rule ("UCMR"). Under UCMR4, covering calendar years 2018 to 2020, groundwater systems are required to sample 20 contaminants. Unregulated contaminants detected are summarized in the 2019 CCR and in Table 5-14. Every five years, the EPA updates the contaminants to be monitored by public water systems. UMCR5 has been published in draft form and includes sampling and analysis for 29 per- and polyfluoroalkyl substances ("PFAS") and one metal: lithium. Sampling for UMCR5 will take place between 2023 and 2025.

Table 5-14: Unregulated Contaminants (UCM4)

Unregulated Contaminant	Month of Collection	LUS Max	LUS Range
Manganese	January, February, July, August	75.7 ppb	0.81-75.7 ppb
Bromide	January, February, July, August	260.0 ppb	<RL-260.0 ppb
Bromochloroacetic Acid	January, July	2.5 ppb	0.90-2.5 ppb
Bromodichloroacetic Acid	January, July	2.0 ppb	0.57-2.0 ppb
Chlorodibromoacetic Acid	January, July	1.9 ppb	0.50-1.9 ppb

Notes:
Source of data: LUS 2019 Consumer Confidence Report

5.6.2 America's Water Infrastructure Act of 2018

The America's Water Infrastructure Act ("AWIA") of 2018, Section 2013 requires all water systems perform a Risk and Resilience Assessment ("RRA") and update the water system's Emergency Response Plan ("ERP"). LUS was required to certify completion of an RRA and ERP Update by March 31, 2020, and September 30, 2020, respectively. LUS reported that these services were performed by Neel Schaffer and that EPA certifications were submitted by LUS prior to the regulatory deadlines.

5.6.3 Lead and Copper Rule Revisions

The EPA issued the final Lead and Copper Rule Revisions ("LCRR") on January 15, 2021, aimed to better protect children at schools and childcare facilities against lead exposure through drinking water. The LCRR represents the first major update to the Lead and Copper Rule in 30 years and requires water utilities to prepare and maintain lead service line inventories, requires modifications to lead and copper sample locations and protocols, and, if triggered, perform and implement corrosion control studies and/or lead service line replacement.

On March 12, 2021, EPA announced that the effective date of the LCRR, initially proposed as March 16, 2021, would be delayed until June 17, 2021. LUS should begin preparing for operational changes brought about by the LCRR, specifically in developing a lead service line ("LSL") inventory and revisions to the lead and copper sampling. Per the LCRR, all systems with any LSLs shall prepare and submit to the state a LSL Replacement Plan by January 16, 2024.

It should be noted that, because of presidential directives to review certain regulations, EPA has proposed to delay the effective date of the LCRR until December 16, 2021 with a compliance date of September 16, 2024. At the time of this report's publication, it was unknown if EPA's proposal to delay the effective date until December 16, 2021 would be accepted. So, while there is some uncertainty regarding the timing

of the LCRR being effective, LUS should evaluate the requirements and implement initiatives necessary to ensure compliance.

5.6.4 Louisiana Pollutant Discharge Elimination System Permits

The water system maintains three LPDES permits as described in the following sections.

5.6.4.1 North Water Treatment Plant LPDES Permit

LPDES Permit LAG380057 permits for the discharge of clarifier sludge and/or clarifier blowdown at Outfall 004. The permit is effective as of December 17, 2020.

5.6.4.2 South Water Treatment Plant LPDES Permit

LPDES Permit LA0079278 permits for the discharge of stormwater or process flows at five stormwater outfalls. The permit is effective as of June 1, 2020.

5.6.4.3 North Booster Well Treatment and Storage Facility

LPDES Permit LAG380096 permits for the discharge of stormwater or process flows to outfalls at the North Booster Well Treatment and Storage Facility located at Gloria Switch Road. The permit is effective as of December 17, 2020.

5.6.5 Spill Prevention Control and Countermeasures Plan

SPCC plans are required to comply with state and federal regulations if facilities are proximate to U.S. waters. Compliance is required by facilities which are subject to spills of oils, fuels, or other controlled substances and have a storage capacity of more than 1,320 gallons at a single facility. SPCC Plans are required at the North Water Treatment Plant and the South Water Treatment Plant and were prepared for each facility in 2006. Each water treatment plant SPCC Plan was last reviewed for substantial changes in May 2017. SPCC Plans must be reviewed every five (5) years (the next review is due in 2022) or upon significant change in oil storage or if a spill incident occurs.

5.6.6 Post-Hurricane Inspections

Two post-hurricane inspections were completed by the EPA at the North Water Treatment Plant and the South Water Treatment Plant following Hurricane Delta, and Hurricane Marco and Hurricane Laura (one inspection). Both water treatment plant facilities were noted as operational with no further action required.

5.7 Contracts and Agreements

LUS owns, operates, and maintains a regional Water System that serves customers both inside and outside its City limits. Services are provided on a retail and wholesale basis outside the City, including seven wholesale customers governed by six contracts. Wholesale customers are comprised of two water districts and five neighboring water systems or cities including:

- Waterworks District North (retail and wholesale)
- Waterworks District South
- The City of Scott
- The City of Broussard
- Milton Water System
- The City of Youngsville
- The City of Carencro (emergency supply only; not a typical wholesale customer)

LCG also provides billing services on behalf of Waterworks District North to its retail customers. Both the North and South Waterworks Districts constructed their own additions and extensions following LUS construction standards. In addition to its wholesale contracts, LCG has a contract to provide emergency back-up water service to the City of Carencro. This agreement was signed in 1980 and has no expiration.

Wholesale customers represented 30.2 percent of total water sales volume and 30.1 percent of the total water sales revenue in 2020, respectively. While both wholesale water sales volume and revenues have increased recently, wholesale revenues have increased more due to wholesale rate increases. Table 5-15 and Table 5-16 summarize the historical wholesale water volume sales and revenues by customer.

Table 5-15: Wholesale Water Sales by Customer (1,000 gallons)

Customer	2016	2017	2018	2019	2020
City of Scott	331,260	356,855	339,037	365,611	332,496
City of Broussard	236,605	260,502	297,294	332,037	219,374
City of Youngsville	314,452	345,638	406,563	367,097	449,303
Milton Water System	245,279	225,155	234,024	240,071	246,763
Waterworks District North	458,802	448,394	442,492	324,787	376,549
Waterworks District North - Wholesale	228,077	225,320	222,101	227,818	213,567
Waterworks District South	303,152	299,187	315,399	314,507	353,520
Total Wholesale Water Sales	2,117,627	2,161,051	2,256,911	2,171,928	2,191,571
Total Water Sales (Wholesale and Retail)	7,520,277	7,543,498	7,620,462	7,320,533	7,267,453
Percent of Total Sales from Wholesale	28.2%	28.6%	29.6%	29.7%	30.2%

Source: LUS Financial and Operating Statements

Table 5-16: Wholesale Water Revenues by Customer

Customer	2016	2017	2018	2019	2020
City of Scott	$711,851	$844,031	$988,418	$997,561	$909,160
City of Broussard	503,623	613,321	760,203	879,643	590,437
City of Youngsville	665,814	820,289	1,033,306	934,361	1,240,640
Milton Water System	516,698	528,244	601,330	602,054	675,946
Waterworks District North	1,210,188	1,187,053	1,265,202	944,243	1,394,202
Waterworks District North - Wholesale	483,261	536,451	574,238	588,692	571,651
Waterworks District South	645,213	703,063	815,558	815,953	973,644
Total Wholesale Water Revenues	$4,736,650	$5,232,452	$6,038,256	$5,762,507	$6,355,680
Total Water Sales (Retail & Wholesale)	$18,286,651	$19,458,484	$21,220,243	$20,524,232	$21,144,642
Percent of Total Sales from Wholesale	25.9%	26.9%	28.5%	28.1%	30.1%

Source: LUS Financial and Operating Statements

A summary of wholesale contract terms is presented in Table 5-17. In 2019, the contract with the City of Broussard was extended from an expiration in 2020 to 2038. Also, in 2019, the contract with the City of Scott was extended from an expiration in 2022 to 2038. The Waterworks District North and Waterworks District South contracts expire in 2032 and 2035, respectively. The Milton Water System expires in 2037 and the City of Youngsville expires in 2038.

Table 5-17: Wholesale Water Contract Terms

Customer	Contract Date	Term in Years	Termination Date
Water District North – Full Service – Phase 1, 2, 3, 4 (NE area, NW area, Scott area)	October 17, 2002	30	October 17, 2032
Waterworks District North – Wholesale	October 17, 2002	30	October 17, 2032
City of Scott	May 28, 1997	41	May 31, 2038
City of Broussard	March 5, 1998	40	July 31, 2038
Milton Water System	April 28, 1997	40	April 28, 2037
City of Youngsville	December 24, 1998	40	December 24, 2038
Waterworks District South	October 13, 1995	40	October 12, 2035
City of Carencro (1)	March 28, 1980	N/A	None

Source: LUS

(1) Letter Agreement with the City of Carencro 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's Water System, LUS supplied water to the City of Carencro under this letter agreement fewer than five times.

5.8 Utility Benchmarking

5.8.1 Utility Rates

LUS's residential and commercial water rates have historically been among the lowest in the state and surrounding region. Table 5-18 and Table 5-19 provide a regional comparison of effective water rates for residential and commercial customers, respectively.

Table 5-18: Residential Rate Comparison

Utility	Average ($/1,000 gallons) [1]
LUS	$ 2.64
Alexandria	$ 3.19
Lake Charles	$ 3.49
Shreveport	$ 3.59
Baton Rouge	$ 4.37
New Iberia	$ 5.46
New Orleans	$ 9.64

Source: LUS. Rates as of January 2021.
(1) Assumes monthly water consumption of 7,000 gallons.

Table 5-19: Commercial Rate Comparison

Utility	Average ($/1,000 gallons) [1]
LUS	$ 2.97
Alexandria	$ 3.27
Shreveport	$ 4.08
Lake Charles	$ 4.18
Baton Rouge	$ 4.45
New Iberia	$ 4.45
New Orleans	$ 9.77

Source: LUS. Rates as of January 2021.
(1) Assumes monthly water consumption of 30,000 gallons.

LUS last completed a rate study in 2016, indicating the need to increase Water System rates to adequately cover its costs. Retail rates were increased 7.4 percent effective November 1, 2016 and 7.2 percent effective November 1, 2017. Retail rates have remained unchanged since then.

Wholesale rates are evaluated every other year through a cost-of-service study. The next cost of service study for wholesale water rates is scheduled to occur later in 2021.

5.8.2 Financial and Operating Statistics

The American Water Works Association ("AWWA") annually publishes benchmarking data across a variety of performance indicators for water and wastewater utilities. The *2020 AWWA Utility Benchmarking: Performance Management for Water and Wastewater* was released in early 2021, compiling various financial and operating ratios from 2019. For this analysis, specific ratios were obtained from the AWWA report representing national and regional medians. The AWWA defines national metrics as water utilities in both the United States and Canada, hereafter referred to as "National." Ratios are also available by region and by number of water customers served. The U.S. South region was used, which includes Louisiana and is hereafter referred to as "Regional." Further, ratios are available specifically for water utilities, wastewater utilities, and combined water and wastewater utilities. Where possible, comparisons have been made to water utility ratios. However, some LUS balance sheet information is available only for the combined Electric, Water and Wastewater Utilities System, hereafter referred to as "Combined." The AWWA "Combined" benchmarking data only includes water and wastewater utilities.

LUS's operating ratio benchmark results are presented in Table 5-20. LUS's water operational costs are lower than the National and Regional medians. LUS's combined debt ratio is lower than the Regional median, but higher than the National median. The operating ratio is higher on both a water-only and combined basis than either the National or Regional medians. However, the AWWA combined utilities median includes water, wastewater, and stormwater, while LUS includes water, wastewater and electric. LUS's cash reserves are lower than the National and Regional medians. Debt service coverage for LUS is higher than either the National or Regional medians on both a water-only and combined basis.

Table 5-20: Benchmarked Water Utility Operating Ratios

		National(1)	Regional	LUS	
Statistics	Basis	2019	2019	2019	2020
Operational Costs per MG	Water	$1,949	$2,159	$1,720	$1,556
Debt to Total Assets (Debt Ratio)	Combined	0.31	0.48	0.38	0.37
Operating Ratio (O&M cost/ Operating revenue)	Water	0.49	0.50	0.69	0.61
Operating Ratio (O&M cost/ Operating revenue)	Combined	0.46	0.47	0.68	0.67
Cash Reserve Days(2)	Combined	413	256	51	49
Debt Service Coverage	Water	3.08	2.62	3.76	3.83
Debt Service Coverage	Combined	3.20	2.24	3.54	3.02

Source: AWWA and LUS

(1) National AWWA benchmarks for water and combined water and wastewater utilities with 50,001 to 100,000 customers to align with the Water System customers served.

(2) LUS results based on total O&M for Electric, Water, and Wastewater Systems less fuel and purchased power expenses.

5.9 Historical Financial Performance

Table 5-21 presents historical debt service and the associated DSCR. Historical Water System debt service as shown below includes a portion of the Series 2010 Bonds, Series 2012 Bonds, Series 2017 Bonds, and Series 2019 Bonds. The Series 2010 Bonds were fully redeemed by the proceeds of the Series 2017 Bonds on November 1, 2020. The first debt service payment for the Series 2019 Bonds was due November 1, 2019 (FY 2020). In each year since 2016, the DSCR exceeded the minimum coverage requirement of 1.0 required by the Bond Ordinances.

Table 5-21: Historical Financial Performance

Fiscal Year	Operating Revenues [1]	Operating Expenses [2]	Net Revenues Available for Debt Service	Debt Service [3]	Debt Service Coverage Ratio
2016	18,593,541	13,761,106	4,832,435	1,801,748	2.7
2017	19,822,196	13,965,819	5,856,377	1,415,916	4.1
2018	21,736,544	14,260,225	7,476,319	1,726,379	4.3
2019	21,369,475	14,227,206	7,142,269	1,899,168	3.8
2020	21,696,556	13,159,106	8,537,450	2,276,675	3.7

Source: LUS Financial and Operating Statements

(1) Operating Revenues include interest income and other miscellaneous income.

(2) Operating Expenses include O&M and other expenses such as customer service and A&G costs. Operating Expenses do not include ILOT, normal capital and special equipment, and other miscellaneous expenses.

(3) Debt Service was prepared on a cash basis for this table and includes a portion of the Series 2010 Bonds, Series 2012 Bonds, Series 2017 Bonds, and Series 2019 Bonds. The Series 2010 Bonds were fully redeemed by the Series 2017 Bonds on November 1, 2020.

5.9.1 Rate Structures

The Water System provides service to retail and wholesale customers. Wholesale customers are outside the City limits and are served on a contract basis. Retail customers are served both inside and outside the City limits. 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 includes a customer charge that varies based on the meter size, and a commodity charge that is based on usage in thousand gallons. The commodity charge for Residential customers includes a uniform rate per thousand gallons in the winter period (December through March) and an inclining block rate structure in the summer period (April through November). Table 5-22 presents the retail rate schedule for LUS.

Table 5-22: Retail Rate Schedules

Rate Class	Serves	Effective Date	Meter Size (inches)	Customer Charge ($/month)	Winter Commodity Rate ($/1,000 gallons)	Summer Commodity Rate Tier 1 ($/1,000 gallons)	Summer Commodity Rate Tier 2 ($/1,000 gallons)	Monthly Commodity Rate ($/1,000 gallons)
W-1	Residential	Nov-17	0.75	$4.85	$1.65	$1.65	$2.65	NA
			1.00	$8.10	$1.65	$1.65	$2.65	NA
			1.50	$16.15	$1.65	$1.65	$2.65	NA
			2.00	$25.85	$1.65	$1.65	$2.65	NA
			3.00	$48.50	$1.65	$1.65	$2.65	NA
			4.00	$80.85	$1.65	$1.65	$2.65	NA
			6.00	$161.65	$1.65	$1.65	$2.65	NA
			8.00	$258.65	$1.65	$1.65	$2.65	NA
W-1-O	Residential Non-City	Nov-17	0.75	$9.70	$3.30	$3.30	$5.30	NA
			1.00	$16.15	$3.30	$3.30	$5.30	NA
			1.50	$32.35	$3.30	$3.30	$5.30	NA
			2.00	$51.75	$3.30	$3.30	$5.30	NA
W-2	Commercial	Nov-17	0.75	$4.85	NA	NA	NA	$1.85
			1.00	$8.10	NA	NA	NA	$1.85
			1.50	$16.15	NA	NA	NA	$1.85
			2.00	$25.85	NA	NA	NA	$1.85
			3.00	$48.50	NA	NA	NA	$1.85
			4.00	$80.85	NA	NA	NA	$1.85
			6.00	$161.65	NA	NA	NA	$1.85
			8.00	$258.65	NA	NA	NA	$1.85
W-2-O	Commercial Non-City	Nov-17	0.75	$9.70	NA	NA	NA	$3.70
			1.00	$16.15	NA	NA	NA	$3.70
			1.50	$32.35	NA	NA	NA	$3.70
			2.00	$51.75	NA	NA	NA	$3.70

5.9.2 Revenue Analysis

Table 5-23 presents the Water System revenues. The total retail revenues increased by 4.8 percent in 2017 and 6.9 percent in 2018 due primarily to rate increases. The revenues decreased by 2.7 percent in 2019 due to lower sales. In 2020, total retail revenues increased 0.8 percent, with higher Residential sales and revenues largely offset by lower sales and revenues from non-residential classes, a dynamic influenced heavily by the COVID-19 pandemic.

Table 5-23: Retail Revenues by Class

	2016	2017	2018	2019	2020
Revenues					
Residential	$7,426,141	$7,796,049	$8,410,699	$8,181,849	$8,515,274
Commercial	5,092,632	5,319,854	5,543,239	5,464,127	5,355,309
Schools & Churches	500,405	537,322	632,392	534,520	473,545
Other	210,500	209,454	234,910	244,873	200,216
Total	$13,229,678	$13,862,679	$14,821,240	$14,425,369	$14,544,345
Number of Customers					
Residential	42,393	42,693	42,929	44,633	43,627
Commercial	6,550	6,647	6,671	6,899	6,824
Schools & Churches	297	305	312	317	317
Other	283	284	283	281	285
Total	49,524	49,929	50,195	52,130	51,054
Revenue per Customer					
Residential	$175	$183	$196	$183	$195
Commercial	777	800	831	792	785
Schools & Churches	1,683	1,763	2,028	1,685	1,494
Other	743	739	831	871	702
Total	$267	$278	$295	$277	$285
Sales (1000 gallons)					
Residential	2,737,573	2,714,031	2,735,228	2,561,224	2,681,717
Commercial	2,334,596	2,342,707	2,243,690	2,237,397	2,130,776
Schools & Churches	231,962	236,557	289,301	248,388	187,246
Other	98,519	89,152	95,333	101,596	76,143
Total	5,402,650	5,382,447	5,363,552	5,148,605	5,075,882
Sales (1000 gallons) per Customer					
Residential	65	64	64	57	61
Commercial	356	352	336	324	312
Schools & Churches	780	776	928	783	591
Other	348	314	337	361	267
Total	109	108	107	99	99
Revenue per 1000 gallon					
Residential	2.71	2.87	3.07	3.19	3.18
Commercial	2.18	2.27	2.47	2.44	2.51
Schools & Churches	2.16	2.27	2.19	2.15	2.53
Other	2.14	2.35	2.46	2.41	2.63
Total	2.45	2.58	2.76	2.80	2.87

Source: LUS Financial and Operating Statements

5.9.3 Expense Analysis

Table 5-24 shows historical water operating expenses, distinguished between fixed and variable costs. Variable operating expenses within Power & Pumping include purchased power costs, while variable operating expenses within Purification include chemical costs. Fixed operating expenses include Source of Supply, a portion of Power & Pumping and Purification, Distribution, Customer Service, and Administrative and General ("A&G") expenses. Historically, variable expenses average about 22 percent of total expenses.

Table 5-24: Historical and Variable Expense Summary

	2016	2017	2018	2019	2020
Variable Expenses					
Power & Pumping	$474,683	$461,177	$464,538	$461,845	$465,557
Purification	2,624,435	2,556,678	2,587,531	2,675,900	2,372,173
Total Variable Expenses	$3,099,118	$3,017,855	$3,052,070	$3,137,745	$2,837,730
Fixed Expenses					
Source of Supply	$185,999	$191,113	$175,620	$183,896	$179,867
Power & Pumping	327,040	268,334	296,324	303,191	274,159
Purification	1,853,514	1,929,383	1,971,597	1,871,480	1,716,917
Distribution	2,538,366	2,619,286	2,884,033	2,889,727	2,098,086
Customer	1,149,579	1,128,205	1,219,158	1,172,251	1,295,339
A&G	4,607,489	4,811,643	4,661,424	4,668,916	4,757,007
Total Fixed Expenses	$10,661,987	$10,947,964	$11,208,155	$11,089,461	$10,321,376
Total Fixed & Variable	$13,761,106	$13,965,819	$14,260,225	$14,227,206	$13,159,106
Percent Variable	23%	22%	21%	22%	22%
Percent Fixed	77%	78%	79%	78%	78%

Source: LUS Financial and Operating Statements

5.9.4 Recovery of Costs

Water system retail sales are affected by weather, economic conditions, and perhaps most notably in 2020, the COVID-19 pandemic. Volatility of water demand caused by these dynamics can impact the stability of revenues. As presented in Table 5-22, expenses are largely fixed and are generally not as susceptible to weather or economic variances. However, overall expenses were lower in 2020 as LUS strategically minimized expenses considering the COVID-19 pandemic. Regardless of the underlying cause, the predominately fixed-cost nature of the Water System cost structure and the highly variable nature of its revenue stream can put pressure on utility cash flows when demand is disrupted. The mismatch between a high fixed cost structure and a high variable cost revenue stream is a common challenge in the water utility industry.

5.10 Observations and Recommendations

Based on the analysis described herein, Burns & McDonnell presents the following observations and recommendations.

- Total water production has remained generally stable but overall retail water sales have declined.
- Retail sales reductions have been partially offset by wholesale sales increases, with wholesale sales representing 28 to 30 percent of total sales over the last five years. LUS coordinates closely with its wholesale customers regarding growth for planning purposes and should continue to do so.
- With relatively steady water production and a general decline in water sales, unaccounted for water has increased from 7.4 percent in 2016 to 12.5 percent in 2020. Overall unaccounted for water (i.e.,

losses) on a percentage basis have increased over the last four years.

- Within its next rate study, LUS should evaluate the possibility of increasing its fixed cost recovery in its Water System revenue streams to improve overall revenue stability. Such a change can be accomplished in a revenue-neutral way, meaning rates would still produce the same overall Water System revenue under normal conditions. This change could be phased-in over time to mitigate customer impact.
- Water produced by the two Commission Boulevard groundwater wells is not softened or treated for iron and manganese removal prior to entering the distribution system. Areas of the distribution system where this groundwater blends with softened water from the North and/or South Water Treatment Plants has been observed to cause aesthetic issues with water being delivered to customers. LUS utilizes automatic flushing in these areas of the distribution system; however, robust monitoring or operational changes in the system may be necessary to prevent these events from occurring until the new Commission Boulevard Water Treatment Facility is constructed and operational. The treatment plant improvements are scheduled to be completed in 2022.
- The 16-inch pipeline leaving the North Water Treatment Plant into the distribution system presents a hydraulic limitation (or "bottleneck") on the amount of water that can be pumped out of the treatment plant. This in turn, reduces the ability to utilize the full treatment capacity of the plant. Burns & McDonnell recommends potential solutions to mitigate this bottleneck for this pipeline be evaluated in the future. This would allow LUS to utilize the full treatment capacity of the plant to meet increasing demands in the system.
- Annual programs are in place for inspection of elevated water towers and for inspection and testing of groundwater production wells. Through discussion and observations, it appears that a programmatic proactive maintenance approach is not applied consistently across all LUS water assets. Proactive maintenance results in extended asset life and reduces the likelihood and duration of unexpected downtime or failures. LUS should evaluate its water system assets to estimate remaining service life and likelihood of failure. The results of that assessment should be used to further develop capital improvement planning to address critical assets over a long-term period, with targeted strategies to address high-priority items. This effort should include planning for renewal and replacement of aging infrastructure over its anticipated service life.
- LUS should begin preparing for operational changes brought about by recent LCRR, specifically in developing an LSL inventory and revisions to lead and copper sampling locations and protocol. An LSL Replacement Plan must be developed if LSL are present in the distribution system. LUS should

evaluate LCRR requirements as soon as possible to confirm operating and capital obligations associated with compliance.

- Due to the continued increasing trend in unaccounted for water, LUS should consider studying water loss in more detail or performing a Water Audit for Water Loss Control for improved management of non-revenue water.

6.0 WASTEWATER UTILITY SYSTEM

6.1 Wastewater Utility Summary

LUS provided wastewater conveyance, treatment, and sludge management and disposal services to 46,133 retail customers in 2020. Key infrastructure includes 688.4 miles of collection mains, 195 lift stations, four wastewater treatment plants, and sludge management and disposal facilities. The total combined permitted treatment capacity of the four plants is 18.5 MGD, while the total combined flowholding capacity at the four plants is 38.5 M gallons. LUS is also responsible for integrating small package wastewater treatment plants that primarily serve subdivisions and rural areas into the main LUS Wastewater System.

Wastewater system collected flow decreased in 2020 by 4.3 percent compared to 2019 flows, and generally lower than the average collected flow from 2016 through 2019. Historical Wastewater System collected flows are shown in Table 6-1.

Table 6-1: Wastewater System Historical Retail Collection

Fiscal Year	Retail Collection (1000 gallons) [1][2]
2016	6,267,402
2017	5,768,832
2018	5,326,815
2019	5,746,278
2020	5,498,088

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

6.2 Wastewater Treatment

LUS owns and operates four wastewater treatment plants ("WWTPs"): the South Sewage Treatment Plant ("SSTP"), the East Sewage Treatment Plant ("ESTP"), the Ambassador Caffery Treatment Plant ("ACTP"), and the Northeast Treatment Plant ("NETP"). The combined average day treated flowrate for these WWTPs in 2020 was 15.4 MGD and the total permitted capacity is 18.5 MGD as summarized in Table 6-2.

Table 6-2: Wastewater Treatment and Storage Summary

Facility	2020 Average Day Flow (MGD)	Permitted Capacity (MGD)	Wet-Weather Storage Capacity (MG)
South Sewage Treatment Plant	5.1	7.0	3.5
East Sewage Treatment Plant	3.1	4.0	3.0
Ambassador Caffery Treatment Plant	5.9	6.0(1)	7.0
Northeast Treatment Plant	1.3	1.5	25.0
Total	15.4	18.5	38.5

Source: LUS

[1] Permitted capacity is 6.0 MGD; however, plant treatment capacity is 9.25 MGD.

The LUS wastewater system is a separate sanitary sewer system, consisting of an interconnected network of piping and lift stations that conveys domestic sewage to the City's WWTPs. During wet weather events with large amounts of precipitation, the WWTPs may be undersized to completely treat peak flows associated with stormwater and groundwater, known as inflow and infiltration (I&I), that enters the sanitary sewer system through cross connections with stormwater sources or cracks in pipes or manholes. Influent flow exceeding the WWTPs peak design flow capacity is diverted to on-site wet weather basins. Wastewater diverted to the wet weather basins is stored and treated by the WWTPs when wet weather flows subside. Wet weather flows are generally treated as if they are domestic sewage. Influent flow exceeding the capacity of the on-site wet weather basins may be bypassed around biological treatment processes but is disinfected prior to discharge to the Vermillion River, but this occurs very rarely only during an extreme weather event.

Since wastewater treatment uses microorganisms for removal of organics, a portion of the biomass waste or sludge streams must be continuously removed from the WWTPs. Final disposal of biosolids (i.e., dewatered sludge from the WWTPs) is land applied at several farms in the Lafayette area. Recent land development has reduced the number of land-application sites that are available to LUS. Three of the WWTPs use mechanical dewatering devices to further concentrate the solids (to approximately 22 to 27 percent solids by weight) and reduce the total volume of biosolids to be land-applied. The NETP does not use mechanical dewatering and the resulting land-applied biosolids are approximately 2 to 3 percent solids by weight.

LUS staff have indicated the majority of wastewater treated at the WWTPs is domestic waste, with very little industrial waste flows. The Louisiana Department of Environmental Quality (LDEQ) has limited discharge loading into the Vermillion River due to farming and unincorporated wastes being discharged to the river. As such, treatment of wastewater needs to be performed to levels that reduce the 5-day

carbonaceous biological oxygen demand ("BOD5"), total suspended solids ("TSS"), and ammonia in the effluent streams of the WWTPs, in accordance with each facility's LPDES permit.

6.2.1 South Sewage Treatment Plant

The SSTP treats an average flowrate of 5.1 MGD and is permitted to treat up to 7 MGD of flow. The SSTP headworks receives water from the on-site main pump station and the primary force main from the Acacia Lift Station across the Vermillion River. All influent flows pass through rotary screens and vortex grit removal processes to separate large debris and sediment from the water to improve treatability. After pretreatment, the SSTP flow splits between two treatment trains: the East Side train and the West Side train. Each train uses activated sludge (i.e., a mixture of microbial organisms and sewage which are oxygenated for nutrient removal) followed by circular clarifier basins and chain-and-flights final clarifiers. Treated water is then disinfected with chlorine, and finally dechlorinated prior to discharge to the Vermillion River. The SSTP does not have any means to actively control odor at the plant. During wet weather events, the SSTP is configured to segregate influent flow into an on-site 3.5 M gallon wet weather storage basin.

The sludge goes through aerobic digestion (i.e., biological digestion of nutrients in the presence of both free and bound oxygen) and anaerobic digestion (i.e., biological digestion of nutrients in absence of both free and bound oxygen) to further breakdown organic content. Digested sludge is then dewatered by a belt filter press. The solids from the belt filter press are then land applied, and the liquid stream is sent back to the plant headworks.

6.2.2 East Sewage Treatment Plant

The ESTP receives waste flows along the I-49 corridor area of Lafayette and has a permitted capacity of 4 MGD. In 2020, the average treated flow was 3.1 MGD. Wastewater flows into the ESTP dry pit area via gravity and pumped from the dry pit to the plant headworks. The treatment at the ESTP consists of rotary screens and diffused air grit removal for pretreatment, followed by primary clarifiers, oxidation ditches, final clarifiers, chlorine disinfection, and dechlorination. Sodium hypochlorite is used for both disinfection and for odor control. The treated water is then stored in an on-site tank for non-potable uses or discharged to the Vermillion River. During wet weather events, the ESTP is configured to segregate influent flow into an on-site 3.0 M gallon wet weather storage basin.

The sludge goes through a thickening process followed by anaerobic digestion (i.e., biological digestion of nutrients in absence of both free and bound oxygen) to further breakdown organic content. Digested sludge is then dewatered by a belt filter press. The solids from the belt filter press are then land applied,

and the liquid stream is sent back to the plant headworks. A segment of land at the Vermillion Conference Center, adjacent to the ESTP, will be utilized for sludge drying in the future.

6.2.3 Ambassador Caffery Treatment Plant

The ACTP treats an average flow rate of 5.9 MGD and is permitted to treat up to 6 MGD (the design capacity of this plant is 9.25 MGD). Wastewater flows into the ACTP through a gravity-fed dry pit area which is then pumped from the dry pit to the plant headworks, or through a collection of forcemains which pump directly to the plant headworks. Pretreatment at the ACTP consists of rotary screens and vortex grit removal. Flow is then split to two different aerobic treatment processes, sequencing batch reactors ("SBRs") and oxidation ditches, followed by final clarifiers, chlorine disinfection, and dechlorination. During wet weather events, the ACTP is configured to segregate influent flow into an on-site 7 M gallon wet weather storage basin.

The sludge is treated through a thickening process followed by anaerobic digestion to further breakdown organic content in the sludge. Digested sludge is then dewatered by a spiral screw press, which is aided by addition of a polymer. The solids from the screw press are then land applied, and the liquid stream is sent back to the plant headworks.

6.2.4 Northeast Treatment Plant

The NETP treats an average flow rate of 1.3 MGD, which is slightly less than the permitted capacity of 1.5 MGD. Wastewater flows into the NETP headworks through a collection of local forcemains. Pretreatment at the NETP consists of stepping screens and bypass screens and a vortex grit removal chamber. Flow is aerobically treated in oxidation ditches, followed by final clarifiers, chlorine disinfection, and dechlorination using sulfur dioxide. During wet weather events, the NETP is configured to segregate influent flow into an on-site 25 M gallon wet weather storage basin.

The sludge is mixed with lime via a paddle wheel mixer to produce a homogenized mixture of stabilized sludge to produce Class B biosolids. Addition of lime increases the pH to effectively kill pathogens and microorganisms, in addition to providing some loss of moisture content. The stabilized lime mixture is then land-applied. A 20-acre pond for lime solids holding located at the NETP is used to store solids trucked from the South Water Treatment Plant and North Water Treatment Plant during rainy conditions that will not allow for the general disposal on land farm sites.

6.3 Wastewater Collection

As described previously, the LUS wastewater system is a separate sanitary sewer system conveying domestic sewage. Surface runoff is conveyed through a separate system. The topography of the service

area is relatively flat and spans both sides of the Vermillion River. Due to the topography and geographic boundary of the river, the LUS wastewater collection system uses 195 lift stations to overcome hydraulic grade line (i.e., overcome natural drainage patters due to gravity) of the city via pumping. Of these lift stations, approximately 30 percent are self-priming style suction lift stations, and the remainder are submersible lift stations of various functionality. In recent years, the increasing number of lift stations is due to LUS providing sewer service to an increasing amount of new land development. The wastewater collection system infrastructure is summarized in Table 6-3.

Table 6-3: Wastewater Collection System Assets

	2016	2017	2018	2019	2020
Number of Connections	44,269	45,034	45,436	45,942	46,380
Miles of Pipe [1]	659	665	673	692	688.4
Number of Manholes	12,313	12,538	12,716	12,868	13,008
Number of Lift Stations	179	185	188	190	195

Source of data: LUS Internal Memorandum, December 21, 2020
(1) Includes gravity sewers and force mains; does not include service laterals.

Engineering design of significant wastewater system infrastructure is typically delegated to consultant engineering firms. Some limited design tasks are performed by LUS staff. Lift stations ("LS") that need upgrades or rehabilitation are the Thomas Park LS, and the Alice Drive LS. The design of the improvements to Thomas Park LS design will be completed by the end of the year. Replacement of the Alice Drive LS will follow replacement of the Thomas Park LS.

Wastewater infrastructure (i.e., gravity pipes, force mains, and pump stations) in the downtown and geographically-central areas of the City are undersized to accommodate the recent land development and population density changes in these parts of the service area. The City has largely ceased new housing development in the downtown area because the infrastructure cannot meet conveyance needs. The design project for a new sewer lift station and 20-inch force main to the SSTP is in progress. This project will require a new 20-inch force main and is expected to take at least two years. Although the state government owns some property along the proposed routing, LUS has encountered challenges with acquiring property for the lift station and force main routing. Additionally, the SBRs at the SSTP are being evaluated to handle new and future capacity associated with housing development in the downtown area.

The older, aging, lift stations in the LUS inventory are primarily wet-pit and dry-pit style, with the newer lift stations being submersible style. Improvements to the aging lift stations are being evaluated to convert these to suction-lift style. There are on-going efforts to improve the resiliency of the lift stations by adding quick-connection fittings to the discharge piping, which allow for operators to use a portable pump

to convey wastewater flows in the event of a power outage. Lift station telemetry (i.e., remote-collection and transmission of data) equipment is not uniform, with 40 lift stations having fiber optic transmission, 50 lift stations having cellular transmission, 30 lift stations having no telemetry, and the remainder (including package plants) have Mission auto-dialers.

6.3.1 Operations and Related Performance

6.3.1.1 COVID-19

Due to COVID-19, LUS has modified basic operations of the utility to keep non-essential personnel at home when possible. Operations staff has also been separated to ensure that, in the possibility of an outbreak, staff would not get infected at the same time.

Additionally, operations and maintenance shifted from a proactive approach to a reactionary approach to minimize the close-quarters exposure of operators and limiting maintenance to only critical situations. This has impacted routine inspections and maintenance items, such as closed-circuit television video ("CCTV") inspections and other items discussed in Section 6.3.1.2. The full extent of the impact of this approach cannot be determined and may result in further reactionary maintenance in the future.

6.3.1.2 Capacity, Management, Operations, and Maintenance Program

The EPA performed an audit of LUS's sanitary sewer system in 2017 which included the wastewater master plan, flow studies, and a tour of the four wastewater plants and some lift stations. A report of findings from the EPA's audit was released in May 2018. Resulting from the audit, an Administrative Order ("AO") was issued effective April 24, 2018 which requires LUS to prepare and implement a Capacity, Management, Operations, and Maintenance Program ("CMOM") by May 1, 2020.

The details of the CMOM implementation plan were submitted by LUS in February 2020, which included Collection System Management, Collection System Operations, Collection System Maintenance, and Collection System Capacity Evaluation. The AO requires LUS to regularly test and repair sewerage infrastructure by inspecting and cleaning 10 percent of the collection system each year and addressing defects within three years of the date on which they were identified. Additionally, the entire wastewater collection system needs to be rehabilitated by November 1, 2033, which averages approximately 7.7 percent annually.

LUS increased the budget for CCTV inspection, inflow and infiltration ("I&I") repairs in CIP, manhole lining, and point repairs. LUS staff have indicated that temporary changes in operations due to COVID-19

have resulted in lessened CCTV inspections of the wastewater collection system. This is of particular importance, as LUS is required to inspect at least 10 percent of the collection system each year.

Additional measures required by the AO include implementation of a sanitary sewer cleaning program which aims to clean the sanitary sewers on a 10-year revolving schedule. As the staff implements this program, the cycles of cleaning will depend on the pipeline condition, risk, and consequence of failure. As for critical cleaning, certain line segments may be identified to be more susceptible to blockages and may be put on a critical cleaning list as a preventive measure. The field supervisor is responsible for determining the cleaning cycle for these line segments.

LUS performs routine manhole inspections which are recorded in the CityWorks program software for asset management tracking. LUS indicated that Sewer Line-Rapid Assessment Tool acoustic technology and CCTV would be used to adhere to the CMOM to inspect all pipes and manholes, rotating though the entire system every 10 years. The first rotation through the entire collection system is required to be completed by November 1, 2030. Furthermore, LUS prioritizes repairing manholes and pipes using the Point Repair Priority Scores and Definitions and Manhole Repair Priority Scores that were developed in response to the AO.

LUS has also implemented a comprehensive training program for all staff participation in O&M in accordance with Activity D.2 of the AO. This arose from a lack of documented O&M training program and concern with staff succession.

Additionally, the CMOM Program establishes protocols for LUS to identify I&I issues for the most problematic areas of the collection system. LUS's CCTV inspection program uses remote cameras to inspect pipes owned by LUS; however, any defects within privately-owned systems are challenging to rehabilitate because work must be performed by the property owner. Activities completed related to testing maintenance, and repair of sewage infrastructure are as noted on the 2019 and 2020 budgets.

6.3.1.3 Biosolids and Land Application

Currently, LUS's use of biosolids are permitted under LDEQ Sewage Sludge and Biosolids Use or Disposal Permit No. LAJ020125. Waste sludge generated at each of the wastewater treatment plants is treated to Class B biosolids standards and dewatered prior to transport to the application site.

Due to the shortage of land application sites, LUS continues to face challenges associated with land application of biosolids. Currently, LUS applies biosolids on privately-owned farmland, and, due to the nature of land-use agreements, staff cannot always access the sites to apply the biosolids when needed.

LUS is required to accommodate farming activities such as crop and livestock rotation, and any needed access during inclement weather. As a result, LUS is required to lease more acreage than is physically necessary for the amount of biosolids produced (year-to-year leases with 30-day end-notice). LUS currently leases approximately 1,163 acres for biosolids application, but only utilized 302 acres in 2019.

Currently, three of the four wastewater plants (SSTP, ESTP, and ACTP) use mechanical dewatering and belt press the biosolids to remove excess water from the biosolids. The dewatered biosolids are land applied. The NETP uses only lime stabilization to treat the biosolids. Adding mechanical dewatering before the lime stabilization will reduce the volume of biosolids produced by the plants.

Although not all WWTPs have active odor control, the permit from LDEQ requires that odor production be minimized as an operational standard for land applying the biosolids. Additional land-use agreements, such as purchasing and owning land to apply the biosolids, should be considered.

6.4 Historical Capital Improvement Program

LUS tracks capital expenses through its capital work order system. Historical capital improvements program expenditures shown in Table 6-4 reflect investments in infrastructure funded by the Series 2010 and Series 2019 Bonds. The Series 2010 Bonds were issued for wastewater collection system improvements including lift stations and interceptors. The Series 2019 Bonds are available to support capital projections like expansion of the treatment plants, lift station, and sludge handling.

Table 6-4: Wastewater System Historical CIP

	2016	2017	2018	2019	2020
Wastewater					
Normal Capital & Special Equipment	$1,524,624	$1,876,974	$1,264,908	$1,985,294	$1,619,375
Series 2010 Bonds	98,009	0	0	0	0
Series 2019 Bonds	0	0	0	128,538	174,992
Retained Earnings	2,294,350	4,207,580	6,881,980	5,247,716	4,298,097
Total Wastewater Capital	$3,916,983	$6,084,553	$8,146,888	$7,361,548	$6,092,464

6.5 Environmental and Regulatory Compliance

In accordance with each facility's LPDES permit, LUS is required to file an Annual Municipal Water Pollution Prevention audit report for each operating facility. Sometimes, LUS exceeds the design/permitted flow capacity at its wastewater treatment plants. These exceedances are reported to LDEQ and LDEQ coordinates with LUS for an excursion regrading repairs and replacements. The number of months during which the design capacity of each plant was exceed over the past five years is summarized in Table 6-5.

Table 6-5: Total Monthly Occurrences of Design or Permit Capacity Exceedances

Wastewater Treatment Plant	2016	2017	2018	2019	2020
Flow Exceedances					
South Sewage	2	0	0	0	0
East Sewage	1	2	1	0	0
Ambassador Caffery	8	5	1	6	5
Northeast	1	0	0	0	0
Biological Loading Exceedances					
South Sewage	0	0	0	3	0
East Sewage	1	0	0	0	0
Ambassador Caffery	0	0	0	0	0
Northeast	0	0	0	1	0

Source: LUS

6.5.1 Spill Prevention Control and Countermeasures

SPCC plans are required to comply with state and federal regulations if facilities are proximate to U.S. waters. Compliance is required by facilities which are subject to spills of oils, fuels, or other controlled substances and have a storage capacity of more than 1,320 gallons at a single facility. SPCC plans were prepared and implemented in accordance with these regulations for each wastewater treatment facility. Each facility's SPCC Plan was last reviewed in 2017. SPCC Plans must be reviewed every five (5) years (the next review is due in 2022) or upon significant change in oil storage or if a spill incident occurs.

6.5.2 Wastewater Pretreatment Program

Federal regulation requires that LUS maintain a wastewater pretreatment program that is applicable to certain customers discharging to the LUS collection system, with particular emphasis on industrial users. Industrial users are identified by review of the North American Industry Classification System ("NAICS") code of the user. The program is overseen and enforced by the LUS Environmental Compliance Division; and was established to accomplish the following objectives:

1. Prevent pollutant discharges which will interfere with operations of publicly owned treatment works ("POTWs"), including the use or disposal of municipal sludge (i.e., biosolids),
2. Prevent pollutant discharges which the POTW is not designed to remove by treatment,
3. Reduce the risk of exposing workers to hazardous chemicals, and
4. Improve opportunities to recycle and reclaim industrial wastewaters and sludges.

Significant Industrial User Permits are issued to any customer that discharges an average of 25,000 gallons or more of process wastewater. Six customers have been issued this permit because they either contribute process waste stream that make up 5 percent or more of the average dry-weather hydraulic or

organic capacity of the treatment plant or have a reasonable potential for adversely affecting the treatment facility's operation for violating any pretreatment standard or requirement.

A total of seven Categorical Zero Discharge Permits have been issued to customers that do not discharge any process wastewater in accordance with CWA section 307.

A Pretreatment Audit was conducted by the Louisiana Department of Environmental Quality in February 2020. The audit concluded that all testing and monitoring requirements were met by all industrial users under the permit. Resulting recommendations were to provide explanation of where permit limitations are derived from within the Fact Sheet (the documentation submitted as a part of the Pretreatment Audit,) and that industrial users include an evaluation of spills or slug loads that may have occurred during the year. Any proposed change to the facility regarding its Pretreatment Program must first be submitted to LDEQ for approval.

6.5.3 Flow and Biological Loading

The wastewater strength to the LUS WWTPs is characterized as primarily domestic wastewater, with very little industrial wastewater. LUS operators have indicated that the wastewater influent is consistent between the WWTPs. Influent water quality generally contains 25 mg/L of total nitrogen, 170 mg/L of 5-day carbonaceous BOD5, and 30 to 40 mg/L TSS.

Publicly-owned treatment works serving the City of Lafayette are subject to regulatory limitations of wastewater discharges to the Vermillion River to Bayou St. Claire. The wastewater discharge limitations are established by the LPDES permit, which has assigned a permit limit and specific discharge loading limits for each of the LUS WWTPs. Although the concentrations (mg/L) of each contaminant are consistent between the WWTPs, the loading rate (lbs/day) is not consistent and presents treatment challenges as the City continues to grow and develop. The average monthly discharge limitations are summarized in Table 6-.

Table 6-7: Wastewater Treatment Plant Average Monthly Discharge Limitations

	South Sewage	East Sewage	Ambassador Caffery	Northeast
LPDES Permit	LA0036374	LA0036382	LA0042561	LA0036391
Design Flow	7.0 MGD	4.0 MGD	6.0 MGD	1.5 MGD
BOD_5 – May through December	584 lbs/day 10 mg/L	334 lbs/day 10 mg/L	500 lbs/day 10 mg/L	125 lbs/day 10 mg/L
BOD_5 – January through April	1168 lbs/day 20 mg/L	667 lbs/day 20 mg/L	1,000 lbs/day 20 mg/L	250 lbs/day 20 mg/L
Total Ammonia-Nitrogen (as N) May through December	292 lbs/day 5 mg/L	167 lbs/day 5 mg/L	250 lbs/day 5 mg/L	63 lbs/day 5 mg/L
Total Ammonia-Nitrogen (as N) January through April	584 lbs/day 10 mg/L	334 lbs/day 10 mg/L	500 lbs/day 10 mg/L	125 lbs/day 10 mg/L
Total Nitrogen (as N)	Monitoring Only	Monitoring Only	Monitoring Only	Monitoring Only
Cyanide	--	--	--	Monitoring and Reporting Only
TSS – May through December	876 lbs/day 15 mg/L	500 lbs/day 15 mg/L	751 lbs/day 15 mg/L	188 lbs/day 15 mg/L
TSS – January through April	1168 lbs/day 20 mg/L	667 lbs/day 20 mg/L	1,000 lbs/day 20 mg/L	250 lbs/day 20 mg/L
Total Phosphorus (as P)	Monitoring Only	Monitoring Only	Monitoring Only	Monitoring Only

The LPDES has imposed a hold on new (additional) contaminant loading to the Vermillion River due to agriculture, waste flows from unincorporated areas, and waste flows from publicly owned treatment works. As the City continues to develop and grow, this contaminant loading restriction requires that the lbs/day limit by LDEQ is met by the LUS WWTPs, regardless of influent flow increases.

6.5.4 Post-Hurricane Inspections

Two post-hurricane inspections were completed by the EPA for each of the four WWTPs following Hurricane Delta and Hurricane Marco and Hurricane Laura (one inspection), in late 2020.

The SSTP, ESTP, and NETP were found to have no needed repairs following the hurricanes. The ACTP was found to have some needed repairs following Hurricane Marco and Hurricane Laura, but damages were not caused by the hurricane and repairs were scheduled to occur the following week. There were no damages to the ACTP following Hurricane Delta.

6.6 Contracts and Agreements

LUS is currently under contract in the Grossie Avenue area for wastewater O&M. This area included a small number of customers served by a separately owned wastewater collection system where the flows from the approximately 50 customers are treated at the ESTP. The 40-year agreement was executed in

1995 and expires August 2035.

6.7 Utility Benchmarking

6.7.1 Utility Rates

Residential and commercial wastewater rates implemented by LUS are comparable to and competitive with utilities benchmarked in the state and surrounding region. Table 6-8 and Table 6-6 provide a regional comparison of effective wastewater rates for residential and commercial customers, respectively.

Table 6-8: Residential Rate Comparison

Utility	Average ($/1,000 gallons) [1]
Alexandria	$ 3.86
Lake Charles	$ 4.40
New Iberia	$ 5.14
Baton Rouge	$ 6.61
LUS	$ 7.13
Shreveport	$ 10.81
New Orleans	$ 12.23

Source: LUS. Rates as of January 2021.
(1) Assumes monthly water consumption of 7,000 gallons.

Table 6-6: Commercial Rate Comparison

Utility	Average ($/1,000 gallons) [1]
Alexandria	$ 3.59
Lake Charles	$ 3.94
Baton Rouge	$ 6.15
New Iberia	$ 6.17
LUS	$ 6.69
Shreveport	$ 8.74
New Orleans	$ 13.18

Source: Burns & McDonnell. Rates as of January 2021.
Assumes monthly water consumption of 30,000 gallons.

LUS last completed a rate study in 2016, indicating the need to increase Wastewater System rates to adequately cover its costs. Retail rates were increased 6.1 percent effective November 1, 2016, and 5.7 percent effective November 1, 2017. Retail rates have remained unchanged since then.

6.7.2 Financial and Operating Statistics

The AWWA annually publishes benchmarking data across a variety of performance indicators for water and wastewater utilities. The *2020 AWWA Utility Benchmarking: Performance Management for Water*

and Wastewater was released in early 2021, compiling various financial and operating ratios from 2019. For this analysis, specific ratios were obtained from the AWWA report representing national and regional medians. The AWWA defines national metrics as wastewater utilities in both the United States and Canada, hereafter referred to as "National." Ratios are also available by region and by number of wastewater customers served. The U.S. South region was used, which includes Louisiana and is hereafter referred to as "Regional." Further, ratios are available specifically for water utilities, wastewater utilities, and combined water and wastewater utilities. Where possible, comparisons have been made to wastewater utility ratios. However, some LUS balance sheet information is available only for the combined Electric, Water and Wastewater Utilities System, hereafter referred to as "Combined." The AWWA "Combined" benchmarking data only includes water and wastewater utilities.

The benchmark results are presented in Table 6-9. LUS's wastewater operational costs are lower than the National median but higher than the Regional median. LUS's combined debt ratio is lower than the Regional median but higher than the National median. The operating ratio is higher on both a wastewater-only and combined basis than either the National or Regional medians. However, the AWWA combined utilities median includes water, wastewater, and stormwater, while LUS includes water, wastewater, and electric. LUS's cash reserves are lower than the National and Regional medians. While LUS's 2020 wastewater debt service coverage is lower than the Regional median, all other measures of LUS debt service coverage presented in Table 6-7 are higher than their respective National or Regional median benchmarks.

Table 6-7: Benchmarked Wastewater Utility Operating Ratios

		National[(1)]	Regional	LUS	
Statistics	**Basis**	**2019**	**2019**	**2019**	**2020**
Operational Costs per MG	Wastewater	$3,519	$2,149	$3,343	$3,328
Debt to Total Assets (Debt Ratio)	Combined	0.31	0.48	0.38	0.36
Operating Ratio (O&M cost/ Operating revenue)	Wastewater	0.50	0.48	0.64	0.61
Operating Ratio (O&M cost/ Operating revenue)	Combined	0.46	0.47	0.68	0.67
Cash Reserve Days[(2)]	Combined	413	256	51	48
Debt Service Coverage	Wastewater	2.11	2.39	3.04	2.20
Debt Service Coverage	Combined	3.20	2.24	3.54	2.99

Source: AWWA and LUS

(1) National AWWA benchmarks for water and combined water and wastewater utilities with 50,001 to 100,000 customers to align with the Water System customers served.

(2) LUS results based on total O&M for Electric, Water, and Wastewater Systems less fuel and purchased power expenses.

6.8 Historical Financial Performance

Table 6-8 presents historical debt service and the associated DSCR. Historical Wastewater System debt service as shown below includes the Series 1996 Bonds, a portion of the Series 2010 Bonds, Series 2012 Bonds, Series 2017 Bonds, and Series 2019 Bonds. The Series 2010 Bonds were fully redeemed by the proceeds of the Series 2017 Bonds on November 1, 2020. The first debt service payment for the Series 2019 Bonds was due November 1, 2019 (FY 2020). In each year since 2016, the DSCR exceeded the minimum coverage requirement of 1.0 required by the Bond Ordinances.

Table 6-8: Historical Financial Performance

Fiscal Year	Operating Revenues [1]	Operating Expenses [2]	Net Revenues Available for Debt Service	Debt Service [3]	Debt Service Coverage Ratio
2016	$29,144,574	$18,295,151	$10,849,422	$4,619,524	2.3
2017	$30,790,307	$18,685,538	$12,104,769	$4,270,621	2.8
2018	$32,379,226	$18,737,163	$13,642,063	$3,363,806	4.1
2019	$32,038,772	$19,211,514	$12,827,259	$4,218,291	3.0
2020	$31,122,710	$18,295,187	$12,827,523	$5,842,264	2.2

Source: LUS Financial and Operating Statements

(1) Operating Revenues include interest income and other miscellaneous income.

(2) Operating Expenses include O&M and other expenses such as customer service and A&G costs. Operating Expenses do not include ILOT, normal capital and special equipment, and other miscellaneous expenses.

(3) Debt service was prepared on a cash basis for this table and includes the Series 1996 Bonds and a portion of the Series 2010 Bonds, Series 2012 Bonds, Series 2017 Bonds and Series 2019 Bonds. The Series 2010 Bonds were fully redeemed by the proceeds of the Series 2017 Bonds on November 1, 2020. The first debt service payment for the Series 2019 Bonds was due November 1, 2019 (FY 2020).

6.8.1 Rate Structures

The Wastewater System provides service to retail customers both inside and outside the City limits. Wastewater System customer classes for ratemaking purposes include residential and commercial. The Wastewater System rate structure includes a customer charge based on class and a commodity charge applied to billed volume. The determination of billed volume varies by season. During December through March, customers are billed actual water use. For the remaining months of the year, usage is generally calculated using the average usage of the four preceding winter months (December through March). However, billed volume may not be less than 75 percent of actual water consumption in each of those months. LUS can adjust billed volume as needed.

Table 6-9: Rate Schedules

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

Source: LUS Rate Schedules

6.8.2 Revenue Analysis

Table 6-10 presents the Wastewater System retail rate revenues. In total, 2020 revenues were generally consistent with 2019, decreasing 0.2 percent year over year. Residential revenues increased in 2020 but were offset by declining revenue in all other classes, a dynamic influenced by the COVID-19 pandemic. Customer counts have increased on average 1.0 percent per year from 2016 to 2020. Consistent with trends in overall Wastewater System revenues, revenue per customer declined overall by 1.3 percent in 2020, with Residential revenue per customer increasing while other classes declined.

Table 6-10: Retail Revenues by Class

	2016	2017	2018	2019	2020
Revenues					
Residential	$15,428,467	$16,301,946	$17,209,307	$16,620,065	$17,069,978
Commercial	11,669,904	11,899,780	12,073,215	11,804,385	11,552,556
Schools & Churches	1,213,052	1,300,138	1,509,518	1,316,766	1,092,977
Other	211,356	204,511	185,506	169,456	145,715
Total	$28,522,778	$29,706,376	$30,977,546	$29,910,672	$29,861,226
Number of Customers					
Residential	38,569	39,054	39,229	39,791	40,237
Commercial	5,328	5,398	5,402	5,442	5,503
Schools & Churches	257	263	273	275	282
Other	115	116	116	115	111
Total	44,269	44,830	45,019	45,623	46,133
Revenue per Customer					
Residential	$400	$417	$439	$418	$424
Commercial	2,190	2,205	2,235	2,169	2,099
Schools & Churches	4,719	4,947	5,528	4,781	3,876
Other	1,838	1,762	1,606	1,479	1,309
Total	$644	$663	$688	$656	$647

Source: LUS Financial and Operating Statements

6.8.3 Expense Analysis

Table 6-11 presents historical wastewater operating expenses, distinguished between fixed and variable costs. Variable operating expenses within Collection include purchased power costs, while variable operating expenses within Treatment include chemical costs. Fixed operating expenses include the remaining portions of Collection and Treatment expenses, plus Customer Service and A&G expenses. Historically, variable expenses average about 9 percent of total expenses, with the remaining 91 percent pertaining to fixed expenses.

Table 6-11: Historical Fixed and Variable Expense Summary

	2016	2017	2018	2019	2020
Variable Expenses					
Collection	$366,371	$346,809	$332,139	$372,159	$354,468
Treatment	1,350,099	1,351,974	1,334,120	1,249,620	1,163,932
Total Variable Expenses	$1,716,470	$1,698,783	$1,666,259	$1,621,779	$1,518,400
Fixed Expenses					
Collection	$4,095,630	$4,350,118	$4,390,309	$4,940,592	$4,534,054
Treatment	5,565,525	5,452,814	5,543,161	5,737,501	5,089,896
Customer	1,347,623	1,345,368	1,399,015	1,365,016	1,318,028
A&G	5,569,902	5,838,454	5,738,418	5,546,626	5,834,810
Total Fixed Expenses	$16,578,681	$16,986,755	$17,070,904	$17,589,735	$16,776,788
Total Fixed & Variable	$18,295,151	$18,685,538	$18,737,163	$19,211,514	$18,295,187
Percent Variable	9%	9%	9%	8%	8%
Percent Fixed	91%	91%	91%	92%	92%

Source: LUS Financial and Operating Statements

6.8.4 Recovery of Costs

Comparable to the Water System, Wastewater System revenues are also affected by weather, economic conditions, and in 2020, the COVID-19 pandemic. Volatility of water demand caused by these dynamics can impact the stability of revenues. As shown in Table 6-13, expenses are largely fixed and are generally not as susceptible to weather or economic variances. However, overall expenses were lower in 2020 as LUS strategically minimized some expenses considering the COVID-19 pandemic. Regardless of the underlying cause, the predominately fixed-cost nature of the Wastewater System cost structure and the variable nature of its revenue stream can put pressure on utility cash flows when demand is disrupted. The mismatch between a high fixed cost structure and a high variable cost revenue stream is a common challenge in the water utility industry.

6.9 Observations and Recommendations

Based on the analysis described herein, Burns & McDonnell offers the following observations and recommendations.

- Within its next rate study, similar to the Water System, LUS should evaluate the possibility of increasing its fixed cost recovery in its Wastewater System revenue streams to improve overall revenue stability. Such a change can be accomplished in a revenue-neutral way, meaning rates would still produce the same overall Wastewater System revenue under normal conditions. This change could be phased-in over time to mitigate customer impact.
- It is important that cleaning, inspection, and rehabilitation of the wastewater collection system be continued to comply with the requirements of the AO. The rate of such work needs to be resumed to meet the required 10 percent per year, which is an increase from the 8 percent performed in 2018 and 2019. It is unknown if the EPA will take exception to the requirements of the AO and CMOM due to COVID-19, and until some confirmation is provided, it should not be assumed that exception will be given. Additionally, collection system rehabilitation should be performed at a pace of 7.7 percent of the system per year, which is a much higher rate than the reported 1.6 percent in 2018.
- The CMOM program implemented in response to the AO has established a framework for programmatic proactive maintenance of LUS's collection system assets. Proactive maintenance results in extended asset life and reduces the likelihood and duration of unexpected downtime or failures. As part of its efforts to implements its CMOM program, LUS should evaluate its wastewater system assets to estimate remaining service life and likelihood of failure. The results of that assessment should be used to further develop capital improvement planning to address critical assets over a long-term period, with targeted strategies to address high-priority items. This effort should include planning for renewal and replacement of aging infrastructure over its anticipated service life.
- LUS currently has agreements for access to areas totaling more than the area physically required to contain all produced biosolids, because the land-use agreement structures require LUS to accommodate farming activities, which reduces the availability these spaces. LUS may evaluate new, or restructured, land-use agreements to provide better availability of land or flexibility for the application of biosolids.
- LUS should evaluate a mechanical dewatering process at the NETP to remove excess water prior to lime stabilization. This WWTP generates biosolids at approximately 2 to 3 percent solids by weight, and the other three WWTPs produce biosolids at approximately 22 to 27 percent solids by weight after processing with mechanical equipment. This is also anticipated to alleviate some challenges with the frequency of land application.
- LUS should evaluate its watsewater system assets to estimate remaining service life and likelihood of failure. The results of that assessment should be used to further develop capital improvement planning

to address critical assets over a long-term period, with targeted strategies to address high-priority items. This effort should include planning for renewal and replacement of aging infrastructure over its anticipated service life.

- Due to regional contaminant loading to the Vermillion River, the LDEQ has imposed a hold on new and additional contaminant loading to the river. Simultaneously, population growth and development within the LUS service area has increased, and therefore wastewater flows to the LUS WWTPs have also increased. As a confluence of these factors, it is recommended that a treatment process evaluation of the four WWTPs be completed to identify the risks that LUS faces with respect to meeting LPDES loading limits, and what improvements may reduce LUS loading to the river. The evaluation should consider potential changes to treatment costs at each of the plants in total and on a per unit of wastewater treated basis.

7.0 COMMUNICATIONS SYSTEM

7.1 Communication System Summary

The Communications System began in 1998 with LUS building fiber to serve the Electric System's SCADA system, transmission line protection systems, and LUS facilities. Further expansion of the system allowed LUS to offer wholesale communications and data services to governmental and educational facilities, and retail data, telephone, and cable TV services to the general public. The first retail customers began receiving service in February 2009.

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

The Communications System, also known as LUS Fiber, is comprised of a 191-mile fiber backbone system with direct connections to national Tier 1 broadband providers, 161 miles of distribution fiber, and 577 miles of access fiber connecting to individual premise locations. About 40 percent of the infrastructure is on aerial utility poles and 60 percent is underground. LUS reports that it has constructed on average between one and one and a half miles of new infrastructure per month in the past year, mostly underground.

The system is a fiber-to-the-premises ("FTTP") architecture, with fiber located in most of the streets of the service area. Relative to the copper telephone and cable broadband technologies used by its competitors, LUS Fiber uses a passive optical network ("PON") technology that is well-suited to all residential and all but the most intensive commercial and institutional uses. FTTP has many times the theoretical maximum capacity of other technologies and can be scaled to much higher speeds in the coming years simply by changing modules in the network headend and huts, and by upgrading the network terminal at the home or business. The system is currently configured with a split of 32 homes per PON segment, per industry standard.

LUS Fiber cables are installed both on aerial poles and underground, based usually on the location of the other utilities. Where fiber is on aerial poles owned by LUS, it is placed 15 inches below power in the "safety space" that is restricted to the power company, thus taking advantage of the open space above the

other communications providers, while safely constructed and managed by individuals qualified to work with high voltages. Where LUS Fiber cables are on poles owned by a different utility, they are currently located in the communication space. LUS Fiber staff continues to work with these utilities in an effort to allow LUS Fiber to locate their cables in the safety space.

At intervals, a pole mounted splice enclosure is placed below the communication space. The placement of the enclosure allows for easy access to the drop installation points by installation staff or contractors who are not necessarily qualified to work in the high-voltage space on the poles. Based on one day of sample drive-through inspection of the system, the aerial infrastructure appears to be well maintained.

7.1.1 Backbone Architecture

The headend has 13 satellite dishes and one tower for of air reception of local TV networks. There are two power inputs to the headend building for redundancy. There is also a battery backup to maintain the network until the power can be switched to the secondary power source if an outage interrupts the primary power source. There is also a backup generator that is tested once a week. The equipment in the headend appears to be well maintained, cabling is kept in an orderly fashion.

There are 14 huts connected over backbone fiber to the headend. Most of the huts can serve up to 2,304 subscribers and two of the huts are equipped to serve up to 4,608 subscribers. There are two power inputs to each hut for redundancy. There is also a battery backup.

The equipment in the headend and the huts is undergoing a scheduled replacement and upgrade. The core network routers are [redacted], located at the headend and hut locations, feeding two separate networks. [redacted] The Communications System is in the process of upgrading the backbone ring from [redacted] The upgrade is not complete. While the migration takes place, there are two parallel backbone rings in operation, one using legacy equipment and one using the new equipment.

The fiber distribution equipment uses the industry standard gigabit passive optical network (“GPON”) technology. At each hut, the current GPON optical terminal (“OLT”) provides an aggregate 2.5 Gbps to 32 premises[redacted]

7.1.2 Customers

Since 2016, the Communications System number of accounts increased at a compound annual rate of 4.9 percent, [redacted] in 2019. The historical number of accounts and market share is consistently increasing as presented in Table 7-1

Table 7-1: Communications System Market Share (Confidential)

Fiscal Year	Number of Customer Accounts	Increase in Customer Accounts (%)	LUS Fiber Total Passings[6]	Increase in LUS Fiber Passings (%)	LUS Fiber Market Share
2015	[redacted]		[redacted]		
2016	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2017	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2018	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2019	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2020	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

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

Roughly 95 percent of LUS Fiber's residential customers live in single-family units, including duplexes and fourplexes. Currently, LUS Fiber only offers service in [redacted] large multi-dwelling-unit complexes with 150 to 200 residences. [redacted] LUS Fiber is in the process of updating its plan to serve apartment complexes within its service territory.

LUS Fiber also offers services to both single-tenant and multi-tenant commercial properties. Of the

[6] Total passings includes serviceable residential and business customers throughout the communication system's service footprint, excluding MDUs where landlords do not provide LUS Fiber with access to residential units.

[redacted] total business and government passings, LUS Fiber has just over [redacted] business customers.

7.1.3 Service Offerings

In the retail market, the Communications System offers "triple play" services. "Triple play" is a common term in the industry that refers to cable TV, internet, and telephone services. The Communications System provides services to approximately [redacted] customers, who can choose to purchase any, or all, of the triple-play services. These services are in competition with regional and national data, and communications providers including Cox Communications, Dish, AT&T, Dish, Kaptel, REACH4, and HughesNet.

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

1. Residential Cable Television / Video Services
    a. 87 analog, 327 digital channels
    b. Traditional Video Packages
        i. Basic Package with 21 channels
        ii. Expanded Basic with 80+ channels
        iii. Digital Access with 200+ digital channels
        iv. Digital Plus with 270+ digital channels
        v. Digital Hispanic with 270+ digital channels, including 5 Spanish-only channels
        vi. Premium Movie Suites (HBO, Cinemax, Showtime, Starz/Encore)
    c. Additional equipment and service options include digital video recorder ("DVR"), video on demand, pay-per-view, and set top boxes.
2. ConnecTV Packages
    a. ConnecTV Basic with 21 channels
    b. ConnecTV Expanded with Basic 80+ channels
    c. ConnecTV Plus with 270+ channels
    d. Sports Package with 18 channels
    e. Premium Movie Suites (HBO, Cinemax, Showtime, Starz/Encore)
3. Residential Internet Service
    a. 3, 60, 100 megabits per second ("Mbps")
    b. 1 and 10 gigabit per second ("Gbps")
    c. Hub City Wi-Fi – residential Wi-Fi service
    d. Hub City Wi-Fi Plus – residential Wi-Fi service
4. Residential Telephone Service

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

In addition to the residential retail communications services, the Communications System offers the following business retail services to customers:

5. Business Internet Service
   a. 10, 25, 100 Mbps
   b. 1 Gbps
6. Business Video Service
   a. 87 analog, 327 digital channels
   b. Traditional Video Packages (same as residential service offerings)
7. Business Telephone Service
   a. Utility line- includes unlimited local calling
   b. Business Phone Line- includes anonymous call rejection, automatic callback, automatic recall, busy call forwarding, call blocking, hold, transfers, call waiting, calling name/number delivery/blocking, delayed call forwarding, selective call acceptance, rollover group, selective call forwarding/rejection, speed calling, three-way calling, telephone user interface commands, immediate forwarding and voicemail.
   c. Business Phone Line Enhanced- includes incoming call manager, sequential ring, priority call, time of day/day of week routing, individual contact management, call screening and remote office services
   d. Hosted voice (“HPBX”)
   e. Primary Rate Interface (“PRI”)
   f. Conference Calling, Unlimited Long Distance, E-Fax, Auto-Attendant – offered as separate services to add to the above services.

The sale of internet services exhibits the highest growth for the Communications System, while cable TV service and telephone service sales are more variable. Although the number of cable TV and telephone subscribers have remained relatively stable over the last few years, growth has not kept pace with overall customer growth. This year has seen a surge in the use of over-the-top video and VoIP telephone services,

and LUS Fiber anticipates that the total number of cable TV and telephone subscribers will begin to gradually decline in 2021. It is difficult to directly compare specific cable TV, internet, and telephone service offerings across all competitors in the market as each competitor bundles packages, services, and offerings differently.

7.1.4 Wholesale Contracts

The Communications System has contracts with AT&T and CenturyLink to connect to the national fiber backbone. The Communications System has several wholesale contracts with major carriers, internet service providers ("ISP"), and application service providers, who in turn provide bandwidth, internet, and telephone services on a retail basis to medium and large business customers.

7.2 Competition and Benchmarking

The cable TV and internet services markets within the City are competitive. National telecommunications firms such as Cox Communications, Dish, and AT&T offer services. All three of these companies also have licensed or priority access to wireless spectrum, which may further increase competition for telecommunications services within LUS Fiber's service territory.

Across most of its service territory, the Communications System's network has significant technical advantages over its competitors' networks. Increased reliance on videoconferencing platforms during the pandemic has led to growing demand for upload capacity, but the overall capacity limitations of HFC networks forces Cox to offer service with 10 percent or less of overall bandwidth dedicated to upload. AT&T's DSL network can only provide a similarly asymmetrical service, with even more limited overall capacity. However, AT&T has upgraded its copper plant with fiber in some parts of Lafayette and the surrounding areas, enabling the company to offer symmetrical internet services comparable to LUS Fiber. AT&T has announced plans to continue expanding its fiber network over the next two years, including in parts of Lafayette, though the extent of its fiber construction plans in the area remains unclear at this time.

Current Communications System rates are stable, with increases for cable TV or video generally driven by programming and content costs. LUS Fiber offers comparable and competitively priced cable TV packages as its competitors throughout its service territory. LUS Fiber's internet services are competitively priced and deliver faster download speeds and significantly faster upload speeds than any other provider can offer, except where AT&T's fiber service is available. The Communications System also offers customers a unique feature that enables peer-to-peer connections within the City limits with excellent data exchange speeds. Currently competitors cannot offer this feature. Telephone service is competitive but difficult to compare directly with competitors' packages.

Table 7-2 summarizes and compares LUS Fiber and competitors' internet service offerings within the City. The comparison illustrates LUS Fiber's competitive advantage of faster download and upload speeds available at lower prices than competitors. Lafayette Economic Development Authority also markets these capabilities to businesses the Authority is working to attract.

Table 7-2: Communications System Competitive Internet Service Offerings

Provider	Speed (Download/Upload) in Mbps	Monthly Price (Regular/ Non-Promotional)
LUS Fiber-Internet	3/3	$19.95
LUS Fiber-Internet	60/60	$52.95
LUS Fiber-Internet	100/100	$62.95
LUS Fiber-Internet	300/300	$88.95
LUS Fiber-Internet	1,000/1,000	$114.95
LUS Fiber-Internet	10GB/10GB	$295.95
LUS Fiber-Hub City Wi-Fi	60/60 and Wi-Fi	$62.95
LUS Fiber-Hub City Wi-Fi	100/100 and Wi-Fi	$72.95
LUS Fiber-Hub City Wi-Fi	300/300 and Wi-Fi	$93.95
LUS Fiber-Hub City Wi-Fi	1000/1000 and Wi-Fi	$119.95
Cox Residential	25/1	$44.99
Cox Residential	50/3	$65.99
Cox Residential	150/10	$83.99
Cox Residential	500/10	$99.99
Cox Residential	940/35	$119.99
ATT Fiber (limited availability)	100/100	$55.00
ATT Fiber	300/300	$65.00
ATT Fiber	1000/1000	$80.00
ATT IPBB	10/1	$55.00
ATT IPBB	5/1	$55.00
LUS Fiber Business	10/10	$74.95
LUS Fiber Business	25/25	$99.95
LUS Fiber Business	50/50	$139.95
LUS Fiber Business	100/100	$199.95
LUS Fiber Business	500/500	$299.95
LUS Fiber Business	1000/1000	$499.95
Cox Business	50/10	$94.99
Cox Business	100/20	$124.99
Cox Business	200/20	$174.99
ATT Business	8/1	$80
ATT Business	12/1.5	$130
ATT Business	50/10	$200.00
ATT Business	100/20	$300.00
ATT Fiber Business (limited availability)	300/75	$180.00
ATT Fiber Business	500/100	$300
ATT Fiber Business	1000/200	$500

Source: LUS Fiber, and ATT and Cox websites

7.3 Operations and Related Performance

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

Customers may pay their bill by mail, phone, online, drop box, or in person. LUS Fiber also accepts automatic bank or credit card payments. At the end of 2020, LUS Fiber launched BPA Quality Assurance Call Quality Grading for customer service personnel. The initial reports from BPA suggested significant room for improvement. Since then, LUS Fiber has been working on developing more in-depths the training for customer service representatives and setting benchmarks to improve the quality of the service they provide.

7.3.1 Communication Shared Services

During 2020, Communications System employees and facilities were organized separately from Utilities System operations; however, several services (such as accounting) and reporting functions were shared among the Communications System and Utilities System. In accordance with the requirement to maintain separate Utilities System and Communications System funds, all costs associated with these services are accounted for separately.

Prior to November 2020, the LUS Business Support Services division managed the customer service for both the Utilities System and the Communications System. In November, the Communications System took on direct management of LUS Fiber's customer service employees. The Communications System continues to share the same office space and customer service centers as the Utilities System. An appropriate portion of shared costs are allocated to the Communications System through LCG's Cost Allocation Plan, in compliance with the "Fair Competition Act."

7.3.2 Construction and Installation

LUS Fiber has fiber optic technicians on staff to maintain its existing plant. This crew can do line work, maintenance, splicing, as well as troubleshooting. Major new build projects are done by a contract construction company. LUS Fiber staff augment the contract crews during major new build projects.

New underground build is mostly directional boring. LUS Fiber has been able to reduce construction costs relative to previous years. It is issuing a new bid for construction companies.

The focus for the next 18 months in new construction will be in the areas to be built under which the EDA award, in addition to the continual expansion within Lafayette Parish.

LUS Fiber staff perform repairs and maintenance out on cable infrastructure, including splicing.

The engineering department designs and prepares work prints for new construction projects. Market growth is considered in design process to efficiently use the resources to accommodate future expansion of the network.

Service installation is done by contractors. LUS Fiber has been considering the option of bringing installation in-house and has completed an analysis that indicating the costs to be similar. However, in a contractor arrangement the installations can be paid on a per installation basis and can be easily scaled up and down. It would also be necessary to determine how to structure incentives if installations were brought in-house.

7.3.3 Fiber Documentation and Automation

LUS Fiber uses ESRI ArcGIS Mapping software for mapping its communication network. GIS allows the user to readily locate equipment and track a fiber from the headend to the subscriber's address. This can potentially also be an effective tool to help field technicians perform mobile data collection and editing, find assets and information, and report their real-time locations. LUS Fiber is in the process of migrating from a paper-based approach to an entirely electronic means of work orders, ticketing, and mapping, but staff are still on a learning curve and tools are being developed. Installation and repair technicians each have tablet computers, used for routing and trouble tickets.

The GIS system has comprehensive information on each enclosure and cable in the system. The level of detail is in line with industry standards.

7.3.4 Outages and Performance Metrics

According to LUS, there were no major network outages since November 1, 2019. There were a few minor outages resulting from fiber cuts due to third party construction crews, that were geographically isolated and affected only a small percentage of customers.

LUS is interested in more formal tracking and reporting of outages and key metrics. It would like to begin formally tracking install timeframes, trouble ticket timeframes, and construction cost per foot. It would

like to begin goal setting on those metrics, and to have a management dashboard with those metrics, to be addressed by LUS specialists.

7.3.5 Environmental Issues

LUS reports no changes in environmental issues or compliance since November 1, 2019.

7.3.6 Security and Risk Assessment

LUS reports that there have been no significant security issues or changes in security posture since November 1, 2019, and no risk analyses or reports since then.

7.4 Regulatory Structure and Compliance

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

Separate from the requirements of the Fair Competition Act and Louisiana Public Service Commission ("LPSC") Rules, the LPSC has some jurisdiction over the telecommunication rates of LUS Fiber—but it does not have jurisdiction over LUS Fiber's rates for advanced services (internet) and cable TV.

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

7.4.1 Attest Audit

The LPSC Rules require LUS Fiber to have an attest engagement audit performed on an annual basis by an independent certified public accountant. The attest audit expresses an opinion as to whether the LUS Fiber systems, processes, and procedures comply with the Fair Competition Act and the LPSC Rules. LUS Fiber obtains and files such attest audit reports with the LPSC annually for each fiscal year of its

operations. In addition, pursuant to the LPSC Rules, the LPSC conducts separate audits of LUS Fiber's compliance with the LPSC Rules.

In April 2018, during the preparation of the FY17 attest audit, LUS self-reported that it paid for services from LUS Fiber, but had not fully utilized these services. LUS reported fiber was run to approximately 180 sewer lift stations; however, the Wastewater Division's efforts to complete connections for these services did not keep pace with LUS Fiber's construction, resulting in only 117 of the lift stations being fully connected.

Per the 2017 attest audit, dated September 28, 2018, LUS requested and was being billed for 180 lift stations; however, service was not utilized by LUS at 63 of those lift stations even though LUS Fiber installed and provided the services. This resulted in LUS paying $1,259,855 since 2012 for services not utilized. In addition, LUS neglected to terminate service at 25 CAP banks resulting in $274,882 being paid to LUS Fiber for services not used. LUS was reimbursed by LUS Fiber a total of $1,752,194.85 for the above charges in 2018 at the request of LCG administration, even though the reimbursement was not mandated by the LPSC. On March 17, 2021, the LPSC accepted the findings of the 2017 audit, affirming that the systems, processes, and procedures applied by the Communications System complies with the LPSC rules and the Fair Competition Act through the end of FY17.

The FY18 and FY19 audits are still outstanding at the time of this Report's preparation. The major unresolved item is the appropriate price for LUS Fiber to charge LUS for a Power Outage Monitoring System ("POMS") service that provided instantaneous outage notifications to the electrical utility for 989 taps through the end of June 2019.

The auditor has proposed a methodology for calculating the cost of providing the service that divides the direct costs associated with providing the POMS service (the incremental cost of POMS) by the total direct cost pool to generate an allocation factor, and then multiplying the allocation factor by the total indirect cost pool to set the indirect costs allocatable to the POMS service. Using this methodology, the auditor has proposed assigning the costs of a full year of the POMS service to be $210,540, suggesting LUS Fiber overcharged LUS for the POMS service by $645,766 in FY 2018, and $435,359 in FY 2019.

The auditors' proposed methodology is not in compliance with LUS's Cost Allocation Manual (CAM). The full-cost accounting methodology mandated by the CAM requires LUS Fiber to set prices for services offered exclusively to LUS based on all costs incurred in providing the service, but the proposed methodology sets an allocation factor based on incremental costs alone.

The incremental costs associated with providing the POMS were minimal, but delivering outage data from optical network terminals would not be possible without the ongoing operation and maintenance of the network as a whole. To comply with full cost accounting, the allocation factor ought to reflect both incremental costs attributable to POMS and some fair portion of the overall direct costs associated with maintaining network operations.

Furthermore, the proposed methodology would lead LUS Fiber to charge dramatically less than the market rate for a comparable service, raising concerns about cross-subsidization prohibited under the Fair Competition Act.

The auditor's proposed methodology suggests pricing that would have been dramatically lower than what LUS Fiber would have paid for backhaul alone for an outage management solution from another vendor. For example, an independent broadband utility in a nearby state charges its electrical counterpart $50 per month per site for AMI collector sites, switchgear, capacitor banks, and other core electrical sites that require connectivity. At this price, backhaul from data collection sites for the 989 LUS taps served by the POMS would cost $593,400 per year, or 2.8 times the price the auditor proposes for a full year of POMS service.

While the CAM indicates that the cost of the POMS service should be calculated using full cost accounting, and not by reference to fair market pricing, the fact that the proposed methodology calculates a cost for a service that is less than half of what LUS might pay to another vendor for backhaul alone raises concerns that the proposed pricing does not properly account for all costs. Further, using a methodology that sets an allocation factor based on incremental costs alone, rather than full-cost accounting, creates a precedent for allocating common costs that would lead LUS Fiber to regularly undercharge LUS, creating an effective subsidy.

Using a methodology that sets an allocation factor based on a fair portion of both the indirect and direct costs will lead to pricing more in line with the market price of a comparable service. However, if the attest auditor's methodology is used to set the appropriate price of the POMS service, LUS Fiber will be required to reimburse LUS a total of $1,182,677 according to the auditors' calculations. LUS Fiber has sufficient funds in its retained earnings reserve account to immediately cover the full cost of this reimbursement if necessary, though doing so will reduce the funds available for network expansion efforts.

7.4.2 Federal Communications Commission

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

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

7.4.3 Environmental Compliance

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

7.5 Payment In Lieu of Tax and Imputed Tax

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

The Communications System's ILOT calculation provides for an ILOT payment up to 12 percent of Adjusted Revenues (revenues less the cost of goods sold). However, all or a portion of this payment is

made subject to a test. The ILOT test ensures that the Communications System retains sufficient cash to meet capital obligations. The test requires that the ILOT payment be no greater than 12 percent of Adjusted Revenues, or the cash balance available after the payment of operating expenses and debt service less 7.5 percent of Adjusted Revenues. The Communications System tax requirement cannot be less than that required by the Imputed Tax calculation.

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

7.6 Operating and Capital Budget

The Communications System prepares and submits their proposed operating and capital budget to LCG. The operating portion of the budget contains projections of revenues and expenses for the upcoming fiscal year. The CIP as contained in the 2021 Budget is presented in Table 7-3 and totals $39.4 million over the five-year period. The Communications System's five-year CIP is reviewed, updated, and budgeted annually. General life expectancy of incoming connections and distribution (e.g., headend), network, and hut equipment is 5 to 10 years, at which time replacement or upgrade may be warranted. Customer premises equipment has a roughly five-year life expectancy.

Table 7-3: Projected Capital Improvement Plan

Project Description	2021	2022	2023	2024	2025	Total
Customer Installations	$2,189,000	$2,050,000	$2,000,000	$2,000,000	$2,000,000	$10,239,000
Customer Premise Equipment	3,262,000	2,850,000	2,650,000	2,250,000	2,150,000	13,162,000
Headend Equipment and Upgrades	350,000	475,000	550,000	650,000	650,000	2,675,000
Hut Equipment and Upgrades	375,000	350,000	350,000	350,000	350,000	1,775,000
Network Equipment and Upgrades	410,000	375,000	350,000	350,000	350,000	1,835,000
Special Equipment	1,850,000	1,850,000	1,850,000	1,850,000	1,850,000	9,250,000
Special Capital	85,000	85,000	85,000	85,000	85,000	425,000
Total	$8,521,000	$8,035,000	$7,835,000	$7,535,000	$7,435,000	$39,361,000

Source: LUS Fiber CIP. All projects are shown in 2021 dollars.

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

The Communications System's revenue performance was aligned with the 2020 and is presented in Table 7-4. The Communications System collected $42.9 million in operating and miscellaneous revenues in 2020, as compared to the budgeted $42.3 million. Operating expenses were under budget at $22.4 million, as compared to the budgeted $22.7 million. Other Income & Expenses were close to the budgeted amount. Overall, the cash available for capital was slightly above the budgeted amount. The Communications System's actual financial performance was close to budget and it exceeded DSCR requirements and continued to increase its net revenues.

Table 7-4: Communications System Budget to Actual Performance

	Actual (millions)	Adopted Budget (millions)	Difference (millions)	Difference (%)
Operating Revenues				
Retail Sales	$39.5	$39.3	$0.2	0.5%
Wholesale Sales	2.6	2.7	(0.1)	-2.6%
Interest Income	0.1	0.2	(0.1)	-74.5%
Miscellaneous Income	0.7	0.1	0.6	421.0%
Total Operating Revenue	$42.9	$42.3	$0.6	1.4%
Operating Expenses				
Cost of Production	$9.2	$9.8	($0.6)	-5.7%
Other O&M	13.2	13.0	0.2	1.7%
Total Operating Expenses	$22.4	$22.7	($0.3)	-1.5%
Other Income (Expenses)				
Normal Capital	($0.1)	($0.1)	$0.0	-32.4%
Interest on Long Term Debt	(4.8)	(4.8)	0.0	0.0%
Principal on Long Term Debt	(4.6)	(4.6)	0.0	0.0%
Note Payable	(1.7)	(1.7)	0.0	0.0%
Imputed Tax	(0.5)	(1.1)	0.6	-50.6%
Total Other	($11.7)	($12.2)	$0.6	-4.5%
Cash Available for Capital	$8.8	$7.4	$1.5	20.2%

Source: LCG Finance and Accounting

7.7 Accounting and Financial Statements

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

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

7.7.1 Balance Sheet

A comparative balance sheet is presented in Table 7-5. Total Assets have remained steady over the five years primarily due to renewal and replacement of assets. Since 2016, the Retained Earnings increased due to positive net operating income. There was a significant increase in uncollectible accounts in 2019 due to an upgrade of the billing system. During the upgrade, the Communications System fell behind on writing off uncollectible accounts; however, as the upgrade was completed, the write-offs returned to historical levels and declined back towards historical averages in 2020.

Table 7-5: Communications System Historical Balance Sheet

Total Assets	2016	2017	2018	2019	2020
Communications Plant	$77,989,976	$76,227,066	$77,827,044	$78,200,948	$76,036,947
Bonds and Special Accounts	6,327,788	9,404,519	6,014,644	5,920,578	9,946,583
Cash and Cash Equivalent	3,467,990	2,959,953	2,580,711	2,677,170	2,651,089
Accounts Receivable	1,508,689	1,451,287	1,425,507	2,174,550	2,577,723
Reserve for Uncollectible Accounts	(100,656)	(138,185)	(183,659)	(605,788)	(499,419)
Prepayments	262,960	256,139	448,868	404,315	400,011
Inventories	0	0	0	0	0
Deferred Debits	9,613,092	8,496,356	7,252,853	6,864,226	5,852,558
Total Assets	$99,069,837	$98,657,134	$95,365,968	$95,635,998	$96,965,493
Total Liabilities & Equity					
Long Term Debt	$105,255,000	$101,210,000	$96,785,000	$92,140,000	$87,260,000
Current Liabilities	2,654,078	4,198,360	2,395,408	2,913,130	3,447,363
Long Term Liabilities	42,556,583	41,249,931	39,484,427	37,899,544	36,342,579
Retained Earnings	(51,395,823)	(48,001,156)	(43,298,868)	(37,316,675)	(30,084,450)
Total Liabilities & Fund Equity	$99,069,837	$98,657,134	$95,365,968	$95,635,998	$96,965,493

Source: Communications System Financial and Operating Statements

7.7.2 Fund Balances

Article V of the Communications System General Bond Ordinance dictates the Communications Systems' funds and accounts and how the 'Flow of Funds' works. Article V creates the following accounts: Receipts, Operating, Sinking Fund, and Capital Additions. In addition, funds may be created as new bonds are issued. Table 7-6 summarized the beginning balance, receipts, disbursements, and ending balances of the required funds. The Total Fund Balances increased by $4.97 million, or 44.8 percent, in 2019.

Table 7-6: Communications System Fund Balances as of October 31, 2020 ($1,000)

	Receipts	Operating	Debt Service	Retained Earnings Reserve	Capital Additions	Security Deposits	Construction Funds	Total Accounts
Beginning Balance	$125	$2,250	$0	$2,695	$5,921	$108	$0	$11,099
Receipts	43,636	28,472	9,444	1,059	11,256	40	0	93,907
Disbursements	43,641	28,472	9,444	0	7,379	0	0	88,936
Ending Balance	$120	$2,250	$0	$3,754	$9,798	$148	$0	$16,070

Source: Communications System Financial and Operating Statements

7.7.3 Income Statement

Table 7-7 presents the comparative income statement. The Operating Revenues and Operating Expenses have increased consistently since 2016 as the Communications System expanded and gained market share. Correspondingly, the Net Operating Revenues have increased 4.7 percent annually over the last five years.

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

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

Table 7-7: Communications System Income Statement

	2016	2017	2018	2019	2020
Operating Revenues	$35,686,587	$37,217,396	$38,265,799	$40,816,572	$42,878,636
Operating Expenses	19,467,412	19,654,241	20,312,983	21,398,164	22,388,190
Net Operating Revenues	$16,219,175	$17,563,155	$17,952,816	$19,418,408	$20,490,446
Depreciation	6,602,622	6,869,519	7,369,971	7,901,209	7,736,639
Net Operating Revenues after Depreciation	$9,616,553	$10,693,635	$10,582,845	$11,517,199	$12,753,807
Other Income					
Interest Income	$18,136	$64,463	$151,056	$195,263	$50,918
Unrealized Gain/Loss on Invs	0		0	481	0
Amortization of Debt Premium	1,211,233	1,206,147	1,151,434	1,091,581	1,028,753
Amortization of Debt Discount	(4,118)	(4,118)	(4,118)	(4,118)	(4,118)
Misc. Non Operating Revenue	103,639	91,683	135,700	90,273	(15,901)
Other Operating Gains/Losses	1,095	(14,672)	650	687	836
Total Other Income	$1,329,985	$1,343,503	$1,434,722	$1,374,168	$1,060,489
Other Expenses					
Amortized Bond Issuance Costs	$24,565	$24,462	$23,352	$22,138	$20,864
Amortized Start Up Costs	96,742	96,742	96,742	96,743	96,742
Amortized 2007 Expense	6,786	6,786	6,786	6,785	6,786
Amortized Loss On Refunding	622,118	619,506	591,404	560,663	528,392
Interest on Long Term Debt	5,225,541	5,206,741	5,004,491	4,783,241	4,550,991
Interest on Long Term Debt - LUS Note	901,003	897,753	883,386	862,204	834,802
Interest on Customer Deposits	36	(695)	10	23	21
Extraordinary Charges	0		0	0	0
Total Other Expenses	$6,876,792	$6,851,296	$6,606,172	$6,331,797	$6,038,600
Net Income Before in Lieu of Tax	$4,069,747	$5,185,843	$5,411,395	$6,559,570	$7,775,696
ILOT or Imputed Taxes	823,878	686,575	542,800	561,239	543,471
Net Income	$3,245,869	$4,499,268	$4,868,594	$5,998,331	$7,232,225

Source: Communications System Financial and Operating Statements

7.7.4 Cash Flow

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

Table 7-8 presents the change in cash due to Operations and Imputed Tax or ILOT for the Communications System over the period 2016 through 2020. These numbers indicate current Communications System revenues have improved from year-to-year as new customers were added to the system. Since 2016, the Communications Systems Net Operating Revenues met operating expenses, debt

service, ILOT, or Imputed Tax obligation of the utility, and generated positive cash flow. The 5-year cumulative net margin resulted in a gain of approximately $44.8 million.

Table 7-8: Communications System Comparative Cash Flow

	2016	2017	2018	2019	2020	Total
Operating Revenues	$35,686,587	$37,217,396	$38,265,799	$40,816,572	$42,878,636	$194,864,991
Operating Expenses	19,467,412	19,654,241	20,312,983	21,398,164	22,388,190	103,220,991
Net Operating Revenues	$16,219,175	$17,563,155	$17,952,816	$19,418,408	$20,490,446	$91,644,000
Debt Service	$6,165,541	$9,251,741	$9,429,491	$9,428,241	$9,430,991	$43,706,006
Balance After Debt Service	$10,053,634	$8,311,413	$8,523,325	$9,990,167	$11,059,455	$47,937,994
Less ILOT/Imputed Tax	$823,878	$686,575	$542,800	$561,239	$543,471	$3,157,964
Change in Cash due to Operations and ILOT / Imputed Tax	$9,229,756	$7,624,838	$7,980,525	$9,428,928	$10,515,984	$44,780,030

Source: Communications System Financial and Operating Statements

7.8 Historical Capital Improvement Program

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

As mentioned, LUS Fiber attained franchise status in November 2017 to offer communications service outside Lafayette in the City of Broussard, City of Youngsville, and unincorporated areas in the Parish. In 2018, LUS Fiber expanded into Broussard and Youngsville to serve new customers as indicated by the capital spending in 2018. In 2019, LUS Fiber expanded into Carencro. LUS Fiber is continuing to build out targeted areas. As previously noted, during preparation of this report the EDA announced LUS Fiber will be awarded a grant to extend service to underserved commercial areas in St. Martin Parish and Iberia Parish. After the extension through the business districts is complete, LUS Fiber will be able to continue to expand its service territory into the residential neighborhoods passed by the new fiber construction.

Table 7-9: Communications System Historical Capital Improvement Program

	2016	2017	2018	2019	2020
Series 2012A Bonds	$21,315	$0	$13,731	$2,223	$0
Series 2012 B Bonds	38,141	0	26,213	801	0
Retained Earnings	4,967,142	4,865,162	8,523,970	7,734,867	5,273,513
Special Equipment	0	11,138	50,465	247,473	54,984
Total Capital	$5,026,598	$4,876,301	$8,614,379	$7,985,364	$5,328,497

Source: Communications System Status of Construction Work Order Reports

7.9 Historical Financial Performance

Since its inception in 2009, the Communications System exhibited steady growth and improved operating margins. The Communications System credit rating from Moody's was increased in 2019 from A3 to A2.

7.9.1 Historical Debt Service Coverage

Communications System debt service for years 2016 through 2020 include the Series 2007 Bonds, Series 2012 Bonds, and Series 2015 Bonds. Table 7-10 presents historical debt service and the associated DSCR. In each year since 2016, the DSCR exceeded the minimum coverage requirement of 1.0 required by the Bond Ordinances.

Table 7-10: Communications System Historical Debt Service Coverage

Year	Operating Revenues	Operating Expenses	Net Revenues Available for Debt Service	Debt Service	Debt Service Coverage Ratio
2016	$35,704,723	$19,467,412	$16,237,311	$6,165,541	2.6
2017	$37,281,859	$19,654,241	$17,627,618	$9,251,741	1.9
2018	$38,416,855	$20,312,983	$18,103,872	$9,429,491	1.9
2019	$41,011,835	$21,398,164	$19,613,671	$9,428,241	2.1
2020	$42,929,555	$22,388,190	$20,541,364	$9,430,991	2.2

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

7.9.2 Revenue Analysis

The Communications System's internet revenues have consistently increased over the last five years as the Communications System expanded as shown in Table 7-11. Cable and telephone revenues fluctuate; however, each remain relatively stable over the last five years. Wholesale and other revenues have fluctuated and include dark fiber lease, late fees, miscellaneous revenues, colocation, and other items.

Table 7-11: Communications System Historical Operating Revenues

	2016	2017	2018	2019	2020
Cable TV	$12,495,096	$12,355,260	$11,646,190	$12,292,735	$13,428,408
Data/Internet	14,238,687	15,839,986	17,639,525	19,515,248	20,505,164
Telephone	5,840,121	5,685,137	5,727,349	5,604,970	5,613,103
Wholesale	2,263,413	2,464,909	2,537,726	2,794,419	2,582,259
Other	849,270	872,104	715,008	609,200	749,703
Total Operating Revenues	$35,686,587	$37,217,396	$38,265,799	$40,816,572	$42,878,636

Source: Communications System Financial and Operating Statements

Related to the 2019 Mayor-President's internal audit of LUS Fiber services to LU0S, services were identified as potentially noncompliant with the Fair Competition Act. These included a power outage monitoring system for the electric utility and several network service and fiber connections for LUS assets, facilities, or equipment. In 2019, LUS eliminated the power outage monitoring system through LUS fiber with the anticipated implementation of its OMS. The elimination of the wholesale service to LUS reduced LUS Fiber Wholesale revenues; however, other wholesale sales and customers have replaced the lost revenue and continue to grow. Prior repayments from LUS Fiber to LUS occurred in 2018 and did not impact 2019 or 2020 revenues, cash flow or Debt Service Coverage.

7.9.3 Expense Analysis

The cost of goods sold generally increased since 2016 as LUS Fiber added customers as presented in Table 7-12. Cost of goods sold predominantly consists of programming and content costs associated with service offerings. As the number of customers increase, so do the costs of goods sold for the cable and long-distance phone customers. The Plant Specific Expense averages $4.6 million and decreased by 6.1 percent in 2020. The Plant Specific Expense includes vehicles, furniture, electronics, maintenance, repairs, general maintenance, and other plant related items. The Plant Non-specific Expense have averaged approximately $2.3 million per year. The primary cost item in this category is engineering. Customer Operations have averaged $2.0 million over the last five years and decreased 14.2 percent in 2020. The administrative costs averaged $3.3 million over the past five years.

Table 7-12: Communications System Historical Operating Expenses

	2016	2017	2018	2019	2020
Cost of Goods Sold	$7,382,247	$7,207,212	$7,786,666	$8,697,038	$9,212,774
Plant Specific Expense	4,521,047	4,601,990	4,664,168	4,639,539	4,655,614
Plant Non Specific Expense	2,453,269	2,560,755	2,308,814	1,947,137	2,563,273
Customer Operations	1,597,052	1,911,069	2,278,406	2,166,207	1,908,748
Administrative	3,280,872	3,140,940	3,018,940	3,652,305	3,535,648
Other Operating Expenses	232,924	232,275	255,989	295,938	512,134
Total Operating Expenses	$19,467,412	$19,654,241	$20,312,983	$21,398,164	$22,388,190

Source: Communications System Financial and Operating Statements

7.9.4 Credit Event Analysis

The Communications System is financially separate from the Utilities System; however, if the Communications System fails to transfer to the Paying Agent by the 21st day of the month proceeding an interest payment date the amount equal to the debt service on the Communications System Bonds falling due on the first day of the following month (a Credit Event), the Utilities System is required to pay such debt service (but only to the extent of such insufficiency) from revenues available for the payment of

Subordinated Indebtedness on deposit in the Capital Additions Fund of the Utilities System. Upon the occurrence of a Credit Event, the Communications System must proceed to discontinue its provision of services, as soon as reasonably practical, taking into consideration minimizing the interruption of services to existing users of the Communications System. Pursuant to the ordinances of the City authorizing the issuance of the Communications System Bonds, the rate covenant contained in the Bond Ordinances were incorporated by reference into the Communications System Bond Ordinance, and the debt service requirements on any Communications System Bonds are treated as amounts payable with respect to Subordinated Indebtedness of the Utilities System for the purposes of the rate covenant under the Bond Ordinances. Table 7-13 shows that if a Credit Event had occurred in 2020, the Utilities System DSCR would have exceeded the minimum coverage requirement of 1.0 required by the Bond Ordinances.

Table 7-13: Credit Event Residual Balance Coverage Calculation

	2020
Utilities System Net Revenues	$76,713,912
Less Interest Income from Internal Loans	$862,204
Utilities System Balance Available for Debt Service	$75,851,708
Less Utilities System Debt Service (1)	$25,374,000
Less Capital of 7.5% (2)	$11,311,545
Utilities System Residual Revenues Available for Communications Debt Service	$39,166,164
Communications System Debt Service (3)	$9,430,991
Utilities System Debt Service Coverage Ratio for Communications System Debt	4.2

Source: LUS
(1) Debt service includes include the Series 2010 Bonds, Series 2012 Bonds and Series 2019 Bonds. The Series 2019 Bonds first debt service was due November 1, 2019 (FY 2020).
(2) The Bond Ordinance requires a minimum amount equal to 7.5% of the Adjusted Revenue deposits into the Receipts Account for the purposes of paying capital costs.
(3) The debt service represents debt service on the Series 2012 Bonds and Series 2015 Bonds.

7.10 Findings and Recommendations

Based on the analysis described herein, Burns & McDonnell and CTC offer the following observations and recommendations.

- LUS Fiber should consider refinancing debt to provide additional capital to fund network expansion

efforts. With interest rates low, refinancing the Communications System's existing internal LUS loans and Fiber Bonds would reduce annual debt service payments in the near term. The additional reserves and cash flow would provide LUS Fiber with the flexibility to react to the fast-changing market. This is particularly important considering the enormous growth in broadband use in general—an expansion that was accelerated by the pandemic, and now will be affected further by the extraordinary availability of new federal broadband grant funds. LUS Fiber should position itself to react to opportunity that is in the best interest of LUS Fiber and the community. Given LUS Fiber's solid financial position and strong credit rating, the Communications System could consider issuing new debt to accelerate network expansion into nearby underserved areas and provide LUS Fiber with additional flexibility to react to changing market conditions that will impact operations. More rapid expansion will potentially help grow the revenue base and provide more stability in the coming years, during which there likely will be dramatic shifts in the market for voice, video, and data services.

- LUS Fiber should continue to pursue federal and state grant opportunities and local partnerships to extend the network to underserved surrounding areas. LUS Fiber's future revenue growth is primarily constrained by the Communications System's ability to expand into nearby underserved areas. Grants like the one the EDA recently awarded LUS Fiber would allow the Communications System to expedite the process of extending its network into surrounding communities where demand for robust, symmetrical broadband products is strong. LUS Fiber should consider developing a strategy to take advantage of upcoming federal and state broadband infrastructure grant opportunities to expand its territory and further grow its customer base.
- LUS Fiber should continue developing the customer service department to serve as a secondary sales and retention department. Taking over direct management of LUS Fiber customer service personnel has already begun to give the Communications System more control over the customer-facing side of the organization. Over time, LUS Fiber managers can work with customer service representatives to play additional roles for the organization, including upselling customers with additional service offerings and recognizing when additional interventions may be required to prevent a customer from discontinuing service.
- Maintaining a qualified staff will continue to present LUS Fiber with potential challenges due to the extremely competitive nature of the business, leading to the potential for employees to make significantly greater salaries in the marketplace.
- LUS Fiber may want to consider creating a tiered management structure. LUS Fiber currently has a flat organizational structure with many people reporting to a single manager. For example, the Chief Engineer has 30 direct reports. One way to address the issue would be to formally assign many of the

reports to an Engineer III taking up a managerial role. The Communication Business Supervisor recently took on the responsibility of managing the customer service team, adding 11 direct reports, and exacerbating the need for team leads or supervisors. With so many direct reports, there is a risk of an unofficial management structure evolving in place of one with firmly established accountability.

- Given the competitiveness of the broadband market, LUS Fiber should evaluate its compensation structure. For fiscal year 2019/2020, there was a cost-of-living increase raise of 5 percent, which went into effect on December 15, 2019. Based on the salary benchmarking review, LUS Fiber is compensating its employees at a level slightly below the regional median salaries reviewed. Two classifications compared were only a few percent lower and the other two classifications more than 10 percent below the regional median salary. LUS Fiber should examine its salaries in comparison to other regional telecommunication providers so that it can continue to hire and retain well qualified analysts, technicians, and support specialists.
- LUS Fiber may consider reviewing required qualifications for specific roles. For example, it may not be necessary to require a P.E. license for a particular Engineer III role, if that individual is focused on network electronics or other specialties that require a different skill set.
- LUS Fiber may consider creating systems for tracking key network performance, installation, and customer service metrics. To continue to improve customer satisfaction and financial performance, LUS Fiber management needs additional visibility into the costs and response times associated with various aspects of network installation, maintenance, and repair. Tracking these metrics will allow management to monitor performance over time and set improvement goals.
- LUS Fiber may consider restructuring its enterprise service catalogue and find a sales partner with experience selling business and enterprise services. A large potential revenue opportunity lies in using excess network capacity to sign up additional high-value enterprise customers. Historically, LUS Fiber's enterprise service offerings have been marketed only to wholesale customers. To attract additional retail enterprise customers, LUS Fiber may need to simplify its pricing and align its enterprise service offerings with the service categories most commonly used in the enterprise data service marketplace. It may also be valuable to conduct a competitive procurement to assess the market of entities that could help with the marketing and sales efforts needed to attract additional enterprise customers.
- LUS Fiber may consider adding mobile service offering. Increasingly customers are bundling home internet, video, voice, and mobile service from a single provider. AT&T already offers a quadruple-play bundle, and last year Cox began taking steps that suggest it will soon roll out a mobile service

offering as well, likely in conjunction with the buildout of its own LTE network using the Citizens Broadband Radio Service ("CBRS") priority access licenses it purchased last year. LUS Fiber may want to explore partnerships with mobile service providers to help increase market share among those consumers who want to bundle a mobile service offering with their home internet, phone, and some form of video service (whether CATV or over-the-top). The revenue opportunity associated with such a partnership is likely limited, but LUS Fiber may be able to find partnership opportunities where the costs to LUS Fiber are low and risks are minimal.

8.0 CONTINUING DISCLOSURES - SUMMARY

Government entities that issue bonds must enter into a continuing disclosure agreement to be in compliance with the Securities and Exchange Commission ("SEC") Rule 15c2-12. As part of the continuing disclosure agreement, the Issuer promises to provide certain annual financial information and material event notices to the public. These filings must be made electronically at the EMMA portal. Please refer to Section 9.0 for the Utilities System Continuing Disclosures, Section 10.0 for the LPPA Continuing Disclosures, and Section 11.0 for The Communications System Continuing Disclosures. Each of the following sections contains a table that cross references the required information with tables in the Report.

9.0 CONTINUING DISCLOSURES – UTILITIES SYSTEM

9.1 Introduction

Government entities that issue bonds must enter into a continuing disclosure agreement to be in compliance with the SEC Rule 15c2-12. As part of the continuing disclosure agreement, the issuer promises to provide certain annual financial information and material event notices to the public. These filings must be made electronically at the EMMA portal (www.emma.msrb.org). The Utilities System had the following outstanding debt as of October 31, 2020:

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

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

The continuing disclosure agreements for the outstanding bonds require that specific tables contained in the Official Statements must be updated annually. This section contains these required tables, which include forward-looking financial statements based on Burns & McDonnell'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 as of the date of this Report. Burns & McDonnell 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. Burns & McDonnell prepared a 10-year projection of financial and operating data for each of the Electric, Water, and Wastewater Systems. Projections are based on Burns & McDonnell's review of historical operating results, the 2021 Budget, visual observations of the Utilities System assets, and other assumptions and considerations as listed in the Report. The projections prepared by Burns & McDonnell are for the Projected Period of November 1, 2020 through October 31, 2030. LUS provided actual historical data for the 2016 through 2020 period.

9.2 Information and Assumptions Relied Upon

The projected operating results for the Utilities System, also referred to as LUS, rely upon information and assumptions gathered in the course of Burns & McDonnell's review. Those assumptions which we relied upon are summarized below.

1. LUS is assumed to operate and maintain the Utilities System following prudent utility practices. Prudent utility practices mean practices, methods, and acts that would be expected to accomplish the desired results in a workmanlike manner.
2. LUS is assumed to continue to hire and maintain competent personnel. If needed, LUS will provide training to personnel to ensure the safety of personnel and reliability of the utilities.
3. LUS is assumed to continue to maintain and renew any required permits or approvals related to the utilities including electric, water, and wastewater treatment plants and sites.
4. There will not be further regulation of LUS facilities that require major capital expenditures for LUS to comply beyond those referenced in this Report and included in the LUS CIP.
5. It is assumed that the Rodemacher Unit 2, Hargis-Hébert Plant, T. J. Labbé Plant and the future combustion turbine plants will be maintained and operated in good condition throughout the Projected Period.
6. It is assumed that the transmission and distribution systems will be maintained and operated in good condition throughout the Projected Period.
7. It is assumed that the water treatment plants, ground water wells, and distribution system will be maintained and operated in good condition throughout the Projected Period.
8. It is assumed that the wastewater treatment plants and collection system will be maintained and operated in good condition throughout the Projected Period.
9. It is assumed that all existing contracts will be honored and that the Utilities System would extend or replace any expired contracts as needed.
10. It is assumed that standard operating procedure for LUS will continue and will not include the effects of any event outside of LUS's control including events traditionally considered force majeure.
11. LUS is assumed to continue to have adequate coal, natural gas, and water supply for operation of the power plants.
12. LUS is assumed to continue to have adequate water supply from the Chicot aquifer to meet the customers' needs.

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

14. LUS is assumed to continue to have adequate transmission access in MISO to buy and sell power as needed.

15. Utilities System financial and operating data was provided by LUS and LCG. LPPA financial and operating data was provided by LUS, LPPA and Cleco staff. Data provided includes historical financial and operating data for 2015 through 2019, the 2020 Budget, and the LPPA Operating and Capital Budget.

16. Burns & McDonnell completed a long-term system load forecast in 2020. The long-term load forecast forms the basis for long term projections of customer growth and energy sales and was used in the 2020 LUS IRP prepared by Burns & McDonnell.

17. Burns & McDonnell prepared an IRP for the electric system in 2020. The IRP contained projections of forecasted fuel usage and cost, MISO wholesale market revenues, MISO wholesale market costs, and power purchase agreement costs for both LUS and LPPA power plants. The IRP assumes Rodemacher Unit 2 is retired in 2027 and is replaced with a simple cycle gas turbine plant of similar capacity. Additional solar capacity and energy is assumed to be added between 2021 and 2029. The load forecast and IRP have not been updated since early 2020.

18. The existing electric rates allow LUS to pass the direct MISO power cost, fuel cost, certain LPPA costs, environmental costs, purchased power costs, and other eligible cost directly to consumers in the form of a fuel charge that is adjusted regularly. This mechanism greatly reduces risk to LUS.

19. Future costs associated with emissions or potential environmental compliance have not been included within the projected operating results. Rodemacher Unit 2 is planned to be retired in 2027 and Burns & McDonnell has included preliminary estimated costs for the retirement and closure of the plant. All operating expenses associated with environmental compliance are included in the fuel charge and passed through to customers in the retail electric rates.

20. The most recent semiannual Blue Chip Economic Indicator projection of GDP dated March 2020 was used for inflation. The GDP inflation factor was used to escalate O&M expenses and capital similar to previous years.

21. Projected interest cost associated with future LUS bonds were assumed to be 2.4% gradually increasing to 2.8% by 2030 with new bonds being financed over 25 years. Only the electric utility is assumed to issue bonds in the Projected Period.

9.3 Projected Operating Results Assumptions

Tables with forecasted results over the Projected Period may be found in Section 10 of this Report.

9.4 Revenue Projections

Revenues from each of the three LUS utility systems have realized steady growth as described in this report. LUS saw a temporary decline in energy sales use per customer in the non-residential classes in FY 2020 due to the COVID-19 pandemic, however LUS has begun to see a rebound in use per customer and revenues. The long-term forecast assumes that the number of customers in the electric, water, and wastewater utilities will each grow at approximately 0.4 percent per year over the next 10 years. Rate increases are assumed for both the water and wastewater utilities over the forecast while the electric utility fuel charge is assumed to adjust as LUS's power cost change.

9.5 Expense Projections

LUS's largest expense is associated with the cost to purchase and generate power for the electric utility system. The projected purchased power cost is based on the 2020 IRP projections prepared by Burns & McDonnell. Fixed expense projections associated with operating the generating units are based historical average levels with escalation. Variations in variable purchased power costs are directly covered by the fuel charge billed to customers. Other electric utility fixed costs such as transmission, distribution, customer costs, A&G expenses, and debt service are recovered through LUS's base electric rates.

Water operating expenses include production, distribution, customer, and A&G expense with water production being the largest. These expense projections are generally based historical average levels with escalation. Some variable production expenses are escalated based on volumes and changes to electric rates. The water system recovers increases in expenses through rate increases that are approved in rate studies.

Wastewater operating expenses include treatment, collection, customer, and A&G expense with water treatment being the largest. These expense projections are generally based historical average levels with escalation. Some variable production expenses are escalated based on volumes and changes to electric rates. The wastewater system recovers increases in expenses through periodic rate increases that are approved in rate studies.

9.6 Debt Service Projections

As of the date of this Report, LUS debt service includes the Series 2010 Bonds, Series 2012 Bonds, Series 2017 Bonds, and Series 2019 Bonds. New debt service includes a bond issue in 2027 for the proposed

combustion turbine. No other new debt issues are included in the projections. The projected debt service coverage ratio exceeds the minimum requirement of 1.0.

9.7 Other Expense Projections

Other expenses include ILOT, normal capital and special equipment, and other miscellaneous expenses. Normal capital and special equipment are projected based on the 2021 budget and escalated at inflation.

9.8 In Lieu of Tax

The ILOT calculation provides for an ILOT payment equal to 12% of the Receipts Fund deposits. To be eligible to make the ILOT payment, LUS must first pass an ILOT Test. The ILOT test ensures that the Utilities System retains sufficient cash to meet capital obligations. If cash available after payment of operating expenses and debt service, less 7.5% of the Non-fuel Revenues, is greater than 12% of the Receipts Fund, LUS passes the test and makes the ILOT payment to the City. If LUS fails the ILOT test, LUS pays the cash available after debt service less 7.5% of the Non-fuel Revenues.

9.9 Capital Improvement Programs

The projections include the LUS CIP which reflects capital projects designed to upgrade, renew, and expand the system to meet customer growth requirements. In this Report, the capital plan for years 2021 through 2025 was based on the 2021 Budget and 2026 through 2030 was based on historical levels. The five-year CIP is updated annually.

9.10 Bond Reserve Fund and Cash Available

Cash available reflects remaining funds available to LUS once all other credit obligations of LUS are satisfied. LCG has 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 LUS will be paid with a combination of cash balances available in the Capital Additions Fund and new debt.

9.11 Cross Reference

The following table is provided to assist in cross referencing the information contained in the Continuing Disclosures with the information contained in this Report.

Table 9-1: City of Lafayette, Utilities Revenue Bonds, Series 2010

Official Statement	Official Statement Page	Official Statement Table	Report Reference
Trends in Finances	33	LCG, LUS Income Statements	Table 9-5
	35	Historical Debt Service Coverage Calculation	Table 3-3

Table 9-2: City of Lafayette, Utilities Revenue Refunding Bonds, Series 2012

Official Statement	Official Statement Page	Official Statement Table	Report Reference
Trends in Finances	35	LCG, LUS Income Statements	Table 9-5
	26	Historical Debt Service Coverage Calculation	Table 3-3

Table 9-3: City of Lafayette, Utilities Revenue Refunding Bonds, Series 2017

Official Statement	Official Statement Page	Official Statement Table	Report Reference
Trends in Finances	36	LCG, LUS Income Statements	Table 9-5
	37	Historical Debt Service Coverage Calculation	Table 3-3

Table 9-4: City of Lafayette, Utilities Revenue Bonds, Series 2019

Official Statement	Official Statement Page	Official Statement Table	Report Reference
Trends in Finances	36	LCG, LUS Income Statements	Table 9-5
	37	Historical Debt Service Coverage Calculation	Table 3-3

Table 9-5: LUS Income Statements

	2016	2017	2018	2019	2020
Operating Revenues					
Electric	95,194,646	98,059,005	106,419,392	104,141,323	99,722,977
Electric Retail Fuel Adjustment	78,153,587	76,829,537	72,872,661	73,101,002	65,117,850
Water	18,286,651	19,458,484	21,220,243	20,524,232	21,144,642
Wastewater	28,752,436	30,305,358	31,690,825	30,911,782	30,396,508
Fiber	0	0	0	0	0
Total Operating Revenues	220,387,318	224,652,384	232,203,121	228,678,339	216,381,978
Operating Expenses					
Electric Fuel & Purch Power	85,345,312	89,403,214	88,632,979	79,275,605	74,047,342
Electric Other Production	6,902,595	7,573,414	5,823,932	5,097,410	3,606,585
Other Electric	34,446,286	36,370,497	36,710,947	35,027,667	34,390,321
Water	13,761,106	13,965,819	14,260,225	14,227,206	13,159,106
Wastewater	18,295,151	18,685,538	18,737,163	19,211,514	18,295,187
Fiber	0	0	0	0	0
Total Operating Expenses	158,750,451	165,998,482	164,165,246	152,839,402	143,498,542
Net Operating Revenues	61,636,867	58,653,902	68,037,875	75,838,938	72,883,436
Depreciation	23,601,958	23,960,817	24,555,286	25,130,355	25,189,698
Other Income					
Interest Income	1,704,947	2,020,622	2,868,340	4,695,793	2,904,807
Unrealized Gain/Loss on Invs	117,778	(283,409)	(46,380)	399,671	(139,572)
Amortization of Debt Premium	3,020,974	2,995,867	3,544,254	3,639,998	3,769,742
Water Tapping Fees	78,320	64,240	72,240	56,760	61,540
Communications Lease Income	27,648	25,378	0	0	11,379
Contributions in Aid of Construction	56,063	128,155	304,557	0	140,856
Misc. Non Operating Revenue	2,566,471	3,335,924	4,188,986	3,141,166	3,633,306
Total Other Income	7,572,201	8,286,777	10,931,997	11,933,388	10,382,059
Other Expenses					
Loss on Disposition of Property	329,136	369,488	398,883	309,767	290,397
Interest Expense	10,970,238	8,916,835	9,622,905	10,362,925	11,184,000
Amortization on Plant	989,789	782,767	608,729	600,810	488,306
Amortization - Other	1,266,821	1,264,007	1,695,453	1,586,946	1,498,590
Interest on Customer Deposits	821	1,688	4,307	5,331	1,834
Tax Collections/Non Operating	0	0	0	0	0
Misc Non Operating Expense	1,589,252	3,182,762	2,844,559	3,369,807	3,649,380
	15,146,058	14,517,546	15,174,837	16,235,585	17,112,507
Net Income Before in Lieu of Tax	30,461,053	28,462,316	39,239,748	46,406,385	40,963,290
ILOT	23,306,557	22,568,235	23,708,786	25,051,002	24,679,711
Net Income	7,154,496	5,894,081	15,530,962	21,355,383	16,283,579
Net Positions, Beginning as Restated	496,955,303	505,214,402	503,819,102	519,350,066	540,705,447
Net Positions, Ending	504,109,801	511,108,483	519,350,066	540,705,447	556,989,025

Source: LUS and Official Statement

10.0 CONTINUING DISCLOSURES – LPPA

10.1 Introduction

Government entities that issue bonds must enter into a continuing disclosure agreement to be in compliance with the SEC Rule 15c2-12. As part of the continuing disclosure agreement, the issuer promises to provide certain annual financial information and material event notices to the public. These filings must be made electronically at the EMMA portal (www.emma.msrb.org). LPPA had the following outstanding debt as of October 31, 2020:

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

The continuing disclosure agreements for the outstanding bonds require that specific tables contained in the Official Statements must be updated annually. This section contains these required tables. This section contains forward looking financial statements based on Burns & McDonnell's current expectations and projections about future events and financial trends regarding LPPA. 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. Burns & McDonnell 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. Burns & McDonnell prepared a 10-year projection of financial and operating data for LPPA. Projections are based on Burns & McDonnell's review of historical operating results, CLECO's budgets, visual observations of the LPPA assets, and other assumptions and considerations as listed in the Report. The projections prepared by Burns & McDonnell are for the Projected Period of November 1, 2020 through October 31, 2030. LUS provided actual historical data for the 2016 through 2020 period.

10.2 Information and Assumptions Relied Upon

10.3 Revenue Projections

LPPA projected revenues reflect the full cost recovery per the PSC. Therefore, revenues are equivalent to debt service, capital, and meeting reserve requirements.

10.4 Expense Projections

LPPA's largest expense is its fuel cost. Rodemacher Unit 2 is economically dispatched into the MISO market. The projected fuel expense used in the forecast is based on the Burns & McDonnell 2020 IRP.

The IRP utilized various assumptions to dispatch the unit using fuel pricing from LUS and market prices. Rodemacher Unit 2 will no longer burn coal beginning in 2027. A new gas fired generation unit is assumed to replace the plant capacity in 2027. The other non-fuel operating expenses for LPPA were provided by CLECO through 2025. Years 2026 to 2027 are escalated based on inflation. The forecast assumes that the plant is retired in 2028 with minimal continued operating expenses thereafter.

10.5 Debt Service

LPPA fuel, O&M expenses, debt service associated with MATS upgrades, and debt service associated with rail cars are included in the LUS FC calculation. In 2020, approximately 80% of LPPA debt service was passed through Schedule FC. LUS Electric System base rates recover the remaining LPPA debt service obligation. LPPA debt service includes the Series 2012 Bonds and Series 2015 Bonds. Projected operating results assume no future bond issues to meet LPPA capital requirements. The debt service coverage ratio meets the minimum requirement of 1.0. Because LUS pays 100% of LPPA costs, Operating Revenues, provided exclusively from LUS, generally equal Operating Costs including expenses, debt service, and capital spending. To the extent that DSC is greater than 1.0, any available cash is applied to capital improvement projects.

10.6 Capital Improvement Programs

During the Projected Period, the LPPA CIP reflects capital projects designed to maintain the assets for reliability and environmental compliance. The capital projects include low pressure blade replacements, baghouse bag and cage replacements, boiler insulation repair, CCR compliance asset retirement obligation, and other projects related to reliability or improving performance.

10.7 Bond Reserve Fund and Cash Available

LPPA's current Bond Reserve Fund Balance is approximately $9.56 million as required by the bond ordinance. LPPA also maintains a Reserved and Contingency Fund of approximately $5.28 million and a Fuel Cost Stability Fund of approximately $4.5 million.

10.8 Cross Reference

The following table is provided to assist in cross referencing the information contained in the Continuing Disclosures with the information contained in this Report.

Table 10-1: LPPA Electric Revenue Bonds, Series 2012

Official Statement	Official Statement Page	Official Statement Table	Report Reference
Debt Service Requirements	4	Series 2012 Bonds Debt Service	Table 10-3
Summary of Historical Operating Results	18	LPPA Historical Operating Results	Table 10-5
Trends in Finances	19	LPPA Summary Statements of Revenues, Expenses and Changes in Fund Net Assets	Table 10-6
	20	LPPA Summary Statements of Cash Flows	Table 10-7
Unit 2, page 22-33	24	Unit No. 2 Operating Statistics	Table 4-13
	25	Annual Operating Expenses - LPPA's Share of Unit No. 2	Table 10-4
City of Lafayette Utilities System, page 33-57	40	Electric System Largest Retail Customers	Table 10-8
	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 Forecast	Table 10-12
	43	Electric System Operations and Maintenance Expense Forecast	Table 10-13
	44	Wastewater System Largest Retail Customers	Table 10-10
	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 10-14
	47	Wastewater System Operations and Maintenance Expense Forecast	Table 10-15
	49	Water System Largest Retail Customers	Table 10-9
	49	Historical Water Retail and Wholesale Sales	Table 10-16
	50	Proposed Water System Facilities (Five Year Plan)	Table 3-5
	51	Water Sales and Revenue Forecast	Table 10-16
	51	Water System Operations and Maintenance Expense Forecast	Table 10-17
	52	Electric System Sales and Revenues by Rate Class	Table 4-28, Table 4-2
	53	Electric Residential Rate Comparison	Table 4-22
	53	Electric Commercial Rate Comparison	Table 4-23
	56	Lafayette Utilities Systems Income Statements	Table 9-5
	57	Summary Statement of Revenues, Expenses, and Changes in Fund Net Assets	Table 10-11
Appendix B-Financial & Statistical Data	B-3	Summary Debt Statement	See Section 12

Table 10-2: LPPA Electric Revenue Refunding Bonds, Series 2015

Official Statement	Official Statement Page	Official Statement Table	Report Reference
Debt Service Requirements	5	Series 2015 Bonds Debt Service	Table 10-3
Summary of Historical Operating Results	18	LPPA Historical Operating Results	Table 10-5
Trends in Finances	19	LPPA Summary Statements of Revenues, Expenses and Changes in Fund Net Position	Table 10-6
	20	LPPA Summary Statements of Cash Flows	Table 10-7
Rodemacher Unit 2, page 22-33	23	Rodemacher Unit No. 2 Operating Statistics	Table 4-13
	24	Annual Operating Expenses - LPPA's Share of Unit No. 2	Table 10-4
City of Lafayette Utilities System, page 33-57	39	Electric System Sales and Revenues by Rate Class	Table 4-28, Table 4-2
	40	Electric System Residential Rate Comparison	Table 4-22
	40	Electric System Commercial Rate Comparison	Table 4-23
	41	Historical and Projected Electric Retail and Wholesale Sales	Table 4-1, Table 10-12
	42	Historical and Projected Electric Sales and Revenue Forecast	Table 10-12
	43	Historical and Projected Electric System Operations and Maintenance Expense Forecast	Table 10-13
	46	Wastewater System Largest Retail Customers	Table 10-10
	46	Wastewater System Residential Rate Comparison	Table 6-8
	47	Wastewater System Commercial Rate Comparison	Table 6-6
	47	Historical & Projected Wastewater Retail Collection	Table 10-14
	48	Wastewater Historical Sales & Projected Revenue Forecast	Table 10-14
	49	Wastewater System Historical and Projected Operation and Maintenance Expense	Table 10-15
	51	Water System Largest Retail Customers	Table 10-9
	52	Water System Residential Rate Comparison	Table 5-18
	52	Water System Commercial Rate Comparison	Table 5-19
	53	Historical & Projected Water Retail and Wholesale Sales	Table 10-16
	54	Water Sales and Revenue Forecast	Table 10-16
	55	Water System Historical and Projected Expense	Table 10-17
	57	Lafayette Utilities Systems Income Statements	Table 9-5
	58	Summary Statement of Revenues, Expenses, and Changes in Fund Net Position	Table 10-11
Appendix B-Financial & Statistical Data	B-4	Summary Debt Statement	See Section 12

Table 10-3: Debt Service Requirements

	Series 2007 Bonds		Series 2012 Bonds		Series 2015 Bonds		Total Debt Service Requirement		
Due Date	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Total
11/1/2014	$605,000	$737,078	$2,255,000	$1,362,975	$0	$0	$2,860,000	$2,100,053	$4,960,053
5/1/2015	$0	$724,978	$0	$1,329,150	$0	$0	$0	$2,054,128	$2,054,128
11/1/2015	$630,000	$724,978	$2,325,000	$1,329,150	$0	$0	$2,955,000	$2,054,128	$5,009,128
5/1/2016	$0	$26,900	$0	$1,282,650	$0	$532,936	$0	$1,842,486	$1,842,486
11/1/2016	$660,000	$26,900	$2,415,000	$1,282,650	$90,000	$571,003	$3,165,000	$1,880,553	$5,045,553
5/1/2017	$0	$13,700	$0	$1,234,350	$0	$570,103	$0	$1,818,153	$1,818,153
11/1/2017	$685,000	$13,700	$2,510,000	$1,234,350	$95,000	$570,103	$3,290,000	$1,818,153	$5,108,153
5/1/2018	$0	$0	$0	$1,184,150	$0	$569,153	$0	$1,753,303	$1,753,303
11/1/2018	$0	$0	$2,610,000	$1,184,150	$800,000	$569,153	$3,410,000	$1,753,303	$5,163,303
5/1/2019	$0	$0	$0	$1,131,950	$0	$561,153	$0	$1,693,103	$1,693,103
11/1/2019	$0	$0	$2,715,000	$1,131,950	$815,000	$561,153	$3,530,000	$1,693,103	$5,223,103
5/1/2020	$0	$0	$0	$1,104,800	$0	$548,928	$0	$1,653,728	$1,653,728
11/1/2020	$0	$0	$2,770,000	$1,104,800	$845,000	$548,928	$3,615,000	$1,653,728	$5,268,728
5/1/2021	$0	$0	$0	$1,049,400	$0	$536,253	$0	$1,585,653	$1,585,653
11/1/2021	$0	$0	$2,880,000	$1,049,400	$865,000	$536,253	$3,745,000	$1,585,653	$5,330,653
5/1/2022	$0	$0	$0	$991,800	$0	$523,278	$0	$1,515,078	$1,515,078
11/1/2022	$0	$0	$2,995,000	$991,800	$900,000	$523,278	$3,895,000	$1,515,078	$5,410,078
5/1/2023	$0	$0	$0	$916,925	$0	$505,278	$0	$1,422,203	$1,422,203
11/1/2023	$0	$0	$3,145,000	$916,925	$930,000	$505,278	$4,075,000	$1,422,203	$5,497,203
5/1/2024	$0	$0	$0	$854,025	$0	$486,678	$0	$1,340,703	$1,340,703
11/1/2024	$0	$0	$3,275,000	$854,025	$970,000	$486,678	$4,245,000	$1,340,703	$5,585,703
5/1/2025	$0	$0	$0	$772,150	$0	$467,278	$0	$1,239,428	$1,239,428
11/1/2025	$0	$0	$3,435,000	$772,150	$1,010,000	$467,278	$4,445,000	$1,239,428	$5,684,428
5/1/2026	$0	$0	$0	$686,275	$0	$442,028	$0	$1,128,303	$1,128,303
11/1/2026	$0	$0	$3,610,000	$686,275	$1,065,000	$442,028	$4,675,000	$1,128,303	$5,803,303
5/1/2027	$0	$0	$0	$596,025	$0	$415,403	$0	$1,011,428	$1,011,428
11/1/2027	$0	$0	$3,790,000	$596,025	$1,105,000	$415,403	$4,895,000	$1,011,428	$5,906,428
5/1/2028	$0	$0	$0	$501,275	$0	$398,828	$0	$900,103	$900,103
11/1/2028	$0	$0	$3,980,000	$501,275	$1,140,000	$398,828	$5,120,000	$900,103	$6,020,103
5/1/2029	$0	$0	$0	$401,775	$0	$381,016	$0	$782,791	$782,791
11/1/2029	$0	$0	$4,175,000	$401,775	$4,325,000	$381,016	$8,500,000	$782,791	$9,282,791
5/1/2030	$0	$0	$0	$297,400	$0	$272,891	$0	$570,291	$570,291
11/1/2030	$0	$0	$4,385,000	$297,400	$4,505,000	$272,891	$8,890,000	$570,291	$9,460,291
5/1/2031	$0	$0	$0	$231,625	$0	$199,684	$0	$431,309	$431,309
11/1/2031	$0	$0	$4,520,000	$231,625	$4,690,000	$199,684	$9,210,000	$431,309	$9,641,309
5/1/2032	$0	$0	$0	$118,625	$0	$82,434	$0	$201,059	$201,059
11/1/2032	$0	$0	$4,745,000	$118,625	$4,885,000	$82,434	$9,630,000	$201,059	$9,831,059
5/1/2033	$0	$0	$0	$0	$0	$0	$0	$0	$0
11/1/2033	$0	$0	$0	$0	$0	$0	$0	$0	$0

Source: LUS and Official Statement

Table 10-4: Annual Operating Expenses – LPPA Share of Unit No. 2

	2016	2017	2018	2019	2020
LPPA Share (MWh)	797,928	825,089	1,062,984	1,045,878	656,054
Fuel	$26,658,901	$26,620,153	$29,566,005	$27,808,739	$19,288,183
Operations	2,799,380	3,191,851	3,591,720	2,731,655	3,237,018
Maintenance	5,857,500	7,115,532	5,376,070	5,357,042	6,075,341
Administrative & General	2,684,288	2,729,322	2,778,370	2,793,274	2,744,099
Total Operating Expenses	$38,000,069	$39,656,858	$41,312,164	$38,690,711	$31,344,641
Total Operating Expenses ($/MWh)	47.62	48.06	38.86	36.99	47.78
Total Operating Expenses Less Fuel ($/MWh)	14.21	15.80	11.05	10.40	18.38

Source: LPPA Manager's Monthly Reports

Table 10-5: LPPA Historical Revenues, Expenses, Balances Available for Debt Service

Total Operating Revenues	$48,326,966	$47,753,386	$50,740,877	$47,202,751	$37,491,409
Total Operating Expenses	38,000,068	39,656,858	41,312,164	38,690,711	31,344,641
Net Operating Revenues	$10,326,898	$8,096,528	$9,428,713	$8,512,040	$6,146,768
Other Income	$190,946	$321,942	$548,007	$1,035,324	$317,785
Balance Available for Debt Service	$10,517,844	$8,418,470	$9,976,720	$9,547,364	$6,464,553
Debt Service	6,888,039	6,926,306	6,916,606	6,916,206	6,922,456
Balance After Debt Service	$3,629,805	$1,492,164	$3,060,113	$2,631,158	($457,903)
Debt Service Coverage Ratio (1)	1.5	1.2	1.4	1.4	0.9

Source: LPPA Manager's Monthly Reports

(1) Debt service includes Series 2007, 2023, and 2015 bonds. In 2015, LPPA refunded the majority of the 2007 bonds. The Series 2007 Bonds final payment was November 1, 2017. Due to a surplus in LPPA's cash balance, the Administration elected not to bill LUS for $4.5 million of LPPA's capital expenditures in FY 2020. This resulted in a $4.5 million decrease to LPPA's operating revenue, which in turn caused LPPA's debt service coverage ratio to drop below 1.0. This was a one-time adjustment for FY 2020 only.

Table 10-6: Summary of Revenues, Expenses, and Changes of Fund Net Position

	2016	2017	2018	2019	2020
Operating Revenues:					
Sales of Electric Energy					
City of Lafayette (LUS)	$48,326,966	$47,753,386	$50,740,877	$47,202,751	$37,491,409
Operating Expenses					
Production	$35,315,781	$36,927,535	$38,533,794	$35,897,437	$28,600,542
Administrative & General	2,684,288	2,729,322	2,778,370	2,793,274	2,744,099
Depreciation	1,453,184	1,479,342	1,727,062	2,314,996	2,354,239
Total Operating Expenses	$39,453,253	$41,136,200	$43,039,226	$41,005,707	$33,698,880
Non Operating Revenues (Expenses)					
Other	($27,595)	$2,294,264	$485,522	$631,584	$499,163
Investment Earnings	190,946	321,942	548,007	1,035,324	317,785
Interest on Long Term Debt	(3,723,039)	(3,636,306)	(3,506,606)	(3,386,206)	(3,307,456)
Gain (Loss) on Property	(123,848)	(355,715)	(253,343)	73,948	0
Total	($3,683,536)	($1,375,816)	($2,726,420)	($1,645,351)	($2,490,509)
Net Income (Loss) for the Period	$5,190,178	$5,241,371	$4,975,231	$4,551,693	$1,302,020
Fund Net Positions Beginning (1)	$71,413,842	$76,604,019	$81,845,390	$86,820,620	$91,372,314
Fund Net Positions, End of Year	$76,604,019	$81,845,390	$86,820,621	$91,372,314	$92,674,334

Source: LPPA Manager's Monthly Reports

Table 10-7: Summary Statements of Cash Flows

	2016	2017	2018	2019	2020
Cash Flows from Operating Activities					
Receipts from customers	$48,326,966	$47,753,386	$50,740,877	$47,202,751	$37,491,409
Payments to suppliers for goods & services	(38,041,403)	(37,860,976)	(33,881,255)	(42,037,771)	(33,645,024)
Payments to employees and for employee related costs	(424,247)	(469,117)	(453,085)	(437,879)	(413,642)
Net cash provided (used) by operating activities	$9,861,316	$9,423,293	$16,406,537	$4,727,101	$3,432,743
Cash Flows from Capital and Related Financing Activities					
Proceeds from Issuance of Bonds	$29,035,000	$0	$0	$0	$0
Premium on issuance on bonds	2,077,808	0	0	0	0
Payment to escrow agent	(30,721,903)	0	0	0	0
Principal payments on bonds	(3,165,000)	(3,290,000)	(3,410,000)	(3,530,000)	(3,615,000)
interest paid	(3,723,039)	(3,636,306)	(3,506,606)	(3,386,206)	(3,307,455)
Debt issuance costs	(379,850)	0	0	0	0
Preliminary survey investigation costs paid	0	0	0	0	0
Proceeds from redesignation of capital assets	0	0	0	0	0
Purchase and construction of capital assets	(6,020,304)	(4,205,782)	(2,612,658)	(1,786,815)	(2,901,295)
Net cash provided (used) by capital and related financing activity	($12,897,288)	($11,132,088)	($9,529,264)	($8,703,021)	($9,823,750)
Cash Flows from Investing Activities					
Sales (purchases) of investments - net	($2,300,000)	($5,200,000)	($11,700,000)	$11,631,137	($1,889,563)
Maturities of Investments	2,500,000	5,181,000	2,000,000	0	0
Interest Earnings	188,630	299,780	578,932	1,013,331	343,193
Other	0	0	0	0	0
Net Cash provided by investing activities	388,630	280,780	(9,121,068)	12,644,468	(1,546,370)
Net increase (decrease) in cash and cash equivalents	($2,647,342)	($1,428,015)	($2,243,795)	$8,668,548	($7,937,377)
Cash and cash equivalents, beginning of year	$32,614,586	$29,967,244	$28,539,229	$26,295,434	$34,963,982
Cash and cash equivalents, end of year	$29,967,244	$28,539,229	$26,295,434	$34,963,982	$27,026,605

Source: LPPA Financial Report

Table 10-8: 2020 Large Customers – Electric

Customer	Type of Business	Revenues
University of Louisiana	Higher Education	$10,022,258
Lafayette General Hospital	Health Care	$2,796,915
Our Lady Of Lourdes	Health Care	$1,762,141
Lafayette Consolidated Gov-Street Lighting	Local Government	$1,572,133
Stuller Inc.	Jewelry Manufacturing	$971,095
Halliburton Gulf Coast Campus	Refining / Petrochemical	$718,208
University Hospital & Clinics Inc	Health Care	$697,084
International Paper	Paper Products	$655,483
Our Lady Of Lourdes Women's & Children's	Health Care	$612,293
Catalyst Recovery	Refining / Petrochemical	$602,562

Source: LUS

Table 10-9: 2020 Large Customers – Water

Customer	Type of Business	Revenues
University of Louisiana	Higher Education	$279,475
Lafayette General Hospital	Health Care	$142,669
Our Lady Of Lourdes	Health Care	$107,881
Bayou Shadows Apartments	Apartment Complex	$82,058
Borden Company	Dairy Products	$82,012
Lafayette Parish Correctional Center	Correctional Facility	$49,492
Health & Beauty Solutions Inc	Polymer Manufacturer	$48,044
Pinhook South Apartments	Apartment Complex	$44,533
Lafayette General Southwest	Health Care	$41,571
South Point Apartments	Apartment Complex	$39,716

Source: LUS

Table 10-10: 2020 Large Customers – Wastewater

Customer	Type of Business	Revenues
University of Louisiana	Higher Education	$664,883
Borden Company	Dairy Products	$262,364
Lafayette General Hospital	Health Care	$259,551
Bayou Shadows Apartments	Apartment Complex	$239,269
Our Lady Of Lourdes	Health Care	$148,003
Lafayette Parish Correctional Center	Correctional Facility	$136,812
Pinhook South Apartments	Apartment Complex	$128,059
Westport Linen Services	Commercial Laundry	$122,626
South Point Apartments	Apartment Complex	$112,712
Magnolia View Mobile Home Park	Mobile Home Park	$98,157

Source: LUS

Table 10-11: Summary Statement of Revenue, Expenses, and Changes in Fund Net Position

City of Lafayette, Five Years Ending October 31

	2016	2017	2018	2019	2020
Operating Revenues					
Charges for Services	$216,475,270	$220,360,405	$227,771,102	$224,216,058	$213,915,365
Miscellaneous	4,506,864	4,995,876	5,014,740	5,284,370	3,078,979
Total Operating Revenues	$220,982,134	$225,356,281	$232,785,842	$229,500,428	$216,994,344
Operating Expenses					
Production, Collection, & Cost of Services	$102,175,581	$107,080,241	$104,674,969	$95,182,077	$87,551,122
Transmission, Distribution & Treatment	29,733,282	30,885,632	31,179,941	30,327,322	27,780,290
Administrative & General & Customer	26,841,588	28,032,609	28,310,334	27,330,002	28,167,129
ILOT	23,306,557	22,568,235	23,708,786	25,051,002	24,679,711
Depreciation & Amortization on Plant	24,591,747	24,743,583	25,164,015	25,731,165	25,678,004
Total Operating Expenses	$206,648,755	$213,310,300	$213,038,045	$203,621,568	$193,856,256
Operating Income	$14,333,379	$12,045,980	$19,747,797	$25,878,860	$23,138,088
Non Operating Revenues (Expenses)					
Investment Earnings	$1,822,725	$1,737,213	$2,821,960	$5,095,464	$2,765,235
Interest Expense	(9,216,905)	(7,186,663)	(7,778,412)	(8,315,204)	(8,914,681)
Bond Issuance Costs	0	0	0	(1,052,697)	0
Gain (Loss) on sale/disposal of assets	(329,136)	(1,006,340)	(398,883)	(309,767)	(290,397)
Federal Grant Revenue	497,562	(369,488)	0	1,031,268	4,295,576
Hurricane/Flood Expenses	(510,963)	(214,126)	(289,755)	(1,315,835)	(5,667,070)
Non Employer Pension Contribution	539,204	542,688	556,122	549,266	580,344
Other	(37,431)	6,710	306,798	(173,356)	200,856
Total Non Operating Revenues (Expenses)	($7,234,944)	($6,490,006)	($4,782,170)	($4,490,861)	($7,030,137)
Income Before Contributions	$7,098,435	$5,555,974	$14,965,627	$21,387,999	$16,107,951
Capital Contributions and Transfers In	$56,063	$338,106	$565,337	($32,618)	$175,627
Change in Net Positions	$7,154,498	$5,894,080	$15,530,964	$21,355,381	$16,283,578
Net Positions, Beginning as Restated	$496,955,303	$505,214,402	$503,819,102	$519,350,066	$540,705,447
Net Positions, Ending	$504,109,801	$511,108,483	$519,350,066	$540,705,447	$556,989,025

Source: LCG Comprehensive Annual Financial Report

Table 10-12: Electric System Historical and Projected Sales and Revenue

FY	Retail Sales (MWh)	Retail Sales: Base Rate Revenue	Retail Sales: FC Revenue	Other Revenue	Total Operating Revenue
2016	2,027,945	$91,631,825	$78,153,587	$4,568,740	$174,354,151
2017	1,980,653	$94,552,196	$76,829,537	$4,678,770	$176,060,504
2018	2,031,847	$102,886,777	$72,872,661	$5,196,252	$180,955,690
2019	2,004,310	$100,836,993	$73,101,002	$6,027,891	$179,965,886
2020	1,917,040	$97,878,860	$65,117,850	$3,470,810	$166,467,519
2021	2,007,361	$102,697,149	$72,345,290	$4,844,040	$179,886,480
2022	2,010,412	$102,850,291	$72,133,583	$5,025,411	$180,009,284
2023	2,017,139	$103,145,237	$74,856,028	$5,208,387	$183,209,652
2024	2,023,866	$103,439,079	$77,453,352	$5,339,790	$186,232,220
2025	2,029,632	$103,687,156	$81,976,836	$5,450,498	$191,114,491
2026	2,035,398	$103,935,009	$82,352,203	$5,566,045	$191,853,258
2027	2,041,164	$104,182,698	$84,320,485	$5,255,531	$193,758,714
2028	2,046,930	$104,429,343	$78,254,134	$4,960,192	$187,643,669
2029	2,051,735	$104,632,326	$81,433,362	$5,167,672	$191,233,359
2030	2,057,501	$104,888,981	$83,205,340	$5,461,637	$193,555,958

Source: LUS and Burns & McDonnell projections
(1) Projections based on Burns & McDonnell load forecast from 2020 IRP.
(2) Base rate revenue projections reflect revenue from existing rate structures.
(3) Other revenue includes miscellaneous operation revenue and interest income.

Table 10-13: Electric System Historical and Projected Operating Expenses

FY	Production	Transmission	Distribution	Customer Accounts, Service & Sales	Administrative & General	Total Operating Expenses
2016	$92,247,908	$8,661,822	$11,613,300	$2,868,750	$11,302,414	$126,694,194
2017	$96,976,628	$9,192,823	$12,283,787	$2,917,554	$11,976,332	$133,347,125
2018	$94,456,911	$9,275,422	$12,143,206	$2,828,513	$12,463,806	$131,167,858
2019	$84,373,015	$8,612,596	$11,837,879	$2,690,275	$11,886,918	$119,400,682
2020	$77,653,928	$8,438,158	$10,990,219	$2,742,846	$12,219,098	$112,044,248
2021	$89,996,672	$7,730,084	$11,664,970	$2,729,678	$12,104,337	$124,225,741
2022	$91,196,402	$3,108,037	$11,839,945	$2,766,207	$12,285,902	$121,196,492
2023	$92,962,567	$3,154,657	$12,017,544	$2,809,424	$12,470,190	$123,414,382
2024	$106,260,485	$3,201,977	$12,197,807	$2,852,984	$12,657,243	$137,170,497
2025	$104,102,237	$3,250,007	$12,380,774	$2,900,853	$12,847,102	$135,480,973
2026	$102,657,546	$3,298,757	$12,566,486	$2,940,904	$13,039,808	$134,503,501
2027	$104,995,364	$3,348,238	$12,754,983	$2,984,795	$13,235,406	$137,318,786
2028	$90,506,264	$3,398,462	$12,946,308	$3,013,042	$13,433,937	$123,298,013
2029	$86,428,358	$3,449,439	$13,140,503	$3,060,510	$13,635,446	$119,714,255
2030	$88,297,422	$3,501,180	$13,337,610	$3,103,595	$13,839,977	$122,079,785

Source: LUS and Burns & McDonnell projections
(1) Production expenses are based on 2020 IRP forecasts and incorporate new contracts for capacity and solar.
(2) Transmission cost reduction will reduce in FY2022 due to expiration of Cleco contract. LUS estimated forecast expenses.
(3) Total Operating Expenses do not include ILOT, debt service, capital, or other expenses.

Table 10-14: Wastewater System Historical and Projected Retail Sales and Revenue

FY	Retail Sales (1000 gallons)	Retail Sales Revenue	Other Revenue	Total Operating Revenue
2016	6,267,402	$28,522,778	$621,796	$29,144,574
2017	5,768,832	$29,706,376	$1,083,931	$30,790,307
2018	5,326,815	$30,977,546	$1,401,680	$32,379,226
2019	5,746,278	$29,910,672	$2,128,101	$32,038,772
2020	5,498,088	$29,861,226	$1,261,483	$31,122,710
2021	5,765,733	$30,790,941	$1,034,870	$31,825,810
2022	5,796,316	$31,567,217	$1,054,661	$32,621,878
2023	5,824,500	$32,336,646	$1,072,598	$33,409,244
2024	5,850,864	$33,145,937	$1,076,686	$34,222,623
2025	5,875,740	$33,952,600	$1,041,685	$34,994,284
2026	5,899,541	$34,758,565	$993,692	$35,752,257
2027	5,922,267	$35,608,202	$963,325	$36,571,526
2028	5,943,256	$36,452,679	$936,830	$37,389,510
2029	5,964,327	$37,302,747	$923,581	$38,226,329
2030	5,985,399	$37,434,536	$918,916	$38,353,452

Source: LUS and Burns & McDonnell projections

(1) Retail sales are based on projected customer growth and use per customer.

(2) Retail sales revenue includes historical rate increases in 2017 and 2018. 2.0% rate increases are assumed through 2029.

(3) Other revenue includes miscellaneous operation revenue and interest income.

Table 10-15: Wastewater System Historical and Projected Operating Expenses

FY	Treatment	Collection	Customer Accounting, Collecting, Service and Info	Administrative & General	Total Operating Expenses
2016	$6,915,624	$4,462,001	$1,347,623	$5,569,902	$18,295,151
2017	$6,804,788	$4,696,927	$1,345,368	$5,838,454	$18,685,538
2018	$6,877,281	$4,722,449	$1,399,015	$5,738,418	$18,737,163
2019	$6,987,121	$5,312,751	$1,365,016	$5,546,626	$19,211,514
2020	$6,253,827	$4,888,522	$1,318,028	$5,834,810	$18,295,187
2021	$6,511,264	$5,295,207	$1,314,473	$5,700,805	$18,821,750
2022	$6,706,705	$5,369,903	$1,332,624	$5,786,317	$19,195,549
2023	$6,811,156	$5,456,059	$1,353,225	$5,873,112	$19,493,551
2024	$6,916,102	$5,542,873	$1,374,027	$5,961,208	$19,794,210
2025	$7,030,223	$5,638,539	$1,396,437	$6,050,626	$20,115,826
2026	$7,128,497	$5,719,184	$1,416,156	$6,141,386	$20,405,222
2027	$7,234,522	$5,807,230	$1,437,319	$6,233,507	$20,712,577
2028	$7,308,502	$5,864,794	$1,453,015	$6,327,009	$20,953,321
2029	$7,422,242	$5,959,869	$1,475,616	$6,421,914	$21,279,643
2030	$7,531,561	$6,050,653	$1,496,749	$6,518,243	$21,597,206

Source: LUS and Burns & McDonnell projections

(1) Total Operating Expenses do not include ILOT, debt service, capital, or other expenses

Table 10-16: Water System Historical and Projected Retail and Wholesale Sales and Revenue

FY	Retail Sales (1000 gallons)	Wholesale Sales (1000 gallons)	Retail Sales Revenue	Wholesale Sales Revenue	Other Revenue	Total Operating Revenue
2016	5,402,650	$2,117,627	$13,229,678	$4,736,650	$627,213	$18,593,541
2017	5,382,447	$2,161,051	$13,862,679	$5,232,452	$727,065	$19,822,196
2018	5,363,552	$2,256,911	$14,821,240	$6,038,256	$877,048	$21,736,544
2019	5,148,605	$2,171,928	$14,425,369	$5,762,507	$1,181,598	$21,369,475
2020	5,075,882	$2,191,571	$14,544,345	$6,355,680	$796,531	$21,696,556
2021	5,375,099	$2,273,591	$15,211,529	$6,585,487	$589,497	$22,386,513
2022	5,403,609	$2,322,204	$15,616,430	$7,060,063	$613,146	$23,289,639
2023	5,429,884	$2,373,342	$16,018,157	$7,281,874	$639,130	$23,939,160
2024	5,454,462	$2,425,065	$16,417,931	$7,809,668	$645,227	$24,872,826
2025	5,477,653	$2,478,477	$16,816,394	$8,055,114	$639,182	$25,510,689
2026	5,499,841	$2,533,644	$17,214,502	$8,642,737	$640,131	$26,497,370
2027	5,521,027	$2,590,638	$17,612,076	$8,918,319	$639,976	$27,170,371
2028	5,540,594	$2,649,534	$18,006,930	$9,573,207	$643,715	$28,223,852
2029	5,560,238	$2,710,409	$18,459,990	$9,882,942	$652,993	$28,995,924
2030	5,579,882	$2,773,345	$18,525,208	$10,613,535	$666,207	$29,804,951

Source: LUS and Burns & McDonnell projections

(1) Retail sales are based on projected customer growth and use per customer. Wholesale sales are based on customer specific forecasts.

(2) Retail sales revenue includes historical rate increases in 2017 and 2018. 2.0% rate increases are assumed through 2029.

(3) Wholesale revenue increases of 6% are included every other year of the forecast beginning in 2022.

(4) Other revenue includes miscellaneous operation revenue and interest income.

Table 10-17: Water System Historical and Projected Operating Expenses

FY	Production	Distribution	Customer Accounting, Collecting, Service and Info	Administrative & General	Total Operating Expenses
2016	$5,465,672	$2,538,366	$1,149,579	$4,607,489	$13,761,106
2017	$5,406,685	$2,619,286	$1,128,205	$4,811,643	$13,965,819
2018	$5,495,611	$2,884,033	$1,219,158	$4,661,424	$14,260,225
2019	$5,496,311	$2,889,727	$1,172,251	$4,668,916	$14,227,206
2020	$5,008,674	$2,098,086	$1,295,339	$4,757,007	$13,159,106
2021	$5,399,910	$2,297,856	$1,297,806	$4,513,417	$13,508,989
2022	$5,669,400	$2,490,927	$1,316,133	$4,581,119	$14,057,579
2023	$5,817,569	$2,529,789	$1,336,320	$4,649,835	$14,333,513
2024	$5,968,834	$2,569,158	$1,356,731	$4,719,583	$14,614,306
2025	$6,129,158	$2,609,057	$1,378,391	$4,790,377	$14,906,984
2026	$6,283,614	$2,649,516	$1,398,174	$4,862,232	$15,193,536
2027	$6,446,696	$2,690,541	$1,419,089	$4,935,166	$15,491,491
2028	$6,593,819	$2,732,100	$1,436,111	$5,009,193	$15,771,223
2029	$6,770,069	$2,774,306	$1,458,239	$5,084,331	$16,086,946
2030	$6,948,422	$2,817,164	$1,479,384	$5,160,596	$16,405,566

Source: LUS and Burns & McDonnell projections

(1) Total Operating Expenses do not include ILOT, debt service, capital, or other expenses.

11.0 CONTINUING DISCLOSURES – COMMUNICATIONS SYSTEM

11.1 Introduction

Government entities that issue bonds must enter into a continuing disclosure agreement to be in compliance with the SEC Rule 15c2-12. As part of the continuing disclosure agreement, the issuer promises to provide certain annual financial information and material event notices to the public. These filings must be made electronically at the EMMA portal (www.emma.msrb.org). LPPA had the following outstanding debt as of October 31, 2020:

- Communications System Revenue Bonds, Series 2012
- Communications System Revenue Refunding Bonds, Series 2015

The continuing disclosure agreements for the outstanding bonds require that specific tables contained in the Official Statements must be updated annually. This section contains these required tables. This section contains forward looking financial statements based on Burns & McDonnell's current expectations and projections about future events and financial trends regarding the Communications 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. Burns & McDonnell cannot predict the future or guarantee future financial performance of the Communications 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. Burns & McDonnell relied upon a 10-year projection prepared by the Communications System for the Projected Period of November 1, 2020 through October 31, 2030. LUS provided actual historical data for the 2016 through 2020 period.

11.2 Information and Assumptions Relied Upon

The projected operating results for the Communications System rely upon the information and assumptions gathered during the Burns & McDonnell project team review and summarized below.

1. Burns & McDonnell assumed the Communications System will operate, maintain, and upgrade head-end facilities and other important supporting infrastructure to ensure reliable and technologically competitive service offerings to customers.
2. Burns & McDonnell assumed the Communications System will hire and maintain competent personnel. If needed, the Communications System will provide training to personnel to ensure the safety and reliability of the Communications System.

3. Burns & McDonnell assumed the Communications System will maintain and renew any required permits or approvals.
4. Burns & McDonnell assumed standard operating procedure for the Communications System and Burns & McDonnell did not include the effects of any event outside of the Communications System's control, including force majeure.
5. Communications System financial and operating information was provided by the Communications System, LCG, interviews with LUS and LCG staff, and visual observations of the Communications System facilities. Data provided by the Communications System and LCG include historical financial and operating data for years 2016–2020, projected financial and operating data for years 2021–2030, and the 2021 Budget.
6. Burns & McDonnell relied upon the most recent semi-annual Blue Chip Economic Indicator projection of GDP, as of 2021. The GDP factor was used to escalate O&M expenses and capital. Per the Blue Chip forecast, the annual GDP factor is projected to be 2.1% over the Projected Period.

11.3 Projected Operating Results Assumptions

11.3.1 Revenue Projections

Since the Communications System inception in 2009, the system has successfully added customers and increased market share within the LUS service territory. The sale of CATV, Internet, and telephone services to retail and wholesale customers directly relates to the Communications System revenues. Projected operating results reflect average annual customer growth of 4.0% over the 2021 through 2030 period. The growth assumption results in target market share from the current 41% to 56% in 2030. Revenue per customer reflects a blend of CATV, Internet, and telephone services as described earlier in this Report. Retail service pricing levels are projected to be adjusted periodically in consideration of the cost of goods sold and other rising costs. The Communications System pricing practices reflect an opportunistic approach where the development of new or higher value service offerings and competitor price increases provide the Communications System the ability to adjust rates if warranted. The Communications System's pricing strategy is to offer comparable or higher quality services at a lower price than the competition. Additionally, wholesale customer projections remain constant, at 34 customers, from 2021 to 2030 with revenues of $3.2 million annually.

11.3.2 Expense Projections

The expense projection includes the cost of goods sold, maintenance of plant, A&G expense, and other miscellaneous expenses. The projected cost of goods sold assumes the 2020 cost per customer (adjusted

for historical cost of goods sold inflation) multiplied by the projected number of customers. Other expenses have been escalated at 2.1% annually over the period 2021 through 2030.

11.3.3 Debt Service

The projected net revenues for debt service exceed the required debt service coverage ratio of 1.0.

11.3.4 Credit Event

If a Credit Event were to occur, bond covenants require that the Utilities System meet the credit obligation of the Communications System with funds available in the Utilities System Capital Additions Fund. The Utilities System has a debt service coverage ratio requirement of 1.0.

11.3.5 Other Expenses

Other expense items include the Communications System's Imputed Tax obligations, repayment of inter-utility loans from the Utilities System, Operating Account reserve obligations, and other miscellaneous expenses. The Communications System utilized loans from the LUS to fund the fiber system assets purchase, startup costs, and operating costs. The Communications System loans repayment will continue through 2033. The Operating Account reserve obligation was a one-time expense incurred by the Communications System to establish a Communications Systems Operating Account.

11.3.6 Imputed Tax

Pursuant to terms of a regulatory settlement, the Communications System must pay an Imputed Tax. The Imputed Tax is equivalent to paying state and local sales tax, property tax, franchise tax, and income tax. The Communications System's ILOT calculation provides for an ILOT payment up to 12% of Adjusted Revenues deposits (revenues less cost of goods sold). However, all or a portion of this payment is made subject to an ILOT test. The ILOT test ensures that the Communications System retains sufficient cash to meet capital obligations. The ILOT test requires that the ILOT payment be no greater than 12% of Adjusted Revenues deposits, or the cash balance available after the payment of operating expenses and debt service less 7.5% of the Adjusted Revenues deposits. The Communications System tax requirement cannot be less than that required by the Imputed Tax calculation. In 2015, the City-Parish Council approved an ordinance that revises the required ILOT payment. This ordinance recognizes that the Communications System operates in a competitive environment and the ILOT calculation was a greater expense than Imputed Tax. With the approval of this ordinance, the Communications System pays an ILOT amount equal to Imputed Taxes. The Imputed Tax payments was made to LUS and the City through 2020 as prescribed in the ordinance. Starting in 2020, 100% of the Imputed Tax payments go to the City.

11.3.7 Capital Improvement Program

The CIP includes the ongoing cost of customer installations, head-end, hut, network equipment and upgrades, and other miscellaneous items. In this Report, the capital plan for years 2021 through 2025 was based on the 2021 Budget and 2026 through 2030 was based on historical spending.

11.3.8 Cash Available

Cash available reflects remaining funds available to the Communications System once all other credit obligations of the Communications System are satisfied. For the Communications System, LUS established a financial objective that requires a minimum cash balance of $2,250,000 to be held in an Operating Account. The Operating Account maintains a cash reserve to meet system O&M expense requirements. Once O&M expense and debt service obligations are met by the Communications System, accumulated cash balances are held in a Capital Additions Fund and are applicable to capital projects or other lawful uses. The Projected Period assumes that there are sufficient cash balances in the Capital Additions Fund to meet the entire Communications System CIP obligation.

11.3.9 Cross Reference

The following table is provided to assist in cross referencing the information contained in the Continuing Disclosures with the information contained in this Report.

Table 11-1: Communication System Revenue Bonds, Series 2012

Official Statement	Official Statement Page	Official Statement Table	Report Reference
The Communications System, pages 24-34	28	Historical and Projected Number of Customers for the Communications	Table 11-3
	29	Projected Market Penetration	Table 11-3
	30	Operating Revenue Summary	Table 7-7
	31	Communications System Revenue Forecast	Table 11-4
	32	Communications System Operations and Maintenance Expense Forecast	Table 11-5
	34	Communications System Capital Improvement Plan	Table 7-3
Operating Revenues and Expenses, pages 35-37	35	Communications System Historical Operating Results	Table 7-8
	36	Communications System Projected Operating Results	Table 11-6
	37	Communications System Sources & Uses of Funds	Table 11-7
Debt Service Coverage Calculation, pages 37-39	38	Communications System Debt Service	Table 11-6
The Utilities System, pages 39-60	49	Historical Electric Retail and Wholesale Sales	Table 4-1
	49	Electric System Largest Retail Customers	Table 10-8
	50	Electric System Capital Improvement Plan (Five Year Plan)	Table 3-5
	51	Electric System Sales and Revenue	Table 10-12
	52	Electric System Operations and Maintenance Expense Forecast	Table 10-13
	52	Historical Water Retail and Wholesale Sales	Table 5-1
	53	Water System Largest Retail Customers	Table 10-9
	55	Water System Capital Improvement Plan (Five Year Plan)	Table 3-5
	55	Water System Sales and Revenue Forecast	Table 10-16
	56	Water System Operations and Maintenance Expense Forecast	Table 10-17
	57	Historical Wastewater System Flows (000 Gallons)	Table 6-1, Table 10-14
	57	Wastewater System Largest Retail Customers	Table 10-10
	59	Proposed Wastewater System Capital Improvement Plan (Five Year Plan)	Table 3-5
	60	Wastewater System Operations and Maintenance Expense Forecast	Table 10-15
Capital Improvement Plan, pages 60-69	61	Communications System Adjusted CIP (Five Year Plan) - Projected Sources and Uses of Funds	Table 7-3
	62	Historical and Projected Number of Customers by System	Table 11-8
	63	Electric System Sales and Revenues by Rate Class	Table 4-28, Table 4-2
	64	Electric Residential Rate Comparison	Table 4-22
	64	Electric Commercial Rate Comparison	Table 4-23
	65	Wastewater Sales and Revenue	Table 10-14
	67	Utilities System Historical Operating Results	Table 11-9
	69	Utilities System Historical Debt Service Coverage Calculation	Table 11-9
	69	Utilities System Revenue and Debt Service Coverage Ratios	Table 11-10
	70	Utilities System Residual Revenue Debt Service Coverage - Communications System Default	Table 11-11
Appendix B-Financial & Statistical Data	B-1 to B-11	Financial and Statistical Data for Lafayette, LA	See Section 12

Table 11-2: Communication System Revenue Refunding Bonds, Series 2015

Official Statement	Official Statement Page	Official Statement Table	Report Reference
Communications System, Pages 28-41	33	Historical and Projected Number of Customers for the Communications	Table 11-3
	34	Projected Retail Market Share	Table 11-3
	35	Operating Revenue Summary	Table 7-7
	36	Communications System Revenue Forecast	Table 11-4
	37	Communications System Historical Operations Expense	Table 7-12
	37	Communications System Projected Operations Expense	Table 11-5
	38	Competitive Internet Service Offerings	Table 7-2
	40	Communications System Capital Improvement Plan	Table 7-3
	40	Communications System Projected Capital Improvement Plan	Table 7-3
Operating Revenues and Expenses, Page 42-45	42	Communications System Historical Operating Results	Table 7-10, Table 7-8
	44	Communications System Projected Operating Results	Table 11-6
	45	Communications System Sources & Uses of Funds	Table 11-7
Debt Service Coverage Calculation, Page 45-47	47	Communications System Projected Debt Service Coverage Ratios	Table 11-6
The Utilities System, pages 47-77	58	Historical and Projected Electric Retail and Wholesale Sales	Table 4-1, Table 10-12
	58	Electric System Customer Class Statistics	Table 4-2, Table 4-28
	59	Electric System Capital Improvement Plan (Five Year Plan)	Table 3-5
	60	Electric System Projected Sales and Revenue Forecast	Table 10-12
	61	Electric System Projected Operating Expense	Table 10-13
	62	Historical and Projected Water Retail and Wholesale Sales	Table 5-1 ,Table 10-16
	62	Water System Largest Retail Customers	Table 10-9
	65	Water System Capital Improvement Plan (Five Year Plan)	Table 3-5
	66	Water System Projected Sales and Revenue Forecast	Table 10-16
	66	Water System Projected Operating Expenses	Table 10-17
	67	Historical Wastewater System Flows (000 Gallons)	Table 6-1,
	68	Wastewater System Largest Retail Customers	Table 10-10
	69	Proposed Wastewater System Capital Improvement Plan (Five Year Plan)	Table 3-5
	71	Wastewater System Projected Sales and Revenue	Table 10-14
	71	Wastewater System Projected Operating Expenses	Table 10-15
	72	Historical and Projected Number of Customers by System	Table 11-8
	73	Electric Residential Rate Comparison	Table 4-22
	74	Electric Commercial Rate Comparison	Table 4-23
	75	Utilities System Historical Operating Results	Table 11-9
	76	Utilities System Historical Debt Service Coverage Calculation	Table 3-3
	76	Utilities System Projected Debt Service Coverage Calculation	Table 11-10
	77	Utilities System Residual Revenue Debt Service Coverage - Communications System Default	Table 11-11
Appendix B-Financial & Statistical Data	B-1 to B-11	Financial and Statistical Data for Lafayette, LA	See Section 12

Table 11-3: Communications System Number of Customers and Market Penetration

Year	Number of Customer Accounts	Increase in Customer Accounts (%)	Market Potential	LUS Target Market	Increase in LUS Target Market (%)	LUS Target Market Share
2016	18,243	10.0%	54,732	49,521	1.6%	36.8%
2017	18,973	4.0%	55,503	50,218	1.4%	37.8%
2018	20,412	7.6%	56,209	50,857	1.3%	40.1%
2019	21,291	4.3%	56,866	51,452	1.2%	41.4%
2020	22,053	3.6%	57,484	52,011	1.1%	42.4%
2021	23,045	4.5%	58,072	52,543	1.0%	43.9%
2022	23,949	3.9%	60,072	53,022	0.9%	45.2%
2023	24,907	4.0%	62,072	53,460	0.8%	46.6%
2024	25,904	4.0%	64,072	53,868	0.8%	48.1%
2025	26,940	4.0%	66,072	54,279	0.8%	49.6%
2026	28,018	4.0%	68,072	54,692	0.8%	51.2%
2027	29,138	4.0%	70,072	55,107	0.8%	52.9%
2028	30,304	4.0%	72,072	55,525	0.8%	54.6%
2029	31,516	4.0%	74,072	55,944	0.8%	56.3%
2030	32,777	4.0%	76,072	55,944	0.0%	58.6%
Average Growth	4.0%		3.0%	0.7%		

Source: LUS Fiber

(1) Communications customer projections include retail customers with CATV, Internet, and telephone or some combination of the three services. The number of customers reflects the customers at the end of the year. The retail customer projection takes into consideration that the Communications System began serving customers in 2007 as a new market entrant. Historical percentage growth in customers has been significant because the Communications System was new to the market. The projection assumes that percentage increases in annual growth will gradually decline as LUS market presence matures and market penetration reflects levels that consider the presence of several competitors.

(2) Projection includes all LUS residential electric customers inside the City limits, as well as other locations passed by LUS Fiber's fiber network.

(3) Target market excludes apartments and other multifamily dwellings.

Table 11-4: Communications System Revenue Forecast

Year	Number of Retail Customers	Number of Wholesale Customers	Retail	Wholesale	Total
2021	23,045	34	$39,546,675	$2,582,259	$42,128,933
2022	23,949	34	$40,099,029	$2,582,259	$42,681,288
2023	24,907	34	$40,717,730	$2,582,259	$43,299,989
2024	25,904	34	$41,273,870	$2,582,259	$43,856,129
2025	26,940	34	$41,761,932	$2,582,259	$44,344,191
2026	28,018	34	$42,176,002	$2,582,259	$44,758,261
2027	29,138	34	$42,509,746	$2,582,259	$45,092,005
2028	30,304	34	$42,756,381	$2,582,259	$45,338,640
2029	31,516	34	$42,908,646	$2,582,259	$45,490,905
2030	32,777	34	$42,958,774	$2,582,259	$45,541,033
Average Growth	4.0%	0.0%	0.9%	0.0%	0.9%

Source: LUS Fiber

Table 11-5: Communications System Operation and Maintenance Expense

Year	Cost of Goods Sold	Other Expenses	Total Expenses
2021	$9,102,829	$13,596,533	$22,699,362
2022	$8,956,409	$13,827,516	$22,783,925
2023	$8,755,536	$14,034,929	$22,790,465
2024	$8,512,469	$14,245,453	$22,757,922
2025	$8,223,490	$14,459,135	$22,682,625
2026	$7,884,617	$14,676,022	$22,560,639
2027	$7,491,583	$14,896,162	$22,387,745
2028	$7,039,819	$15,119,605	$22,159,423
2029	$6,524,435	$15,346,399	$21,870,834
2030	$5,940,200	$15,576,595	$21,516,795
Average Growth	-4.6%	1.5%	-0.6%

Source: LUS Fiber

(1) Cost of Goods Sold predominantly consists of programming and content costs associated with service offerings.
(2) Includes O&M expenses; other expenses include customer service, and A&G costs. Excludes depreciation. Operating expenses do not include imputed tax, inter-utility loan payments to LUS, external loan payments, and other miscellaneous expenses.

Table 11-6: Communications System Projected Operating Results

	2021	2022	2023	2024	2025
Operating Revenues					
Retail Sales	$39,546,675	$40,099,029	$40,717,730	$41,273,870	$41,761,932
Wholesale Sales	2,582,259	2,582,259	2,582,259	2,582,259	2,582,259
Other Revenues	790,647	791,045	793,024	802,887	819,978
Total Operating Revenues	$42,919,580	$43,472,333	$44,093,012	$44,659,016	$45,164,169
Operating Expenses					
Cost of Goods Sold	$9,102,829	$8,956,409	$8,755,536	$8,512,469	$8,223,490
O&M and Other	13,596,533	13,827,516	14,034,929	14,245,453	14,459,135
Total Operating Expenses	$22,699,362	$22,783,925	$22,790,465	$22,757,922	$22,682,625
Balance Available for Debt Service	$20,220,218	$20,688,408	$21,302,547	$21,901,094	$22,481,544
Debt Service	$9,431,991	$10,590,741	$10,599,941	$10,601,223	$10,598,970
Debt Service Coverage Ratio	2.1	2.0	2.0	2.1	2.1
Balance After Debt Service	$10,788,227	$10,097,666	$10,702,606	$11,299,871	$11,882,574
Other Income (Expenditures)					
Imputed Tax	($767,904)	($877,788)	($825,882)	($789,595)	($750,625)
Inter-utility Loan Repayment	(2,410,578)	(2,422,635)	(2,435,174)	(2,448,215)	(2,461,778)
Other Income	71,809	72,887	73,980	75,090	76,216
Total Other Income (Expenditures)	($3,106,672)	($3,227,536)	($3,187,077)	($3,162,721)	($3,136,187)
Balance Available for Capital	$7,681,555	$6,870,130	$7,515,529	$8,137,151	$8,746,387

Source: LUS Fiber

Table 11-7: Communications System Sources and Uses of Funds

Construction Fund (1)	2021	2022	2023	2024	2025
Sources of Funds					
Beginning Balance	$0	$0	$0	$0	$0
Deposits	0	0	0	0	0
Interest Income	0	0	0	0	0
Uses of Funds					
Capital Expenditures	0	0	0	0	0
Construction Fund Ending Balance	$0	$0	$0	$0	$0
Cash Available and Capital Additions Fund					
Sources of Funds					
Beginning Balance	$3,754,266	$2,914,821	$1,629,426	$1,073,142	$1,331,106
Deposits from Earnings	7,681,555	6,870,130	7,515,529	8,137,151	8,746,387
Other					
Uses of Funds					
Capital Expenditures	($8,521,000)	($8,155,525)	($8,071,813)	($7,879,187)	($7,891,238)
Operating Account Creation	0	0	0	0	0
Sinking Fund transfer to Refunding	0	0	0	0	0
Retained Earnings Ending Balance	$2,914,821	$1,629,426	$1,073,142	$1,331,106	$2,186,255

Source: LUS Fiber

Table 11-8: Utilities System Historical and Projected Number of Customers by System

Year	Electric	Water	Wastewater
Historical			
2016	66,325	55,851	44,269
2017	66,860	56,302	44,830
2018	67,243	56,564	45,019
2019	68,495	58,316	45,623
2020	69,364	57,412	46,133
Projected			
2021	69,716	57,735	46,491
2022	70,086	57,996	46,737
2023	70,427	58,236	46,964
2024	70,746	58,459	47,177
2025	71,046	58,669	47,378
2026	71,334	58,863	47,569
2027	71,609	59,053	47,753
2028	71,863	59,229	47,922
2029	72,118	59,405	48,092
2030	72,372	59,581	48,262
Average Growth	0.4%	0.4%	0.4%

Source: LUS Fiber

(1) Electric System projections based on 2019 Load Forecast for LUS developed by Burns & McDonnell.
(2) Water System retail customer projections were based on the Electric System customer growth forecast. Wholesale customer growth was based on specific growth forecasts for wholesale customers.
(3) Wastewater System customer projections were based on the Electric System customer growth forecast.

Table 11-9: Historical Operating Results

Operating Revenues	2016	2017	2018	2019	2020
Electric System					
Base Rate - Electric	$91,631,825	$94,552,196	$102,886,777	$100,836,993	$97,878,860
Fuel Charge - Electric	78,153,587	76,829,537	72,872,661	73,101,002	65,117,850
Wholesale Sales	200,753	177,166	174,622	179,515	157,404
Other Revenues (1)	4,367,987	4,501,605	5,021,629	5,848,375	3,313,405
Water					
Retail Sales	13,229,678	13,862,679	14,821,240	14,425,369	14,544,345
Wholesale Sales	4,736,650	5,232,452	6,038,256	5,762,507	6,355,680
Other Revenues (1)	627,213	727,065	877,048	1,181,598	796,531
Wastewater					
Retail Sales	28,522,778	29,706,376	30,977,546	29,910,672	29,861,226
Other Revenues (1)	621,796	1,083,931	1,401,680	2,128,101	1,261,483
Fiber	0	0	0	0	0
Total Operating Revenues (2)	$222,092,266	$226,673,006	$235,071,461	$233,374,132	$219,286,785
Operating Expenses					
Electric System					
Generation	$6,902,595	$7,573,414	$5,823,932	$5,097,410	$3,606,585
Fuel - Gas Generation	1,363,817	1,967,322	3,020,362	2,369,957	1,945,110
Purchased Power LPPA	48,326,966	47,753,386	50,740,877	47,202,751	37,491,409
Purchased Power Other	35,654,529	39,682,507	34,871,740	29,702,897	34,610,823
Other	34,446,286	36,370,497	36,710,947	35,027,667	34,390,320
Water	13,761,106	13,965,819	14,260,225	14,227,206	13,159,106
Wastewater	18,295,151	18,685,538	18,737,163	19,211,514	18,295,187
Fiber	0	0	0	0	0
Total Operating Expenses (2)	$158,750,451	$165,998,482	$164,165,246	$152,839,402	$143,498,541
Balance Available for Debt Service	$63,341,815	$60,674,525	$70,906,215	$80,534,731	$75,788,244
Debt Service	$22,925,238	$21,341,835	$21,427,905	$22,732,925	$25,374,000
Debt Service Coverage Ratio (2)	2.8	2.8	3.3	3.5	3.0
Balance After Debt Service	$40,416,577	$39,332,690	$49,478,310	$57,801,806	$50,414,244
Other Income					
Interest Income					
Water Tapping Fees	$78,320	$64,240	$72,240	$56,760	$61,540
Communications Lease Income	27,648	25,378	0	0	11,379
Contributions in Aid of Construction	56,063	128,155	304,557	0	140,856
Misc. Non Operating Revenue	2,566,471	3,335,924	4,188,986	3,141,166	3,633,306
Total Other Income	$2,728,502	$3,553,697	$4,565,784	$3,197,926	$3,847,081
Other Expenses					
Interest on Customer Deposits	$821	$1,688	$4,307	$5,331	$1,834
Tax Collections/Non Operating	0	0	0	0	0
Misc Non Operating Expense	1,589,252	3,182,762	2,844,559	3,369,807	3,649,380
	$1,590,073	$3,184,450	$2,848,867	$3,375,138	$3,651,214
Payment in Lieu of Tax	$23,306,557	$22,568,235	$23,708,786	$25,051,002	$24,679,711
Bond Reserve & Capital Additions	$18,248,448	$17,133,701	$27,486,441	$32,573,592	$25,930,400

Source: LUS

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

(2) Debt Service was prepared on a cash basis. Debt Service includes the Series 1996 Bonds, Series 2004 Bonds, Series 2010 Bonds, and Series 2012 Bonds. In 2014, the Series 2004 Bonds were partially refunded and defeased by the Series 2012 Bonds. The Series 1996 Bonds matured on November 1, 2017. The Series 2010 Bonds were fully redeemed in 2020 by the proceeds of the Series 2017 Bonds.

(3) The Operating Revenues, Expenses, and Debt Service Coverage may differ slightly from LCG's Comprehensive Annual Financial Report.

(4) Interest Income is included above with Operating Revenues.

Table 11-10: Utilities System Revenues and Debt Service Coverage Ratios

FY	Operating Revenues	Operating Expenses	Net Available Revenues for Debt Service	Debt Service	Balance Available After Debt Service	Debt Service Coverage Ratio
2021	$234,098,803	$156,556,480	$77,542,323	$25,095,600	$52,446,723	3.1
2022	$235,920,801	$154,449,620	$81,471,182	$25,092,600	$56,378,582	3.2
2023	$240,558,056	$157,241,447	$83,316,609	$25,103,350	$58,213,259	3.3
2024	$245,327,668	$171,579,013	$73,748,656	$25,100,350	$48,648,306	2.9
2025	$251,619,465	$170,503,783	$81,115,681	$25,102,350	$56,013,331	3.2
2026	$254,102,885	$170,102,259	$84,000,626	$25,107,100	$58,893,526	3.3
2027	$257,500,611	$173,522,854	$83,977,757	$25,102,350	$58,875,407	3.3
2028	$253,257,030	$160,022,557	$93,234,473	$28,273,128	$64,961,346	3.3
2029	$258,455,613	$157,080,843	$101,374,769	$15,299,282	$86,075,487	6.6
2030	$261,714,361	$160,082,557	$101,631,804	$15,301,351	$86,330,453	6.6

Source: LUS

(1) Operating Revenues include interest income and other miscellaneous revenue.

(2) Operating Expenses include O&M and other expenses such as customer service, and A&G costs. Operating Expenses do not include ILOT, normal capital and special equipment, nor other miscellaneous expenses.

(3) Debt Service was prepared on a cash basis. Debt Service includes the Series 2010 Bonds, the Series 2012 Bonds, Series 2017 Bonds, Series 2019 Bonds and a projected bond issue in 2027. In 2020, the Series 2010 Bonds were fully redeemed by the proceeds of the Series 2017 Bonds.

Table 11-11: Utilities System Revenues and Debt Service Coverage Ratios Assuming a Communications System Default

FY	Utilities System Net Available Revenues for Debt Service	Utilities System Debt Service	Capital Additions Account, Minimum Capital Requirement	Net Revenues Available for Communications Debt Service	Communications Debt Service	Balance Available After Debt Service	Debt Service Coverage Ratio from Residual Revenues
2021	$76,707,520	$25,095,600	$12,105,166	$39,506,754	$9,431,991	$30,074,763	4.2
2022	$80,668,218	$25,092,600	$12,254,352	$43,321,265	$10,590,741	$32,730,524	4.1
2023	$82,565,893	$25,103,350	$12,396,340	$45,066,203	$10,599,941	$34,466,262	4.3
2024	$73,052,277	$25,100,350	$12,553,255	$35,398,672	$10,601,223	$24,797,449	3.3
2025	$80,475,813	$25,102,350	$12,685,318	$42,688,145	$10,598,970	$32,089,175	4.0
2026	$83,419,530	$25,107,100	$12,837,670	$45,474,760	$10,596,363	$34,878,397	4.3
2027	$83,457,782	$25,102,350	$12,943,338	$45,412,094	$10,588,283	$34,823,811	4.3
2028	$92,778,066	$28,273,128	$13,076,165	$51,428,773	$10,593,760	$40,835,013	4.9
2029	$100,984,471	$15,299,282	$13,225,434	$72,459,755	$10,595,138	$61,864,618	6.8
2030	$101,310,261	$15,301,351	$13,329,227	$72,679,682	$10,603,988	$62,075,695	6.9

Source: LUS

(1) Debt Service was prepared on a cash basis. Debt Service includes the Series 2010 Bonds, the Series 2012 Bonds, Series 2017 Bonds, Series 2019 Bonds and a projected bond issue in 2027. The Series 2010 Bonds were fully redeemed by the proceeds of the Series 2017 Bonds.

(2) The Bond Ordinances require a minimum amount equal to 7.5 % of the total Non-fuel Revenue deposits into the Receipts Account for the purposes of paying capital costs.

(3) Debt Service was prepared on a cash basis. Debt Service includes the Series 2012 Bonds and Series 2015 Bonds. No future debt issues are projected to be issued for the Communications System from 2021 through 2030.

12.0 CONTINUING DISCLOSURES– FINANCIAL AND STATISTICAL DATA

12.1 Introduction

This section includes financial and statistical data. LUS provided this data to Burns & McDonnell for inclusion in this continuing disclosure.

LAFAYETTE CONSOLIDATED GOVERNMENT
REVENUE BONDS CONTINUING DISCLOSURE

Population of City of Lafayette

Year	Population
1960	40,400
1970	68,908
1980	81,961
1990	94,421
2000	110,257
2007	112,199
2008	111,088
2009	112,640
2010	120,623
2013	122,510
2014	126,066
2015	127,661
2016	127,626
2017	131,191
2018	132,747
2019	134,286
2020	132,333

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
2001	584,023	2011	1,178,154
2002	673,318	2012	1,220,334
2003	692,626	2013	1,306,098
2004	716,544	2014	1,381,041
2005	785,937	2015	1,461,552
2006	826,075	2016	1,577,908
2007	864,797	2017	1,592,059
2008	905,005	2018	1,586,428
2009	1,129,670	2019	1,615,615
2010	1,167,335	2020	1,546,875

Source: Lafayette Parish Assessor's Office

LAFAYETTE CONSOLIDATED GOVERNMENT
REVENUE BONDS CONTINUING DISCLOSURE

Classification of Property	**2020 Assessed Valuation** (City of Lafayette)
Real Estate	$1,225,164,044
Personal Property	289,481,989
Public Service Property	27,695,611
Total	$1,542,341,644

Source: Lafayette Parish Assessor's Office

Millage Rates

	2016	**2017**	**2018**	**2019**	**2020**
Parishwide Taxes:					
Schools	4.59	4.56	4.59	4.59	4.92
School District No. 1 -					
Special	7.27	7.27	7.27	7.27	7.79
Special School Improvements	5.00	5.00	5.00	5.00	5.35
School 1985 Operation	16.70	16.70	16.70	16.70	17.88
Courthouse & Jail Maintenance	2.34	2.34	2.34	2.34	2.51
Library (2007-2016)	2.68	N/A	N/A	N/A	N/A
Library (2009-2018)	1.48	1.48	1.48	N/A	N/A
Library (2003-2012)	1.84	N/A	N/A	N/A	N/A
Library (2013-2022)	N/A	1.84	1.84	1.84	1.84
Library (2017-2026)	N/A	2.68	2.68	2.91	2.91
Health Unit Maintenance	N/A	N/A	N/A	N/A	N/A
Juvenile Detention Maintenance	1.17	1.17	1.17	1.17	1.25
Lafayette Economic Development Authority	1.68	1.68	1.68	1.68	1.68
Assessment District	1.44	1.44	1.56	1.44	1.67
Law Enforcement	16.79	16.79	16.79	16.79	17.36
Airport Maintenance	1.58	1.58	1.58	1.71	1.71
Minimum Security Maintenance	1.90	1.90	1.90	2.06	2.21
Bridges and Maintenance	4.17	4.17	4.17	4.17	4.47
Lafayette Parish Bayou Vermillion -					
Bond & Interest	0.17	0.17	0.17	0.17	0.1
Maintenance	0.75	0.75	0.75	0.75	0.79
Drainage Maintenance	3.34	3.34	3.34	3.34	3.58
Public Improvement Bonds	2.75	2.75	2.75	2.00	2.00
Teche-Vermillion Water District	1.41	1.41	1.41	1.41	1.41
Mosquito Abatement & Control	N/A	N/A	N/A	N/A	N/A
Health Unit, Mosquito, Ect.	3.56	3.56	3.56	3.56	3.64
Other Parish and Municipal Taxes:					
Parish Tax (Inside Municipalities)	1.52	1.52	1.52	1.52	1.63
Parish Tax (Outside Municipalities)	3.05	3.05	3.05	3.05	3.25
Lafayette Centre Development District	11.24	11.24	12.75	12.75	13.80
City of Lafayette	**17.94**	**17.80**	**17.80**	**17.94**	**17.94**

Sources: Lafayette Parish Assessor and Lafayette Consolidated Government

LAFAYETTE CONSOLIDATED GOVERNMENT
REVENUE BONDS CONTINUING DISCLOSURE

Leading Taxpayers

The ten largest property taxpayers of the City and their 2020 assessed valuations follow:

	Name of Taxpayer	Type of Business	2020 Assessed Valuation
1.	Iberia Bank	Banking	$19,570,028
2.	Stuller Inc	Manufacturing	11,435,084
3.	Wal Mart / Sams	Warehouse Clubs & Supercenters	9,819,791
4.	AT&T / Bellsouth	Telecommunications	9,588,690
5.	J P Morgan Chase	Banking	9,192,717
6.	Franks Casing	Oil & Gas Support Services	8,970,694
7.	Whitney National Bank	Banking	7,384,423
8.	Service Chevrolet Inc	New Car Dealers	7,043,253
9.	Entergy Gulf States	Electric Company	6,950,240
10.	Home Bank	Banking	6,939,149
			$96,894,069 *

* Approximately 6.28% of the 2020 assessed valuation of the City.

Source: Lafayette Consolidated Government

Sales Tax Collections

The City has collected the following amounts from its 1961 special one percent (1%) sales and use tax initially effective July 1, 1961 and 1985 special one percent sales and use tax initially effective July 1, 1985, each effective in perpetuity, for the periods indicated below:

City of Lafayette Combined (61 & 85) Gross Sales Tax Collections

Month Collected	FY 18-19 Actual Collections	FY 19-20 Actual Collections	FY 20-21 Actual Collections
November	$6,707,189	$6,880,764	4,071,551
December	6,896,866	6,953,838	3,790,641
January	7,850,848	7,990,427	4,695,488
February	6,215,366	6,396,301	3,615,819*
March	6,146,758	5,919,877	-
April	7,254,425	6,172,283	-
May	6,689,138	5,276,476	-
June	7,021,114	5,988,734	-
July	6,852,811	7,000,724	-
August	6,602,487	6,782,130	-
September	6,682,354	6,480,530	-
October	6,894,911	7,853,354	-
TOTAL	$81,814,268	$79,695,440	$16,173,499

Source: City of Lafayette. Figures unaudited.

* Latest month for which figures are available

LAFAYETTE CONSOLIDATED GOVERNMENT
CASH AND INVESTMENTS
BALANCES AS OF OCTOBER, 2020

			CASH AND INVESTMENTS
General Operating Funds:			
101	General Fund-City	$	53,427,628
102	Property Tax Escrow Fund		53,347
105	General Fund-Parish		1,331,559
126	Grants-Federal		(3,653,631)
127	Grants-State		(188,056)
128	Grants-Other		67,321
162	Community Development		(469,502)
163	Home Programs		277,732
165	Emergency Shelter Grant		0
166	HUD Home Loan Program		55,496
171	HUD Housing Loan Prog		295,492
185	FHWA I-49 Grant		0
187	FTA Capital		(1,479,228)
189	DOTD Travel Management		24,042
201	Recreation and Parks		0
203	Municipal Transit System		0
204	Heymann Performing Arts Center		67,713
206	Animal Control Shelter		7,877,439
207	Traffic Safety		13,303
209	Combined Golf Courses		0
210	Laf Develop & Revitaliz		532,583
252	State Seized/Forfeited Property		70,620
253	Fed Narc Seized /Forfeited Property		15,015
255	Criminal Non-support		(39,993)
260	Road & Bridge Maintenance		22,207,435
261	Drainage Maintenance		12,125,129
262	Correctional Center		0
263	Library Fund		30,753,147
264	Courthouse Complex		14,374,768
265	Juvenile Detention Facility		4,241,448
266	Public Health Unit		1,945,449
268	Criminal Court		0
269	Combined Public Health		700,382
271	Mosquito Abatement		718,038
272	Justice Department Federal Equitable Sharing Fund		56,877

LAFAYETTE CONSOLIDATED GOVERNMENT
CASH AND INVESTMENTS
BALANCES AS OF OCTOBER, 2020

			CASH AND INVESTMENTS
273	Storm Water Management		9,684,478
274	Cultural Economy		1,168,513
275	Parishwide Street, Drainage, Bridge		8,105,496
276	Parishwide Parks & Rec Proj		2,026,374
277	Court Services Fund		0
278	Police & Fire Resiliency		10,008,518
297	Parking Program		0
299	Codes & Permits		0
550	Environmental Services		4,793,538
551	CNG Service Station		535,525
601	Payroll		4,628,359
605	Unemployment Compensation		3,479
607	Group Hospitalization		23,193,044
640	Hurricane Katrina		0
641	Hurricane Rita		0
643	Hurricane Gustav		(156,792)
644	Hurricane Isaac		0
645	2016 August Flood		(145,004)
646	Hurricane Barry		(497,731)
647	COVID19 Emer Preparedness		(40,942)
648	Hurricane Laura		(401,871)
649	Hurricane Delta		(343,413)
701	Central Printing		(11,489)
702	Central Vehicle Maintenance		281,229
	Total General Operating Funds	$	**208,232,862**
	Debt Service Funds:		
215	1961 City Sales Tax Trust Fund	$	726
222	1985 City Sales Tax Trust Fund		0
290	TIF City Sales Tax Trust Fund-MM101		657,408
291	TIF City Sales Tax Trust Fund-MM103		3,545,620
302	1961 Sales Tax Bond Sinking Fund		6,571,806
303	1961 Sales Tax Bond Reserve Fund		8,296,751
304	1985 Sales Tax Bond Sinking Fund		4,091,086
305	1985 Sales Tax Reserve Fund		7,924,289
356	Contingency Sinking-Parish		6,049,731
357	2011 Certificates of Indebt		229,137
358	2012 Limited Tax Refund		650,328
801	Consolidated Sewerage Sinking Fund		1,777
821	Consolidated Paving Districts Sinking Fund		0
	Total Debt Service Funds	$	**38,018,659**

LAFAYETTE CONSOLIDATED GOVERNMENT
CASH AND INVESTMENTS
BALANCES AS OF OCTOBER, 2020

			CASH AND INVESTMENTS
	Construction Funds:		
401	Sales Tax Capital Improvement Fund	$	63,563,893
407	2010 Parish General Obligation Bonds		7,804
436	2009A Sales Tax Bond Construction		0
438	2010 Sales Tax Bond Construction		33
440	2013 Sales Tax Bond Construction		19,088
441	City Combined Bond Fund		62,349,769
	Total Construction Funds	$	**125,940,586**
	Other:		
602	Firemen Pension & Relief	$	0
603	Police Pension & Relief		0
614	Risk Management		4,533,375
	Total Other	$	**4,533,375**

LAFAYETTE CONSOLIDATED GOVERNMENT
CASH AND INVESTMENTS
BALANCES AS OF OCTOBER, 2020

			CASH AND INVESTMENTS
	Economic Development Funds:		
227	Downtown	$	48,280
228	University Gateway		61,416
229	Trappey		133
230	Northway		59,311
231	Holy Rosary		3,892
	Total Economic Development Funds	$	**173,032**
	Utility System Funds:		
501	Receipts Fund	$	340,062
502	Operation and Maintenance		6,642,820
503	Bond & Interest		0
504	Capital Additions Fund		123,013,912
505	Security Deposit Fund		9,469,369
506	Bond Reserve Fund		17,230,803
507	2019 LUS Construction Fund		67,209,590
	Total Utilities System Funds	$	**223,906,556**
	LPPA Funds:		
520	LPPA Revenue Fund	$	6,395,254
521	LPPA Operating Fund		10,766,131
522	LPPA Fuel Cost Stability Fund		4,500,036
523	LPPA Bond Reserve Fund		9,531,104
524	LPPA Reserve & Contingency Fund		5,283,359
525	LPPA Bond Interest & Principal Fund		0
	Total LPPA Funds	$	**36,475,884**
	Communications System Funds:		
531	Receipts Account	$	73,700
532	Operating Account		2,250,001
533	Debt Service Account		0
535	2012A Bond Account		0
536	2012B Bond Account		0
537	Capital Additions Account		9,798,111
538	Security Deposits Account		148,472
	Total Communications System Funds	$	**12,270,284**
	TOTAL ALL FUNDS	$	**649,551,239**

LAFAYETTE CONSOLIDATED GOVERNMENT
REVENUE BONDS CONTINUING DISCLOSURE
ECONOMIC INDICATORS

Per Capita Personal Income

	2015	2016	2017	2018	2019
Lafayette Parish	$ 48,734	$ 44,347	$ 47,603	$ 48,707	$ 49,629
Louisiana	42,856	42,298	43,932	46,207	47,460
United States	48,451	49,246	52,118	54,606	56,490

Source: U.S. Bureau of Economic Analysis

Effective Buying Income

Median Household
Effective Buying Income

Year	Lafayette Parish	City of Lafayette	Louisiana	Nation
2019	$ 56,999	$ 51,264	$ 49,469	$ 62,843

Sources: U.S. Census Bureau

Employment

Year	Labor Force	Employment	Unemployment	Parish Rate	State Rate
2001	99,544	95,345	4,199	4.2	5.7
2002	98,002	93,450	4,552	4.6	6.1
2003	97,675	92,904	4,771	4.9	6.4
2004	98,439	94,047	4,392	4.5	5.9
2005	104,121	98,670	5,451	5.2	7.1
2006	107,716	104,316	3,400	3.2	4.5
2007	110,161	106,874	3,287	3.0	4.3
2008	113,129	109,279	3,850	3.4	4.9
2009	111,996	106,294	5,702	5.1	6.8
2010	113,571	106,487	7,084	6.2	8.0
2011	113,869	107,117	6,752	5.9	7.8
2012	116,591	110,733	5,858	5.0	7.1
2013	118,870	113,007	5,863	4.9	6.7
2014	122,466	116,444	6,022	4.9	6.4
2015	120,075	113,260	6,815	5.7	6.3
2016	114,348	107,348	7,000	6.1	6.0
2017	113,028	107,513	5,515	4.9	5.1
2018	113,337	108,265	5,072	4.5	4.9
2019	113,607	108,685	4,922	4.3	4.8

Source: Louisiana Department of Labor

LAFAYETTE CONSOLIDATED GOVERNMENT
REVENUE BONDS CONTINUING DISCLOSURE

The final figures for the Parish for December 2020 were reported as follows:

Year	Labor Force	Employment	Unemployment	Parish Rate	State Rate
December 2020	113,579	107,275	6,304	5.6	*6.9

* The seasonally adjusted rate was 7.2

Source: Louisiana Workforce Commission

The final figures for the Lafayette Metropolitan Statistical Area ("MSA") for December 2020 were reported as follows:

Year	Labor Force	Employment	Unemployment	Parish Rate	State Rate
December 2020	212,283	199,150	13,133	6.2	*6.9

* The seasonally adjusted rate was 7.2

Source: Louisiana Workforce Commission

The following table show the composition of the employed work force in the Lafayette MSA.

Non-Farm Wage and Salary Employment by Major Industry
(Employees in Thousands)

	December 2016	December 2017	December 2018	December 2019	December 2020
Mining	13.6	13.5	12.9	12.8	9.9
Construction	9.5	9.0	9.7	9.4	9.0
Manufacturing	14.8	15.7	15.7	16.6	14.6
Trade, Transporation, & Utilities	42.2	41.4	42.5	42.7	43.7
Information	2.5	2.5	2.4	2.3	2.3
Financial Activities	10.6	10.4	11	10.9	10.0
Professional And Business Services	20.1	20.2	21.7	21	19.0
Educational and Health Services	30.4	30.5	32.5	33.1	31.3
Leisure and Hospitality	21.7	22.1	22.0	22.0	24.1
Other Services	7.2	7.2	7.1	7.2	6.7
Government	26.7	26.8	27.5	27.8	27.0
Total	219.1	199.3	205.0	205.8	197.6

Source: U.S. Bureau of Labor Statistics

LAFAYETTE CONSOLIDATED GOVERNMENT
REVENUE BONDS CONTINUING DISCLOSURE
ANNUAL AVERAGE LAFAYETTE PARISH CONCURRENT ECONOMIC
INDICATORS 2016, 2017, 2018 AND THIRD QUARTER 2020
(All data not seasonally adjusted)

	2016	2017	2018	2019	2020:3
EMPLOYMENT					
Total	**130,217**	**129,061**	**130,728**	**131,140**	**120,611**
Accommodation and Food Services	14,327	14,084	82	13,756	67
Administrative and Waste Services	5,917	5,733	8,598	6,205	6,273
Agriculture,Forestry, Fishing, and Hunting	80	70	419	87	441
Arts, Entertainment, and Recreation	2,225	2,088	5,478	1,948	5,841
Construction	5,911	5,685	8,270	5,518	7,206
Educational Services	7,832	7,961	6,030	8,365	5,396
Finance & Insurance	3,449	3,501	17,968	3,618	16,183
Health Care and Social Services	21,197	22,078	3,832	23,620	3,843
Information	2,345	2,279	2,146	2,220	1,869
Management of Companies and Enterprises	2,753	2,622	3,608	2,474	3,546
Manufacturing	7,889	7,808	3,149	8,672	2,609
Mining	10,309	8,877	8,477	8,592	8,123
Other Services, except Public Administration	3,207	3,156	2,582	3,200	1,683
Professional & Technical Services	7,644	7,645	6,090	8,717	6,745
Public Administration	3,693	3,685	8,245	3,724	7,676
Real Estate and Rental and Leasing	3,120	3,060	22,727	3,135	23,243
Retail Trade	18,180	18,356	2,013	17,125	1,472
Transportation & Warehousing.	3,202	3,509	14,088	3,982	11,629
Utilities	433	424	3,237	420	2,974
Wholesale Trade	6,493	6,428	3,689	5,761	3,793

	Annual	Annual	Annual	Annual	Quarterly
EARNINGS ($ in Thousands)					
Total	**$5,962,542**	**$5,931,890**	**$6,195,914**	**$6,318,157**	**$1,455,048**
Accommodation and Food Services	236,975	230,580	3,052	235,558	661
Administrative and Waste Services	225,268	209,685	764,490	238,549	128,889
Agriculture,Forestry, Fishing, and Hunting	3,828	2,482	27,084	3,353	8,365
Arts, Entertainment, and Recreation	35,173	35,087	293,123	33,910	84,236
Construction	308,219	295,648	490,361	295,091	97,742
Educational Services	319,467	330,665	353,203	365,194	77,464
Finance & Insurance	228,385	239,273	525,883	261,533	129,883
Health Care and Social Services	930,555	973,111	192,881	1,083,972	51,047
Information	112,082	113,650	113,095	119,024	26,628
Management of Companies and Enterprises	247,246	228,492	255,300	193,100	77,011
Manufacturing	419,418	437,437	194,582	530,626	36,007
Mining	880,821	769,080	560,014	782,913	128,733
Other Services, except Public Administration	115,124	116,670	241,813	122,363	28,252
Professional & Technical Services	483,465	492,294	226,378	577,816	71,417
Public Administration	182,402	183,885	348,028	191,421	89,997
Real Estate and Rental and Leasing	174,921	175,155	1,023,179	193,183	276,272
Retail Trade	508,095	525,066	33,426	518,698	7,723
Transportation & Warehousing.	159,357	179,511	234,972	194,059	51,083
Utilities	25,298	25,975	125,857	27,456	29,191
Wholesale Trade	365,965	367,692	189,122	350,298	54,447

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	4,322
2.	Ochsner Lafayette General	Health Care	4,078
3.	Our Lady of Lourdes Reg Med Ctr	Health Care	2,800
4.	Lafayette Consolidated Government	Public Administration	2,500
5.	University of Louisiana-Lafayette	Education	2,426
6.	WHC Inc.	Oil and Gas Pipeline Construction	1,505
7.	Wal-Mart Stores Inc.	Retail Trade	1,165
8.	Stuller Inc.	Manufacturing	1,061
9.	Lafayette Parish Government	Public Administration	1,031
10.	Superior Energy Services	Oil and Gas Services	834

Source: Lafayette Economic Development Authority

Banking Facilities

The Lafayette Parish are is served by the following banks:

Banks

1st Heritage Credit
3rd District Highway FCU
Acadian Federal Credit Union
Acadiana Medical Federal Credit Union
Advancial Federal Credit Union
American Bank & Trust Company
Aurora Ranch Mitigation Bank
BancorpSouth Bank
Bank of Sunset & Trust Company
Bayou Federal Credit Union
Business First Bank
Capital One, National Association
Chase Bank
Commercial Business Loans LLC
Community First Bank
Cornerstone Financial Credit Union
Crescent Bank & Trust
CUSA Federal Credit Union
Family Savings Credit Union
Farmers-Merchants Bank & Trust Company
Farmers State Bank & Trust Company
First Bank & Trust
First National Bank
First National Developments
First Pioneers FCU
Gulf Coat Bank
Hancock Whitney Bank
Heritage Credit Union
Home Bank
HPES
IBERIABANK
Investar Bank
JD Bank
LA Dotd Federal Credit Union
Lafayette Schools Federal Credit Union
M C Bank & Trust Co.
Maple Federal Credit Union
MidSouht Bank, N.A.
Pedestal Bank
Pelican State Credit Union
PHI Federal Credit Union
Rayne State Bank & Trust Co
Regions Bank
Section 705 Credit Union
South Louisiana Bank
St. Landry Bank & Trust Company
St. Martin Bank & Trust Company
University of LA Credit Union
Washington State Bank
Woodforest National Bank

Source: Lafayette Economic Development Authority

STATEMENT OF DIRECT AND UNDERLYING BONDED DEBT AS OF NOVEMBER 2, 2020

(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)	Certificates of Indebtedness, Series 2011	3.65	5/11/11	5/01/26	$ 2,865,000	$ 430,000
(3)	Utilities Revenue Refunding Bonds, Series 2012	5.0	1/11/13	11/01/28	99,290,000	10,525,000
(3)	Utilities Revenue Refunding Bonds, Series 2017	4.0-5.0	10/13/17	11/01/35	59,465,000	2,780,000
(3)	Utilities Revenue Bonds, Series 2019	3.0-5.0	5/01/19	11/01/44	56,860,000	1,255,000
(4)	Public Improvement Sales Tax Refunding Bonds, Series ST-2011A	5.0	6/01/11	3/01/21	385,000	385,000
(4)	Public Improvement Sales Tax Refunding Bonds, Series ST-2011C	3.125-5.0	12/08/11	3/01/27	4,265,000	535,000
(4)	Public Improvement Sales Tax Refunding Bonds, Series ST-2012A	3.0-3.125	6/01/12	3/01/28	3,345,000	365,000
(4)	Public Improvement Sales Tax Bonds, Series 2013	3.125-5.0	6/21/13	3/01/38	12,660,000	495,000
(4)	Public Improvement Sales Tax Refunding Bonds, Series 2014A	5.0	10/17/14	3/01/30	12,790,000	1,015,000
(4)	Public Improvement Sales Tax Refunding Bonds, Series 2014C	5.0	12/05/14	3/01/24	10,975,000	2,995,000
(4)	Public Improvement Sales Tax Refunding Bonds, Series 2015A	2.43	12/18/15	3/01/25	2,430,000	295,000
(4)	Public Improvement Sales Tax Refunding Bonds, Series 2016D	2.0-4.0	2/26/16	3/01/32	10,805,000	720,000
(4)	Public Improvement Sales Tax Refunding Bonds, Series 2017A	3.0-5.0	7/18/17	3/01/32	10,165,000	675,000
(4)	Public Improvement Sales Tax Refunding Bonds, Series 2018A	4.0-5.0	12/06/18	3/01/33	18,995,000	1,150,000
(4)	Public Improvement Sales Tax Refunding Bonds, Series 2020	4.0	9/18/20	3/01/34	2,940,000	0
(4)	Taxable Public Improvement Sales Tax Refunding Bonds, Series 2020A	0.562-1.744	9/18/20	3/01/30	7,800,000	0
(4)	Public Improvement Sales Tax Bonds, Series 2020B	1.0-5.0	9/18/20	3/01/45	25,000,000	0
(5)	Public Improvement Sales Tax Refunding Bonds, Series ST-2011B	4.0	6/01/11	5/01/21	385,000	385,000
(5)	Public Improvement Sales Tax Refunding Bonds, Series ST-2011D	3.125-5.0	12/08/11	5/01/27	6,180,000	840,000
(5)	Public Improvement Sales Tax Refunding Bonds, Series ST-2012B	3.0-5.0	6/01/12	5/01/28	8,640,000	930,000
(5)	Public Improvement Sales Tax Refunding Bonds, Series 2014B	3.0-3.375	9/26/14	5/01/30	1,315,000	110,000
(5)	Public Improvement Sales Tax Refunding Bonds, Series 2015	5.0	2/06/15	5/01/24	4,175,000	1,790,000
(5)	Public Improvement Sales Tax Refunding Bonds, Series 2016A	3.0-5.0	2/26/16	5/01/25	10,210,000	2,965,000
(5)	Public Improvement Sales Tax Refunding Bonds, Series 2016E	2.63	2/26/16	5/01/32	1,440,000	100,000
(5)	Public Improvement Sales Tax Refunding Bonds, Series 2018B	4.0-5.0	12/06/18	5/01/34	17,465,000	915,000
(5)	Public Improvement Sales Tax Refunding Bonds, Series 2019A	2.5-5.0	4/11/19	5/01/44	26,070,000	120,000
(5)	Taxable Public Improvement Sales Tax Refunding Bonds, Series 2020C	0.562-1.744	9/18/20	5/01/30	5,500,000	0
(5)	Public Improvement Sales Tax Bonds, Series 2020D	1.0-5.0	9/18/20	5/01/45	25,000,000	0

(Table continued on the next page.)

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 (continued)**					
(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	72,665,000	5,125,000
(7)	Taxable Limited Tax Refunding Bonds, Series 2020	0.482-1.824	9/18/20	5/01/32	25,835,000	0
(8)	**Underlying Debt of the Parish of Lafayette, State of Louisiana**					
(9)	General Obligation Bonds, Series 2010	4.75-5.0	1/12/11	3/01/35	18,935,000[(1)]	875,000
(9)	General Obligation Refunding Bonds, Series 2010	3.75-5.0	1/12/11	3/01/26	6,085,000[(2)]	895,000
(9)	General Obligation Refunding Bonds, Series 2012	3.0-4.0	5/03/12	3/01/28	10,450,000	1,125,000
(9)	General Obligation Refunding Bonds, Series 2014	3.0-4.0	8/01/14	3/01/30	8,085,000	670,000

[(1)] Includes $18,060,000 of bonds refunded by the General Obligation Refunding Bonds, Series 2020.

[(2)] Includes $5,190,000 of bonds refunded by the General Obligation Refunding Bonds, Series 2020.

(10)	**Underlying Debt of the Parish School Board of the Parish of Lafayette, State of Louisiana**					
(2)	Refunding Certificates of Indebtedness, Series 2010	3.06	12/29/10	11/01/23	910,000	294,000
(2)	Certificate of Indebtedness, Series 2015	2.20	8/17/15	11/01/22	3,055,000	1,505,000
(11)	Public School Refunding Bonds, Series 2010	3.75	5/27/10	4/01/21	945,000	945,000
(11)	Sales Tax Revenue Bonds, Series 2018	3.0-5.0	2/27/18	4/01/43	46,570,000	1,190,000
(11)	Sales Tax Revenue Bonds, Series 2018A	3.0-3.625	7/31/18	4/01/43	20,150,000	615,000
(11)	Sales Tax Revenue Bonds, Series 2019	2.0-5.0	4/18/19	4/01/49	24,900,000	100,000
(11)	Taxable Sales Tax Revenue Refunding Bonds, Series 2020	0.281-2.83	10/15/20	4/01/48	31,925,000	105,000
(12)	Limited Tax Bonds (Taxable QSCB), Series 2009	0.8	12/11/09	10/01/24	2,666,668	666,667
(12)	Limited Tax Bonds (Taxable QSCB), Series 2011	0	3/01/11	10/01/26	4,000,006	666,666
(12)	Limited Tax Bonds (Taxable QSCB), Series 2012	0	4/03/12	3/01/27	681,695	97,385
(12)	Limited Tax Revenue Bonds, Series 2012A	2.0-4.0	1/04/13	3/01/29	5,515,000	1,450,000
(12)	Limited Tax Revenue Bonds, Series 2016	2.375	12/21/16	12/21/56	75,504,771	1,347,608
(13)	Taxable Limited Tax Revenue Refunding Bonds, Series 2020	0.281-1.825	10/15/20	3/01/32	15,000,000	95,000
(14)	**Underlying Debt of the Law Enforcement District of the Parish of Lafayette, State of Louisiana**					
(15)	Limited Tax Revenue Bonds, Series 2012	2.25-3.0	3/01/12	3/01/22	1,955,000	955,000
(16)	Taxable Limited Tax Revenue Refunding Bonds, Series 2020	0.3-1.9	10/20/20	3/01/32	13,475,000	70,000
(17)	Revenue Anticipation Note, Series 2020	2.0	10/01/20	6/30/21	4,000,000	4,000,000
(18)	**Underlying Debt of Lafayette Public Power Authority**					
(19)	Electric Revenue Bonds, Series 2012	3.0-5.0	12/21/12	11/01/32	44,935,000	2,880,000
(19)	Electric Revenue Refunding Bonds, Series 2015	3.0-5.0	11/13/15	11/01/32	26,390,000	865,000
(20)	**Underlying Debt of Lafayette Parish Bayou Vermilion District, State of Louisiana**					
(9)	General Obligation Bonds, Series 2016	2.0-2.625	8/30/16	3/01/36	3,545,000	150,000
(21)	**Underlying Debt of Lafayette Parish Waterworks District North, Lafayette Parish, Louisiana**					
(3)	Water Revenue Refunding Bonds, Series 2013	2.95	1/29/13	10/01/27	2,247,000	383,000
(22)	**Underlying Debt of Lafayette Parish Waterworks District South, Lafayette Parish, Louisiana**					
(3)	Water Revenue Refunding Bonds, Series 2011	2.9	12/21/11	8/01/21	363,000	363,000
(3)	Water Revenue Bonds, Series 2013	3.2	8/08/13	8/01/28	1,340,000	40,000
(3)	Water Revenue Bonds, Series 2018	1.675-3.35	7/26/18	8/01/30	1,480,000	20,000

NOTES

(1) The 2020 total assessed valuation of the City of Lafayette is approximately $1,542,341,644, all of which is taxable for municipal purposes.

(2) 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 are outstanding.

(3) Payable solely from the income and revenues derived or to be derived from the operation of the utility system of the issuer, subject only to the prior payment of the reasonable and necessary expenses of operating and maintaining the system.

(4) Payable solely from and secured by an irrevocable pledge and dedication of the net avails or proceeds of the 1% sales and use tax being levied and collected by the issuer, pursuant to elections held therein 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.

(5) Payable solely from and secured by an irrevocable pledge and dedication of the net avails or proceeds of the 1% sales and use tax being levied and collected by the city, pursuant to elections held therein 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.

(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 subordinance 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 on all the property subject to taxation within the corporate boundaries of the issuer.

(8) The 2020 total assessed valuation of the Parish of Lafayette is approximately $2,610,448,358, of which approximately $2,202,052,148 is taxable.

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

(10) The 2020 total assessed valuation of the Parish School Board of the Parish of Lafayette is approximately $2,610,448,358, of which approximately $2,202,052,148 is taxable.

(11) Payable solely from and secured by 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, authorized at an election held on September 18, 1965, subject only to the prior payment of the reasonable and necessary costs and expenses of collecting and administering the tax.

(12) Secured by and payable from an irrevocable pledge and dedication of the funds to be derived by the issuer from the levy and collection of a special tax of 4.59 mills (such rate being subject to adjustment from time to time due to reassessment), authorized to be levied each year on all the property subject to taxation within the corporate boundaries of the issuer.

(13) 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 4.92 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 2020 total assessed valuation of the Law Enforcement District of the Parish of Lafayette is approximately $2,610,448,358, of which approximately $2,202,052,148 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), authorized to be imposed and collected each year on all the property subject to taxation within the boundaries of the issuer.

(16) Secured by and payable from an irrevocable pledge and dedication of the annual revenues of a special *ad valorem* tax of 8.06 mills (such rate being subject to adjustment from time to time due to reassessment), authorized to be imposed and collected each year on all the property subject to taxation within the boundaries of the issuer.

(17) Secured by and payable from a pledge of all revenues accruing to the Sheriff's general fund for the fiscal year ending June 30, 2021, all as provided in the resolution. Assumes drawdown of full principal amount prior to maturity.

(18) The Lafayette Public Power Authority is citywide and levied no *ad valorem* taxes in 2020.

(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) The 2020 total assessed valuation of the Lafayette Parish Bayou Vermilion District is approximately $2,610,448,358, of which approximately $2,202,052,148 is taxable.

(21) Lafayette Parish Waterworks District North, Lafayette Parish, 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 2020.

(22) Lafayette Parish Waterworks District South, Lafayette Parish, 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 2020.

(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 I-49 Corridor Economic Development District, the Lafayette Public Trust Financing Authority, Lafayette I-10 Corridor District at Mile Marker 103, the Lafayette Parish Industrial Development Board, District No. 4 Regional Planning and Development Commission, all operating and capital leases and any and all short-term cash flow borrowings.)

SUMMARY DEBT STATEMENT AS OF NOVEMBER 2, 2020

A. Debt of the City of Lafayette

Type of Obligation	Principal Outstanding
Sales Tax Bonds	$228,935,000
Utilities Revenue Bonds	$215,615,000
Communications System Revenue Bonds	$87,260,000
Taxable Revenue Bonds	$25,835,000
Certificates of Indebtedness	$2,865,000

B. Debt of the Parish of Lafayette

Type of Obligation	Principal Outstanding
Unlimited Ad Valorem Tax Bonds	$47,100,000

C. Debt of the Lafayette Parish School Board

Type of Obligation	Principal Outstanding
Sales Tax Bonds	$227,858,140
Certificates of Indebtedness	$3,965,000

D. Debt of The Lafayette Parish Law Enforcement District

Type of Obligation	Principal Outstanding
Limited Tax Revenue Bond	$1,955,000
Taxable Revenue Bond	$13,475,000
Revenue Anticipation Note	$4,000,000

E. Debt of the Lafayette Public Power Authority

Type of Obligation	Principal Outstanding
Electric Revenue Bonds	$71,325,000

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

Type of Obligation	Principal Outstanding
Water Revenue Bonds	$2,247,000

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

Type of Obligation	Principal Outstanding
Water Revenue Bonds	$3,183,000

(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.)

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