

Andrew

Final Report

# **2005 COMPREHENSIVE ENGINEERING REPORT**

**LAFAYETTE CONSOLIDATED  
GOVERNMENT, LOUISIANA  
LAFAYETTE UTILITIES SYSTEM**

**Year Ended October 31, 2005**

**May 1, 2006**

**R·W·BECK**







May 1, 2006

Mr. Terry Huval  
Director of Utilities  
Lafayette Utilities System  
1314 Walker Road  
Lafayette, LA 70502

Subject: **2005 Comprehensive Engineering Report - FINAL**

Dear Terry:

Enclosed please find 20 copies of R. W. Beck's final 2005 Comprehensive Engineering Report. This report is based on field reviews and interviews conducted during the week of January 31, 2006.

It was a pleasure working with you and your staff on this project. If you have any questions, please feel free to contact me directly at (303) 299-5327.

Sincerely,

**R. W. BECK, INC.**

A handwritten signature in cursive script that reads 'Jill Sangster'.

Jill A. Sangster  
Project Manager

JAS/jao

Enclosure





# LAFAYETTE UTILITIES SYSTEM 2005 COMPREHENSIVE ENGINEERING REPORT

## Table of Contents

---

<i>Letter of Transmittal</i>	
<i>Table of Contents</i>	
<i>List of Tables</i>	
<i>List of Figures</i>	

<b>Section 1 INTRODUCTION</b>	1-1
Requirements of Report.....	1-1
Authority.....	1-2
Report Purpose .....	1-2
Consulting Engineer.....	1-3
Utilities System Revenue Bonds .....	1-5
Security Issues .....	1-6
Changing Utility Environment .....	1-7
Enterprise Risk Management.....	1-7
Regional Reliability Councils .....	1-8
Energy Policy Act of 2005.....	1-8
Electricity – Title XII.....	1-9
Renewable Resources .....	1-10
Time-Based Metering .....	1-10
Recommendations .....	1-10
 <b>Section 2 RECOMMENDATIONS</b>	 2-1
Definitions .....	2-1
Highest Priority .....	2-1
High Priority .....	2-1
Normal Priority .....	2-2
Recommendations .....	2-2
Section 1 – Introduction.....	2-2
Section 3 – Organization and Management.....	2-2
Section 4 – Finance and Accounting .....	2-3
Section 5 – Electric Utility.....	2-5
Section 6 – Water Utility .....	2-5
Section 7 – Wastewater Utility .....	2-6
Section 8 – Fiber Utility.....	2-6
Section 9 – Environmental Issues .....	2-6

---



## Table of Contents

---

### Section 3 ORGANIZATION AND MANAGEMENT

LCG Organization and Management .....	3-1
Home Rule Charter .....	3-1
Department of Finance .....	3-2
Department of Administrative Services.....	3-3
Department of Information Services Technology .....	3-5
Legal Department .....	3-5
LUS Organization and Management.....	3-5
Management of the Utilities System.....	3-7
Organization .....	3-7
Engineering Division .....	3-8
Water Operations Division .....	3-9
Wastewater Operations Division .....	3-9
Electric Operations Division.....	3-10
Power Production Division.....	3-10
Support Services Division .....	3-10
Customer Service Division.....	3-10
Environmental Compliance Division .....	3-11
Telecommunications Division .....	3-11
LUS Personnel.....	3-11
Staffing Levels.....	3-11
Compensation .....	3-12
Insurance.....	3-15
LUS Organizational Goals .....	3-15
Recommendations .....	3-17

### Section 4 FINANCE AND ACCOUNTING

LUS Operating Results.....	4-1
Customer Sales Data.....	4-7
Adequacy of Revenues .....	4-10
Franchises .....	4-10
Rate Revisions .....	4-11
Rate Comparison .....	4-13
Operation & Maintenance Expenses .....	4-15
LUS Operation and Maintenance Expenses .....	4-15
Comparative Operation and Maintenance Expenses .....	4-20
Glossary for Electric Operating Ratios.....	4-24
Utilities System Capital Improvement Program.....	4-26
Capital Improvement Program .....	4-27
Restricted Asset Transactions and Balances.....	4-29
Bond Reserve Fund.....	4-30
Capital Additions Fund.....	4-30
Construction Fund .....	4-31
In-Lieu-of Tax .....	4-32
Financial and Operating Ratios .....	4-33
Glossary for Electric Financial and Operating Ratios .....	4-34
Balance Sheet.....	4-36



Operating Budget.....	4-38
Fund Balances .....	4-41
Audit 4-41	
Accounting .....	4-41
Recommendations .....	4-42

## Section 5 - ELECTRIC UTILITY

Introduction .....	5-1
Historical Capacity and Energy Requirements.....	5-1
Load Forecast .....	5-2
Utility Organization.....	5-4
Major Contracts .....	5-5
Power and Fuel Marketing.....	5-5
The Energy Authority .....	5-5
Power Purchases .....	5-7
Lafayette Public Power Authority .....	5-7
Southwestern Power Administration .....	5-7
Power Sales.....	5-7
Louisiana Energy and Power Authority.....	5-7
Electric Interconnection, Interchange, and Transmission.....	5-8
Entergy Gulf States .....	5-8
Central Louisiana Electric Company .....	5-8
Interchange.....	5-9
Joint Ownership/Use.....	5-9
Fuel Supply .....	5-10
Coal for Rodemacher Unit No. 2 .....	5-10
Crosstex Gulf Coast Marketing, Ltd.....	5-10
Other Agreements .....	5-10
Southwestern Louisiana Electric Membership Co-op .....	5-10
CT Parts Agreement.....	5-10
CT Maintenance Agreement.....	5-11
Major Contract Summary .....	5-11
Power Production .....	5-11
Gas-fired Generation.....	5-12
Operating Statistics .....	5-13
Operations and Maintenance.....	5-16
Condition of the Property.....	5-17
New Gas-Fired Generation .....	5-18
Coal-Fired Generation .....	5-18
Gas Pipeline .....	5-20
Electric Operations .....	5-20
Transmission and Distribution.....	5-21
Operating Statistics .....	5-21
Operations and Maintenance.....	5-22
Condition of the Property.....	5-29
Facilities Management.....	5-29
System Maintenance Expenditures.....	5-30

## Table of Contents

---

Additions to Plant.....	5-32
Capital Improvement Program .....	5-32
Key Issues, Goals, and Achievements .....	5-33
Recommendations .....	5-34

### Section 6 WATER UTILITY

Water Utility System .....	6-1
Key Challenges, Issues, and Goals .....	6-1
Additions to Plant.....	6-2
Operation and Maintenance Expenditures .....	6-2
System Staffing .....	6-4
Water System.....	6-4
Wholesale Water Sales .....	6-5
Unbilled Water Volumes .....	6-7
Drinking Water Quality .....	6-7
Historical Water Utility Requirements/Production .....	6-8
Contracts and Agreements .....	6-10
Water District North .....	6-10
Water District South .....	6-11
Other Wholesale Water Contracts .....	6-11
Forecasts .....	6-12
Future Regulatory Requirements .....	6-13
Capital Improvement Program .....	6-14
Key Issues .....	6-15
Cost Containment .....	6-15
Customers and Community .....	6-16
Operations.....	6-16
Performance Measurement .....	6-16
Recommendations .....	6-16

### Section 7 WASTEWATER UTILITY

Wastewater Utility System.....	7-1
Additions to Plant.....	7-1
Operation and Maintenance Expenditures .....	7-1
Wastewater System .....	7-2
Historical Wastewater Utility Requirements.....	7-4
Contracts and Agreements .....	7-8
Forecasts.....	7-9
Future Regulatory Requirements .....	7-10
Sanitary Sewer Overflow Control Policy .....	7-10
Capital Improvement Program .....	7-12
Wastewater System.....	7-13
Key Issues .....	7-13
Cost Containment .....	7-14
Customers and Community .....	7-14
Operations.....	7-14
Performance Measurement .....	7-15



Recommendations .....	7-15
<b>Section 8 FIBER UTILITY</b>	
Fiber Utility .....	8-1
System Condition and Capital Requirements.....	8-1
Customer and Service Offerings .....	8-2
Financial Performance.....	8-3
Contracts and Pricing .....	8-3
Financial Performance.....	8-3
Overhead Cost Allocation.....	8-4
Billing System.....	8-4
Personnel.....	8-5
Recommendations .....	8-5
<b>Section 9 ENVIRONMENTAL ISSUES</b>	
Introduction .....	9-1
Environmental Compliance Division .....	9-1
Electric Generating Stations.....	9-2
Doc Bonin Electric Generating Station.....	9-2
NPDES Permit .....	9-3
Title V Air Permit.....	9-3
Oil Storage .....	9-3
T.J. Labbé Plant .....	9-4
Title V Air Permit.....	9-4
Wastewater Discharge .....	9-5
Oil Storage .....	9-5
Hargis-Hébert Plant .....	9-5
RPS2 in Boyce, LA.....	9-6
PCB Transformers .....	9-7
Groundwater and/or Soil Contaminated Sites .....	9-7
Grant Street Substation .....	9-7
Beadle Road Substation .....	9-7
Curtis Rodemacher Decommissioning .....	9-8
Water Production and Distribution System.....	9-8
Wastewater Collection and Treatment .....	9-8
Industrial Pretreatment .....	9-9
Biosolids Beneficial Reuse Land Application Program.....	9-10
Spill Prevention Control and Countermeasure Plans .....	9-10
Future Environmental Regulatory Obligations .....	9-11
Recommendations .....	9-12

This report has been prepared for the use of the client for the specific purposes identified in the report. The conclusions, observations and recommendations contained herein attributed to R. W. Beck, Inc. (R. W. Beck) constitute the opinions of R. W. Beck. To the extent that statements, information and opinions provided by the client or others have been used in the preparation of this report, R. W. Beck has relied upon the same to be accurate, and for which no assurances are intended and no representations or warranties are made. R. W. Beck makes no

## Table of Contents

---

certification and gives no assurances except as explicitly set forth in this report.

Copyright 2006, R. W. Beck, Inc.  
All rights reserved.



## List of Tables

Table 1-1 Projected Lafayette Utility Revenue Bonds Bond Amortization Schedule .....	1-4
Table 1-2 Utilities System Bonds Summary .....	1-5
Table 1-3 Recommendations .....	1-10
Table 3-1 President and Council Members (2005) .....	3-1
Table 3-2 Department of Finance .....	3-3
Table 3-3 LPUA Members (2005) .....	3-6
Table 3-4 LUS Division Managers .....	3-8
Table 3-5 LUS Employees as of October 31, 2005 .....	3-12
Table 3-6 LUS Average Annual Salaries .....	3-13
Table 3-7 LUS Insurance Transactions <sup>(1)</sup> .....	3-15
Table 3-8 Key Areas and Goals .....	3-16
Table 3-9 Recommendations .....	3-17
Table 4-1 Electric Utility Net Operating Revenues .....	4-2
Table 4-2 Average Energy Costs (\$/MWh) .....	4-3
Table 4-3 Water Utility Net Operating Revenues .....	4-4
Table 4-4 Wastewater Utility Net Operating Revenues .....	4-5
Table 4-5 Fiber Utility Net Operating Revenues .....	4-6
Table 4-6 Utilities System Disposition of Unpledged Cash .....	4-7
Table 4-7 Electric Sales Revenue and Statistics .....	4-8
Table 4-8 Water Sales Revenue and Statistics .....	4-9
Table 4-9 Wastewater Sales Revenue and Statistics .....	4-9
Table 4-10 Fiber Sales Revenue and Statistics .....	4-10
Table 4-11 Electric Retail Base Rates (\$/kWh) .....	4-12
Table 4-12 Water Retail Rates (\$/1,000 gallons) .....	4-12
Table 4-13 Wastewater Retail Rates (\$/1,000 gallons) .....	4-13
Table 4-14 Electric Utility Detailed Expenses .....	4-16
Table 4-15 Water Utility Detailed Expenses .....	4-17
Table 4-16 Wastewater Utility Detailed Expenses .....	4-17
Table 4-17 Fiber Utility Detailed Expenses .....	4-18
Table 4-18 Electric Utility Annual Power Costs .....	4-19
Table 4-19 Financial and Operating Ratios - Public Power Systems .....	4-24
Table 4-20 Capital Improvement Program 2006 - 2010 .....	4-27
Table 4-21 Comparison of Budget and Actual Capital Expenditures (\$1,000) .....	4-29
Table 4-22 Reserve Fund (\$1,000) .....	4-30
Table 4-23 Capital Additions Fund (\$1,000) .....	4-31
Table 4-24 Construction Fund (\$1,000) - 2004 Bonds .....	4-32
Table 4-25 Historical ILOT Payments (\$1,000) .....	4-33
Table 4-26 Financial & Operating Ratios - Public Power Systems .....	4-34
Table 4-27 Comparative Balance Sheet .....	4-37
Table 4-28 Comparison of Actual Results to the Amended Budget (\$1,000) .....	4-39
Table 4-29 Utilities System Budget .....	4-40
Table 4-30 Recommendations .....	4-42
Table 5-1 Historical Capacity and Energy Requirements .....	5-2



# Table of Contents

Table 5-2 Projected Energy Sales .....	5-3
Table 5-3 Projected Peak Power Requirements .....	5-3
Table 5-4 Total Demands and Resources Comparison (MW) .....	5-4
Table 5-5 Power Delivery Points .....	5-9
Table 5-6 Interchange Agreements .....	5-9
Table 5-7 Contracts and Agreements .....	5-11
Table 5-8 Gas-Fired Generation .....	5-13
Table 5-9 Gas-Fired Generation Operating Statistics .....	5-14
Table 5-10 Power Production Staffing Summary as of October 31, 2005 .....	5-16
Table 5-11 RPS2 Operating Statistics .....	5-19
Table 5-12 LUS Reliability Index Summary .....	5-22
Table 5-13 2004 Reliability Index for Similar Utilities .....	5-22
Table 5-14 Maintenance and Equipment Schedule .....	5-23
Table 5-15 Electric System Annual Maintenance Expense .....	5-31
Table 5-17 Estimated Annual Capital Requirement Appropriations Electric System Improvements (\$1,000) .....	5-33
Table 5-18 Recommendations .....	5-34
Table 6-1 Capital Work Order Expenditures for 2005 .....	6-2
Table 6-2 Water System Operation and Maintenance Expense .....	6-3
Table 6-3 Plant Treatment Capacity <sup>(2)</sup> .....	6-5
Table 6-4 Wholesale Water Sales Volumes (1,000 gallons) .....	6-6
Table 6-5 Wholesale Water Sales Revenue .....	6-6
Table 6-6 Unaccounted for Water Volumes .....	6-7
Table 6-7 Water Quality Results .....	6-8
Table 6-8 Historical Water System Production .....	6-9
Table 6-9 Water Distribution System .....	6-10
Table 6-10 Contracts and Agreements LUS Wholesale Water Sales .....	6-12
Table 6-11 Water System Projected Requirements .....	6-13
Table 6-12 New and Proposed Rules .....	6-14
Table 6-13 Capital Improvement Program 2006 – 2010 (\$1,000) .....	6-15
Table 6-14 Recommendations .....	6-17
Table 7-1 Capital Workorder Expenditures for 2005 .....	7-1
Table 7-2 Annual Wastewater System Operation and Maintenance Expense .....	7-2
Table 7-3 Wastewater Treatment Plants .....	7-3
Table 7-4 Collection System .....	7-3
Table 7-5 Wastewater System Average Day Hydraulic Loads (mgd) <sup>(1)</sup> .....	7-5
Table 7-6 Wastewater Number of Occurrences During Which Design Capacity was Exceeded .....	7-6
Table 7-7 Wastewater Collection System .....	7-7
Table 7-8 Wastewater Collection System Overflows .....	7-8
Table 7-9 Contracts and Agreements .....	7-9
Table 7-10 Wastewater System Projected Hydraulic Loads .....	7-9
Table 7-11 Capital Improvement Program 2006 – 2010 (\$1,000) .....	7-13
Table 7-12 Recommendations .....	7-15
Table 8-1 Capital Workorder Expenditures for 2005 .....	8-2
Table 8-2 Revenue Composition by Service Category .....	8-3



Table 8-3 LUS Powered Network Historical Annual Revenues.....	8-4
Table 8-4 Recommendations.....	8-5
Table 9-1 List of Major Permits for LUS Electric Generating Stations .....	9-2
Table 9-2 Fuel Oil Storage Tanks .....	9-4
Table 9-3 List of Major Permits.....	9-9
Table 9-4 Recommendations.....	9-12

## List of Figures

Figure 4-1: Residential Rates for LUS and Selected Louisiana Utilities.....	4-13
Figure 4-2: Commercial Rates for LUS and Selected Louisiana Utilities .....	4-14
Figure 4-3: Water Rates for LUS and Selected Louisiana Utilities (\$/1000 gallons).....	4-14
Figure 4-4: Wastewater Rates for LUS and Selected Louisiana Utilities (\$/1000 gallons) .....	4-15
Figure 4-5: Production & Purchased Power Expense per MWh (Total Resources-Excludes Wheeling Charges) .....	4-20
Figure 4-6: Transmission O&M per MWh (Total Resources).....	4-21
Figure 4-7: Distribution O&M per Customer .....	4-22
Figure 4-8: Overhead O&M per MWh Retail Sales .....	4-23
Figure 5-1: Historical Energy Requirements .....	5-1
Figure 5-2: Electric Operations Division Reporting Structure .....	5-5
Figure 5-3: Total Gas-Fired Generation Unit Contributions.....	5-15
Figure 5-4: Annual RPS2 MWh Delivery to LUS .....	5-20
Figure 6-1: Water System Annual O&M Cost.....	6-3
Figure 6-2: Water System Annual O&M (Cost per 1,000 gallons) .....	6-4
Figure 6-3: Water Production (million gallons per day).....	6-9









**Section 1**  
**INTRODUCTION**

---





# Section 1

## INTRODUCTION

---

### Requirements of Report

This 2005 Comprehensive Engineering Report ("Report") covers the Fiscal Year 2005 period. Financial data and most operational data are reported for the fiscal year (November 1, 2004 to October 31, 2005). Some electric generation plant and water system operating data is on a calendar year basis. This Report has been prepared in accordance with the requirements of the City of Lafayette (the "City") General Bond Ordinance dated June 29, 2004 (the "Bond Ordinance"), and in accordance with subsequent pari passu indebtedness. Pari passu means that the covenants on these bonds are identical to all other revenue bonds issued by the City.

This Report is prepared in accordance with the provisions of Sections 8.1 and 8.2 of the Bond Ordinance that states in part:

*"...The Issuer...shall retain Consulting Engineer for the purpose of providing the Issuer immediate and continuous counsel and advise regarding the Utilities System...The Consulting Engineer shall prepare within one hundred eighty (180) days after the close of each fiscal year a comprehensive report... upon the operations of 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 Bond Ordinance, and all other things having a bearing upon the efficient and profitable operations of the Utilities System, and shall include whatever criticism of any phase of the operation of the Utilities System the Consulting Engineer may deem proper...including recommended changes in organization, pay scales and risk management practices..."*

### Authority

The City operates with Lafayette Parish Government (the "Parish") as a consolidated government known as the Lafayette City-Parish Consolidated Government (referred to as "Lafayette Consolidated Government" or "LCG"). The Lafayette City-Parish Council (the "Council") and Lafayette Public Utilities Authority ("LPUA") are the governing authorities of the Lafayette Utilities System ("LUS"). The Council is the governing authority of the Lafayette Public Power Authority ("LPPA"). The Chief

## Section 1

---

Executive Officer of LPPA is the President of the LCG. The LUS Director is also the Managing Director of LPPA.

LUS' properties and assets, controlled and operated by the LCG, are designated by the Bond Ordinance as the "Utilities System." The Utilities System is comprised of an electric system (including generation, transmission and distribution facilities), a water system (including supply, treatment, transmission, distribution and storage facilities), a wastewater system (including wastewater collection and treatment facilities) and a fiber system (including a fiber optic loop throughout the City).

LPPA was created January 11, 1977 for the purpose of planning, financing, constructing, acquiring, improving, operating, maintaining and managing public power projects or improvements singly or jointly with other public or private corporations, and for the purpose of purchasing and selling wholesale electric power to, or exchanging electric power with, the City and others. LPPA constitutes a legal governmental entity separate and apart from the City.

## Report Purpose

In addition to the requirements of the bond covenants described above, this Report has several purposes. These include the following:

- Provide an annual review of the physical operations of the Utilities System
- Provide an annual review of financial operation of LUS
- Provide a reference document for LUS, which includes historical analysis and data
- Provide recommendations to LUS concerning various aspects of its Utilities System

## Consulting Engineer

The firm of R. W. Beck, Inc. is presently retained by LCG as its Consulting Engineer ("Consulting Engineer" or "R. W. Beck"), and has been so retained since the inception of LUS' revenue bond program.

The duties of the Consulting Engineer, which are specifically defined in the Bond Ordinance, include advising LUS on its appointment of Chief Operating Officer, providing continuous engineering counsel to LCG in connection with the operations of the Utilities System, advising on rate revisions, and preparing an annual comprehensive report (specifically, this Report) on the operations of LUS after the close of each fiscal year.

This Report includes our opinions and suggestions on the following issues:

- Operations of the Utilities System
- Maintenance of the properties
- Efficiency of management of the properties



- Proper and adequate keeping of books of account and record
- Adherence to budget and budgetary control provisions
- Adherence to all the provisions of the Bond Ordinance
- Other items having a bearing on efficient and profitable operations

In addition, the Consulting Engineer may make recommendations regarding changes in operations, making of repairs, renewals, replacements, extension, betterments, improvements, organization, pay scales, and risk management practices.

The Bond Ordinance contains certain covenants that pertain to the assets of LUS. These covenants state that the LCG:

- Will operate the Utilities System in a business-like manner
- Will issue no other bonds or obligations of any kind or nature payable from or enjoying a lien on the Utilities System revenues and having priority over or parity with the bonds authorized under the existing Bond Ordinance; however, bonds may hereafter be issued on a parity with the existing authorized bonds under conditions as set forth in the Bond Ordinance
- Will not sell, lease, or in any manner, dispose of the Utilities System or any substantial part thereof, except in accordance with specific conditions set forth in Section 7.2 of the Bond Ordinance
- Will maintain the Utilities System in good condition and will make all reasonable and necessary repairs, renewals, and replacements thereto

Field interviews were initiated as part of this Report during early February 2006. The Consulting Engineer interviewed LUS staff regarding utility operations and performed analyses of operating statistics that are indicative of the general operating condition of LUS' facilities.

R. W. Beck visited and made general field observations of the Utilities System, which were visual, above-ground examinations of selected areas which were deemed adequate to comment on the Utilities System. Other than as expressly stated herein, the observations and examinations were not in the necessary detail to reveal conditions with respect to safety, the internal physical condition of any facilities, or conformance with agreements, codes, permits, rules, or regulations of any party having jurisdiction with respect to the operation and maintenance of the Utilities System.

## Utilities System Revenue Bonds

Utilities System Revenue Bonds have been an important source of capital for additions and improvements to the Utilities System. Prior to the issuance of the Utility Revenue Bonds, Series 2004 (the "2004 Bonds"), the proceeds from two prior bond issues remained outstanding. Specifically, the prior bond balances included \$6,020,000 from the Revenue Refunding Bond Series 1993 (the "1993 Bonds") and \$13,520,000 from the Utilities Revenue Bond Series 1996 (the "1996 Bonds"). With the issuance of the 2004 Bonds, the City defeased the 1993 Bonds. The Louisiana Department of



## Section 1

Environmental Quality ("LDEQ"), the sole owner of the 1996 Bonds, agreed that the 2004 Bonds issued will be on parity with the 1996 Bonds and will become Outstanding Parity Bonds.

The 2004 Bonds were issued for the purpose of financing the construction of the North and South Generation Projects (subsequently renamed the T. J. Labbé and Hargis-Hébert Electric Generation Station Projects, respectively), Electric Utility Transmission and Distribution Improvements, and Wastewater Utility Capital Improvement Projects. The total amount of the debt issued under the 2004 Bonds was approximately \$190,000,000.

Table 1-1 provides an estimate of the consolidated amortization schedule for the outstanding long-term debt for the Utilities System.

**Table 1-1**  
**Projected Lafayette Utility Revenue Bonds**  
**Bond Amortization Schedule**

<b>Payment Date</b>	<b>Interest Payment</b>	<b>Principal Payment</b>	<b>Total Payment</b>	<b>Bonds Outstanding</b>
2005	\$9,909,478	\$815,000	\$10,724,478	\$196,660,000
2006	9,885,435	840,000	10,725,435	195,845,000
2007	9,860,655	860,000	10,720,655	195,005,000
2008	9,835,285	890,000	10,725,285	194,145,000
2009	9,809,030	915,000	10,724,030	193,255,000
2010	9,782,038	940,000	10,722,038	192,340,000
2011	9,754,308	970,000	10,724,308	191,400,000
2012	9,725,693	1,575,000	11,300,693	190,430,000
2013	9,673,140	8,625,000	18,298,140	188,855,000
2014	9,243,903	9,055,000	18,298,903	180,230,000
2015	8,792,780	9,510,000	18,302,780	171,175,000
2016	8,318,575	9,985,000	18,303,575	161,665,000
2017	7,820,123	10,485,000	18,305,123	151,680,000
2018	7,296,225	9,820,000	17,116,225	141,195,000
2019	6,780,675	10,335,000	17,115,675	131,375,000
2020	6,238,088	10,875,000	17,113,088	121,040,000
2021	5,667,150	11,445,000	17,112,150	110,165,000
2022	5,066,288	12,045,000	17,111,288	98,720,000
2023	4,433,925	12,680,000	17,113,925	86,675,000
2024	3,768,225	13,345,000	17,113,225	73,995,000
2025	3,067,613	14,045,000	17,112,613	60,650,000
2026	2,330,250	14,785,000	17,115,250	46,605,000
2027	1,591,000	15,520,000	17,111,000	31,820,000
2028	\$815,000	\$16,300,000	\$17,115,000	\$16,300,000

Source: 2004 Bonds, Official Statement. Amortization schedule includes 2004 Bonds and 1996 Bonds.

Bond authorization programs and associated expenditures of bond proceeds follow a predetermined plan of facility additions and improvements based upon an engineering planning and feasibility study. A summary of the issuance of authorized and issued revenue bonds as of October 31, 2005 is provided in Table 1-2 below.

**Table 1-2**  
**Utilities System Bonds Summary**

<b>Date Issued</b>	<b>Authorized Amount</b>	<b>Application of Proceeds</b>
1949 – 1958	\$18,000,000	Steam-electric generating plant and improvements and extensions to the electric, water and wastewater systems
1962 – 1965	\$12,500,000	Improvements and extensions to the electric, water and wastewater systems
1966 – 1969	\$19,800,000	Addition to electric generation, water and wastewater treatment capacity, and extensions and improvements
1973 – 1976	\$39,000,000	Addition to electric generation capacity and extensions, additions and improvements to the electric, water and wastewater systems
1978 – 1981	\$26,000,000	Additions to the electric transmission system and extensions and improvements to the electric, water distribution and wastewater collection systems
1983 – 1996	\$40,400,000	Additions, extensions and improvements to the electric, water and wastewater system and acquisition of electric distribution customers
2004	\$190,000,000	Addition to electric generation capacity and extensions, and wastewater improvements

Source: Official Statements.

## Security Issues

Following the terrorist attacks of September 11, 2001, increased emphasis has been placed on addressing security measures for the infrastructure systems and facilities in the United States. Terrorist activities aimed at the Utilities System could impact the operation of the Utilities System and interfere with the ability of LUS to provide service and generate revenues. Additionally, terrorist activities have the potential to affect organizations other than LUS, the continued performance of which is critical to continued operation of the Utilities System. These other organizations may be located either upstream or downstream of LUS.

On June 12, 2002, President Bush signed the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 ("Bioterrorism Act") into Law (PL 107-188). The Bioterrorism Act amends the Safe Drinking Water Act by adding Section 1433. Section 1433(a) requires that certain community water systems (LUS is subject to the Bioterrorism Act) conduct Vulnerability Assessments, certify to the United States Environmental Protection Agency ("USEPA") that the Vulnerability Assessments were conducted, and submit a copy of the Vulnerability Assessments to the USEPA. Section 1433(b) requires that certain community water systems prepare or revise Emergency Response Plans and certify to the USEPA that an Emergency Response Plan has been completed.



## Section 1

---

LUS attained full compliance with the Bioterrorism Act early in 2003. LUS is using the results of its Vulnerability Assessment to plan for and implement improvements to its water system to enhance security.

According to LUS representatives, Sheriff Department personnel are stationed at the Bonin Power Plant, the North and South Water Treatment Plants seven days a week, 24 hours per day to provide additional security at each facility. LUS has installed additional security equipment and established operating procedures to further enhance security at its water treatment facilities. Although the Hargis-Hébert and T.J. Labbé Plants are not staffed with security personnel, the plants are staffed 24 hours per day by a plant operator. The Hargis-Hébert and T.J. Labbé Plants are fully gated and have surveillance cameras for added security. LUS staff has been trained in emergency planning and reaction that is integrated with ongoing programs for hurricane emergency response.

Evaluation by the Consulting Engineer of the security of the Utilities System, as well as other entities with which the LUS has business or operational relations, relative to security issues, is beyond the scope of this Report. We have not been engaged to conduct, and have not conducted, any independent evaluations or on-site review in any way to ascertain the effectiveness of the measures LUS has undertaken to address security issues for its Utilities System. In the event that currently unknown shortcomings in security should arise which lead to significant operational problems, such problems could have an adverse impact on LUS. We recommend that LUS conduct all necessary security studies to ensure employee security and asset preservation.

## Changing Utility Environment

Deregulation of the electric utility industry at the retail level is currently not an issue of significance in the state of Louisiana. Although retail deregulation is currently in place in neighboring Texas and in other states across the country, the movement has lost much political and public interest in the last several years. However, at the wholesale level, LUS is facing new challenges resulting from increased competition in the wholesale power market. Part of this challenge is being met by LUS' newly installed generation resources. This competition is pressing LUS management to make timely business decisions regarding plant dispatch, operations and maintenance, purchasing power, selling power, pricing power, plant capital improvements, plant upgrades, etc. There may be significant opportunities for LUS to take advantage of these changes in the utility environment. Capitalizing on these opportunities will be extremely difficult if the decision-making process is not quick and efficient. Although the current process is consistent with other municipal utilities, it will not provide the flexibility to compete with other participants in the industry, such as independent power producers, investor-owned utilities, non-regulated subsidiaries of utility holding companies, and power marketers.



## Enterprise Risk Management

As with most utilities, LUS conducts a wide range of planning and coordination activities that serve to reduce operational and financial risk exposures. In keeping with current trends toward greater risk disclosure and control, LUS should establish a formalized Enterprise Risk Management Program. An Enterprise Risk Management Program incorporates such activities as electric power marketing, organizational and operational issues, and other concerns that potentially impact the financial integrity of the Utilities System as a whole.

## Regional Reliability Councils

LUS is located in an area that is primarily served by two separate Investor-Owned Utilities, CLECO Corporation ("CLECO") and Entergy Gulf States, Inc. ("Entergy-GSU"). CLECO and LUS are members of the Southwest Power Pool ("SPP"), which is a Federal Energy Regulatory Commission ("FERC") approved Regional Transmission Organization ("RTO") and a North American Electric Reliability Council's ("NERC") region. As an RTO, SPP currently provides independent reliability coordination and tariff administration, planning, operating and reliability assessment studies. SPP provides regional transaction scheduling and is in the process of implementing a real-time energy imbalance market, scheduled to begin service in May 2006. An important component of the energy imbalance market is management of transmission congestion in the real-time spot market through re-dispatch of generation bid into that market. Entergy, the parent of Entergy-GSU, is a member of the NERC Southeastern Electric Reliability Council ("SERC") which does not operate as an RTO. The Entergy Operating Companies, which include Entergy-GSU, have proposed revisions to its Open Access Transmission Tariff which include contracting with an independent entity, the Independent Coordinator of Transmission ("ICT"), to provide oversight of the administration of the Entergy transmission system. FERC has not taken any action on the most recent version of the ICT proposal. SPP has been proposed as the ICT.

The SPP region has a projected 2006 peak load of approximately 42,000 MW. It has approximately 54,000 MW of generating capacity, of which, slightly less than 25,000 MW are hydro, nuclear, coal and wind. The largest portion of generating capacity, 20,000 MW, is coal-fired. The remainder consists primarily of approximately 8,800 MW of combined-cycle gas-fired generation installed after 1999 and 19,700 MW of other gas-fired generation.

The Entergy control area has a projected peak load of 23,000 MW. It has 45,000 MW of generating capacity of which 11,700 MW are hydro, nuclear, and coal. The remainder consists primarily of approximately 9,300 MW of combined-cycle gas-fired generation installed after 1999 and 23,700 MW of other gas-fired generation. The majority of the newer gas-fired combined cycle generation is owned by independent entities and is not under power purchase agreements.

Long-term firm sales or purchases of generating resources not utilizing existing firm transmission service arrangements may require substantial transmission upgrades to



## Section 1

---

ensure firm delivery over either the SPP or Entergy systems. Currently, LUS uses the electric power market to purchase short-term energy both when it is economically advantageous to do so and to avoid start-ups of the Bonin Plant. LUS will also sell into the market when it has excess generation and it is economical to do so. LUS has an agreement with The Energy Authority ("TEA") who performs the wholesale power negotiations and transactions.

### Energy Policy Act of 2005

The Energy Policy Act of 2005 ("Act") covers many components that may affect LUS and related energy markets moving forward. On July 29, 2005, the Congress passed an energy bill and it was signed by the President on August 8, 2005. This legislation addresses, among other things, energy efficiency; renewable energy; nuclear energy; electricity related reforms; and provides incentives for oil and gas production and encourages the deployment of clean coal technology. A summary of the bill's reforms relating to electricity and renewable energy and certain relevant FERC actions related thereto is provided in the following section.

#### Electricity – Title XII

Title XII of the Act covers electricity, with the majority of the provisions requiring implementation by FERC, some of which have already been acted on or are in process as noted.

The Act creates a self-regulating reliability organization that is charged with developing electric reliability rules that are mandatory and subject to enforcement penalties for all market participants, including LUS, with FERC having oversight over the rules and their enforcement. FERC issued a final rule implementing the new organization titled "Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval, and Enforcement of Electric Reliability Standards" on February 3, 2006.

The Act grants FERC limited backstop authority to site electric transmission facilities located in national interest electric transmission corridors if the states cannot or will not act. The Act contains a number of measures to streamline permitting, including establishing the U.S. Department of Energy as the lead agency for permit processing and also includes a number of incentives related to transmission rates and the spin off of transmission assets. FERC and other related federal organizations are in the process of issuing proposed rulemakings or are gathering comments related to the implementation of the Act. Such efforts to date have included, but are not limited to proposed guidelines for independent transmission organizations to follow in developing a framework for providing long-term firm transmission rights, proposed transmission pricing reforms and the request for industry input regarding the identification of transmission corridors with acute transmission constraints or congestion problems and the criteria for designating congested corridors as national interest corridors.

The Act repeals the Public Utility Holding Company Act ("PUHCA") and transfers consumer protection authorities from the Securities and Exchange Commission



("SEC") to FERC and the states. FERC is given authority on electric utility merger reviews and additional enforcement authorities. The bill establishes market conditions necessary to eliminate the Public Utility Regulatory Policies Act's ("PURPA") mandatory purchase obligation for new qualifying facilities ("QF"), and revises the definition for new QFs seeking to sell power under the mandatory purchase obligation. FERC has proposed changes to this mandatory purchase requirement that provides for termination of a utility's obligation to purchase electric energy from QFs and sell electric energy to QFs upon a finding that QFs have certain nondiscriminatory access. In a preliminary determination, FERC finds that electric utilities that are members of the Midwest Independent Transmission System Operator ("MISO"), PJM Interconnection, the Independent System Operator-New England ("ISO-NE") and the New York Independent System Operator ("NYISO") qualify for relief from the mandatory purchase obligation. FERC also revised regulations for cogeneration and small power production facilities to eliminate ownership restrictions for both new and existing facilities and ensures that the thermal output of cogeneration facilities is used in a productive and beneficial manner.

LUS continues to monitor actions taken by FERC and other governmental agencies to implement many provisions of the Act, but at this time can not determine the impacts of such actions on LUS.

## Renewable Resources

The Act did not include a federal requirement that utilities purchase a certain percentage of electricity from renewable sources, or a national Renewable Portfolio Standard ("RPS"). There is, however, a requirement that the federal government purchase an increasing portion of its power needs from renewable sources, 3 percent in fiscal year 2007 increasing to 7.5 percent in 2013 (Sec. 203).

The Act provides an extension of Production Tax Credits ("PTCs") for some renewable resource types and adds PTCs for other renewable resource types. Under the Energy Act, PTCs for wind, biomass, geothermal, landfill gas, and small irrigation power facilities and municipal solid waste, which includes trash combustion and landfill gas facilities, apply to resources placed-in-service from execution of the Energy Act through December 31, 2007, unless PTCs previously applied. Solar facilities were treated separately and had a required in-service date by December 31, 2005 to qualify for the PTC. Currently FERC has no updates posted pertaining to solar. Refined coal facilities, will continue to qualify for the PTC if placed in service on or before December 31, 2008. Incremental generation from efficiency improvements at existing hydroelectric facilities and electrification of non-hydroelectric dams and coal produced on Indian lands are also added as new qualifying energy resources. The PTC applies to the first ten years of production and the level of PTC varies by resource type. Overall, with the failure of the Energy Act to require federal Renewable Portfolio Standards (i.e. a requirement that a certain percentage of a utility's overall or new generating capacity and energy sales be derived from renewable resources or RPS, the momentum behind new renewable resources is still primarily the adoption of an RPS in individual states, with adoption



## Section 1

supported by the Federal PTCs. It is R. W. Beck's understanding that the state of Louisiana does not currently have an RPS adopted.

### Time-Based Metering

Section 1252 of the Act requires electric utilities with retail sales exceed 500 million kWh per year to offer time-based rates and metering to their customers. With Time of Use ("TOU") rates, the rates charged vary during different time periods and reflect any variance in the utility's costs of generating or of purchasing electricity at the wholesale level. The retail electric sales of LUS are over 500 million kWh per year, thus it appears that LUS is subject to the TOU rates requirements. TOU rates must be implemented within 18 months of enactment. LUS is currently performing a TOU rate study.

## Recommendations

Recommendations and status thereof are provided in Table 1-3. Priority of the recommendation is highest, high or normal, as defined in Section 2 of this Report.

**Table 1-3**  
**Recommendations**

Introduction	Priority	Status
LUS continue to review necessary security actions to ensure employee security and asset preservation	High	Investigating
LUS continue its efforts to identify opportunities for wholesale power sales	High	In Progress
LUS' management continue to monitor electric deregulation events on the state and national level	Normal	In Progress
LUS establish a formalized Enterprise Risk Management Program to reduce operational and financial risk exposure	High	New









## Section 2

# RECOMMENDATIONS

---





## Section 2

# RECOMMENDATIONS

---

This section provides a summary of the recommendations as they are presented at the end of each section within the Report.

### Definitions

In order to help LUS focus on the different recommendations, R. W. Beck has devised a categorical priority system as follows:

#### Highest Priority

Recommendations with this priority designation should receive maximum focus from LUS. Lack of adequate attention to these items may contribute to a significantly weakened LUS in the future. It is anticipated that by the next review period, these Highest Priority recommendations should have already been acted upon.

#### High Priority

Recommendations with the priority designation should receive a high level of focus by LUS. Without adequate attention to these recommendations with the next review period, High Priority recommendations could be elevated to Highest Priority. It is anticipated that solution implementation be completed or a clear strategy or plan be in place by the next review period.

#### Normal Priority

Recommendations with this priority designation should receive normal focus from LUS. The LUS strategic plan should include these items and LUS should assign adequate resources to implement these recommendations within a reasonable period of time.

## Section 2

# Recommendations

## Section 1 – Introduction

Introduction	Priority	Status
LUS continue to review necessary security actions to ensure employee security and asset preservation	High	Investigating
LUS continue its efforts to identify opportunities for wholesale power sales	High	In Progress
LUS' management continue to monitor electric deregulation events on the state and national level	Normal	In Progress
LUS establish a formalized Enterprise Risk Management Program to reduce operational and financial risk exposure	High	New

## Section 3 – Organization and Management

Organization and Management	Priority	Status
LUS should continue to investigate the succession of key management positions due to potential retirements in these areas in the next 3-5 years.	High	In Progress
LUS should continue to investigate appropriate actions to attract and maintain qualified employees, thus reducing the turnover rate.	High	In Progress
LUS should update and review their Strategic Plan consistently. LUS should review the measurable goals throughout the year to determine LUS' status with regards to the Strategic Plan.	High	In Progress
LUS should consider performing a full review of employee pay scale and benefits given staffing issues.	High	New

## Section 4 – Finance and Accounting

Finance and Accounting	Priority	Status
LUS should increase the water and wastewater systems debt to equity ratio and continue to work towards financing a considerable portion of future capital improvement projects with debt	High	In Progress
LUS should continue to pursue a strategy of increasing wastewater rates over the next several years	Highest	In Progress
LUS should continue to actively conduct financial planning, particularly as LUS adds new generation resources and increases Utilities System debt	Highest	In Progress
Under the current financial constraints placed on the Combined Utilities, LUS cannot continue to absorb significant increases in the ILOT without jeopardizing the funding of important future capital projects. Therefore, LUS should examine	Highest	In Progress



## RECOMMENDATIONS

Finance and Accounting	Priority	Status
ways to meet ILOT obligations without adversely impacting the utilities competitive position or financial integrity		
LUS should conduct a Combined Utilities cost of service study including Electric, Water, Wastewater, and Fiber Utilities. This analysis is important in that LUS must understand the cost structure associated with the new capital and operating requirements of the Combined Utilities	Highest	No Progress Seen
LUS should continue to explore ways of improving the timeliness of financial reporting, including the implementation of new financial management tools	Highest	In Progress
LUS should modernize and streamline human resource systems in order to accommodate current and future staffing and management needs of the utilities	High	New
LUS should continue to improve the five-year capital budgetary process (cash-needs capital budget). The process should include some form of activity-based analysis and costing. The current CIP should be reviewed and each project checked for correct priority, schedule and estimate	High	No Progress Seen
LUS should review and evaluate the accuracy of accounting policies related to booking transmission and distribution investment and related O&M expense	Normal	No Progress Seen

## Section 5 – Electric Utility

Electric Utility	Priority	Status
LUS should continue its efforts to investigate new power supply additions for the future	High	Complete
LUS should continue the development of a comprehensive operator training program	High	In Progress
LUS should provide succession planning to replace retiring staff and provide the necessary transfer of knowledge	High	In Progress
LUS should continue to evaluate T&D staffing levels and compensation plans	High	In Progress
LUS should continue to evaluate plant-staffing levels and compensation plans	High	In Progress
LUS should continue transmission and distribution personnel training and develop training for substation relay testing	Normal	In Progress
LUS should continue to install microprocessor relays for new construction and develop plans for replacing electromechanical relays with microprocessor relays	Normal	In Progress
LUS should continue efforts to complete GIS mapping system	Normal	In Progress
LUS should continue testing generator and other equipment electro-mechanical protective relays at the Doc Bonin Plant through coordination between plant personnel and the LUS transmission and distribution section personnel	Normal	In Progress
LUS should continue the implementation and maintenance of a spare	Normal	In Progress

## Section 2

Electric Utility	Priority	Status
parts and inventory control system, with particular emphasis on the spare parts needs of the new generation projects and other major system components		
LUS should continue its implementation and expansion of the preventative and predictive maintenance programs currently in place	Normal	In Progress
LUS should determine the actual heat rate versus output relationship for each of its generating units. The Doc Bonin Plant reports that the project to install energy metering/upgraded gas yard controls of the incoming gas supply is complete. The metering and controls, which is connected to input signals from unit specific fuel flow and generation signals, will provide the actual heat rate versus output relationships forming the basis for economic dispatch and allow the on-line measurement of individual unit heat rates	Normal	In Progress
LUS should perform standard monitoring of the 138/230kV CLECO tie transformer T5	Normal	In Progress
In the transmission and distribution functions, LUS should continue to review OSHA requirements and/or APPA safety guidelines and pursue ongoing training programs for linemen and foremen	Normal	In Progress
LUS should continue to work to implement both internal and external processes to mitigate the impacts of fuel price volatility, including further development of the relationship with a power marketer and development of internal best practices-based Energy Risk Management Policy and associated procedures to set acceptable risk levels related to power and fuel transactions	Normal	Investigating
LUS should expand the 5 Year Planning Report to include a 10-year planning horizon	Normal	Investigating
LUS should proceed with plans to repaint the externals of the Doc Bonin Plant Units 2-3	Normal	Investigating
LUS should continue to review and improve the management of the CIP, including the cost and schedule estimate and control processes	Normal	Investigating



## Section 6 – Water Utility

Water Utility Recommendations	Priority	Status
LUS should give priority to constructing booster wells in low pressure areas of system to improve system pressure	Highest	Investigating
LUS should continue to develop in-house expertise with use of water system model and acquire a system capable of modeling time of travel and concentration of introduced pollutants	Highest	Investigating
LUS should consider the following additions to its system to increase system reliability and integrity	Highest	In Progress
<ul style="list-style-type: none"> <li>■ Install additional emergency electric generators at the North Plant</li> <li>■ Install emergency electric generators at all water supply wells</li> <li>■ Install piping at the North and South Plants to allow emergency bypass of treatment units</li> <li>■ Install roofing and covers over the North Treatment Plant treatment units, sludge tanks, backwash tanks and meter pit</li> <li>■ Construct building enclosures of all off-site water wells</li> </ul>		
LUS should give high priority to completing removal of the "Galbestos" building siding at the North Plant	High	In Progress
LUS should initiate succession planning for senior water system management staff	Normal	Investigating
LUS should initiate planning of water storage requirements for wholesale water customers	Normal	Investigating
LUS should consider developing an operator certification (and recertification) program	Normal	New

## Section 7 – Wastewater Utility

Wastewater Utility	Priority	Status
LUS should continue to develop the wastewater hydraulic model of the system	Highest	In Progress
Continue planning for a new wastewater treatment plant site	High	In Progress
Complete final strategy for sludge processing (Class A/B) and disposal	High	In Progress
Develop policy/strategy for implementing wastewater service Parish-wide	Normal	In Progress

## Section 2

### Section 8 – Fiber Utility

Telecommunications Issues	Priority	Status
LUS should focus on hiring additional staff to serve the LUS Fiber Utility customers. Each year the Fiber Utility experiences significant growth and requires staff dedicated to serving the Fiber Utility. The dedicated staff would assist in marketing, billing, and other required services	Highest	New
LUS should develop incremental and full-embedded cost financial reports and pricing analyses to evaluate the short-term and long-term profitability of the Fiber Utility business and specific service offerings	Highest	In Progress
LUS should continue to evaluate how to market their wholesale services within the telecommunications business in recognition that telecommunications is significantly different from a traditional municipal utility. Telecommunications requires head-to-head competition with other service providers that invest heavily in marketing and promotional development	High	In Progress
LUS must improve the flexibility and sophistication of its billing function and the interface of such function with the accounting system. Current limitations in the billing system result in a competitive disadvantage, particularly when pursuing other Tier 1 wholesale customers	High	In Progress
LUS should continue their progression related to properly allocating labor expenses to the Fiber Utility	High	In Progress
LUS should continue reviewing how common costs are allocated to the Fiber Utility. The allocation methodology should consider cost causation and should not be based on revenue allocation methodology	Normal	In Progress

### Section 9 – Environmental Issues

Environmental Issues	Priority	Status
LUS should continue dialog with LDEQ regarding Doc Bonin Plant Unit 3 NO <sub>x</sub> emissions compliance and aggressively evaluate the proposed compliance strategy to bring this issue to a conclusion.	High	In Progress
LUS should develop and implement a plan to clean and decommission the No. 6 fuel oil sludge aboveground storage tanks located the Doc Bonin Plant.	Normal	In Progress
LUS should develop and implement a plan to drain, clean, inspect, decommission and/or reconstruct the No. 2 fuel oil aboveground storage tanks and associated piping located the Doc Bonin Plant.	Normal	In Progress
LUS should monitor the monetary implications of the permitting and construction activities at RPS2.	Normal	In Progress
LUS should continue to evaluate alternatives for its biosolid disposal program.	Normal	In Progress



## RECOMMENDATIONS

Environmental Issues	Priority	Status
LUS should continue to evaluate and update its environmental plans, including its SPCC plans, Facility Response Plan, Stormwater Pollution Prevention Plan, etc, to ensure that they include the latest changes to the respective regulations and facility infrastructure.	Normal	In Progress
LUS should monitor the development and implementation of the CAIR and CAMR regulations to ensure compliance strategies are implemented for all affected power plants.	Normal	In Progress











## Section 3

# ORGANIZATION AND MANAGEMENT

---





## Section 3

# ORGANIZATION AND MANAGEMENT

---

## LCG Organization and Management

The current form of government includes both the City and certain areas of the Parish and is referred to as LCG. This City-Parish form of government includes the President and nine Council members who are elected by the citizens of the Lafayette Parish to four-year terms of office. Names of each official and offices held by each during the reporting period are shown in the Table 3-1.

**Table 3-1**  
**President and Council Members**  
**(2005)**

Name	Office
L. J. Durel, Jr.	President
Bobby Badeaux	District 1 Member
Dale Bourgeois	District 2 Member
Christopher J. Williams, Ph.D.	District 3 Member
Louis C. Benjamin, Jr.	District 4 Member
Lenwood Broussard	District 5 Member
Bruce Conque	District 6 Member
Marc F. Mouton	District 7 Member
Rob Stevenson	District 8 Member – Vice Chair
Randal L. Menard	District 9 Member – Chair

Source: Norma Dugas, LCG, 1/31/06.

The President and his Chief Administrative Officer (“CAO”), Mr. Dee Stanley, direct and supervise the administration of all departments, offices, and agencies of LCG, except as may otherwise be provided by the Home Rule Charter (“Charter”) or by law.

## Home Rule Charter

In the fall of 1992, the electorate of the Parish, including the City, adopted a Charter establishing LCG for the purpose of consolidating the governmental functions of the City and the Parish. The new government became operative on June 3, 1996 when LCG officials took office pursuant to the Charter. The Charter set up the LCG

## Section 3

---

departments and defined the responsibilities of each department. The following described departments provide services to LUS.

### Department of Finance

Financial responsibilities are handled by the Department of Finance. These duties as outlined in the Charter include:

- Collection (except where specifically otherwise provided for by law) and custody of all monies of LCG from whatever source
- Assistance to the President in the preparation of the annual operating budget and the capital improvement budget
- Maintenance of a record of indebtedness and payment of the principal and interest on such indebtedness
- Ascertaining that funds are available for payment of all contracts, purchase orders and any other documents that incur a financial obligation for LCG, and that such documents are in accordance with established procedures
- Disbursement of LCG funds
- Administration of a uniform central accounting system for all LCG departments, offices and agencies, using nationally accepted standards where applicable
- Preparation of a monthly statement of revenues and expenditures, which shall be completed and made available for public inspection not later than 31 days after the end of each month
- Procurement of all personal property, materials, supplies and services required by LCG under a central purchasing system for all departments, offices and agencies in accordance with applicable state law, council policy and administrative requirements
- Investment of idle funds, as permitted by law, so as to receive the maximum rate of return

Duties of utility billing and revenue collection are handled by the Department of Utilities.



Ms. Rebecca Lalumia serves as the Chief Financial Officer ("CFO") for the Department of Finance. Key division managers under this office are provided in Table 3-2.

**Table 3-2**  
**Department of Finance**

Division	Manager
Accounting	Melinda Felps
Budget Management	Sharon Borel
Purchasing and Property Management	Jody Williamson

Source: Andrew Duhon, LUS, 1/31/06

Descriptions of the functions performed by the divisions listed in Table 3-2 are provided below.

### **Accounting Division**

The Accounting Division is responsible for: (i) processing invoices, payroll and other accounts payable transactions; (ii) maintaining accounts receivable records and associated management reports; and (iii) managing and maintaining the entire accounting system including the general ledger, completion of periodic financial statements, payroll, management reports and special accounting assignments, including those for LUS.

### **Budget Management Division**

The Budget Management Division employs a municipal budget management system. The concepts embodied in this management tool initially require recognition of financial and operational goals by the department managers. Based on these goals, the management of each department determines dollar amounts necessary to reach the goals. Budgeting for utility capital needs and facility addition and renewal projects is the responsibility of LUS.

### **Purchasing and Property Management Division**

The Purchasing and Property Management Division is responsible for all LCG purchasing and control of the fixed assets. The management of central receiving, central warehousing and distribution of inventory for the operations of the Utilities System are the responsibility of the Electric Operations Division of LUS.

### **Department of Administrative Services**

As described in the Charter, the Director of the Department of Administrative Services shall direct and be responsible for:

- Personnel matters for employees including personnel policies, employee relations, employee counseling, and unemployment and worker's compensation reports and hearings

## Section 3

---

- Developing and implementing a communications system
- Risk management, insurance and safety programs
- The Department of Administrative Services provides personnel services other than those performed by Civil Service through its Human Resources Section. The Division also provides printing and communications services to LUS

The Director of the Department of Administrative Services is Ms. Gail Smith. Ms. Smith oversees information systems (data processing), communication systems, and risk management.

### Operations Division

The Operations Division consists of three sections: Human Resources, Communications and Printing.

The **Human Resources** section provides employee and payroll records, employee relations, and compensation services as well as policy administration on such matters as attendance, conditions of employment, performance evaluation, anti-harassment and related matters for a work census of 2,000.

The **Communications** section provides telephone answering and call directing services for the City-Parish government, including a substantial utility billing function.

The **Printing** section uses digital photo-imaging and printing in addition to traditional offset presses to serve all printing, binding and related needs of the City-Parish Government.

### Records Management Division

The Records Management Division provides inventory, storage, retention schedules, protection and disaster recovery planning. The Records Management Division was created to: control records creation and growth, reduce operating expenses, improve efficiency and productivity, assimilate new records management technologies, ensure regulatory compliance, minimize litigation risks, identify and protect vital information, support better management decision making, and preserve the corporate memory.

### Risk Management Division

The Risk Management Division provides certain risk coverage for the operation of LUS. A Safety Officer assists in the safety-related matters of LUS, including loss prevention programs for assisting all divisions of LUS to comply with federal, state, and local regulations regarding safety matters.

The program implemented by this Division includes the establishment of an uninsured loss reserve fund designed and administered by the Risk Management Division. The Division is composed of a Risk Manager, a self-administered property and casualty claims section, a safety and loss prevention section, a full time registered nurse and a self-administered and self-insured group health/life claims section.



The cost of finance and administrative services are allocated to all LCG Departments, including the operation of the Utilities System on the basis of allocation procedures adopted by LCG.

### **Department of Information Services Technology**

In 2004, LCG created the Information Services and Technology Department ("IS&T") and appointed Mr. Keith Thibodeaux as the Chief Information Officer ("CIO"). The IS&T Department is responsible for managing the coordinated development of an integrated information technology system for LCG and external organizations who contract with LCG for computer services.

#### **Software Services Division**

The Software Services Division is responsible for developing, maintaining, and supporting computer applications, Database Administration, and the Internet website.

#### **Technical Services Division**

The Technical Services Division is responsible for planning, designing, and supporting the data and telecommunications infrastructure of LCG to include hardware, software, and help desk support. Also responsible for daily computer operations including running applications, generating reports and checks, such as Payroll, Accounts Payable, Utility Billing, etc., performing system backups and restores, and handling end-user special requests.

#### **Geographic Information Systems Division**

The Geographic Information Systems ("GIS") Division is responsible for developing, maintaining, and supporting the enterprise GIS system. GIS is a system of computer software, computer hardware, data, and personnel to help manipulate, analyze and present the information that is tied to a geographic location (map).

#### **Office of the Director Division**

The fourth division is the Office of the Director, CIO.

### **Legal Department**

Mr. Patrick S. Ottinger is retained as the City-Parish Attorney to render legal opinions and to counsel and advise LCG and LUS. Various Assistant City Attorneys have also been appointed and serve under the direction, and at the discretion, of the City-Parish Attorney.

## **LUS Organization and Management**

The duties, responsibilities, management and organization of LUS under LCG are taken from the Charter.

The governing authority of LUS is the LPUA. LPUA consists of those members of the Council whose districts include 60 percent or more of persons residing within the

## Section 3

---

boundaries of the City as they existed on the effective date of the Charter. They may be changed in the future if the boundaries of the City change. The latest census reports of the United States Census Bureau were the basis for determining the council districts including 60 percent or more of persons residing within the City.

LPUA members for the period reported herein are provided in Table 3-3.

**Table 3-3**  
**LPUA Members**  
**(2005)**

Name	Office
Rob Stevenson	Member
Marc F. Mouton	Chair
Bruce Conque	Vice Chair
Louis C. Benjamin, Jr.	Member
Christopher J. Williams, Ph.D.	Member

Source: Norma Dugas, LCG, 1/31/06.

The Director of the Utilities Department is appointed by the President, subject to approval by LPUA, in accordance with provisions included in current or future bond resolutions and covenants. The Charter does not affect franchises and contracts in existence at the time the Charter became effective for the remaining life of these franchises and contracts.

LPUA, subject to approval by the President and the Council by ordinance, may expand the area of end-user electric service only into areas authorized by R. S. 45:123, or other controlling State law, or into areas annexed into the City by LCG. Nevertheless, LPUA may enter into contracts with governmental bodies, exclusive of LCG, and other public or private utilities for other than end-user services.

The Utilities Department functions in accordance with conditions included in current bond resolutions and covenants. Funds paid by LUS to LCG for in-lieu-of taxes must be used only for programs and services within the City. LPUA fixes rates, incurs indebtedness, approves the LUS budget, and approves proposals for the improvement and extension of the Utilities System, subject to approval by the President and Council.

A person residing in an area served by LUS may appeal to LPUA any proposed rate increases or issuance of bonds. The decision of LPUA is final, subject to appeal to the appropriate courts.

LPUA must not sell, lease or, in any manner, dispose of the Utilities System, or any substantial part thereof, without approval by majority vote of the qualified electors residing within the boundaries of the City voting in an election called for that purpose. This may not be construed to prevent the disposal of property that has become obsolete, unserviceable and not necessary for the efficient operation of the Utilities System. The proceeds of the sale of such property must be used to purchase or



construct other capital improvements for the Utilities System. In the event of the sale or lease of the entire Utilities System, the proceeds are to be used for capital improvements in the entire City.

### Management of the Utilities System

The President, who is the Chief Executive Officer of LCG, and his Chief Administrative Officer direct and supervise the administration of various departments of LCG. The non-utility departments of LCG involved in day-to-day management and operation of LUS are the Department of Administrative Services, the Department of Finance and the Department of Information Services Technology.

As described above, the Administrative Services Department, Department of Finance, Department of Information Services Technology, and the Legal Department provide services to LUS.

Administrative Services provide the following functions to the Utilities System: personnel services, training and safety, printing, communications, information services, and risk management. The Department of Finance is responsible for accounting, budget management and procurement. The Department of Information Services Technology is responsible for software, hardware, help desk support, daily computer operations, and the GIS.

The CAO supervises all departments, offices, and agencies of LCG under the direction and supervision of the President, except the legal department. The legal department is headed by the City-Parish Attorney.

### Organization

The Director of Utilities is responsible for the operations of the Electric, Water, Wastewater and Fiber Utilities in all areas of activity not otherwise provided for by the Departments of Administrative Services, Finance or Information Services Technology. As outlined in the Charter, the duties of the Director of Utilities are as follows:

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

Mr. Terry Huval, Director of Utilities, is a graduate of the University of Southwestern Louisiana with a B.S. in Electrical Engineering. He has been employed in the utility

industry throughout his career. He served in various management positions with Entergy/Gulf States Utilities, until his appointment as the LUS Director of Utilities on December 5, 1994.

The personnel serving as managers of the divisions within LUS are shown in Table 3-4.

**Table 3-4**  
**LUS Division Managers**

Division	Manager
Engineering	Frank Ledoux
Water Operations	Don Broussard
Wastewater Operations	Craig Gautreaux
Electric Operations	Ronald Landry
Power Production	Frank Ledoux
Utilities Support Services	Andrew Duhon
Customer Service	Andrew Duhon
Environmental Compliance	Allyson Pellerin
Telecommunications Operation	Frank Ledoux

Source: Joan Parish, LUS, 1/31/06.

### Engineering Division

The Engineering Division is responsible for all engineering activities necessary to operate and maintain the Utilities System. The functional activities of this division include forecasting, system planning, system design, contract administration, construction management, and engineering analysis in support of other operating divisions. The Engineering Division manager is responsible for the four sections described below.

The **Civil Engineering Section** focuses on the Water and Wastewater Utilities. Services include design, planning and construction of major water and wastewater infrastructure projects that are scheduled and budgeted with a system of work orders.

The **Power Marketing Section** responsibilities include the following areas:

- Special contracts
- Wholesale electric purchases and sales contracts and negotiations (including the LUS involvement with TEA, as described in Section 5 of this report)
- Fuel supply contract management (coal, gas and transportation)
- Transmission and interconnection contract management
- FERC related issues and compliance reporting
- Work with developers to meet special electric service expansion needs
- Wholesale water rates and contracts



- Development and implementation of telecommunication contracts for vendors and wholesale customers

The **System Engineering Section** areas of focus include:

- GIS development to provide infrastructure locations and system mapping
- Network Engineering
  - Design and installation of Ethernet and wireless networks
  - Oversight of the entire LUS information technology budget
  - O&M of the computer network hardware for all LUS facilities
  - Installation and support for applications
  - Technical support for the Supervisory Control and Data Acquisition ("SCADA") system and fiber networks
- Drafting functions
- Acquisition of real property rights including easements and property ownership required for infrastructure expansions
- Material specifications for Electric, Water, Wastewater and Fiber Utilities
- Annual material purchase contracts through warehouse for transformers, poles, Electric, Water, Wastewater and Fiber Utilities
- Document management for record center and water distribution
- Special projects including generation plants, building expansion and remediation

The **System Construction Section** responsibilities include:

- Electric substation design and planning
- Transmission line design
- Electric system planning
- Fiber construction and installation
- Electric system communications
- Electric system personnel training

### **Water Operations Division**

The Water Operations Division is responsible for the water supply, production, storage, and distribution facilities. This includes maintenance as well as operations and water quality.

### **Wastewater Operations Division**

The Wastewater Operations Division responsibilities include O&M of the treatment and collection facilities. Also included is the management of wastewater discharge quality.

### **Electric Operations Division**

The Electric Operations Division is responsible for the field activities associated with operating and maintaining the electrical transmission and distribution facilities. The functional activities include service calls, system construction, system control, meter shop, security, and substation operations.

### **Power Production Division**

The Power Production Division is responsible for the operation and maintenance ("O&M") of the electric power production facilities. This division is also responsible for the project management, engineering, procurement, construction, etc. for its capital and O&M project budget.

### **Support Services Division**

The Support Services Division is responsible for certain administrative duties associated with operating the Utilities System. These activities include employee training and safety, public information, utility service rates, facilities management, financial planning, and meter reading.

The Meter Services section uses an electronic meter reading system that consists of hand-held remote data collection devices carried by meter readers, computer-based translation and processing equipment at the meter services office, and provides meter data for customer billing function.

The Meter Services section compiles monthly statistics related to meter reading accuracy, read rates and customer connects and disconnects in a continuous effort to identify trends and evaluate opportunities to improve the section's effectiveness. The Customer Information System ("CIS") provides tracking "re-reads" of customer accounts. Tracking the number of re-reads reflects the overall efficiency of a meter reader, of a crew, and of Meter Services in general. In 2005, the Meter Services section was required to re-read approximately 14,797 electric and water meters.

LUS continues to explore opportunities for improving meter reading efficiency. To date, 4,245 electric and water meters have been converted to automatic meter reading ("AMR") technology. The AMR and on-site meter reading ("OMR") Pilot Project has continued through 2005, although some aspects have been postponed until the LUS retail fiber issue is resolved. Other technologies are being explored to assist with commercial and industrial ("C&I") accounts that may need hourly profiling data or other value-added services available from LUS through the meter.

### **Customer Service Division**

The Customer Service Division collects and processes utility customer deposits and bills daily. This division also provides utility customers with service and responses to billing questions. This division uses microfiche for billing register report retention to reduce storage and printing costs. Customer bill paying and other business facilities, including a drive-up window, are located in the LCG building. The cashier function includes receiving all payments delivered by mail or by hand. LUS plans to build a



new customer service facility near the current administrative building within the next few years.

Revenue collection service is an important and financially critical function for any utility. It is the "cash register" of the business, as well as an excellent opportunity to communicate directly with customers. As competition moves into the electric business, an effective customer-oriented, revenue collection division will become essential to the success of LUS.

In 2005, LUS added the option for bill payments over the Internet. Approximately 3,000 customers utilized this option in 2005. LUS is working on improving the user friendliness and aesthetics of the online bill payment option.

### **Environmental Compliance Division**

The Environmental Compliance Division was added to the Utilities Department in 1991 as part of the LUS commitment to employees, customers, and the environment. This division was established to oversee the LUS environmental regulatory requirements, including management of industrial discharge permits and fees.

### **Telecommunications Division**

The Telecommunications Division is responsible for the O&M of the fiber system throughout the City. The fiber system was built in 1999 and provides internal communications capabilities that are critical to the operation and reliability of LUS.

The fiber system offers wholesale broadband services to providers who may then use the infrastructure to offer services to the public. It also provides broadband and Internet service to most LCG facilities.

## **LUS Personnel**

### **Staffing Levels**

Approximately 6.1 percent of the LUS total budgeted positions were unfilled at the end of 2005 (27 vacancies out of 440 positions). The average annual vacancy rate was approximately 6.4 percent or 28 vacant positions per month. Employee turnover for the fiscal year was reported to be approximately 9 percent (39 departures, transfers, retirements, etc.) of the total number of permanent employees. The number of people employed by LUS as of October 31, 2005 and the number of employees included in the budget for the same fiscal year are shown in Table 3-5.

## Section 3

Table 3-5  
LUS Employees as of October 31, 2005

Division	2004-2005 Budget	2005 Actual Full Time	Difference
Director's Office	2	2	0
Support Services			
Admin & Support	10	10	0
Training	1	1	0
Meter Services	27	25	2
Customer Service	31	30	1
Environmental Compliance	20	19	1
Power Production	37	28	9
Electric Operations			
Admin & Support	4	4	0
Transmission & Distribution	47	44	3
Energy Control	16	14	2
Substation & Communication	8	8	0
Facilities Management	15	14	1
Water Operations			
Production	23	23	0
Distribution	39	39	0
Wastewater Operations			
Treatment	57	57	0
Collection	36	30	6
Engineering			
Civil	18	18	0
Administration	10	10	0
Power Marketing	8	8	0
System Engineering	19	19	0
Electric System Construction	8	7	1
Telecommunications	4	3	1
TOTAL	440	413	27

Source: Heather Escott, LUS, 'Personnel Strength Monthly Report', 1/31/06.

## Compensation

Section 8.2 of the Bond Ordinance requires the Consulting Engineer to review and make necessary recommendations related to the pay scales of LUS employees.



The average LUS employee salary during 2005 and prior years is shown in Table 3-6. Changes in the average annual salary from year to year reflect salary administration and alterations to the total employee mix relating to both longevity and the proportion of senior and junior positions (supervisory employees, senior employees, and new hires).

**Table 3-6**  
**LUS Average Annual Salaries**

Year	Average Annual Salary
1996	\$25,272
1997	27,142
1998	27,167
1999	28,139
2000	29,354
2001	29,631
2002	30,431
2003	31,600
2004	33,578
2005	\$34,469

Source: Heather Albritton, LUS, 4/26/06.

## Pay Scale Review

Regional market data was collected to examine the pay ranges for multiple positions within LUS. The positions chosen were based on key positions at LUS, the availability of data for positions comparable to those at LUS and positions that include the Electric, Water and Wastewater Utilities.

A comparison to market and utility-specific data for similar positions was performed. For this comparison, the following activities were conducted:

- LUS job descriptions were compared to the descriptions available from market data sources. If an exact match in title or job description was not evident, R. W. Beck determined how to align the various positions. A general correlation was made between the positions based on job titles, education, and experience requirements.
- The salary comparison was based on annual median salary ranges for 2005.
- The 2004 readily available data from the Bureau of Labor Statistics was escalated to 2005 using a 3.81 percent factor. This escalation factor was calculated based on the Consumer Price Index ("CPI") annual increase from 2004 to 2005 for the South Urban area of the nation.

## Section 3

---

The comparative analysis between the LUS median salary ranges for the defined positions and the median salary obtained from market sources suggests that the LUS median salary ranges are 8 to 48 percent below market for most positions. Based on our research, the results show that selected positions are below market and indicative of the current salary levels overall. The level of compensation for technical and professional staff continues to be an issue for LUS. The turnover rate is, in part, indicative of salaries that are not sufficiently competitive to retain qualified staff in many areas.

The pay scale review only includes the salaries of employees and does not consider the combination of employees' salaries and benefits. A full review of salaries and benefits is beyond the scope of this report; however, a full-scale review should be considered by management given the consistent staffing issues.

### **Employment Practices and Employee Benefits**

All LCG employees, except for a few exempt employees and employees of the Police and Fire Departments are under a Civil Service System. The result of the Civil Service System is that the ranges for wages and salaries of employees of LUS are often influenced by the overall financial position of LCG. This places restraints on LUS' ability to employ and retain well-qualified applicants for positions requiring special technical skills and experience.

The procedure for filling personnel vacancies in LUS begins with a list of eligible applicants. The applicable appointing authority makes the final selection for the specific position. An applicant hired for a permanent position must then serve an initial probationary period of six months. The career advancement process includes an employee evaluation program, which is used to assist Management in determining which employees have potential for promotion.

A group life and medical insurance program for employees is provided through the LCG self-insurance program. LCG pays approximately 77 percent of employee health insurance, 100 percent of life insurance premiums, and 66 percent of the cost for dependent medical coverage. The group life insurance plan provides coverage equal to two times the employees' annual salary.

Paid vacation (annual leave) up to a maximum of 24 working days per year is earned and provided to employees. The maximum annual level is reached after 20 years of service. Sick leave with pay is credited at the rate of one day per month of employment, with no limit to the amount of sick leave an employee may accumulate. Provisions are established for payment of accumulated unused sick leave upon retirement.

LCG employees are enrolled in the supplementary plan of either the Louisiana Municipal Employees' Retirement System ("MERS") or the Louisiana Parochial Employees' Retirement System ("PERS"), although all new employees are enrolled into PERS. Disability and survivor benefits are also provided.

LUS has a drug-free workplace policy for the purpose of deterring or detecting illegal drugs and unauthorized substances in the workplace. It established a random testing program, as well as testing procedures, for reasonable suspicion or probable cause. It



also provided employees with an employee assistance program comprised of counseling and rehabilitation programs.

LUS encourages its personnel to attend numerous technical short courses and seminars to keep abreast of changing technology and procedures in the utility industry. Examples of training courses taken by Management include computer training; management training; and technical courses, such as water quality, wastewater treatment, electric relay, system protection, and electric distribution system design. Clerical staff skills are also enhanced with course topics such as office management and writing skills.

## Insurance

Insurance is handled by LCG's Risk Management Division. LCG maintains a self-insurance fund for property and casualty claims. LCG fully self-insures general liability, auto liability, fleet collision/fleet fire, and directors' and officers' liability. LCG also self-insures the group health plan and administers a flex-funded life insurance plan. Excess policies are carried for fire and extended coverage, boiler, machinery, and worker's compensation. Coverage values for existing generation assets are based on previous appraisals and conversations with appropriate LUS personnel.

According to LCG's financial report for 2005, LCG is in compliance with Governmental Accounting Standards Board 10, Reporting for Risk Financing and Related Issues, for public entities.

The balance in the Risk Management Fund at the end of 2005 was approximately \$1,051,526. Insurance related expenditures and recoveries from the Risk Management Fund for LUS for 2005 and the previous 5 years are provided in Table 3-7.

**Table 3-7**  
**LUS Insurance Transactions <sup>(1)</sup>**

Year	Payments	Recovery	Effective Payments
2001	\$1,073,430	(\$1,831,889)	(\$758,459)
2002	866,393	(1,804,635)	(938,242)
2003	1,015,923	(498,752)	517,161
2004	1,065,232	(350,584)	684,648
2005	\$740,477	(\$267,976)	\$472,501

<sup>(1)</sup> Cash basis. Expenditures incurred, recoveries collected during year, not necessary at time of claim.

Source: Lewana Shearer, LUS, 1/31/06.

## LUS Organizational Goals

LUS last updated their Strategic Plan in 2004. Various employee committees developed goals in five areas consistent with LUS' vision, mission, values, and departments. Specific key areas and goals are provided in Table 3-8. The Strategic

## Section 3

Plan includes specific action items assigned to specific LUS individuals for the key areas identified below.

The objectives of each of the utilities include supporting the customer focus and include promotion of customer growth and creation of a customer-focused culture, in addition to the specific key areas listed in Table 3-8.

**Table 3-8**  
**Key Areas and Goals**

Focus	Key Areas
Customer Focus (Main Focus)	Improve customer service. Customer expansion and retention. Maintain community partnerships. Legislative issues.
Employee Focus	Reinforce LUS core values. Develop appropriate training. Career development.
Electric Focus	Ensure adequate self-generation capacity. Maintain and supply of competitively-priced fuel. Operate and maintain generating and transmission and distribution facilities using best practices. Ensure adequate transmission system capacity with M-1 reliability criteria.
Water Focus	Ensure adequate supply, treatment, and distribution capacity. Operate and maintain systems using best practices of industry leaders obtained through a benchmarking process. Develop strategies and methodologies to extend service to our customers.
Wastewater Focus	Ensure adequate treatment and collection capacity. Operate and maintain systems using best practices of industry leaders obtained through benchmarking process.
Telecom Focus	Ensure adequate telecommunication facilities. Use proven technologies and methodologies for O&M. Develop strategies and methodologies to extend service to our customers.

Source: Strategic Plan FY 2004-2005



Overall, the Strategic Plan has not been utilized as efficiently as anticipated over the last year. The plan was not updated for fiscal year 2005. The plan sets measurable goals that LUS can use to determine how well LUS is progressing towards the goals of the Strategic Plan. Due to staffing level issues, LUS has not updated and reviewed the goals as often as anticipated.

## Recommendations

Recommendations and their status are provided in Table 3-9. We have indicated the priority of the recommendation as either highest, high or normal.

**Table 3-9**  
**Recommendations**

Organization and Management	Priority	Status
LUS should continue to investigate the succession of key management positions due to potential retirements in these areas in the next 3-5 years.	High	In Progress
LUS should continue to investigate appropriate actions to attract and maintain qualified employees, thus reducing the turnover rate.	High	In Progress
LUS should update and review their Strategic Plan consistently. LUS should review the measurable goals throughout the year to determine LUS' status with regards to the Strategic Plan.	High	In Progress
LUS should consider performing a full review of employee pay scale and benefits given staffing issues.	High	New











## Section 4

# FINANCE AND ACCOUNTING

---





## Section 4

# FINANCE AND ACCOUNTING

---

### LUS Operating Results

LUS provides electric, water, wastewater, and fiber services to customers located both inside and outside the City limits. LUS is directed by the President and regulated by the Council with regard to utility service pricing and revenue bond financing.

During 2005, two major hurricanes came through southern Louisiana that impacted the finances of LUS. LUS provided assistance to communities throughout South Louisiana. Loans of electric generators on trailers were made to other agencies/systems allowing them to maintain administrative operations.

LUS employees from Water Operations, Wastewater Operations, and Environmental Compliance assisted the Sewerage and Water Board of New Orleans in returning their drinking water systems back to normal service. Employees assisted New Orleans personnel with repairing and flushing the water treatment and distribution systems, collecting water samples, and driving the samples to Lafayette nightly for analysis. In addition, LUS line workers assisted multiple communities with the rebuilding of electrical infrastructure.

LUS is in the process of filing for Federal Emergency Management Agency ("FEMA") reimbursement. An estimated \$1.9 million will be requested for reimbursement by FEMA. Approximately \$1.3 million of the \$1.9 million of expenses was incurred during the 2005 fiscal year.

The data included in this section is based on audited reports generated by LUS and LCG. Tables 4-1 through 4-6 summarize the Electric, Water, Wastewater, Fiber, and Utilities System revenues and expenses for the most recent five years.

As shown in Table 4-1, 2005 Electric Utility operating revenues increased by 29 percent, or \$42.6 million, over 2004. A major contributing factor to this revenue increase was from the passthrough of higher fuel costs as seen in Table 4-2. The population increase due to Hurricane Katrina and Rita and weather changes also impacted revenues. Retail revenues increased by 26.1 percent, and wholesale revenues increased by 63.3 percent over 2004.

Electric Utility fuel and purchased power costs increased approximately 40.1 percent, or \$37.6 million, over year 2004 as shown in Table 4-1. Other Electric Utility O&M expenses increased by \$1.5 million, or 6.0 percent, over 2004.

LUS passes fuel costs on to retail customers via a fuel adjustment factor. LUS reviews the fuel adjustment factor monthly and adjusts the calculation periodically in order to recover fuel and purchased power costs.

## Section 4

In 2005, the Net Margin increased by 20.7 percent, or \$5.8 million over 2004 levels.

**Table 4-1**  
**Electric Utility Net Operating Revenues**

	2001	2002	2003	2004	2005
<b>Electric Operating Revenues</b>					
Retail	\$113,588,781	\$103,442,565	\$122,845,356	\$130,780,046	\$164,899,400
Wholesale	24,696,671	10,520,237	12,232,000	12,742,061	20,812,121
Other	<u>1,545,690</u>	<u>1,138,529</u>	<u>1,391,538</u>	<u>1,751,337</u>	<u>2,136,070</u>
Total Electric Operating Revenues	\$139,831,142	\$115,101,332	\$136,468,894	\$145,273,444	\$187,847,591
<b>Electric Operating Expenses</b>					
Operation Expenses					
Fuel – Gas	\$25,387,948	\$14,169,879	\$20,909,938	\$28,871,511	\$60,387,193
Purchased Power – LPPA	43,171,190	41,464,787	44,230,058	44,566,751	46,266,400
Purchased Power – Other	24,666,165	11,785,361	25,211,290	20,315,416	24,666,146
Other	14,605,943	15,970,462	16,898,665	17,773,657	18,985,504
Maintenance Expenses	<u>4,256,143</u>	<u>3,530,731</u>	<u>4,990,853</u>	<u>6,702,630</u>	<u>6,958,327</u>
Total Operating Expenses	\$112,087,389	\$86,921,221	\$112,240,804	\$118,229,964	\$157,263,570
<b>Electric Non Operating Revenues (Expenses)</b>					
Interest Revenues	\$3,480,890	\$2,257,112	\$1,633,993	\$1,613,012	\$4,199,950
Miscellaneous Non Operating Revenues	85,492	202,245	340,504	0	0
FTTH Start Up Project <sup>(1)</sup>	0	0	0	(306,984)	(929,271)
Interest on Customer Deposits	(32,276)	(25,349)	(13,935)	(1,413)	(15,316)
Loss on Extinguishment of Debt	(205,752)	(161,789)	(112,128)	(61,104)	0
Hurricanes Rita and Katrina	0	0	0	0	(55,123)
Hurricane Lili <sup>(2)</sup>	0	(317,048)	(30,582)	0	0
Power Plant Decommissioning <sup>(3)</sup>	0	0	(887,594)	(298,643)	0
Miscellaneous Non Operating Expense	<u>(907)</u>	<u>(61)</u>	<u>(14,935)</u>	<u>(8,217)</u>	<u>(2)</u>
Total Non Operating Revenues (Expenses)	\$3,327,447	\$1,955,110	\$915,323	\$936,650	\$3,200,239
<b>Net Margin <sup>(4)</sup></b>	<b>\$31,071,200</b>	<b>\$30,135,221</b>	<b>\$25,143,413</b>	<b>\$27,980,131</b>	<b>\$33,784,259</b>

<sup>(1)</sup> Electric allocation of FTTH project start up cost. Allocation pursuant to LUS proposed Cost Allocation Manual.

<sup>(2)</sup> Non-recurring O&M expenses associated with hurricanes.

<sup>(3)</sup> Decommissioning expenses associated with Curtis A. Rodemacher Generating Station -At a minimum, costs expected to be incurred through 2007.

<sup>(4)</sup> Before Depreciation and Debt Service.

Source: LCG Audited Financial and Operating Statements.

Table 4-2 summarizes Electric Utility Supply unit costs for the most recent five years. As shown in this table, total Electric Utility energy costs increased by 28.4 percent to \$56.90 per megawatt hour ("MWh") in 2005. Self-generation costs increased by 44.1 percent primarily because of fuel cost increases. Total purchased power costs increased by 8.4 percent. However, non-LPPA purchased power costs increased by 42 percent.



Table 4-2  
Average Energy Costs (\$/MWh)

	2001	2002	2003	2004	2005
Self Generation					
Fuel	\$49.32	\$33.86	\$55.33	\$62.34	\$95.44
Other	<u>6.26</u>	<u>6.25</u>	<u>8.37</u>	<u>9.60</u>	<u>8.26</u>
Total Self Generation	\$55.58	\$40.12	\$63.69	\$71.94	\$103.70
Purchases					
LPPA	\$32.15	\$29.55	\$35.39	\$33.28	\$32.75
Other Supplies	<u>49.04</u>	<u>32.87</u>	<u>45.11</u>	<u>49.19</u>	<u>69.60</u>
Total Purchased Power	\$36.75	\$30.23	\$38.39	\$37.03	\$40.14
Total Supply	\$40.86	\$32.13	\$42.77	\$44.33	\$56.90

Source: LCG Audited Financial and Operating Statements.

Table 4-3 summarizes the Water Utility revenues and expenses for the most recent five years. In 2005, the Water Utility operating revenues increased by 8.4 percent, or \$1.0 million, over 2004. Retail revenues increased by 3.1 percent, and wholesale revenues increased by 10.5 percent. The Water Utility operating expenses increased approximately 10.1 percent, or approximately \$0.7 million, over 2004.

In 2005, the Water Utility Net Margin reversed a historical declining trend and increased by 5.6 percent over the previous year without a rate change. A significant factor was that a change was made whereby contributions in aid of construction are recorded as revenue. The Water Utility had \$446,000 in contributions in aid of construction for 2005.

## Section 4

**Table 4-3  
Water Utility Net Operating Revenues**

	2001	2002	2003	2004	2005
Water Operating Revenues					
Retail	\$9,296,649	\$9,624,484	\$9,875,508	\$9,885,284	\$10,196,348
Wholesale	1,594,377	1,668,492	1,669,941	1,715,164	1,895,433
Other	<u>158,856</u>	<u>201,943</u>	<u>179,655</u>	<u>265,109</u>	<u>774,653</u>
Total Water Operating Revenues	\$11,049,882	\$11,494,918	\$11,725,104	\$11,865,556	\$12,866,433
Water Operating Expenses					
Operation Expenses	\$2,788,292	\$2,301,823	\$2,971,923	\$3,237,792	\$3,618,283
Maintenance Expenses	879,604	953,119	1,091,875	1,115,341	1,080,016
Other Expenses	<u>2,101,624</u>	<u>2,877,266</u>	<u>2,819,649</u>	<u>3,007,651</u>	<u>3,403,409</u>
Total Operating & Maintenance Expenses	\$5,769,520	\$6,132,208	\$6,883,447	\$7,360,784	\$8,101,708
Water Non Operating Revenues (Expenses)					
Interest Revenues	\$736,912	\$429,531	\$326,532	\$131,747	\$287,671
Water Tapping Fees	182,248	245,634	114,100	123,100	140,536
Miscellaneous Non Operating Revenues	16,402	38,488	68,045	0	0
FTTH Start Up Project <sup>(1)</sup>	0	0	0	(88,453)	(267,756)
Interest on Customer Deposits	(6,192)	(4,824)	(2,785)	(235)	(2,386)
Extinguishment of Debt	(30,177)	(23,729)	(16,445)	(8,962)	0
Miscellaneous Non Operating Expense	<u>(84)</u>	<u>(6)</u>	<u>(1,211)</u>	<u>(2,368)</u>	<u>(1)</u>
Total Non Operating Revenues (Expenses)	\$899,109	\$685,094	\$488,236	\$154,829	\$158,064
Net Margin <sup>(2)</sup>	\$6,179,471	\$6,047,805	\$5,329,893	\$4,659,601	\$4,922,789

<sup>(1)</sup> Water allocation of FTTH project start up cost. Allocation pursuant to LUS proposed Cost Allocation Manual.

<sup>(2)</sup> Before Depreciation and Debt Service.

Source: LCG Audited Financial and Operating Statements.

Table 4-4 summarizes the Wastewater Utility revenues and expenses for the most recent five years. The Wastewater Utility operating revenues increased approximately 3 percent, or approximately \$0.4 million, over 2004. Wastewater Utility operating expenses increased approximately 18 percent or approximately \$1.8 million over 2004.

In 2005, the Wastewater Utility Net Margin reversed a historical increasing trend and decreased by 28.6 percent from the previous year. A 25 percent Wastewater rate increase took effect in November 2005 which should result in an increased operating margin in 2006.



**Table 4-4**  
**Wastewater Utility Net Operating Revenues**

	2001	2002	2003	2004	2005
Wastewater Operating Revenues					
Service	\$12,377,542	\$12,814,793	\$14,105,471	\$15,140,093	\$15,436,805
Other	<u>137,352</u>	<u>162,690</u>	<u>185,084</u>	<u>79,990</u>	<u>204,602</u>
Total Wastewater Operating Revenues	\$12,514,894	\$12,977,483	\$14,290,555	\$15,220,083	\$15,641,408
Wastewater Operating Expenses					
Operation Expenses	\$4,640,613	\$4,786,363	\$5,036,124	\$5,210,368	\$5,588,641
Maintenance Expenses	1,192,357	1,059,951	1,183,048	1,294,289	2,278,263
Other Expense	<u>2,820,611</u>	<u>3,133,877</u>	<u>3,577,748</u>	<u>3,726,228</u>	<u>4,187,612</u>
Total Operating Expenses	\$8,653,581	\$8,980,191	\$9,796,920	\$10,230,885	\$12,054,516
Wastewater Non Operating Revenues (Expenses)					
Interest Revenues	\$538,874	\$320,167	\$303,060	\$168,993	\$349,715
Miscellaneous Non Operating Revenues	11,994	28,688	63,154	0	0
FTTH Start Up Project <sup>(1)</sup>	0	0	0	(114,469)	(346,508)
Interest on Customer Deposits	(4,528)	(3,596)	(2,585)	(261)	(1,796)
Extinguishment of Debt	(38,407)	(30,201)	(20,931)	(11,406)	0
Miscellaneous Non Operating Expense	<u>(100)</u>	<u>(7)</u>	<u>(1,555)</u>	<u>(3,064)</u>	<u>(1)</u>
Total Non Operating Revenues (Expenses)	507,833	315,051	341,143	39,793	1,410
Net Margin <sup>(2)</sup>	\$4,369,146	\$4,312,343	\$4,834,778	\$5,028,992	\$3,588,302

<sup>(1)</sup> Wastewater allocation of FTTH project start up cost. Allocation pursuant to LUS Cost Allocation Manual.

<sup>(2)</sup> Before Depreciation and Debt Service.

Source: LCG Audited Financial and Operating Statements.

Table 4-5 summarizes the Fiber Utility revenues and expenses for the most recent five years. The Fiber Utility service and access revenues increased 67.0 percent, or approximately \$0.5 million over 2004. Fiber Utility operating expenses decreased approximately 25.0 percent, or approximately \$0.2 million, over 2004. It should be noted that historical numbers do not reflect uniform treatment and application of LUS Combined Utilities administration, general, and other overhead costs to the Fiber Utility. LUS continues to evaluate the proper allocation of these costs to the Fiber Utility.

The Fiber Utility is a wholesale fiber business that is still in the start-up phase. 2004 was the first year that the Net Margin was positive and a significant increase in Net Margin occurred between 2004 and 2005.

## Section 4

**Table 4-5**  
**Fiber Utility Net Operating Revenues**

	2001	2002	2003	2004	2005
Fiber Operating Revenues					
Fiber Service and Access Revenues	\$0	\$119,772	\$413,512	\$762,143	\$1,264,928
Miscellaneous Fiber Revenues	<u>0</u>	<u>69,219</u>	<u>72,139</u>	<u>113</u>	<u>7,711</u>
Total Fiber Operating Revenues	\$0	\$188,990	\$485,651	\$762,256	\$1,272,639
Fiber Operating Expenses					
Operation Expenses	\$55,182	\$364,965	\$568,599	\$641,648	\$481,237
Fiber Maintenance Expenses	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Operating Expenses	\$55,182	\$364,965	\$568,599	\$641,648	\$481,237
Fiber Non Operating Revenues (Expenses)					
Interest Revenues	\$0	\$0	\$0	\$8,464	\$28,454
FTTH Start-Up Project <sup>(1)</sup>	0	0	0	(10,406)	(31,500)
Miscellaneous Non Operating Expense	<u>0</u>	<u>0</u>	<u>0</u>	<u>(279)</u>	<u>0</u>
Total Non Operating Revenues (Expenses)	\$0	\$0	\$0	(\$2,221)	(\$3,046)
Net Margin <sup>(2)</sup>	(\$55,182)	(\$175,975)	(\$82,949)	\$118,387	\$788,355

<sup>(1)</sup> Fiber allocation of FTTH project start up cost. Allocation pursuant to LUS proposed Cost Allocation Manual.

<sup>(2)</sup> Before Depreciation and Debt Service.

Source: LCG Audited Financial and Operating Statement s.

Table 4-6 summarizes the Utilities System revenues and expenses for the Electric, Water, Wastewater and Fiber Utilities over the most recent five years. Overall in 2005, the Combined Utilities total revenues (including retail sales, wholesale sales and other sources of income) increased by \$46.7 million, and operating expenses increased by \$41.4 million. This resulted in an increase in Net Operating Revenue of approximately 14.0 percent, or \$5.3 million.



**Table 4-6**  
**Utilities System Disposition of Unpledged Cash**

	2001	2002	2003	2004	2005
Utilities System Operating Revenues	\$163,395,918	\$139,762,723	\$162,970,204	\$173,121,340	\$217,628,071
Utilities System Operating Expenses	126,565,671	102,398,584	129,489,771	136,463,280	177,901,032
Utilities System Other Revenues (Expenses)	<u>4,734,389</u>	<u>2,955,255</u>	<u>1,744,702</u>	<u>1,129,051</u>	<u>3,356,667</u>
Net Operating Revenues	\$41,564,636	\$40,319,394	\$35,225,135	\$37,787,111	\$43,083,706
Debt Service					
Interest	\$1,423,425	\$1,226,474	\$956,997	\$656,367	\$3,745,587
Principal	<u>8,545,883</u>	<u>6,015,000</u>	<u>6,270,000</u>	<u>12,213,278</u>	<u>815,000</u>
Total Debt Service	\$9,969,308	\$7,241,474	\$7,226,997	\$12,869,645	\$4,560,587
Balance After Debt Service	\$31,595,328	\$33,077,920	\$27,998,138	\$24,917,466	\$38,523,119
Less Interest on Customer Deposits	(\$42,996)	(\$33,769)	(\$19,305)	(\$1,908)	(\$19,498)
Balance Available for Capital Expenditures, In-Lieu-of-Taxes, Reserves, Other Lawful Purposes	\$31,552,332	\$33,044,151	\$27,978,833	\$24,915,558	\$38,503,621
Less Expenditures for Normal Additions to Plant Considered Payable from Operating Revenues	\$5,289,297	\$6,224,008	\$8,144,540	\$9,385,964	\$6,486,719
Change in Cash due to Operations	\$26,263,035	\$26,820,143	\$19,834,293	\$15,529,594	\$32,016,902
Less In-Lieu-of-Tax Payment	14,190,874	17,293,000	16,141,000	16,332,000	16,316,608
Changes in Balance Sheet Accounts affecting Cash	16,114,657	7,231,876	(4,649,568)	4,730,885	20,691,797
Resulting Change in 'Unpledged Cash'	\$4,042,495	(\$2,295,267)	(\$8,342,861)	\$5,533,292	\$4,991,503

Source: LCG Audited Financial and Operating Statements and LUS Status of Construction Work Orders.

## Customer Sales Data

The selected statistical data in Tables 4-7 through 4-10 pertaining to the number of customers, customer usage, and revenues by classes was obtained or developed from LCG's Audited Financial and Operating Statements.

Table 4-7 shows the Electric Utility retail statistics for the most recent five years. Compared to the prior year, the average electric usage per retail customer in 2005 increased by approximately 2.9 percent, from 31,372 kilowatt hours ("kWh") to 32,284 kWh. The average electric revenue per retail customer, including fuel cost adjustment charges increased 25.2 percent in 2005 compared to 2004 due to the pass through of higher fuel costs.

## Section 4

**Table 4-7**  
**Electric Sales Revenue and Statistics**

	2001	2002	2003	2004	2005
Electric Sales Revenues					
Retail - Rate Base	\$58,187,086	\$59,584,385	\$60,607,556	\$62,038,819	\$64,125,021
Retail - Fuel Adjustment	55,401,695	43,858,180	62,237,800	68,741,227	100,774,379
Wholesale	<u>24,696,671</u>	<u>10,520,237</u>	<u>12,232,000</u>	<u>12,742,061</u>	<u>20,812,121</u>
Total Electric Sales Revenues	\$138,285,452	\$113,962,803	\$135,077,356	\$143,522,107	\$185,711,521
Electric Sales (MWh)					
Retail	1,707,490	1,770,388	1,755,595	1,803,558	1,869,428
Wholesale	<u>507,754</u>	<u>281,280</u>	<u>268,379</u>	<u>284,095</u>	<u>423,524</u>
Total Sales	2,215,244	2,051,668	2,023,974	2,087,653	2,292,952
Electric Number of Accounts (Average)					
Retail	55,268	55,244	56,604	57,489	57,906
Wholesale	<u>9</u>	<u>8</u>	<u>8</u>	<u>12</u>	<u>12</u>
Total Accounts	55,277	55,252	56,612	57,501	57,918
Electric Statistics - Retail					
Usage per Account (kWh)	30,895	32,047	31,015	31,372	32,284
Revenue per Account (with fuel)	\$2,055	\$1,872	\$2,170	\$2,275	\$2,848
Revenue per Account (without fuel)	\$1,053	\$1,079	\$1,071	\$1,079	\$1,107
Revenue per MWh (with fuel)	\$66.52	\$58.43	\$69.97	\$72.51	\$88.21
Revenue per MWh (without fuel)	\$34.08	\$33.66	\$34.52	\$34.40	\$34.30

Source: LCG Audited Financial and Operating Statements.

Table 4-8 shows the Water Utility retail statistics for the most recent five years. Compared to the prior year, the average water usage per retail customer in 2005 increased by approximately 1.6 percent, from 135,000 gallons to 137,000 gallons. However, average water usage per retail customer has decreased by 8.0 percent from 2001 levels. The average water revenue per customer increased by 1.4 percent in 2005 compared to 2004.



Table 4-8  
Water Sales Revenue and Statistics

	2001	2002	2003	2004	2005
Water Sales Revenues					
Retail	\$9,296,649	\$9,624,484	\$9,875,508	\$9,885,284	\$10,196,348
Wholesale	<u>1,594,377</u>	<u>1,668,492</u>	<u>1,669,941</u>	<u>1,715,164</u>	<u>1,895,433</u>
Total Water Sales Revenues	\$10,891,026	\$11,292,975	\$11,545,449	\$11,600,448	\$12,091,780
Water Sales (1,000 gallons)					
Retail	5,960,855	5,877,726	5,961,809	5,745,371	5,939,361
Wholesale	<u>1,094,092</u>	<u>1,122,567</u>	<u>1,150,109</u>	<u>1,171,125</u>	<u>1,304,080</u>
Total Sales	7,054,947	7,000,293	7,111,918	6,916,496	7,243,441
Water Number of Accounts (Average)					
Retail	39,911	40,583	41,740	42,467	43,212
Wholesale	<u>4,429</u>	<u>3,865</u>	<u>3,986</u>	<u>4,155</u>	<u>4,317</u>
Total Accounts	44,340	44,448	45,726	46,622	47,529
Water Statistics					
Usage per Account (1,000 gallons)	149	145	143	135	137
Revenue per Account	\$232.93	\$237.16	\$236.60	\$232.78	\$235.96
Revenue per 1,000 gallons	\$1.56	\$1.64	\$1.66	\$1.72	\$1.72

Source: LCG Audited Financial and Operating Statements.

Table 4-9 shows the Wastewater Utility statistics for the most recent five years. Compared to the prior year, the average wastewater usage per customer in 2005 decreased by approximately 16.2 percent, from 172,000 gallons to 144,000 gallons. Wastewater usage per customer has decreased by 15.6 percent from 2001 levels. The average wastewater revenue per customer increased by 0.1 percent in 2005 compared to 2004.

Table 4-9  
Wastewater Sales Revenue and Statistics

	2001	2002	2003	2004	2005
Wastewater Sales Revenues					
Service	<u>\$12,377,542</u>	<u>\$12,814,793</u>	<u>\$14,105,471</u>	<u>\$15,140,093</u>	<u>\$15,436,805</u>
Total Wastewater Sales Revenues	\$12,377,542	\$12,814,793	\$14,105,471	\$15,140,093	\$15,436,805
Wastewater Intake (1,000 gallons)	6,142,415	6,128,633	6,446,588	6,601,199	5,638,655
Wastewater Number of Accounts (Oct. 31)	35,914	37,073	37,680	38,325	39,056
Wastewater Statistics					
Intake per Account (1,000 gallons)	171	165	171	172	144
Revenue per Account	\$344.64	\$345.66	\$374.35	\$395.04	\$395.25
Revenue per 1,000 gallons	\$2.02	\$2.09	\$2.19	\$2.29	\$2.74

Source: LCG Audited Financial and Operating Statements.

Table 4-10 shows the Fiber Utility statistics for the most recent five years. Compared to the prior year, the average fiber revenue per customer increased significantly (47.0 percent) in 2005 compared to 2004. Revenue per customer has increased

## Section 4

significantly due to increased service requirements of existing customers and non-recurring connection charges.

**Table 4-10**  
**Fiber Sales Revenue and Statistics**

	2001	2002	2003	2004	2005
Fiber Sales Revenues					
Service and Access Revenues	\$0	\$119,772	\$413,512	\$762,143	\$1,264,928
Total Fiber Sales Revenue	\$0	\$119,772	\$413,512	\$762,143	\$1,264,928
Fiber Number of Accounts (Average)	N/A	11	22	31	35
Fiber Statistics					
Revenue per Account	N/A	N/A	\$18,796	\$24,585	\$36,141

Source: LCG Audited Financial and Operating Statements.

## Adequacy of Revenues

The Utilities Revenue Bonds, Series 2004 Bond Ordinance, contains the following covenants as to the adequacy of revenues.

*“(a) So long as any Obligations remain Outstanding, the Issuer will fix, charge and collect, or cause to be fixed, charged and collected, subject to applicable requirements or restrictions imposed by law, such rates, rentals, fees and charges for the use of and for the services and products provided by the Utilities System as are expected to be sufficient in each Sinking Fund Year to produce Revenues, in an amount, at least equal to the sum of (i) one hundred percent (100%) of the Costs of Operation and Maintenance for such Sinking Fund Year, (ii) one hundred percent (100%) of the Bond Service Requirements for such Sinking Fund Year, (iii) one hundred percent (100%) of the amounts payable with respect to Subordinated Indebtedness and Subordinated Contract Obligations in such Sinking Fund Year, (iv) one hundred percent (100%) of the amount required to maintain the Reserve Fund in accordance with Section 5.1 hereof, and any additional amount required to make all other payments required to be made.”*

LUS' revenues have met the above covenants for the reporting period and all previous reporting periods.

## Franchises

Covenants in Section 7.3 of the Bond Ordinance also state that the government should not voluntarily grant a franchise to any entity or construct or operate any competing facility providing the same services as provided by the Utilities System. No such franchise was granted during the current reporting period and no such franchise now exists.

A joint pole attachment agreement with the Bell South Telephone Company (“BSTC”) specifies that LCG will pay to BSTC a rate of \$8.00 per pole per year for use of BSTC poles; BSTC will pay LCG \$6.00 per pole per year for the use of LUS' poles. The



difference would be based on use per pole. LCG also has an agreement with Cox Communications ("Cox") for pole rental of LCG's poles to Cox at \$7.00 per pole per year. A temporary franchise was granted to Light Core to utilize the City's right-of-way for a limited segment of fiber optic cable.

### **Rate Revisions**

The Bond Ordinance contains a rate covenant in Section 7.7 stating that LUS will charge and collect rates and fees for the use of services by the Utilities. The rates should sufficiently produce revenues to fund the costs of O&M, Bond Reserve Requirement, Subordinated Indebtedness and Subordinated Contract Obligations, and the Reserve Fund.

The revenues and other receipts of LUS considered revenues for this purpose were sufficient for the 12 months ended October 31, 2005 to pay the costs of operating and maintaining LUS, and to pay the required principal and interest of all outstanding revenue bonds. Accordingly, LUS has complied with all elements of the above-rate covenant of the Bond Ordinance for this reporting period and all previous reporting periods.

The Council and LPUA have the exclusive right to regulate LUS' rates and charges for services within and outside the corporate limits of the City. The Bond Ordinance, Section 8.3, states that it is the duty of the Consulting Engineer to advise on any revisions of rates and charges except fuel adjustment charges. During 2005, rates changes were approved for the Electric Utility and Wastewater Utility. However, these did not take effect until November 2005 (beginning of fiscal year 2006).

LUS Electric Utility rates consist of a base and fuel component. LUS changed the Electric Utility fuel charge eight times during 2005. At the beginning of 2005, the fuel charge was \$0.04530 per kWh. The rate was increased to \$0.05300 in March 2005, and then to \$0.06400 per kWh in August 2005. When both generation stations become operational in July 2006, LUS is expected to realize fuel savings. Fuel saving are expected to offset any potential increases in base electric rates.

In the near future, LUS will need to conduct a comprehensive cost-of-service study to examine the adequacy and equity of existing electric system rates. LUS should conduct a combined system cost of service study including Electric, Water, Wastewater, and Fiber Utilities. This analysis is important in that LUS must understand the cost structure associated with the new capital and operating requirements of the Utilities System.

Existing wastewater rates, although recently increased, are not expected to be sufficient to fully fund the Wastewater Utility operation on a stand-alone basis for an extended period. The Wastewater Utility is partially subsidized by Electric Utility revenues due to capital and operating requirements of the Wastewater Utility. The Wastewater Utility will be faced with continued rate increases over the next several years before the Utility will be financially self-sufficient. As soon as possible, LUS should raise wastewater rates to minimize subsidization of this system by the Electric Utility.



## Section 4

For 2005, the existing Water rates were sufficient to fully fund the Water Utility operation on a stand-alone basis. However, the rates should be monitored closely to ensure that rates continue to support the Water Utility. Water utility rates may be expected to increase in the next three years. Tables 4-11 through 4-13 show the average revenue by rate class for the Electric, Water and Wastewater Utilities.

Electric Utility average residential base rates decreased by 0.2 percent during the 2005 compared to the prior year. The Small Commercial average base rates and Large Commercial average base rates also decreased by 0.2 percent for 2005 as shown in Table 4-11. Base rate changes can be attributable to changes in customer usage patterns.

Since 2001, the average residential rates have increased by approximately 4.1 percent. The Small Commercial rates have increased by 5.2 percent since 2001, and the Large Commercial rates have increased by 6.8 percent. Because LUS kept base rates essentially steady for this period, base rate changes can be attributable to changes in customer usage patterns.

**Table 4-11**  
**Electric Retail Base Rates (\$/kWh)**

Class	2001	2002	2003	2004	2005
Residential	\$0.0326	\$0.0337	\$0.0334	\$0.0341	\$0.0340
Small Commercial-No Demand	\$0.0442	\$0.0460	\$0.0455	\$0.0466	\$0.0465
Large Commercial-Demand	\$0.0295	\$0.0311	\$0.0309	\$0.0316	\$0.0315

Source: LCG Audited Financial and Operating Statements.

The Water Utility average residential base rates decreased by 0.5 percent during 2005. The Commercial average base rates decreased by approximately 0.1 percent during 2005 as shown in Table 4-12.

Since 2001, the average residential base rates have generally increased until 2005 when they leveled. Commercial rates have remained relatively flat for the last few years. Changes in average revenue per thousand gallons can be attributable to changes in customer usage patterns.

**Table 4-12**  
**Water Retail Rates (\$/1,000 gallons)**

Class	2001	2002	2003	2004	2005
Residential	\$1.72	\$1.79	\$1.80	\$1.85	\$1.84
Commercial	\$1.37	\$1.43	\$1.45	\$1.46	\$1.46

Source: LCG Audited Financial and Operating Statements.

The Wastewater Utility average residential base rates increased by 0.3 percent during the 2005. The average Commercial rates decreased 0.8 percent during 2005 as shown in Table 4-13.



Since 2001, the average residential base rates for the Wastewater Utility significantly increased in 2003 and 2004, but stabilized in 2005. The commercial average rates steadily increased from 2001 through 2004, but also appear to have stabilized in 2005. Changes in average revenue per thousand gallons can be attributable to changes in customer usage patterns.

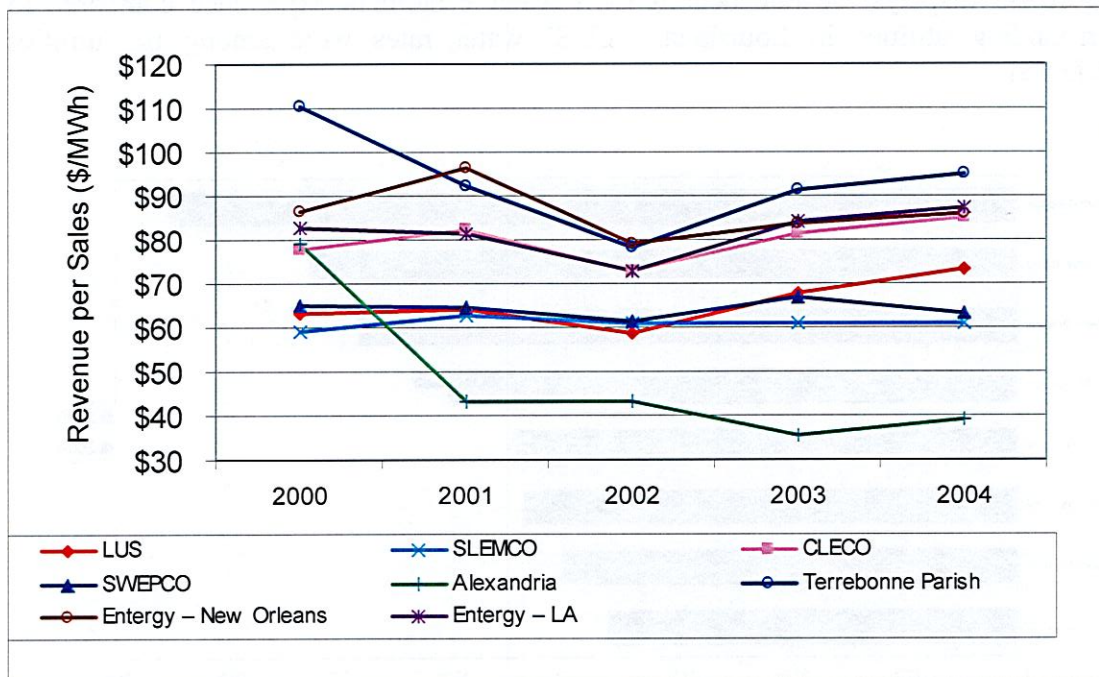
**Table 4-13**  
**Wastewater Retail Rates (\$/1,000 gallons)**

Class	2001	2002	2003	2004	2005
Residential	\$213.71	\$212.27	\$232.95	\$246.97	\$247.62
Commercial	\$1,198.53	\$1,225.59	\$1,270.46	\$1,339.24	\$1,327.87

Source: LCG Audited Financial and Operating Statements.

### Rate Comparison

Figures 4-1 through 4-2 graphically compare the average electric residential and commercial retail rates for LUS and other selected Louisiana utilities for years 2000-2004. The data shown was gathered from the Global Energy Decision's Velocity Suite database. Figure 4-1 displays the rate benefit LUS residential customers experience compared to surrounding utilities in Louisiana. LUS' residential rates in 2004 were average compared to surrounding utilities.

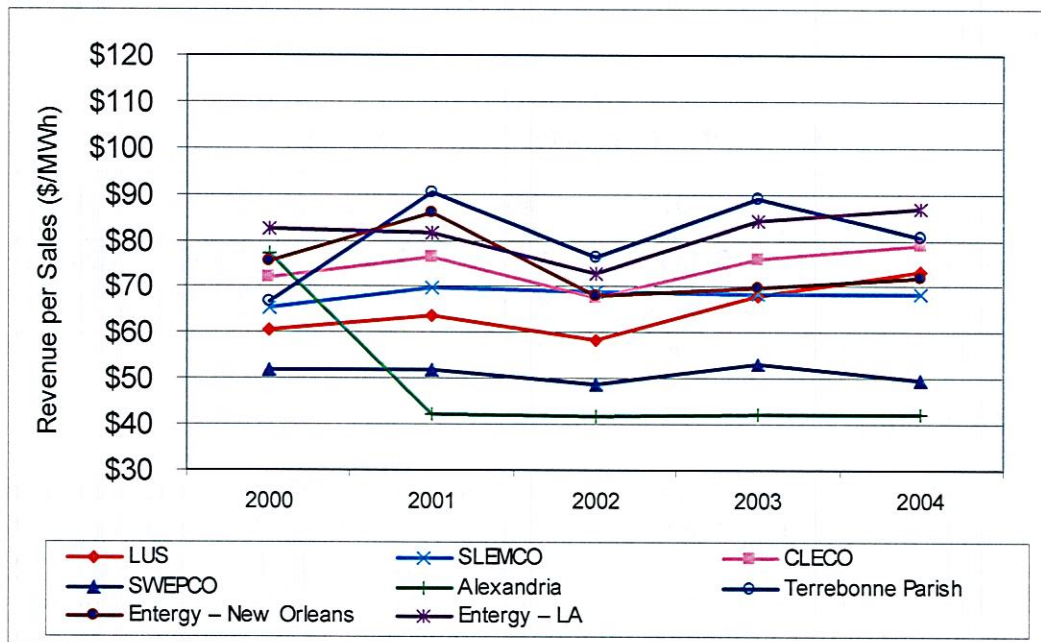


**Figure 4-1: Residential Rates for LUS and Selected Louisiana Utilities**

Source: Velocity Suite.

## Section 4

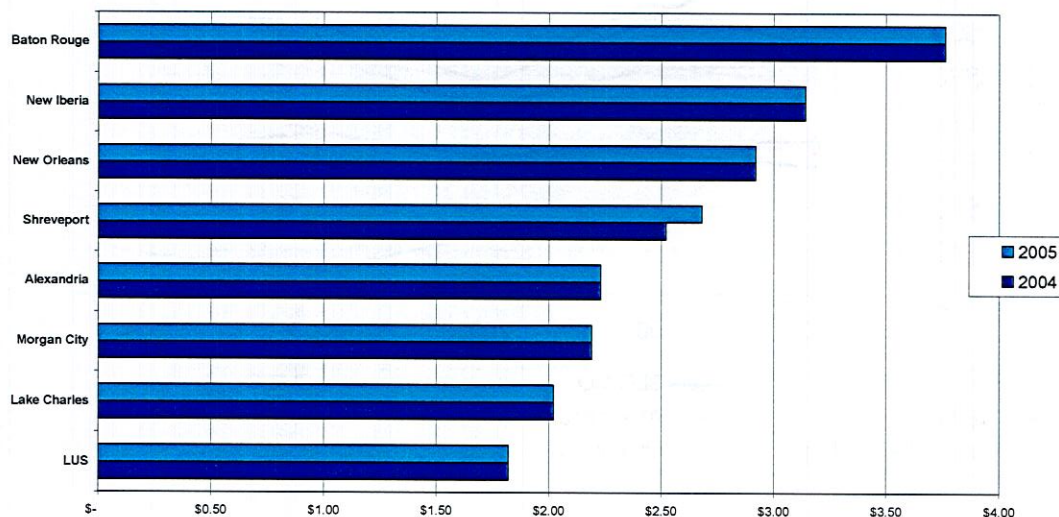
Figure 4-2 displays the rate benefit LUS commercial customers experience compared to surrounding utilities in Louisiana. Overall, LUS' commercial rates are average among the Utilities reviewed.



**Figure 4-2: Commercial Rates for LUS and Selected Louisiana Utilities**

Source: Velocity Suite.

Figure 4-3 displays the rate benefit LUS water customers experience compared to surrounding utilities in Louisiana. LUS' water rates were among the utilities reviewed.

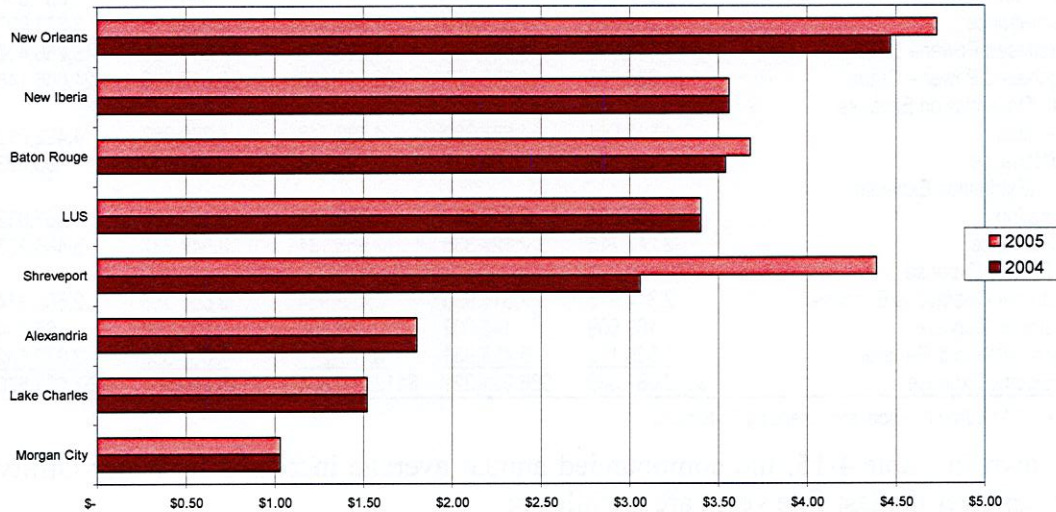


**Figure 4-3: Water Rates for LUS and Selected Louisiana Utilities (\$/1000 gallons)**

Source: LUS, Based on a monthly bill with 7,000 gallons consumption. Includes customer charge, if applicable.



Figure 4-4 displays the wastewater rates for LUS and surrounding utilities in Louisiana. Wastewater rates are difficult to compare because many cities and towns subsidize wastewater systems with local taxes. The extent to which other cities and towns have subsidized their systems is unknown.



**Figure 4-4: Wastewater Rates for LUS and Selected Louisiana Utilities (\$/1000 gallons)**

Source: LUS, Based on a monthly bill with 7,000 gallons consumption. Includes customer charge, if applicable.

## Operation & Maintenance Expenses

### LUS Operation and Maintenance Expenses

Tables 4-14 through 4-17 outline the most recent five years of operating expenses for the Electric, Water, Wastewater and Fiber Utilities in detail. As shown in Table 4-14, the compounded annual average changes in Electric Utility expenses over the last five years are as follows:

- Production Expense – Non-Fuel – 12.8 percent increase
- Transmission Expense – 0.5 percent decrease
- Distribution Expense – 8.0 percent increase
- Administrative Support – 11.3 percent increase

Administrative Support expenses include Customer Operations, Customer Services, and Administrative and General expenses. All the Utilities have experienced a significant growth in Administrative and General Expense. This significant growth is a result of changes in accounting practices, employee health insurance rates, and credits for Administrative Expenses transferred.

**Table 4-14**  
**Electric Utility Detailed Expenses**

	2001	2002	2003	2004	2005
Electric Production Expense					
Operation – Fuel Expense	\$25,387,948	\$14,169,879	\$20,909,938	\$28,871,511	\$60,387,193
Operation – Non Fuel	1,314,465	1,281,572	1,221,658	1,544,458	1,851,350
Maintenance	1,909,820	1,334,979	1,940,871	2,903,976	3,373,997
Purchased Power – LPPA	43,171,190	41,464,787	44,230,058	44,566,751	46,266,400
Purchased Power – Other	24,666,165	11,785,361	25,211,290	20,315,416	24,666,146
Electric Transmission Expense					
Operation	4,512,961	4,587,399	4,562,148	4,360,383	4,422,913
Maintenance	102,608	69,417	96,848	150,917	98,093
Electric Distribution Expense					
Operation	1,768,805	2,010,063	1,890,682	2,103,120	1,967,032
Maintenance	2,243,715	2,126,335	2,953,134	3,647,737	3,486,237
Other Electric Expense					
Customer Operations Expense	2,314,915	2,516,995	2,429,964	2,566,156	2,606,374
Customer Services	169,609	145,602	86,697	103,182	65,304
Administrative & General	<u>4,525,189</u>	<u>5,428,831</u>	<u>6,707,516</u>	<u>7,096,358</u>	<u>8,072,532</u>
Total Electric Expense	\$112,087,389	\$86,921,221	\$112,240,804	\$118,229,964	\$157,263,570

Source: LCG Audited Financial and Operating Statements.

As shown in Table 4-15, the compounded annual average increases in Water Utility expenses over the last five years are as follows:

- Supply Expense – 78.8 percent
- Power and Pumping Expense – 1.5 percent
- Purification Expense – 7.0 percent
- Distribution Expense – 6.8 percent
- Administrative Support – 12.8 percent

Supply expenses have grown at a significant rate over the prior five-year period. This increase can be attributed to a change in cost booking methodology for the Water Utility. Administrative Support expenses have grown as a result of LUS changes in accounting practices and insurance rate increases.



**Table 4-15**  
**Water Utility Detailed Expenses**

	2001	2002	2003	2004	2005
Water Source of Supply Expense					
Operation	\$0	\$488	\$29,359	\$11,428	82,691
Maintenance	8,225	1,035	1,230	1,392	1,341
Water Power & Pumping Expense					
Operation	682,725	582,811	641,975	708,850	725,041
Maintenance	0	0	0	0	0
Water Purification Expense					
Operation	1,485,130	1,125,198	1,718,453	1,770,445	1,958,553
Maintenance	364,779	383,809	421,106	438,916	464,143
Water Distribution Expense					
Operation	620,437	593,326	582,136	747,069	851,998
Maintenance	506,600	568,275	669,539	675,033	614,533
Other Water Expense					
Customer Operations Expense	673,084	712,529	733,705	826,959	847,005
Customer Services	78,842	49,515	80,279	54,598	31,505
Administrative & General	<u>1,349,697</u>	<u>2,115,221</u>	<u>2,005,666</u>	<u>2,126,093</u>	<u>2,524,899</u>
Total Water Expense	\$5,769,520	\$6,132,208	\$6,883,447	\$7,360,784	\$8,101,708

Source: LCG Audited Financial and Operating Statements.

As shown in Table 4-16, the compounded annual average increases in Wastewater Utility expenses over the past five years are as follows:

- Collection Expense – 12.6 percent
- Treatment Expense – 4.9 percent
- Administrative Support – 10.4 percent

**Table 4-16**  
**Wastewater Utility Detailed Expenses**

	2001	2002	2003	2004	2005
Wastewater Collection Expense					
Operation	\$957,876	\$970,139	\$995,725	\$1,036,545	\$1,128,068
Maintenance	1,068,892	946,171	1,032,366	1,140,669	2,127,847
Wastewater Treatment Expense					
Operation	3,682,737	3,816,224	4,040,399	4,173,823	4,460,572
Maintenance	123,465	113,780	150,682	153,619	150,416
Other Wastewater Expense					
Customer Operations Expense	479,735	479,052	447,595	484,251	528,974
Customer Services	360,746	332,995	397,131	360,200	333,743
Administrative & General	<u>1,980,129</u>	<u>2,321,829</u>	<u>2,733,022</u>	<u>2,881,777</u>	<u>3,324,895</u>
Total Wastewater Expense	\$8,653,581	\$8,980,191	\$9,796,920	\$10,230,885	\$12,054,516

Source: LCG Audited Financial and Operating Statements.

As shown in Table 4-17, the Fiber Utility expenses have significantly increased over the most recent five years. Because the Fiber Utility is a new business venture, trends in O&M costs are not meaningful.

## Section 4

Table 4-17  
Fiber Utility Detailed Expenses

	2001	2002	2003	2004	2005
Fiber Expenses					
Network Support Services	\$0	\$166,519	\$123,393	\$61,774	\$115,378
General Support Services	0	12,902	2,312	241	\$1,931
General Office Switching Expense	911	0	0	0	\$0
Operators System Expense	6,392	7,454	4,654	1,021	\$1,293
Central Office Transmission Expense	0	0	0	13,657	\$0
Information on Origination/Termination Assets	0	0	0	0	\$1,417
Cable & Wire Facilities Assets	0	566	0	0	\$481
Materials & Supplies	0	1,370	0	361	\$7,695
Network & Operations Expense	0	835	147,297	163,774	\$88,991
Access Expense	0	0	0	0	\$949
Other Fiber Expense					
Customer Operations Expense	77	24,077	352	0	\$1,995
Customer Services	0	29,364	944	1,325	\$31,800
Administrative & General	<u>47,802</u>	<u>121,879</u>	<u>289,648</u>	<u>399,496</u>	<u>\$229,307</u>
Total Fiber Expense	\$55,182	\$364,965	\$568,599	\$641,648	\$481,237

Source: LCG Audited Financial and Operating Statements.

As shown in Table 4-18, the unit cost of self-generation has increased significantly since 2001 mostly due to fuel costs. The unit cost for LPPA purchased power has remained relatively stable. The total supply unit costs have increased since 2002.



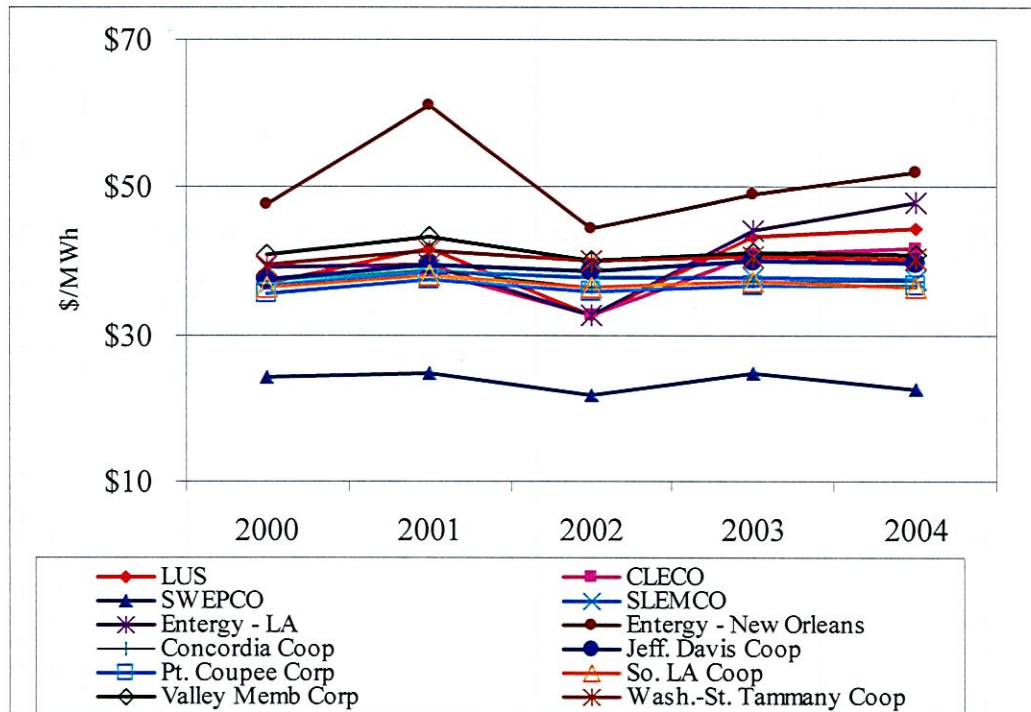
**Table 4-18**  
**Electric Utility Annual Power Costs**

	2001	2002	2003	2004	2005
<b>Expenses</b>					
Self Generation					
Fuel	\$25,387,948	\$14,169,879	\$20,909,938	\$28,871,511	\$60,387,193
Other	<u>3,224,284</u>	<u>2,616,552</u>	<u>3,162,529</u>	<u>4,448,433</u>	<u>5,225,347</u>
Total Self Generation	\$28,612,232	\$16,786,431	\$24,072,467	\$33,319,945	\$65,612,540
Purchases					
LPPA	\$43,171,190	\$41,464,787	\$44,230,058	\$44,566,751	\$46,266,400
Other Supplies	<u>24,666,165</u>	<u>11,785,361</u>	<u>25,211,290</u>	<u>20,315,416</u>	<u>24,666,146</u>
Total Purchased Power	<u>67,837,355</u>	<u>53,250,148</u>	<u>69,441,348</u>	<u>64,882,166</u>	<u>70,932,546</u>
Total Supply	\$96,449,587	\$70,036,579	\$93,513,815	\$98,202,111	\$136,545,087
<b>Energy (MWh)</b>					
Self Generation	471,991	384,704	346,912	463,145	632,728
Purchases					
LPPA	1,342,947	1,403,069	1,249,829	1,339,136	1,412,515
Other Supplies	<u>502,935</u>	<u>358,561</u>	<u>558,829</u>	<u>412,996</u>	<u>354,414</u>
Total Purchased Power	<u>1,845,882</u>	<u>1,761,630</u>	<u>1,808,658</u>	<u>1,752,132</u>	<u>1,766,929</u>
Total Supply	2,317,873	2,146,334	2,155,570	2,215,277	2,399,657
<b>Average Costs (\$/MWh)</b>					
Self Generation					
Fuel	\$53.79	\$36.83	\$60.27	\$62.34	\$95.44
Other	<u>6.83</u>	<u>6.80</u>	<u>9.12</u>	<u>9.60</u>	<u>8.26</u>
Total Self Generation	\$60.62	\$43.63	\$69.39	\$71.94	\$103.70
Purchases					
LPPA	\$32.15	\$29.55	\$35.39	\$33.28	\$32.75
Other Supplies	<u>49.04</u>	<u>32.87</u>	<u>45.11</u>	<u>49.19</u>	<u>69.60</u>
Total Purchased Power	<u>36.75</u>	<u>30.23</u>	<u>38.39</u>	<u>37.03</u>	<u>40.14</u>
Total Supply	\$41.61	\$32.63	\$43.38	\$44.33	\$56.90

Source LCG Audited Financial and Operating Statements.

### Comparative Operation and Maintenance Expenses

Figure 4-5 displays the production O&M expense on a Total Resource basis (including self-generation and purchased power) for LUS and other selected utilities. LUS has slightly above average power supply costs compared to the other selected utilities on a \$/MWh basis.

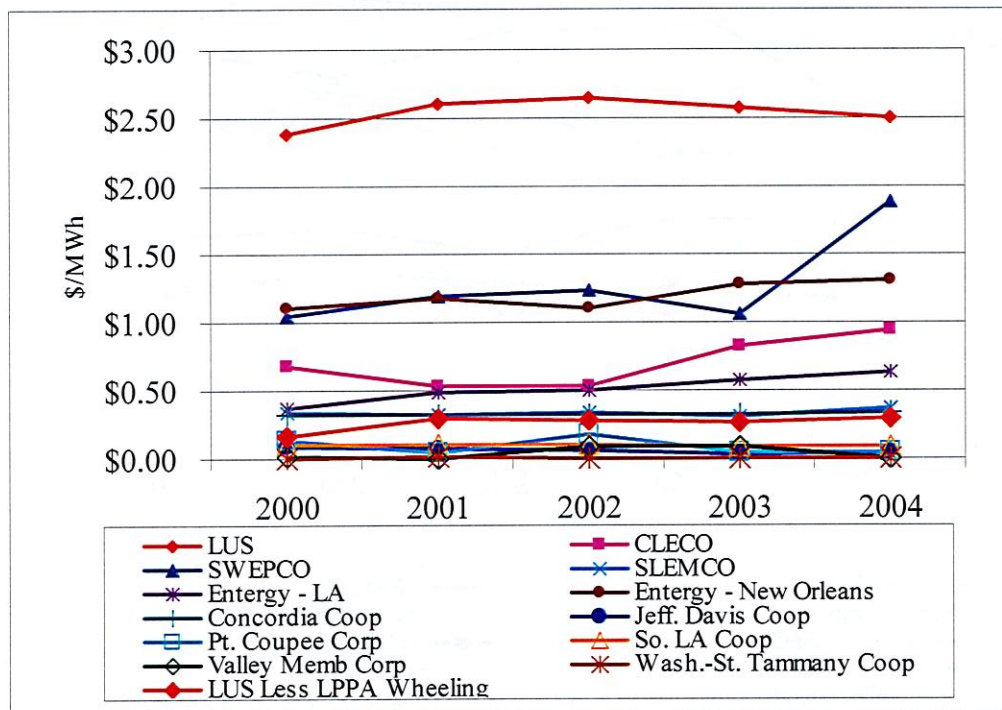


**Figure 4-5: Production & Purchased Power Expense per MWh (Total Resources-Excludes Wheeling Charges)**

Source: Velocity Suite.



Figure 4-6 shows the transmission O&M expense on a \$/MWh sold basis for LUS and other selected utilities. LUS' is the highest compared to the other selected utilities when wheeling charges (transmission of electricity by others) for LPPA purchases (RPS2) are included. If wheeling charges are not included, LUS values are on the low side compared to the other selected utilities. This may be attributed to the fact that LUS only has approximately 40 miles of transmission line as compared to other utilities such as CLECO with approximately 1,250 miles and Southwestern Electric with approximately 3,400 miles.

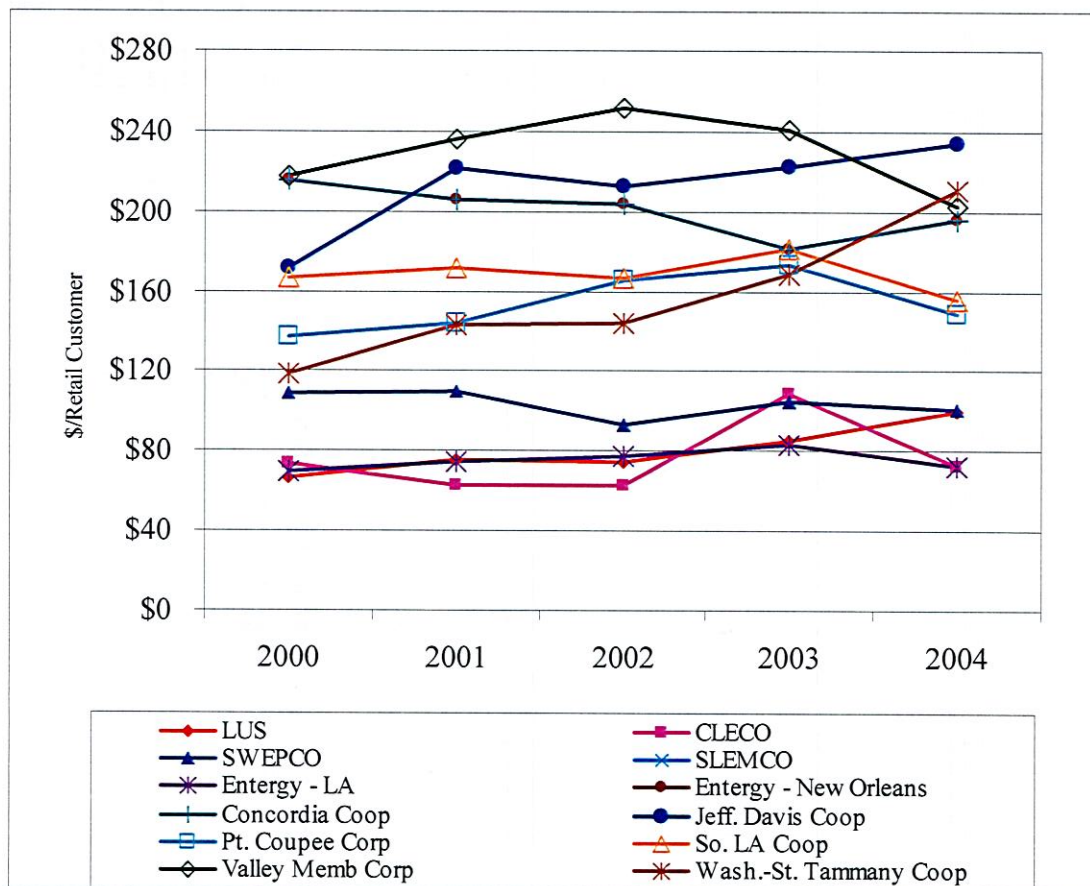


**Figure 4-6: Transmission O&M per MWh (Total Resources)**

Source: Velocity Suite and Department of Agriculture Rural Utilities Service ("RUS").

## Section 4

Figure 4-7 displays the distribution O&M expense on a per customer basis for LUS and other selected utilities. LUS' distribution O&M on a per customer basis is low with respect to the selected utilities reviewed.

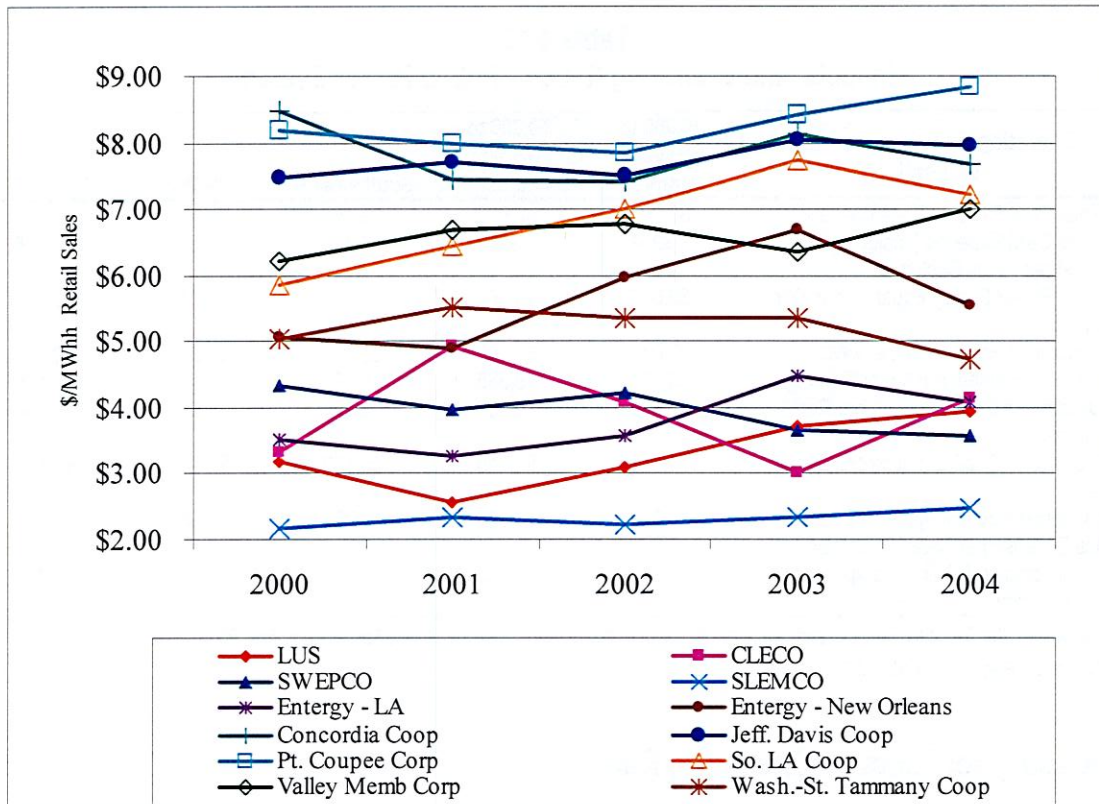


**Figure 4-7: Distribution O&M per Customer**

Source: Velocity Suite and RUS.

Figure 4-8 displays the Overhead O&M expense on a \$/MWh retail sales basis for LUS and other selected utilities. The Overhead O&M expense includes the following: Customer Accounts, Customer Service & Info, Sales Expense, and A&G Expense. LUS' overhead O&M on a \$/MWh retail sales basis is on the lower end of overhead expenses with respect to the other selected utilities reviewed.





**Figure 4-8: Overhead O&M per MWh Retail Sales**

Source: Velocity Suite and RUS.

Table 4-19 compares LUS financial and operating ratios with other public power systems across the United States. The data in Table 4-19 for the other public power systems are from the American Public Power Association's ("APPA") *Selected Financial and Operating Ratios of Public Power Systems* survey report published May 2005. The survey included 438 public power systems. The data represents 2003 operations.

**Table 4-19**  
**Financial and Operating Ratios - Public Power Systems**

Operating Ratios – Median Values <sup>(1)</sup>	20,000 to 50,000 Customers <sup>(1)</sup>	50,000 to 100,000 Customers <sup>(1)</sup>	Southwest <sup>(2)</sup>	LUS 2003	LUS 2005
1. Total O&M Expenses per kWh Sold	\$0.057	\$0.062	\$0.047	\$0.058	\$0.069
2. Total O&M Expense (excluding Power Supply) per Retail Customer	\$261	\$326	\$371	\$437	\$358
3. Total Power Supply Expense per kWh Sold	\$0.047	\$0.050	\$0.035	\$0.046	\$0.060
4. Purchased Power Cost per kWh	\$0.044	\$0.045	\$0.043	\$0.038	\$0.040
5. Retail Customers per Meter Reader	5,177	8,365	4,377	N/A	N/A
6. Distribution O&M Expense per Retail Customer	\$99	\$107	\$104	\$86	\$94
7. Distribution O&M Expense per Circuit Mile	\$4,111	\$5,718	\$6,122	\$6,200	\$6,825
8. Customer Accounting, Service and Sales Expense per Retail Customer	\$45	\$56	\$61	\$43	\$46
9. Administrative & General Expense per Retail Customer	\$83	\$132	\$173	\$118	\$139

<sup>(1)</sup> Ratios from the 'Selected Financial and Operating Ratios of Public Power Systems' published by APPA in April 2005, 2003 Data.

<sup>(2)</sup> Southwest Region = Southwest Power Pool and ERCOT.

## Glossary for Electric Operating Ratios

The following definitions and comments relate to the ratio input data and national ratio statistics and are excerpted from APPA's report entitled *Selected Financial and Operating Ratios of Public Power Systems* shown in Table 4-19.

### Total Operation and Maintenance Expense per Kilowatt-Hour Sold (Line 1)

The ratio of total electric utility O&M expenses, including the cost of generated and purchased power, to total kWh sales to ultimate and resale customers, measures average total O&M expenses associated with each kilowatt-hour of electricity sold, either for resale or to ultimate customers.

Included in O&M costs are the expenses associated with power supply (generation and purchased power), transmission, distribution, customer accounting, customer services, sales, and administrative and general functions of the electric utility. Because power supply expenses typically comprise the largest component of total O&M expenses, this ratio may be influenced by the proportion of power generated by a utility and the availability of alternative power supplies. Kilowatt-hours of electricity produced but not sold (i.e., energy furnished without charge or energy used internally and energy losses) are not included in the denominator.

### Total Operation and Maintenance Expense (Excluding Power Supply Expense) per Retail Customer (Line 2)

The ratio of total electric utility O&M expenses, excluding all costs of power supply, to the total number of ultimate customers is the total O&M expense per retail customer.

O&M expenses include the costs of transmission, distribution, customer accounting, customer services, sales and administrative and general expenses. The cost of power



supply (generation and purchased power) is excluded from the ratio. This ratio may be affected by population density and the mix of customers between various classes (residential, commercial, industrial or other). In addition, the extent that a utility services a large number of resale customers will influence the ratio.

**Total Power Supply Expense per Kilowatt-Hour Sold (Line 3)**

The ratio of the total costs of power supply to total sales to both ultimate and resale customers is the total power supply expense per kilowatt-hour sold. This ratio measures all power supply costs, including generation and purchased power, associated with the sale of each kilowatt-hour of electricity.

The ratio includes O&M costs arising from all generation types, including steam, nuclear, hydraulic and other types of generation. O&M expenses include the costs of fuel, labor, supervision, engineering, materials and supplies, and also include the cost of purchased power. The ratio may be influenced by the geographic location of the utility, the availability of alternative power supplies, and the degree to which the utility can generate its own power, and access to transmission. The ratio does not include kilowatt-hours produced but not sold (i.e., energy used internally, energy furnished without charge, or energy losses).

**Purchased Power Cost per Kilowatt-Hour (Line 4)**

The ratio of the cost of purchased power to the amount of kilowatt-hours purchased measures the purchased power component of power supply costs.

Purchased power includes purchases from investor-owned utilities, municipalities, cooperatives or other public authorities for subsequent distribution and sale to ultimate customers. It does not include power exchanges. Adjustments to the cost data were made in a small number of cases to eliminate power exchanges. The cost reflects the amount billed, including adjustments and other charges.

The ratio may be influence by the geographic location of the utility, availability of alternative power supplies, access to transmission, and the type of purchase agreement, such as firm power, economy power or surplus sales.

**Retail Customers per Meter Reader (Line 5)**

The ratio of retail customers to the number of meter readers employed by the utility measures the average number of retail customers served by each meter reader.

The number of meter readers includes the total number of full-time meter readers plus half of all part-time meter readers. It is assumed that all part-time employees work half time (i.e., one full-time employee is equivalent to two part-time employees). Population density, frequency of meter readings, and the technology or method used to read meters will influence this ratio.

**Distribution Operation and Maintenance Expenses per Retail Customer (Line 6)**

The ratio of total distribution O&M expenses to the total number of retail customers measures the average distribution expense associated with delivering power to each retail customer.



## Section 4

---

Distribution costs include expenses associated with labor, supervision, engineering, materials and supplies used in the operation and maintenance of the distribution system. The ratio will be influenced by population density and the mix of customer classes served by the utility.

### **Distribution Operation and Maintenance Expenses per Circuit Mile (Line 7)**

The ratio of total distribution O&M expenses to the total number of circuit miles of distribution line measures the total distribution costs associated with each circuit mile of distribution line used to deliver power to customers.

Distribution costs include expenses associated with labor, supervision, engineering, materials and supplies used in the O&M of the distribution system. The ratio will be affected by population density, the mix of customer classes served by the utility, the dispersion of customers within the utility's service territory, and the proportion of underground and overhead distribution lines.

### **Customer Accounting, Customer Service and Sales Expenses per Retail Customer (Line 8)**

The ratio of total customer accounting, service, and sales expenses to the total number of retail customers measures the average expenses incurred by the utility in handling each customer's account. This includes the costs of obtaining and servicing all retail customers. Uncollectible accounts and meter reading expenses are included in this ratio.

The ratio includes the cost of labor, materials, and other expenses associated with advertising, billing, collections, records and handling inquiries and complaints. It also includes the costs of promoting and providing customer service programs such as energy services or conservation programs. The ratio will be influenced by the degree to which the utility provides various energy services and other types of customer programs, and also by the mix of customer classes it serves.

### **Administrative and General Expenses per Retail Customer (Line 9)**

The ratio of total electric utility administrative and general expenses to the total number of retail customers measures the average administrative and general expenses incurred by the utility on behalf of each retail customer.

Administrative and general expenses are those electric O&M expenses not allocable to the costs of power production (generation and power purchases), transmission, distribution, or customer accounting, service and sales. Items, which may be included, are compensation of officers and executives, office supplies, professional fees, property insurance and claims, pensions and benefits, and other expenses not provided for elsewhere.

## **Utilities System Capital Improvement Program**

The combined estimated requirements for capital improvements to the Electric, Water, Wastewater, and Fiber Utilities through October 31, 2010 are summarized in Table 4-20. Each year, as the City revises its five-year Capital Improvement Program



("CIP") for the Utilities System and the priorities for each of the work items are re-examined. This review process needs to be improved in order that priorities and costs are established which are more manageable.

Table 4-20  
Capital Improvement Program 2006 – 2010

Year Ending	2006	2007	2008	2009	2010	Total
<b>Revenues</b>						
Retained Earnings Capital	\$904,597	\$1,938,254	\$2,479,704	\$658,604	\$1,621,103	\$7,602,262
Bond Proceeds - Utilities Revenue	26,000,000	7,000,000	11,000,000	5,000,000	3,000,000	52,000,000
Proceeds - LDEQ	34,000,000	0	0	0	0	34,000,000
Prior Year Reserve Balance	10,000,000	17,544,597	10,402,851	7,292,555	2,980,159	10,000,000
Total Revenues	\$70,904,597	\$26,482,851	\$23,882,555	\$12,951,159	\$7,601,262	\$103,602,262
<b>Appropriations</b>						
Electric	\$14,840,000	\$3,615,000	\$9,790,000	\$3,896,000	\$1,340,000	\$33,481,000
Water	3,750,000	1,825,000	750,000	875,000	875,000	8,075,000
Wastewater	28,170,000	9,240,000	4,350,000	4,100,000	2,850,000	48,710,000
Fiber	1,200,000	700,000	600,000	600,000	600,000	3,700,000
Reserve Fund / Capitalized Interest	5,400,000	700,000	1,100,000	500,000	300,000	8,000,000
Balance Available	17,544,597	10,402,851	7,292,555	2,980,159	1,636,262	1,636,262
Total Appropriations	\$70,904,597	\$26,482,851	\$23,882,555	\$12,951,159	\$7,601,262	\$103,602,262

Source: LUS 5-Year Capital Outlay Program Summary, FY 2005-06 Adopted Budget, Combined Summary Retained Earnings and Bond Capital.

## Capital Improvement Program

The current capital budgeting process requires LUS to fully appropriate a project before LUS can request bids. This process results in a skewing of projected capital expenditures toward the first year of the capital forecast. This prematurely escalates the projected capital needs and makes for difficult decision planning such as projected service rate charges, bond financing and resource planning. We recommend that LUS consider implementing a capital budgeting process that includes some form of activity-based analysis and costing. Matching available resources with the requirements necessary for completion of these capital projects will add practical realism to the capital appropriations budget.

The CIP in the utility business is generally the largest financial requirement. LCG's budgeting and accounting system does not offer LUS the degree of information and control needed to manage construction. Comprehensive changes to the CIP management process should consider the following questions:

- Does the process include a coherent, identifiable and relevant product useful to management of the construction activities and investment?
- Are the purposes and objectives of the process identified?
- Is the process clearly communicated to those responsible for carrying it out?
- Is the process supported by a reasonable activity-based allocation of resources?
- Is the process sufficiently detailed and scheduled?

## Section 4

---

- Does the process agree with mandated requirements and other administrative/management plans?
- Is the process improvement periodically reviewed?
- Is there clear accountability for process implementation?

Other criteria are more specific to the CIP:

- Is it realistic; i.e., not a “wish list”?
- Does it extend over a sufficient period of time (normally, at least 10 years) with clearly identified and costed projects and contain detailed plans/schedules and costs for the short-term?
- Is it formulated and reviewed, particularly with input from the field and other concerned parties?
- Is it reviewed periodically (normally at least quarterly by a CIP committee with broad utility representation)?
- Is it clearly and effectively presented annually to the LUS administration to promote a continuous “buy-in?”
- What are the consequences of project slippage to LUS operations?

Table 4-22 shows that many of the planned capital projects have not been accomplished within the scheduled timeframe. LUS needs to improve project budgeting and/or improve the accomplishment of the planned activities. The lack of precision in budgeting and scheduling affects cash flow planning, planning for the sale of bonds and service rate changes. To adjust for this difference between budget and actual expenditures, the total budget expenditure amounts for each utility are arbitrarily reduced for cash flow planning. This reduction is based on the fact that historically the actual expenditures are significantly less than the budgeted expenditures.



**Table 4-21**  
**Comparison of Budget and Actual Capital Expenditures (\$1,000)**

	2001	2002	2003	2004	2005	Total
Electric Utility						
Budgeted	\$16,563	\$14,040	\$12,149	\$17,597	\$12,427	\$72,776
Actual	<u>10,530</u>	<u>6,143</u>	<u>6,020</u>	<u>7,927</u>	<u>4,831</u>	<u>35,451</u>
Unspent	\$6,033	\$7,897	\$6,129	\$9,670	\$7,596	\$37,325
Unspent Percentage	36%	56%	50%	55%	61%	51%
Water Utility						
Budgeted	\$6,350	\$4,240	\$3,277	\$3,925	\$2,150	\$19,942
Actual	<u>2,642</u>	<u>1,954</u>	<u>2,830</u>	<u>1,489</u>	<u>738</u>	<u>9,653</u>
Unspent	\$3,708	\$2,286	\$447	\$2,436	\$1,412	\$10,289
Unspent Percentage	58%	54%	14%	62%	66%	52%
Wastewater Utility						
Budgeted	\$23,829	\$17,975	\$14,658	\$24,800	\$21,300	\$102,562
Actual	<u>5,173</u>	<u>4,477</u>	<u>7,090</u>	<u>5,896</u>	<u>5,787</u>	<u>28,423</u>
Unspent	\$18,656	\$13,498	\$7,568	\$18,904	\$15,513	\$74,139
Unspent Percentage	78%	75%	52%	76%	73%	72%
Fiber Utility						
Budgeted	\$0	\$2,100	\$915	\$1,700	\$400	\$5,115
Actual	<u>0</u>	<u>1,608</u>	<u>108</u>	<u>809</u>	<u>1,348</u>	<u>3,873</u>
Unspent	\$0	\$492	\$807	\$891	(\$948)	\$1,242
Unspent Percentage		23%	88%	52%	-237%	24%
Total Utility						
Budgeted	\$46,742	\$38,355	\$30,999	\$48,022	\$36,277	\$200,395
Actual	<u>\$18,345</u>	<u>\$14,182</u>	<u>\$16,048</u>	<u>\$16,121</u>	<u>\$12,704</u>	<u>\$77,400</u>
Unspent	\$28,397	\$24,173	\$14,951	\$31,901	\$23,573	\$122,995
Unspent Percentage	61%	63%	48%	66%	65%	61%

Source: LCG Annual Budget Document 2005-2006.

Source: Status of Construction Work Orders.

Note: 2004 and 2005 Electric Capital Expenditures exclude the generation project funded from the 2004 Series Bonds.

Note: Actual includes the budgeted plus the previous year's carryovers.

Over the above five-year period, the total budget expenditures amounted to approximately \$200.4 million compared with actual expenditures amounting to approximately \$77.4 million. Over the past 5 years, on average of 38.6 percent of the budget is actually spent. We recommend that the capital budgetary process be altered so that the estimated capital needs are more accurately developed.

We recommend the current CIP be reviewed and each project checked for correct priority, schedule and estimate. We suggest the schedule address the start of engineering, approval of engineering, finalization of estimate, purchase of material, approval of purchase and contracting, the start of construction and completion of project. The CIP should indicate if the engineering will be accomplished by LUS engineering or if it will be outsourced.

## Restricted Asset Transactions and Balances

The Bond Ordinance contains certain provisions and covenants pertaining to the separation and maintenance of funds. The Bond Ordinance established the following funds in Article V, Section 5.1:

### (i) Receipts Fund

## Section 4

---

- (ii) Operating Fund
- (iii) Sinking Fund
- (iv) Reserve Fund
- (v) Capital Additions Fund

Fund requirements were impacted significantly in 2005 as a result of the Series 2004 bond issue.

### Bond Reserve Fund

The Bond Reserve Fund transactions during the year are presented in Table 4-22.

**Table 4-22**  
**Reserve Fund (\$1,000)**

Cash Balance as of November 1, 2004	\$18,604
Receipts during the Period:	
Transfer from Capital Additions	0
Other	<u>0</u>
Total Receipts	0
Total Receipts and Cash Balance	\$18,604
Disbursements during the Period:	
Transfer to Receipts Fund	0
Other	<u>0</u>
Total Disbursements	0
Fund Balance as of October 31, 2005	\$18,604

Source: LUS Funds Flow Statement FY 04-05.

### Capital Additions Fund

In compliance with the requirements of the Bond Ordinance concerning receipts and disbursements of the Capital Additions Fund, the transactions during the 2005 are presented in Table 4-23. Required transfers of principal and interest were made in a timely fashion to the City's paying agent.



Table 4-23  
Capital Additions Fund (\$1,000)

Cash Balance as of November 1, 2004	\$64,294
Receipts during the Period:	
Transfer from Receipts Fund	\$43,604
Transfer from Bond & Interest Fund	0
Transfer from Bond Construction Fund	0
Miscellaneous Revenues	<u>833</u>
Total Receipts	\$44,437
Total Receipts and Cash Balance	\$108,731
Disbursements during the Period:	
In Lieu-of-Tax Payment	\$16,317
Transfer to Bond Reserve	0
Transfer to O&M	2,694
Normal Capital to O&M	6,083
Retained Earnings to O&M	11,331
Special Capital to O&M	<u>0</u>
Total Disbursements	\$36,425
Fund Balance as of October 31, 2005	\$72,306
The above balance is available for the 2005-2006 fiscal year requirements	
In Lieu-of-Tax Payment	\$16,654
Fund Balance not specially committed	55,652
Fund Balance as of October 31, 2005	\$72,306

Source: LUS Funds Flow Statement FY 04-05.

## Construction Fund

The Construction Fund, identified in Table 4-24, was established as a result of the Series 2004 bond financing for major Electric and Wastewater Utility construction projects. The beginning balance of this fund in 2005 was \$142.6 million. Subsequent interest earnings of \$2.7 million and construction payments of \$115 million resulted in an ending balance of \$65.6 million.

A separate 1996 LDEQ Construction Fund was established for purposes of financing major wastewater construction projects. Bonds for these projects total \$18,400,000. Proceeds from these bonds are drawn down from LDEQ when needed by LUS. Interest is charged only on the cumulative amounts drawn. Draw downs through October 31, 2005 total \$18,053,278. For this period, the 1996 LDEQ Construction Fund has a zero balance since the draw-downs requested were all expended by the end of the reporting period.

**Table 4-24**  
**Construction Fund (\$1,000) – 2004 Bonds**

Cash Balance as of November 1, 2004	\$142,589
Receipts during the Period:	
Bond Proceeds	\$0
Interest Earnings	2,673
Miscellaneous	0
Total Receipts	\$2,673
Total Receipts and Cash Balance	\$145,262
Disbursements during the Period:	
Construction Wire Payments	\$65,657
Work Orders Paid	13,391
MBIA Payments	52
Other	559
Total Disbursements	\$79,659
Fund Balance as of October 31, 2005	\$65,603

Source: LUS Funds Flow Statement FY 04-05.

## In-Lieu-of Tax

On August 19, 2003 the City adopted the following change to the computation of taxable receipts for purposes of calculating the in-lieu-of tax ("ILOT") payment to the City's General Fund. The Ordinance (No. O-185-2004) authorizing this change reads as follows:

*In computing the annual in-lieu-of-tax payment to the City of Lafayette General Fund by the system pursuant to the bond resolution adopted by the Lafayette City-Parish Council and the Lafayette Public Utilities Authority on June 29, 2004 (Ordinance No. O-12-2004, Section 5.1 (e)(iv)):*

- (1) The cost of fuel shall be excluded from "receipts fund deposits" for such computation. Except that for the purpose of yielding additional in-lieu-of-tax, there shall be a partial amount of fuel cost restored to "receipts fund deposits" for the Fiscal Year 2003-2004 (for payment to the General Fund during FY 2004-2005). This "fuel restoration" shall be \$41,666,667 and shall be applied as herein adopted. The cost of fuel shall include all component costs of fuel burned to deliver energy to retail and wholesale electric customers, including all component costs of power purchased to offset or supplement generation owned by Lafayette and the Lafayette Public Power Authority (LPPA).*
- (2) Revenues derived from the sale of unused capacity and energy from Rodemacher Power Station No. 2 to the other owners shall be excluded from the "receipts fund deposits" for such computation.*
- (3) The additional \$5,000,000 of in-lieu-of-tax payment generated through the fuel restoration of \$41,666,667 is made up of two components. The first \$25,000,000 of fuel restoration implemented prior to Fiscal Year 2000-2001*



*and generating \$3,000,000 of in-lieu-of-tax is not subject to any of the considerations listed below...The second component of the fuel restoration equal to \$16,666,667, generating \$2,000,000 of in-lieu-of-tax, and implemented for the first time in Fiscal Year 2000-2001 shall be applied as credit for utility relocation costs owed by the City of Lafayette Utilities System to the City of Lafayette's general and/or capital funds...*

The ILOT payment to the general fund is based on the previous year's revenues. As shown in Table 4-25, the amount paid in 2004 was \$16.3 million, which is equal to 10.0 percent of LUS 2003 revenues. Based on the new ordinance and revenues in 2004, the amount paid in 2005 was \$16.3 million. This is equal to 9.4 percent of LUS 2004 revenues. The budgeted amount to be paid in 2006 is \$16.7 million, or 7.7 percent of LUS 2005 revenues.

By comparison, APPA's survey (published June 2005 containing 2002 data) of 549 public power systems shows that the median payments and contributions to their community's general fund were 5.8 percent of electric operating revenues. LUS' payment in 2005 of 9.4 percent of LUS 2004 revenues was approximately 62.5 percent higher than APPA's median value.

**Table 4-25**  
**Historical ILOT Payments (\$1,000)**

	2001	2002	2003	2004	2005	Average
LUS Operating Revenues	\$163,396	\$139,763	\$162,970	\$173,121	\$217,628	
LUS Calculated ILOT	<u>\$17,293</u>	<u>\$16,141</u>	<u>\$16,332</u>	<u>\$16,317</u>	<u>\$16,654</u>	
ILOT as a percent of Revenues	10.58%	11.55%	10.02%	9.42%	7.65%	9.66%
Electric Operating Revenues	\$139,831	\$115,101	\$136,469	\$145,273	\$187,848	
Electric Calculated ILOT	<u>\$13,214</u>	<u>\$12,332</u>	<u>\$13,412</u>	<u>\$13,331</u>	<u>\$14,612</u>	
ILOT as a percent of Revenues	9.45%	10.71%	9.83%	9.18%	7.78%	9.23%

Source: LCG Annual Budget Document 2005-2006.

Source: LCG Audited Financial and Operating Statements.

## Financial and Operating Ratios

Table 4-26 provides a comparison of LUS' Electric Utility with 438 other large electric power systems nationwide; however, not all ratios are based on the same number of power systems since some did not have data applicable to each ratio. The 2003 data for these systems was obtained from the APPA publication dated April 2005. This may significantly impact the comparisons that are based on fuel costs as fuel costs have changed dramatically in recent years.

**Table 4-26**  
**Financial & Operating Ratios - Public Power Systems**

Financial Ratios – 2002 Median Values <sup>(1)</sup>	20,000 to 50,000 Customers <sup>(1)</sup>	50,000 to 100,000 Customers <sup>(1)</sup>	Southwest <sup>(2)</sup>	LUS 2003	LUS 2005
1. Revenue per kWh for Retail Customers	\$0.063	\$0.071	\$0.061	\$0.070	\$0.088
2. Debt to Total Assets	\$0.275	\$0.328	\$0.266	\$0.108	\$0.374
3. Operating Ratio (Electric only)	0.882	0.824	0.822	0.866	0.837
4. Current Ratio	\$2.250	\$2.770	\$3.550	\$1.040	\$0.809
5. Times Interest Earned	\$3.930	\$1.810	\$3.340	\$38.172	\$9.555
6. Debt Service Coverage	3.460	3.410	2.810	4.922	7.026
7. Net Income per Revenue Dollar	\$0.045	\$0.041	\$0.062	\$0.023	\$0.047
8. Uncollectible Accounts per Revenue Dollar	\$0.003	\$0.005	\$0.005	\$0.003	\$0.003

(1) Ratios from the 'Selected Financial and Operating Ratios of Public Power Systems' published by APPA in April 2005 APPA, 2003 Data.

(2) Southwest Region = Southwest Power Pool and ERCOT.

(3) For description on ratios, see glossary following this table.

The financial ratios (debt to total asset, and debt service coverage) indicate that LUS has an average debt level. LUS had net earnings of 4.7 cents on every dollar of revenue.

### Glossary for Electric Financial and Operating Ratios

The following definitions and comments relate to the ratio input data and national ratio statistics and are excerpted from APPA's *Selected Financial and Operating Ratios of Public Power Systems* shown in Table 4-26.

#### Revenue per kWh (Line 1)

The ratio of total electric operating revenues from sales to ultimate customers to total kilowatt-hour sales measures the amount of revenue received for each kilowatt-hour of electricity sold to all classes of customers, including residential, commercial, industrial, public street and highway lighting and other customers.

#### Debt to Total Assets (Line 2)

The ratio of long-term debt, plus current and accrued liabilities, to total assets and other debits measures a utility's ability to meet its current and long-term liabilities based on the availability of assets.

Long-term debt includes bonds, advances from the municipality, other long-term debt, any unamortized premium on long-term debt and any unamortized discount on long-term debt. Current and accrued liabilities include warrants, notes and accounts payable, payables to the municipality, customer deposits, taxes accrued, interest accrued, and miscellaneous current and accrued liabilities. Total assets and other debits include utility plant, investments, and current and accrued assets and deferred debits.

This ratio may be influenced by the extent to which its components include information applicable to the non-electric portion of the utility, if any (e.g., gas, water or other). In addition, the ratio may be influenced by a utility's financial policies.



**Operating Ratio (Line 3)**

The ratio of total electric O&M expenses to total electric operating revenues measures the proportion of revenues received from electricity sales, rate adjustments and other electric activities required to cover the O&M costs associated with producing and selling electricity.

O&M expenses include the costs of power production, purchased power, transmission, distribution, customer accounting, customer service, sales, and administrative and general expenses. This ratio may be influenced by the availability of alternative power options and the costs of purchased power.

**Current Ratio (Line 4)**

The ratio of total current and accrued assets to total current and accrued liabilities is a measure of the utility's short-term liquidity (the ability to pay bills). The current ratio takes a snapshot of the utility's liquidity at a point in time and thus may vary considerably at other times of the year.

Total current and accrued assets include cash and working funds, temporary cash investments, notes and accounts receivable, receivables from the municipality, materials and supplies, prepayments and miscellaneous current and accrued assets. Total current and accrued liabilities include warrants, notes and accounts payable, payables to the municipality, customer deposits, taxes accrued, interest accrued and miscellaneous current and accrued liabilities.

**Times Interest Earned (Line 5)**

The ratio of net electric utility income, plus interest paid on long-term debt, to interest on long-term debt, measures the ability of a utility to cover interest charges and is indicative of the safety margin to lenders. Utilities that do not report any long-term debt are excluded from this ratio. This ratio may be influenced by a utility's financial policies.

**Debt Service Charge (Line 6)**

The ratio of net revenues available for debt service to total long-term debt service for the year measures the utility's ability to meet its annual long-term debt obligation.

Net revenues available for debt service equal net electric utility operating income (operating revenues minus operating expenses) plus net electric utility non-operating income, plus depreciation. Debt service includes principle and interest payments on long-term debt. This ratio may be influenced by a utility's financial policies.

**Net Income per Revenue Dollar (Line 7)**

The ratio of net electric utility income to total electric operating revenues measures the amount of income remaining—after accounting for O&M expenses, depreciation, taxes and tax equivalents—for every dollar received from sales of electricity.

The ratio may be influenced by the type and availability of power supply options and by the amount of taxes and tax equivalents that a utility transfers to the municipality or

## Section 4

---

other governmental body. Financial policies and the amount of debt may also affect this ratio (e.g., how a utility finances capital investments).

### **Uncollectible Accounts per Revenue Dollar (Line 8)**

The ratio of total uncollectible accounts to total electric utility operating revenues measures the portion of each revenue dollar that will not be collected by the utility. This ratio will be influenced by the financial and customer service policies of the utility.

### **Retail Customers per Non-power Generation Employee (Line 9)**

The ratio of the average number of retail customers from all classes to the total number of full-time, part-time and contract employees not involved in the generation of power measures the average number of customers served by each non-generation employee.

The ratio may be influenced by the mix of customers and by population density. It will be influenced by the extent that employees shared with other (non-electric) departments are not properly prorated, or that employees involved in resale transactions are included. Part-time employees are assumed to work half-time (i.e., two part-time employees are counted as one full-time employee). To the extent that this assumption is violated, the ratio will be biased. Contract employees include only those individuals performing regular utility work on an ongoing basis.

## **Balance Sheet**

To determine the extent and character of the changes in assets and liabilities for 2005, a Comparative Balance Sheet is shown on Table 4-27. The comparison shows a 3.3 percent increase in Total Assets and 0.3 percent decrease in retained earnings. The significant changes in the restricted assets, deferred debits, and arbitrage liability between 2003 and 2004 are due to the sale of the 2004 Bonds.



# FINANCE AND ACCOUNTING

**Table 4-27**  
**Comparative Balance Sheet**

	2001	2002	2003	2004	2005
<b>Assets &amp; Other Debits</b>					
Utility Plant					
Plant in Service	\$514,280,623	\$534,959,541	\$557,247,646	\$597,540,034	\$708,880,107
Less Accumulated Depreciation & Amortization	(192,749,803)	(205,240,038)	(217,690,932)	(231,829,008)	(246,547,727)
Net Plant in Service	\$321,530,820	\$329,719,503	\$339,556,714	\$365,711,027	462,332,380
Construction Work in Progress	1,258,329	1,199,683	1,309,294	14,232,223	3,685,307
Total Utility Plant	<u>\$322,789,149</u>	<u>\$330,919,186</u>	<u>\$340,866,008</u>	<u>\$379,943,250</u>	<u>\$466,017,687</u>
Current Assets					
Receipts Fund	\$7,223	\$17,835	\$12,805	\$145,959	\$973,281
O&M Fund (Cash & Temp. Cash Investment)	\$3,465,094	\$3,814,902	\$4,732,033	\$3,666,462	\$6,081,467
Revolving Cashier's Fund and Water District Operating Fund (Cash)	\$7,740	\$8,450	\$9,450	\$9,800	\$9,800
Accounts Receivable					
Utility Consumers (less Uncollectible)	\$11,420,027	\$12,455,599	\$14,087,633	\$17,848,512	\$23,081,798
Other Utilities	1,395,065	1,011,552	929,008	1,245,780	3,721,739
Municipal & Other Receivables (less Reserve for Uncollectible Masc.)	1,863,864	5,033,461	1,692,382	1,898,346	3,028,312
Total Accounts Receivable	<u>\$14,678,956</u>	<u>\$18,500,612</u>	<u>\$16,709,023</u>	<u>\$20,992,638</u>	<u>\$29,831,849</u>
Inventories					
Inventories - Fuel Oil	\$698,678	\$698,678	\$698,678	\$698,678	\$698,678
Inventories - Other	2,175,000	2,189,688	2,948,860	4,230,998	4,178,919
Interest Receivable and Enamor	692,207	732,862	374,333	53,673	425,296
Premiums					
Prepayments	120,453	160,606	144,257	114,027	81,538
Total Inventories	<u>\$3,686,338</u>	<u>\$3,781,834</u>	<u>\$4,166,128</u>	<u>\$5,097,375</u>	<u>\$5,384,431</u>
Total Current Assets	<u>\$21,845,351</u>	<u>\$26,123,633</u>	<u>\$25,629,439</u>	<u>\$29,912,234</u>	<u>\$42,280,827</u>
Restricted Assets					
Capital Additions Fund	\$85,155,625	\$83,124,816	\$74,432,229	\$64,134,899	\$72,409,617
Bond Reserve	7,487,328	7,578,303	7,529,184	18,526,844	18,511,521
Bond and Interest Redemption Fund	0	0	0	9,645,973	0
Allowance for Market Value Adjustment	1,205,812	773,624	17,620	(202,941)	(783,872)
Security Deposits Fund Investments	4,061,027	3,561,785	4,194,443	4,237,143	4,609,871
Investment in Risk Management Fund	2,700,778	2,370,150	1,096,985	1,051,526	1,192,230
1996 Construction Fund - Cash	0	0	0	0	0
2004 Construction Fund - Cash & Investment				143,394,858	65,685,303
Expense Fund Escrow				0	0
Cash on Deposit with Paying Agent	5,784,162	5,897,470	6,023,720	2,145,535	4,767,856
Total Restricted Assets	<u>\$106,394,732</u>	<u>\$103,306,146</u>	<u>\$93,294,181</u>	<u>\$242,933,836</u>	<u>\$166,392,528</u>
Deferred Debits					
Unamortized Debt Discount and Expense	\$98,561	\$50,834	\$17,490	\$0	\$3,070,967
Unamortized Loss of Refunded Debt	442,695	226,977	77,473	0	0
1997 Tornado Clean up	37,298	0	0	0	0
2004 Revenue Bond Issuance Costs				3,220,823	0
Hurricane Lili	0	0	0	0	0
Clearing Accounts & Other	(515)	12,233	12,061	93,647	1,428
Communication Fund 06 Bond Issue Costs	0	0	0	0	2,694
Miscellaneous	30,119	30,929	5,682	5,682	5,682
Total Deferred Debits	<u>\$608,158</u>	<u>\$320,973</u>	<u>\$112,706</u>	<u>\$3,320,152</u>	<u>\$3,080,771</u>
<b>Total Assets &amp; Other Debits</b>	<b>\$451,637,390</b>	<b>\$460,669,938</b>	<b>\$459,902,334</b>	<b>\$656,109,472</b>	<b>\$677,771,813</b>

## Section 4

**Table 4-27 (continued)**  
**Comparative Balance Sheet**

	2001	2002	2003	2004	2005
<b>Long Term Liabilities</b>					
Revenue Bonds (inclusive of current maturities)	\$37,168,278	\$31,153,278	\$24,883,278	\$196,660,000	\$195,845,000
<b>Current Liabilities (payable from Current Assets)</b>					
Accounts Payable (Fuel)	0	2,402,951	2,338,443	4,806,707	12,505,006
Accounts Payable (O&M Fund)	1,720,004	1,802,397	479,565	400,814	1,317,136
Accounts Payable (Payroll)	605,438	674,642	244,088	254,330	480,611
Accounts Payable (Miscellaneous)	3,984,630	5,665,588	4,749,027	18,383,222	14,448,034
Accounts Payable (Purchased Power LPPA)	(483,175)	910,780	5,117,359	1,386,060	3,624,005
Accounts Payable (Purchased Power Other)	435,586	2,053,956	2,395,338	296,749	4,446,260
Accounts Payable (Environmental Clean Up 'Grant St')	1,750,000	1,750,000	1,750,000	1,750,000	1,750,000
Miscellaneous Current and Accrued Liabilities	1,207,803	3,098,353	2,976,664	3,443,702	4,060,246
Accrued Interest on Security Deposits	76,456	22,479	16,185	0	9,146
A/P Water District North	<u>263,616</u>	<u>249,055</u>	<u>115,562</u>	<u>206,840</u>	<u>232,674</u>
Total Current Liabilities Payable from Current Assets	\$9,560,358	\$18,630,201	\$20,182,231	\$30,928,423	\$42,873,118
<b>Other Liabilities (payable from Restricted Assets)</b>					
Interest Accrued on Bonds	\$514,162	\$397,470	\$273,720	\$2,145,535	\$4,767,856
Interest Accrued on Security Deposits WDN	554	191	40	0	18
Customer Deposits	4,178,641	3,531,824	4,185,684	4,230,294	4,597,959
Arbitrage Liability	0	0	0	<u>5,674,897</u>	0
Total Other Liabilities Payable from Restricted Assets	\$4,693,357	\$3,929,485	\$4,459,444	\$12,050,727	\$9,365,834
<b>Long-Term Liabilities</b>					
Unamortized Premium on 2004 Revenue Bonds	0	0	0	0	\$5,410,860
Total Long-Term Liabilities	0	0	0	0	\$5,410,860
<b>Reserves</b>					
Reserve for Revenue Bond Debt Service	\$7,487,328	\$7,578,303	\$7,529,184	\$18,526,844	\$18,511,521
Reserve for Capital Additions	1,205,812	83,124,816	74,432,229	64,134,899	72,409,617
Reserve for Security Deposits	0	3,561,785	4,194,443	4,237,143	4,609,871
Reserve for Risk Management	<u>1,707,459</u>	<u>1,707,459</u>	<u>1,096,985</u>	<u>1,051,526</u>	<u>1,192,230</u>
Total Reserves	\$10,400,599	\$95,972,363	\$87,252,841	\$87,950,411	\$96,723,240
<b>Contributions</b>					
Contributions from Municipality	\$5,317,627	\$0	\$0	\$0	\$0
Contributions from Others	<u>32,694,236</u>	0	0	0	0
Total Contributions	\$38,011,863	\$0	\$0	\$0	\$0
<b>Retained Earnings</b>	351,802,937	310,984,611	323,124,540	328,519,910	327,553,762
<b>Total Liabilities &amp; Other Credits</b>	\$451,637,392	\$460,669,938	\$459,902,334	\$656,109,472	\$677,771,813

Source: LCG Annual Budget Document 2005-2006.

Source: LCG Audited Financial and Operating Statements.

## Operating Budget

The Operating Budget ("Budget") for the Year ended October 31, 2005 was adopted by Council. Included in the Ordinance is the five-year capital plan beginning in 2005.

A comparison of the project operations in the Amended Budget with actual operating results is shown in Table 4-28.



**Table 4-28**  
**Comparison of Actual Results to the Amended Budget (\$1,000)**

	Actual	Amended Budget	Difference	% Difference
Receipts	217,628	197,948	19,680	9.9%
O&M	<u>177,901</u>	<u>153,972</u>	23,929	15.5%
Balance After O&M	39,727	43,976	(4,249)	-9.7%
Debt Service	<u>4,561</u>	<u>10,714</u>	(6,153)	-57.4%
Balance After Debt Service	35,166	33,262	1,904	5.7%
Capital Expenditures	6,487	8,525	(2,038)	-23.9%
In-Lieu-of-Tax	16,317	<u>16,317</u>	(0)	0.0%
Balance of Revenues	12,363	8,420	3,943	46.8%

Source: LCG Financial and Operating Statements October 2005.

Source: LCG Annual Budget Document 2004-2005.

The comparisons shown in Table 4-28 are on a cash basis and therefore will not necessarily agree with audited amounts that are on an accrual basis.

The LCG's fiscal year 2005-2006 budget (November 1, 2005 through October 31, 2006), including LUS' budget, was submitted by the President to the Council and approved by the Council by Ordinance No. 0-214-2005. LUS' Utilities System budget for the fiscal year ending October 31, 2006 as adopted by the LCG is as summarized in Table 4-29.

## Section 4

**Table 4-29**  
**Utilities System Budget**

Estimated Fund Balances as of November 1, 2005	\$67,770,396
Receipts	
Electric Retail Sales - Base Rate	\$67,915,750
Electric Retail Sales - Fuel Adjustment Charge	79,398,213
Electric Wholesale Sales	4,266,005
Water Retail Sales	11,816,071
Water Wholesale Sales	0
Wastewater Retail Sales	19,982,810
Fiber Wholesale Sales	1,400,000
Contributions in Aid of Construction	0
Interdepartmental Sales	1,150,000
Interest - Operating Funds	1,500,000
Miscellaneous	600,000
Accounts Receivable & Others	1,000,000
Final Reimbursement from DEQ	<u>400,000</u>
Total Receipts	\$189,428,849
Total Receipts and Cash Balance	\$257,199,245
Operating & Maintenance	
Fuel Costs	\$25,465,800
Purchased Power - LPPA	52,680,000
Purchased Power - Other	15,714,700
Electric O&M	28,668,855
Water O&M	8,925,091
Wastewater O&M	12,895,305
Fiber O&M	<u>1,388,916</u>
Total Operation & Maintenance	\$145,738,667
Interest & Principal Amounts	\$11,762,934
Capital Renewals & replacements	
Normal Renewals & Special Equipment	\$10,829,465
Retained Earnings Capital Improvement	904,598
Reserve Requirement Reduction	0
Bond Capital Improvements	<u>26,100,000</u>
Total Capital Expenditures	\$37,834,063
In-Lieu-of-Tax Payments	\$17,466,779
Total Expenditures	\$212,802,443
Fund Balances as of October 31, 2006	\$44,396,802

Source: LCG Annual Budget Document 2005-2006.

The end-of-year balance of all Utilities System Funds is budgeted at \$44.4 million, as shown in Table 4-29. The above operating budget anticipates a decrease of approximately \$23.4 million in cash balances during the 2005-2006 period. LUS continues to review and adjust the current budgeting system to increase financial and accounting controls and meet changing operating requirements.



## **Fund Balances**

The Utilities System will likely experience an increase in retained earnings over the next several years largely due to the financing of major capital projects with new debt.

## **Audit**

Section 7.9 of the Bond Ordinance requires an annual audit of the Utilities System by a qualified independent Certified Public Accountant.

Accordingly, the firm of Broussard, Poché, Lewis & Breaux, Certified Public Accountants of Lafayette, Louisiana, was chosen by LCG to audit the books of accounts and records of the Utilities System for the Sinking Fund Year ended October 31, 2005. The Certified Public Accountant's audit of the books of accounts and records of the Utilities System is filed by LCG with the Depository, the Consulting Engineer and the original purchasers of the bonds.

## **Accounting**

Section 7.8 of the Bond Ordinance requires that the City of Lafayette keep separate identifiable financial books, records, accounts and data regarding the Utilities System.

The Home Rule Charter, Section 4-07, 'Utilities Department,' states: *"The utility department shall function in accordance with conditions included in current or future bond resolutions and covenants except that reference to "city" therein shall refer to the Lafayette Public Utilities Authority."*

LCG currently prepares monthly financial statements that include important operating financial and managerial data. Except for several months following the close of a fiscal year, these internal statements are scheduled to be issued by the 20th day of the month following the period of reporting.

However, the above exception extends from the first several monthly financial statements following the close of a fiscal year. These statements in final form for the new fiscal year are not completed until the prior year's independent auditor's report is received by the City. The audit for the fiscal year ending in October is not available until approximately May in the following year.

The Consulting Engineer is particularly concerned about the delay in the availability of important and often critical financial information necessary for informed management of the Utility business. This is particularly critical for the telecommunications business. Timely information is essential for all LUS business, particularly as margins diminish. Additionally, the new management of business ventures such as telecom is extremely difficult when current financial initiatives may exist. Basic financial and operating results including costs, revenue and performance measurements should be available from two to four weeks after the end of a given month if the utility is to be responsive to the dynamics of the rapidly changing utility industry.

## Section 4

The Consulting Engineer is of the opinion that the basic accounting principles and requirements with respect to the Utilities System, as contained under the respective bond resolution, have been complied with by the City for the period ended October 31, 2005.

## Recommendations

Based on our review of the LUS financial and accounting records, we recommend the following as shown in Table 4-30.

**Table 4-30**  
**Recommendations**

Finance and Accounting	Priority	Status
LUS should increase the water and wastewater systems debt to equity ratio and continue to work towards financing a considerable portion of future capital improvement projects with debt	High	In Progress
LUS should continue to pursue a strategy of increasing wastewater rates over the next several years	Highest	In Progress
LUS should continue to actively conduct financial planning, particularly as LUS adds new generation resources and increases Utilities System debt	Highest	In Progress
Under the current financial constraints placed on the Combined Utilities, LUS cannot continue to absorb significant increases in the ILOT without jeopardizing the funding of important future capital projects. Therefore, LUS should examine ways to meet ILOT obligations without adversely impacting the utilities competitive position or financial integrity	Highest	In Progress
LUS should conduct a Combined Utilities cost of service study including Electric, Water, Wastewater, and Fiber Utilities. This analysis is important in that LUS must understand the cost structure associated with the new capital and operating requirements of the Combined Utilities	Highest	No Progress Seen
LUS should continue to explore ways of improving the timeliness of financial reporting, including the implementation of new financial management tools	Highest	In Progress
LUS should modernize and streamline human resource systems in order to accommodate current and future staffing and management needs of the utilities	High	New
LUS should continue to improve the five-year capital budgetary process (cash-needs capital budget). The process should include some form of activity-based analysis and costing. The current CIP should be reviewed and each project checked for correct priority, schedule and estimate	High	No Progress Seen
LUS should review and evaluate the accuracy of accounting policies related to booking transmission and distribution investment and related O&M expense	Normal	No Progress Seen









**Section 5**  
**ELECTRIC UTILITY**

---





## Section 5

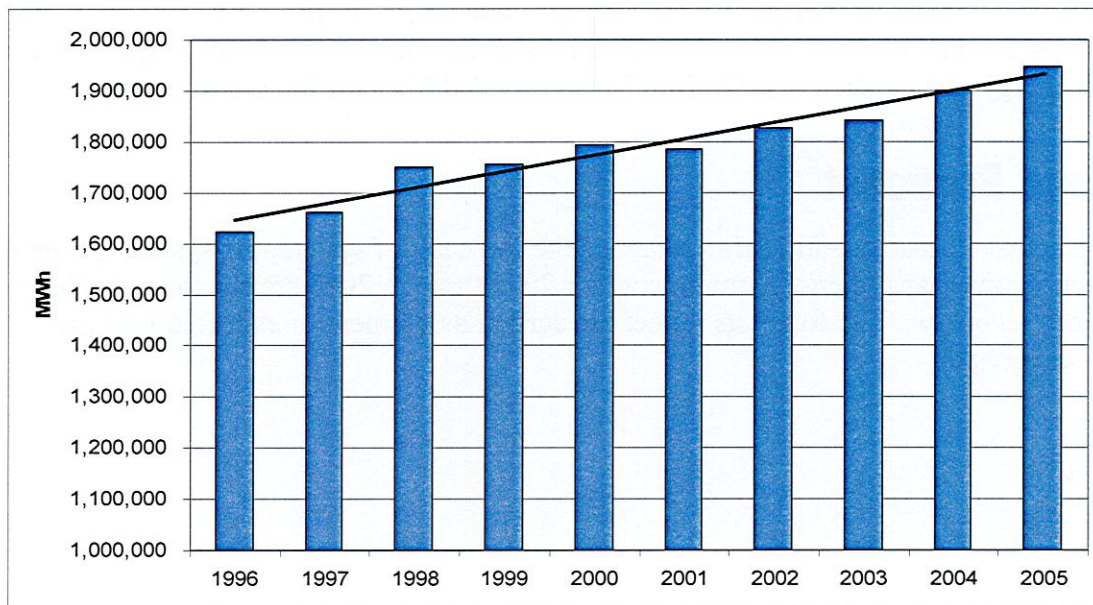
# ELECTRIC UTILITY

### Introduction

This section provides a summary of the Electric Utility's historical capacity and energy requirements, load forecast projections, organizational structure, major contracts, generation, transmission and distribution facilities, O&M statistics and practices, historical expenditures, historical and projected capital expenses, key issues, goals and achievements, and the associated findings and recommendations of the Consulting Engineer. The information and findings of the Consulting Engineer are based upon general observations, discussions with utility supervisory personnel, and information supplied by LUS personnel.

### Historical Capacity and Energy Requirements

The Electric Utility of LUS has met customer demands for service, and provided its customers with adequate and reliable utility services during the period reported herein. The historical net power and energy requirements for the past 10 years are presented in Figure 5-1 and Table 5-1. A linear regression line was included in Figure 5-1 for the period 1996 through 2005, which indicates a normalized growth rate for the period of approximately 2.0 percent.



Source: LUS Financial and Operating Statements.

**Figure 5-1: Historical Energy Requirements**

**Table 5-1**  
**Historical Capacity and Energy Requirements**

Year	Number of Customers	Peak Demand <sup>(1)</sup> MW	Energy Requirements <sup>(1)</sup> MWh	Annual Change in Energy Requirements %	Annual Load Factor %
1996	52,366	358	1,623,350	2.3%	51.6%
1997	53,048	368	1,661,996	2.4%	51.6%
1998	54,154	391	1,749,782	5.3%	51.1%
1999	54,657	401	1,753,844	0.2%	49.9%
2000	55,027	428	1,794,268	2.3%	47.7%
2001	55,268	388	1,783,450	-0.6%	52.5%
2002	55,244	390	1,825,438	2.4%	53.4%
2003	56,606	402	1,844,755	0.9%	52.4%
2004	57,489	411	1,898,660	3.1%	52.6%
2005	57,906	438	1,948,129	2.6%	50.7%

<sup>(1)</sup> Does not include sales to other utilities and associated losses.

Source: LUS Financial and Operating Statements.

Retail electric service has grown steadily over the period shown above. Customer growth has averaged 1.1 percent per year while average usage per customer has grown at 0.9 percent per year. These two influences have resulted in average annual energy growth of approximately 2.1 percent. Energy sales in 2005 were 20 percent higher than those in 1996.

LUS, through interconnection arrangements with other utilities, has also marketed surplus power and energy. For the 12 months ended October 31, 2005, surplus power and energy sales totaled 423,524 MWh and provided \$20.8 million in revenues.

## Load Forecast

The actual electric quantities for 2005 and the forecasts of system, off-system and total electric power and energy requirements for 2006 through 2010 are shown in Tables 5-2 and 5-3 below. The forecasts reflect the current assessment of expected load growth for the period.



**Table 5-2**  
**Projected Energy Sales**

Year	Total Retail Sales <sup>(1)</sup> (MWh)	Total Wholesale Sales <sup>(2)</sup> (MWh)	Total Sales (MWh)
2005 (Actual)	1,869,428	423,524	2,294,657
2006	1,869,544	75,331	1,944,160
2007	1,903,190	0	1,959,154
2008	1,934,009	0	1,995,531
2009	1,963,864	0	2,025,686
2010	1,868,506	0	2,062,149

(1) Retail sale projections provided by LUS.

(2) Based on wholesale contract requirements.

Source: LUS load forecast results. LUS Financial and Operating Statements.

**Table 5-3**  
**Projected Peak Power Requirements**

Year	LUS System <sup>(1)</sup> (MW)	Off System <sup>(2)</sup> (MW)	Total (MW)
2005 (Actual)	438	61	499
2006	441	0	441
2007	448	0	448
2008	456	0	456
2009	463	0	463
2010	470	0	470

(1) Projections provided by LUS.

(2) LEPA Contract (61 MW) expires 12/2005

Source: LUS load forecast results. LUS Financial and Operating Statements.

Table 5-4 provides a comparison of LUS electric loads versus resources, expressed in megawatts. This reflects the demand requirements of retail sales, sales for resale, and a reserve requirement equal to 18 percent of demand.

**Table 5-4**  
**Total Demands and Resources Comparison (MW)**

Year	DEMANDS		RESOURCES <sup>(1)</sup>				
	Total Demand	Demand Plus Reserves	Gas-Fired Generation	Coal-Fired Generation	SPA Peaking	Total Resources	Surplus/ Deficit
2005 (Actual)	499	589	402 <sup>(2)</sup>	246	18	666	77
2006	441	520	502 <sup>(3)</sup>	246	18	766	246
2007	448	529	502	246	18	766	237
2008	456	538	502	246	18	766	228
2009	463	546	502	246	18	766	220
2010	470	555	502	246	18	766	211

(1) Resource capacities represent nominal nameplate ratings, percentages thereof, or contract amounts.

(2) T.J. Labbé Generating Plant online 2005 (100 MW).

(3) Hargis-Hébert Generating Plant scheduled to be online 2006 (100 MW).

Source: Jeff Stewart, LUS 2/06.

The table above indicates that available resources provide the electric utility with surplus capacity through 2010.

## Utility Organization

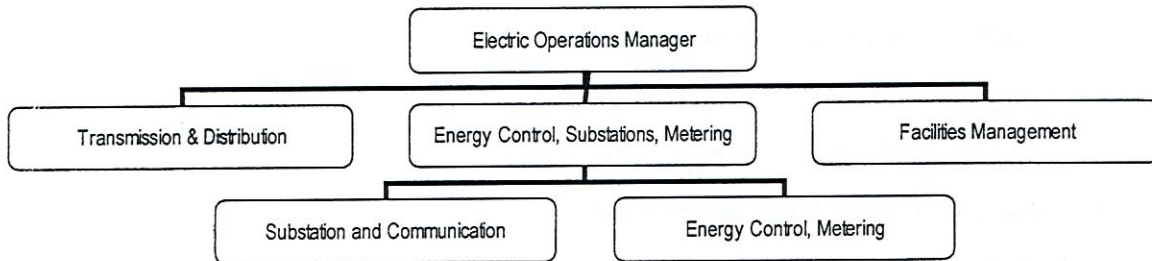
The electric utility is supported primarily by the Power Production Division and the Electric Operations Division of LUS. Other LUS Divisions, including Engineering, Customer Service, Utilities Support Services and Environmental Compliance, provide services to the electric utility.

The Power Production Division is charged with power production along with O&M of the wholly owned generation facilities of LUS, including capital planning and implementation. The Power Production Division is also responsible for O&M of a 10-inch natural gas pipeline owned by LUS.

The Electric Operations Division of the LUS is responsible for transmission, distribution, metering, and delivery of electrical power to consumers; inventory management of electric, water and wastewater materials and LUS security; the LUS T - 1 Fiber Optic Network, and the monitoring of the LUS Powered Network (see Section 8 of this Report). The Electric Operations Division is also responsible for the Energy Control System ("ECS") section, which provides for the scheduling and dispatch of generating resources (including the purchase and sale of wholesale power), the operation of the SCADA system, and all line switching orders. The SCADA system provides direct control and monitoring of the electric transmission and distribution system, as well as control and monitoring of certain water and wastewater facilities and equipment, and the monitoring of the LUS T-1 Fiber Optic Network and the LUS Powered Network.



The Electric Operations Division consists of four discrete operating sections: Transmission and Distribution, Substation and Communications, ECS and Metering, and Facilities Management. The Electric Operations Division is currently organized as follows:



**Figure 5-2: Electric Operations Division Reporting Structure**

Additionally, significant support is provided to the electric utility from the Engineering Division. The Power Marketing section of the Engineering Division coordinates with ECS for fuel supply along with power purchases and sales to and from LUS. The Power Marketing Section serves as the primary interface with the coal-fired Rodemacher Unit No. 2 Power Station ("RPS2"), which is partially owned by LPPA, and coordinates with the ECS and Power Production Division for delivery of baseload energy from RPS2 to the electric utility as described in more detail below. The Power Marketing Section also coordinates with independent system operators and regional transmission operators on issues pertinent to the electric utility. The Administration Section of the Engineering Division administers various third party contracts for O&M materials and services required by the electric utility.

Each division plays a critical role in determining the degree of success LUS will have in meeting its electric utility customer expectations. Although each division has its own responsibilities, they interact extensively and operate in a cohesive manner.

## **Major Contracts**

LCG has many contracts and agreements in place related to the business of the electric utility. Principal electric utility contracts and agreements are summarized in the following paragraphs.

## **Power and Fuel Marketing**

### **The Energy Authority**

LUS signed a contract with TEA on November 28, 2000. The objective of this contract is for TEA to market LUS' capacity and energy in excess of the requirements of its retail customers and to purchase power on behalf of LUS as needed.

Contractually, LUS provides the following information to TEA on a daily basis for a seven-day period:

## Section 5

---

- Hourly electric demand.
- Generating unit costs and availability.
- Quantities of capacity and energy that LUS has determined it is willing to sell or purchase.
- Hourly incremental and decremental costs.

TEA is responsible for:

- Reservation and verification of transmission paths.
- Confirmation of schedule with counterparties.
- Creation of tags.
- Timely and effective notification of all schedules.
- Performance of daily checkouts.
- Adhering to LUS' credit policy.

On a day-to-day basis, LUS primarily uses their TEA arrangement to balance energy the hours when LUS has surplus power or is deficient. In recent years, LUS has purchased wholesale power to serve their native load when RPS2 was off-line and during the summer months (when demand is high). In 2005, LUS sold 25,990 MWh of energy to TEA and purchased 214,729 MWh of energy from TEA. Because of transmission constraints in the LUS region, buying and selling large amounts of wholesale power is not a viable alternative for most hours.

LUS signed Letter Agreement Number Two for Natural Gas Services, dated February 1, 2005 (the "Letter Agreement") with TEA, which supersedes the previous agreements for natural gas services. The Letter Agreement authorizes TEA to provide resource management services, including but not limited to, purchasing natural gas and transportation on behalf of LUS, and marketing LUS' surplus natural gas and transportation. The Letter Agreement continues until either party provides 30 day written notice of termination to the other party.

TEA may also enter into financial transactions to manage risk associated with power and fuel for LUS. Financial transactions are not necessarily intended by the parties to go to physical delivery, but are used to manage risk exposure to market price volatility. Financial transactions include purchases or sales of futures, options, and swaps. While these activities are currently limited in nature, they should nevertheless be governed by a best practices-based Energy Risk Management Policy and associated procedures. LUS has not yet developed such policies and procedures.

LUS' electric power and energy requirements are met through purchases from power suppliers, through its contract with TEA, LPPA and the Southwestern Power Administration ("SPA"), as well as by the locally installed generating capacity.



## Power Purchases

### Lafayette Public Power Authority

LCG, through LPPA, acquired a 50 percent ownership interest in RPS2. The primary fuel supply to the RPS2 is low-sulfur Wyoming coal and the output is sold by LPPA to LCG in accordance with a long-term power sales contract. LCG is obligated to make all payments required in connection with its 50 percent share of costs for operation and maintenance, renewals and replacements, as well as RPS2, including debt service, debt service reserves, and such other amounts which LPPA is required to pay or set aside into any other fund or account established by the ordinance adopted by LCG (LPPA Bond Ordinance).

### Southwestern Power Administration

LCG has a purchase agreement with SPA and a current capacity allocation of 18.6 MW and energy allocation of 1,200 kWh per kW per year. The cost of this power for the 2005 was \$36.73 per MWh for peaking energy and \$23.26 per MWh for the combination of both peaking and supplemental energy. The total annual energy under this contract represents approximately 2 percent of LUS' total annual energy requirement. The contract with SPA has a term of 15 years, which ends on December 31, 2018.

Due to weather conditions, SPA is expected to have a limited quantity of peaking capacity available for sale in the near term. Additionally, a number of firm and peaking power contracts that supply SPA terminate in the future and new hydro capacity from two multipurpose projects currently under construction are not yet operational.

## Power Sales

### Louisiana Energy and Power Authority

The State of Louisiana enacted legislation (Act No. 772 adding Chapter 10-A, Section 33:4545.2 et seq., to the Louisiana Revised Statutes of 1950) in 1979 to create Louisiana Energy and Power Authority ("LEPA") as a political subdivision of the State of Louisiana to provide for joint ownership and cooperation in electric generation and transmission facilities. Such joint ownership may occur between such authority and municipally owned entities, investor-owned electric power companies and electric power cooperative associations or corporations within the State of Louisiana.

LEPA subsequently acquired a 20 percent undivided ownership interest from CLECO in the RPS2 electric power generation facility. This is the same facility in which LPPA has a 50 percent ownership interest. LCG is a member of LEPA and contractually sells power and energy to LEPA, as discussed below.

On December 20, 2000, the City and LEPA entered into an Agreement for Purchase of Power and Energy and Coordination of Operations ("LEPA Agreement"). The LEPA



Agreement stipulates the amounts of power and energy to be delivered by LCG during future time periods, and also provides for the sale to LEPA of additional capacity and energy above the contract amounts if required by LEPA and available from LCG. In addition, provisions for reserves and the sale of secondary energy are covered in the LEPA Agreement. The LEPA Agreement also contains provisions for LCG to sell supplemental, replacement, economy and emergency energy to LEPA. This LEPA Agreement is for a capacity of 61 MW plus losses and is effective through December 2005.

### **Electric Interconnection, Interchange, and Transmission**

System interconnection refers to a connection between two electric systems permitting the transfer of electric energy in either direction. Interchange refers to kilowatt-hours delivered to, or received by, one electric utility or pooling system from another. Transmission access refers to the ability of third parties to make use of transmission facilities owned by others (wheeling utilities) to deliver power to another utility.

The various interconnection, interchange, and transmission agreements in effect between LCG and other electric utilities and agencies are with Entergy Gulf States, CLECO, Cajun Electric Cooperative Inc. (now Louisiana Generating LLC "Louisiana Generating"), Entergy Louisiana (formerly Louisiana Power and Light), Southwestern Electric Power Company ("SWEPCO"), and SPA. These agreements provide various terms for the purchase and sale of emergency, replacement, and economy energy. The existing agreements appear to be working satisfactorily for LUS. Certain details of these agreements are presented below.

#### **Entergy Gulf States**

The City signed a long-term (31 years) Interconnection Agreement ("Interconnection Agreement") with Entergy Gulf States (formerly Gulf States Utilities) in October 1984, which expires in 2015. LCG is recognized as a supplier to total requirements customers connected to the Entergy Gulf States system, and Entergy Gulf States has agreed to provide transmission service for delivery of the RPS2 power from the CLECO System to LCG if CLECO's System is unable to make direct deliveries to LCG. The Interconnection Agreement provides for certain service and rate schedules as applicable between the parties, or which may be negotiated and entered into by the parties in the future. Under the Interconnection Agreement with Entergy Gulf States, LCG provides for reserve capacity requirements consistent with the reserve capacity guide as adopted or recommended by the South Central Systems of the North American Power Systems Interconnection Committee, or any successor body. Reserves are to be consistent with the Utilities System's load responsibilities taking into account any firm purchases and sales.

#### **Central Louisiana Electric Company**

CLECO and LCG entered into an Electric System Interconnection Agreement ("ESIA") in 1991. The term of the agreement is such that the ESIA shall not terminate sooner than August 29, 2016, and thereafter shall continue in effect for five-year



periods unless terminated by written notice given by one party to the other. The agreement provides the following:

- Identification of the Unit – a point where power may flow into CLECO facilities from an LCG power source, or an LCG-contracted power source.
- Identification of the following power delivery points and associated capacity effective with agreement modifications are presented in Table 5-5.

**Table 5-5  
Power Delivery Points**

138kV and Above	Contract Demand – MW
Lafayette	221
LEPA	25

Source: LUS, Ron Gary 2/06

### Interchange

LUS has entered into interchange agreements with Louisiana Generating, SWEPCO, Entergy Louisiana, and the SPA. The expiration and extensions provisions of each of these agreements are provided in Table 5-6, however, all of these agreements are still in effect.

**Table 5-6  
Interchange Agreements**

Entity	Term and Extension Provisions
Louisiana Generating	Any date after May 23, 1993 with three years notice
Entergy Louisiana	Automatically extends for three-year periods until terminated with 18 months notice
SWEPCO	January 1, 1996, or the first of any year following a four-year notice
SPA	May 2018

Source: R. W. Beck, Previous CER

### Joint Ownership/Use

The Amended and Restated Agreement for Joint Ownership, Construction and Operation of the RPS2 between LPPA, CLECO, and LEPA was entered into in November 1982 and is to remain in effect throughout the useful life of RPS2. This agreement was amended in 1986 to provide for the transmission of LPPA's ownership percentage of generation from RPS2 to points of delivery other than the point of interconnection with LCG.

### Fuel Supply

#### Coal for Rodemacher Unit No. 2

The principal fuel for LPPA's Rodemacher Plant is coal, which is supplied to the plant by the Kennecott Energy Company and mined in Campbell County, Wyoming. As operator of the RPS2, CLECO has the responsibility to represent the other Owners in connection with fuel supply and associated contracts. The original contract was executed in 1973 by CLECO and since that time has been renegotiated several times, the most recent of which was signed in July 2004. The result of this latest renegotiation was confirmation of a two-year letter agreement through 2006.

#### Crosstex Gulf Coast Marketing, Ltd

Crosstex Gulf Coast Marketing, Ltd. ("Crosstex") is the supplier of natural gas for generation of electricity. The contract with this supplier has a one-year term with the option of automatic renewal. The current contract is due to expire June 30, 2006. Contractually, there is a requirement for LUS to nominate daily requirements one week prior to the beginning of each month. Coupled with the nomination requirement is a daily true-up of the actual volumes purchased vs. nominated volumes. In the event LUS purchased less than the nominated volume of gas, Crosstex would sell the difference into the market at the current sales price. The contract contains a 3,000,000 MMBtu minimum annual requirement that LUS must purchase.

In addition to the "base" volumes purchased from Crosstex, TEA purchases natural gas on the spot market from Crosstex and other suppliers for LUS in order to fulfill LUS' annual gas requirements.

### Other Agreements

#### Southwestern Louisiana Electric Membership Co-op

In 1987, LUS entered into a non-competitive agreement with Southwestern Louisiana Electric Membership Co-op ("SLEMCO") for certain electric customers outside of the City limits. This agreement expired in 2000 and until recently LUS had been successfully competing head to head with SLEMCO for customers. On September 10, 2004, LUS entered into a new 15-year non-competitive agreement with SLEMCO. The agreement allows for an orderly acquisition of customers from SLEMCO at pricing specified in the agreement.

#### CT Parts Agreement

LUS has negotiated a combustion turbine ("CT") Parts Agreement with TransCanada for the supply of parts for the CTs installed or being installed in the City. The CT Parts Agreement essentially gives LUS CT parts price certainty for the five year term.



## CT Maintenance Agreement

LUS is negotiating a CT Maintenance Agreement with General Electric ("GE") pursuant to which GE is to provide engineering, field supervision, and craft labor on an as needed basis at the request of LUS for the six year term.

## Major Contract Summary

A summary of the contracts and agreements is provided in Table 5-7.

**Table 5-7**  
**Contracts and Agreements**

Contracts & Agreements Between		Date Signed/Renewed	Termination Date	Provisions
LUS	TEA	November 28, 2000	Upon 30 days notice	Power and Fuel Marketing
LPPA	CLECO, LEPA	November 1, 1982	End of useful life	Joint ownership of RPS2.
LCG	LPPA	May 1, 1997	End of useful life	Purchase of power from LPPA's 50 percent share in Rodemacher Unit 2
LCG	SPA	January 1, 2004	December 31, 2018	Purchase of Power
LCG	LEPA	June 28, 1985	December 31, 2005	LUS sells power and energy to LEPA
LCG	Entergy Gulf States	October 1, 1984	October 1, 2015	Interconnection agreement for delivery of power
LCG	CLECO	1991	August 29, 2016	Interconnection agreement for delivery of power
LUS	Louisiana Generating	May 23, 1983	Upon 3 year notice	Interchange agreement for electric transmission
LUS	Entergy Louisiana	October 6, 1988	Upon 18 month notice	Interchange agreement for electric transmission
LUS	SWEPCO	May 1, 1994	Upon 45 days notice	Interchange agreement for electric transmission.
CLECO	Kennecott Coal	July 2004	December 2006	Purchase of coal for RPS2
LUS	Crosstex	July 25, 2003	June 30, 2006	Supply of natural gas for LUS generating facilities
LUS	SLEMCO	September 10, 2004	September 10, 2019	Customer acquisition agreement
LUS	TransCanada	TBD	5 years	CT Parts
LUS	GE	TBD	6 years	CT Maintenance Services

Source: Ron Gary, LUS 2/06

## Power Production

The production of power for the electric utility is primarily provided from two gas-fired generating facilities located in the City and one coal-fired generating facility

(through purchases from LPPA). The discussion below provides a description of the facilities, the historical operating statistics for each facility, a summary of the O&M history and plans, and the condition of the facilities as observed by the Consulting Engineer.

### Gas-fired Generation

The gas-fired generating facilities which supply a portion of the demand and energy requirements of LUS include the Louis "Doc" Bonin Electric Generating Station ("Doc Bonin Plant"), and the T.J. Labbé Electric Generation Station ("T.J. Labbé Plant"). The Curtis A. Rodemacher Electric Generating Station ("Rodemacher Station") (also located in the city) has not operated since 1994 and LUS is in the process of decommissioning the plant (see Section 9). Construction and commissioning of the T.J. Labbé Plant was completed in 2005.

The Doc Bonin Plant is located in the northwest part of the City and consists of three natural gas-fired conventional utility boilers each with a dedicated steam turbine ("ST"). The units were installed in 1964, 1970, and 1976, respectively. Unit 1 generates steam at 1,250 pounds per square inch ("psi") and includes a non-reheat, tandem compound, bottom exhaust ST. Unit 2 and Unit 3 generate steam at 1,800 psi and include tandem compound, bottom exhaust STs with reheat. Each unit has a dedicated cooling tower for heat rejection. Well water is utilized for cooling tower make-up and municipal potable water is supplied to the water treatment system. Each unit has a dedicated exhaust stack and none of the units have emission control equipment. Unit 1 and Unit 2 are electrically interconnected to the LUS system at the 69kV level and Unit 3 is connected at the 138kV level.

The T.J. Labbé Plant is located toward the northern portion of the Parish, and consists of two natural gas-fired LM6000PC Sprint CTs with water injection for NO<sub>x</sub> control and chillers for inlet air cooling to enhance power production when operating at high ambient temperatures. The T.J. Labbé Plant is equipped with three 50 percent capacity gas compressors and is electrically connected by means of a looped 230kV interconnect to the existing Pont des Mouton to Doc Bonin 230kV line. The Industrial Company ("TIC"), the construction contractor achieved substantial completion in August 2005. The plant was placed into commercial operation fourth quarter of 2005.

General information including gross capacity for each unit at the Doc Bonin Plant and the T.J. Labbé Plant are listed in Table 5-8.



**Table 5-8  
Gas-Fired Generation**

Unit	Gross Capacity (MW) <sup>(2)</sup>	Fuel	Boiler Manufacturer	Turbine Manufacturer
Doc Bonin Unit 1	45	Gas/Oil <sup>(1)</sup>	Babcock and Wilcox	Westinghouse
Doc Bonin Unit 2	80	Gas/Oil <sup>(1)</sup>	Combustion Engineering	General Electric
Doc Bonin Unit 3	<u>170</u>	Gas/Oil <sup>(1)</sup>	Babcock and Wilcox	General Electric
Doc Bonin Plant Total	295			
T.J. Labbé Unit 1	50	Gas	N/A	General Electric
T.J. Labbé Unit 2	<u>50</u>	Gas	N/A	General Electric
T.J. Labbé Plant Total	<u>100</u>			
Total	395			

<sup>(1)</sup> Natural gas is the primary fuel for generation, with oil used as an alternative supply.

<sup>(2)</sup> Summer rating with AGC.

Source: Jamie Webb, LUS, 2/06

### Operating Statistics

LUS personnel reported the following significant operating statistics for the gas-fired generating units. Statistics for the T.J. Labbé Plant have not been included in Table 5-9 below due to the limited run time after construction and commissioning was completed.

## Section 5

**Table 5-9  
Gas-Fired Generation Operating Statistics**

	2001	2002	2003	2004	2005	5-Year Average
<b>Doc Bonin – 1</b>						
Gross Generation, MWh	49,737	4,116	10,879	48,826	53,509	33,413
Gross Capacity Factor <sup>(1)</sup>	11%	1%	2%	11%	12%	7%
Service Factor <sup>(2)</sup>	29%	2%	6%	26%	30%	19%
Availability Factor <sup>(3)</sup>	84%	67%	81%	99%	99%	86%
Forced Outage Rate <sup>(4)</sup>	0.19%	42.00%	0.00%	0.25%	0.30%	8.55%
Number of Starts	7	4	3	5	4	5
<b>Doc Bonin – 2</b>						
Gross Generation, MWh	119,384	44,494	76,700	135,825	161,212	107,523
Gross Capacity Factor <sup>(1)</sup>	15%	6%	10%	17%	20%	14%
Service Factor <sup>(2)</sup>	42%	20%	28%	50%	48%	38%
Availability Factor <sup>(3)</sup>	92%	85%	90%	93%	66%	85%
Forced Outage Rate <sup>(4)</sup>	1.00%	5.00%	0.10%	1.20%	0.00%	1.46%
Number of Starts	12	5	10	13	12	10
<b>Doc Bonin – 3</b>						
Gross Generation, MWh	344,299	357,168	290,363	318,104	451,418	352,270
Gross Capacity Factor <sup>(1)</sup>	21%	22%	18%	19%	28%	22%
Service Factor <sup>(2)</sup>	56%	59%	49%	47%	71%	56%
Availability Factor <sup>(3)</sup>	81%	86%	93%	60%	97%	83%
Forced Outage Rate <sup>(4)</sup>	0.09%	0.50%	0.00%	0.05%	2.09%	0.55%
Number of Starts	4	5	2	6	7	5
Total Gross Generation, MWh	513,420	405,778	377,942	502,755	666,139	493,207
Total Net Generation, MWh	470,652	384,704	346,913	463,146	622,333	457,550
Total Gas Usage, MMBtu	5,606,380	4,444,668	3,844,806	5,227,479	7,225,407	5,269,748
Net Heat Rate, Btu/kWh	11,912	11,553	11,083	11,287	11,610	11,489

<sup>(1)</sup> Gross Capacity Factor is the actual electric generation divided by the maximum the unit is capable of generating.

<sup>(2)</sup> Service Factor reflects the percent of time the unit was electrically connected to the transmission system.

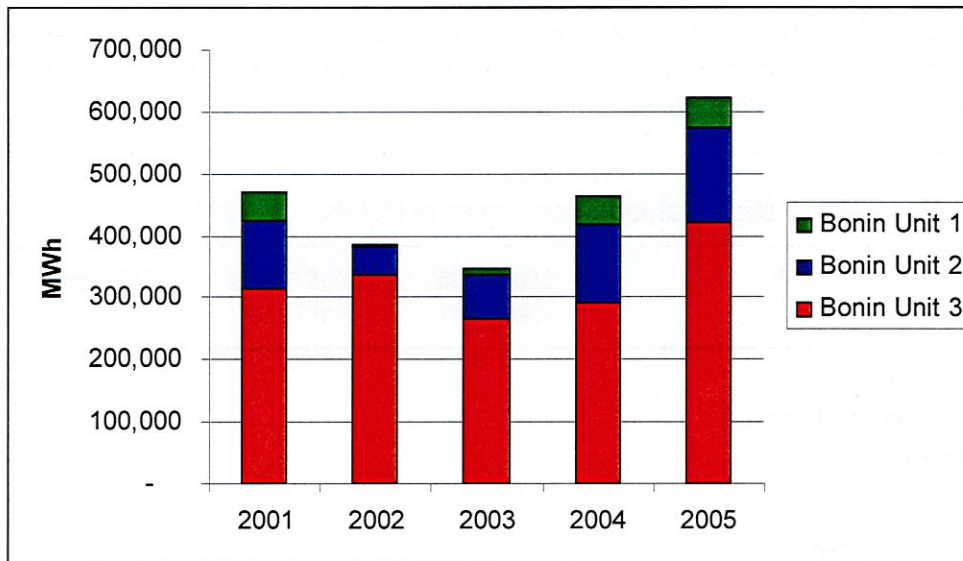
<sup>(3)</sup> Availability Factor reflects the percent of time the unit was capable of providing service.

<sup>(4)</sup> Forced Outage Rate reflects the percent of time the unit was removed from service due to an unplanned failure.

Source: Jamie Webb/Jeff Stewart, LUS 2/06



Figure 5-3 below shows the total energy production from the gas-fired generation facilities and illustrates the energy contributed by each of the units. Energy production from the T.J. Labbé Plant was not included as it achieved construction completion in August 2005 and did not have significant operating hours in 2005.



Source: Jamie Webb, LUS 2/06

**Figure 5-3: Total Gas-Fired Generation Unit Contributions**

Net generation of the Doc Bonin Plant has trended higher in recent years due to limitations on deliveries of energy from RPS2 to LUS as a result of transmission constraints. Historically, delivery limitations from RPS2 occurred quickly and with limited warning. Not knowing when deliveries of the RPS2 energy would be constrained, and needing several hours to start-up one of the Doc Bonin units, LUS typically kept one unit at the Doc Bonin Plant on-line at all times. As LUS system load would drop off at night or in shoulder months, the Doc Bonin Plant would be operated near minimum load. This type of operation resulted in the displacement of low cost coal-fired energy from RPS2 with much higher cost gas-fired energy from the Doc Bonin Plant. LUS reports that the installation of a new substation by CLECO has resulted in a decrease in transmission loading relief calls, or constraint events, that impact LUS, from approximately 75 in 2004 to 3 in 2005. The resolution of this primary transmission constraint and the addition of the T.J. Labbé Plant, which can be started and stopped quickly, should result in LUS being able to utilize RPS2 more and the Doc Bonin Plant less in the near term, notwithstanding the impacts of load growth.

The 2005 availability of Unit 1 and Unit 3 at the Doc Bonin Plant was higher than we would expect the long-term average availability to be for units of similar, size, type and age. The 2005 availability of Unit 2 at the Doc Bonin Plant was lower than we would expect the long-term average availability to be for a unit of similar, size, type and age. The low availability of Unit 2 is attributable to an extensive major overhaul which included rewind of the generator field windings. This same work was performed on Unit 3 in 2004. More importantly, due to the nature of their operation,

## Section 5

the Doc Bonin Plant units are within the range of expected values for forced outage rate for units of similar size, type, and age.

### Operations and Maintenance

Day-to-day O&M of the two LUS wholly-owned generating facilities is accomplished by a plant staff of 37, of which 9 positions are currently vacant. The 37 positions and those which are currently vacant are shown below.

**Table 5-10**  
**Power Production Staffing Summary as of October 31, 2005**

Position	2004-2005 Budget <sup>(1)</sup>	2005 Actual Full Time <sup>(2)</sup>	Difference
Plant Superintendent	1	1	0
Plant Operations Supervisor	1	1	0
Plant Machinist	2	1	1
Plant Technician	10	10	0
Plant Shift Foreman	6	5	1
Plant Maintenance Engineer	1	1	0
Plant Maintenance Foreman	2	2	0
Plant Maintenance Mechanic	3	0	3
ICE Technician	4	3	1
Engineer	2	0	2
Engineering Aide	2	2	0
Stores Clerk	1	1	0
Secretary	1	0	1
Clerk	<u>1</u>	<u>1</u>	<u>0</u>
Total	37	28	9

<sup>(1)</sup> Source: LUS 5-Year Capital Outlay Program Summary, FY 2005-06 Adopted Budget

<sup>(2)</sup> Source: Heather Escott, LUS, 'Personnel Strength Monthly Report', 2/06

Day-to-day operational challenges include coordination of dispatch and generation requirements. The long-term challenge facing Doc Bonin Plant operations is a shortage of qualified labor. Key power plant positions remain vacant, but the plant has overcome this by outsourcing and hiring contract labor. The labor shortage has not yet impacted plant reliability; however, the shortage along with the longevity of the present workforce may impact operations in the future.

LUS has implemented a formal training program for operations personnel, consisting of industry specific plant science and process training. Additionally, plant specific operating training materials are being developed by LUS.

Operations at the Doc Bonin Plant are accomplished through the use of operational procedures incorporated in Original Equipment Manufacturer ("OEM") manuals. The Doc Bonin Plant reports routine use of the boiler chemistry lab, start-up/shutdown



checklist and the common practice of apprentice training of operations technicians, routine turbine over-speed trip tests, piping hanger walkdowns and the weekly functional test of the plant's diesel generator. The plant has also started an extensive relay testing program.

Predictive maintenance programs include vibration monitoring, lube oil analysis, meggar testing, ultrasonic leak detection (air systems), and boiler tube porosity and thickness testing. These programs can detect problems prior to catastrophic failure of the equipment. The repair of the equipment will typically have less of an adverse impact on operation, can be better planned, and may cost less to perform the repair. Preventative maintenance includes routine lubrication, cleaning, and general inspection of equipment. LUS purchased new testing equipment in 2002 to upgrade the existing program for vibration monitoring.

Both predictive and preventative maintenance tasks are generated and tracked by the existing maintenance management program, which employs the network version of the MP2 software package. Maintenance management systems such as the MP2 system are designed to track work orders from origination through completion. This allows plant personnel to monitor progress, identify backlog and produce planning and scheduling information.

The MP2 system also has the capability to maintain spare parts inventory control as well as cross-referencing parts inventory with maintenance tasks. This provides for more efficient job planning and scheduling along with monitoring inventory levels and ordering replacements. LUS personnel have assembled the available capital and consumable spare parts in three areas of the facility in separate bins with assigned tag numbers. Consumable and capital spares have been integrated in the MP2 system. Minimum and maximum levels have been established in the system for the consumable spares.

Major turbine maintenance work in past years has included overhauls on Unit 1 in 1997, Unit 2 in 2005, and Unit 3 in 2004. LUS is planning for an inspection of Unit 1 in late 2006 or 2007 to determine the need and timing of the next major overhaul of Unit 1.

CT major maintenance will be driven by the manufacturers recommended maintenance schedule which is based on equivalent baseload operating hours, which includes factors for starts and unit trips.

### **Condition of the Property**

The electric power production facilities at the Doc Bonin Plant are generally being well maintained and LUS has continued to make capital improvements to the Doc Bonin Plant. In 2001, LUS completed condenser tube replacement on Unit 3. In 2002, LUS replaced Unit 2's turbine control system, installed a camera in Unit 1's boiler, replaced Unit 2 boiler corner tubes around the burners, replaced two instrument air dryers, and upgraded plant lighting. In 2003, LUS replaced Unit 1's generator step up transformer, and replaced Unit 1 and Unit 2 flame scanner system. In 2004, a reverse osmosis system was installed to increase the period between regenerations for the existing demineralizer trains. Also in 2004, an additional emergency diesel



generator was installed to provide increased emergency power and the fuel gas controls were upgraded. In 2005, LUS installed a boiler camera on Unit 2. Other material projects were limited to resources being focused on the construction of the T.J. Labbé Plant.

Plant personnel indicated that plans are in place to repaint the external facilities of Doc Bonin Unit Nos. 2 and 3, but such work has not been initiated. We recommend proceeding with the plans to repaint the affected areas as soon as possible to prevent further degradation. The areas inside the facility are clean and well kept and the yard areas of the facility were generally neat and well maintained.

### **New Gas-Fired Generation**

LUS is in the process of expanding their existing gas-fired generation by implementing a capital project, which will increase the capacity of their gas-generation and improve the system efficiency. The Hargis-Hébert Electric Generation Station Plant ("Hargis-Hébert Plant") will be a 100 MW natural gas-fired simple-cycle power plant, similar to the T.J. Labbé Plant.

The Hargis-Hébert Plant is located toward the southern portion of the City, and consists of two natural gas-fired LM6000PC Sprint CTs with water injection for NO<sub>x</sub> control and chillers for inlet air cooling to enhance power production when operating at high ambient temperatures. The Hargis-Hébert Plant has been designed with two 50 percent capacity natural gas heaters and is electrically connected to the existing Elks Substation by means of a new 1.2-mile 69kV transmission line. The Hargis-Hébert Plant will be provided with blackstart capability, allowing operation of the plant in the event of the loss of power from the transmission grid, and will be monitored and can be controlled from the Doc Bonin Plant. Furthermore, both CTs of the Hargis-Hébert Plant are to be equipped with synchronous condensers, or clutches, between the turbine and the generator to provide voltage support to the system.

The Industrial Company ("TIC") was awarded the Construction Contract and was given a Notice to Proceed on October 29, 2004. TIC's activities focused on the engineering design and procurement for the project. Commercial operation of the Hargis-Hébert Plant is scheduled for May 2006.

### **Coal-Fired Generation**

LPPA supplies a significant portion (from 50 to 70 percent) of LUS' electric energy production. LPPA has a 50 percent ownership interest in a fossil-fuel steam-electric generating unit, RPS2, located in northwest Rapides Parish near Boyce, Louisiana, approximately 100 miles northwest of Lafayette. RPS2, which is operated by CLECO, consists of a Foster-Wheeler steam boiler and a General Electric reheat steam turbine generator with a nominal rating of 510,828 kW.

RPS2 burns coal as its primary fuel and is capable of burning oil and natural gas. Provisions were made in the design of RPS2 to allow the addition of the equipment needed for burning lignite. Coal Corporation and is transported from Campbell County, Wyoming by railroad. LPPA owns two unit trains that are operated by



CLECO in coordination with CLECO's unit trains to bring LPPA's coal to the generation site. We note that recent rail transportation difficulties have resulted in the procurement of small amounts of coal from other mines to support the test burn of various coal blends in the event that coal deliveries become more problematic in the future. LUS indicates that the results of the test burn of the various coals was successful and may be an option in the future.

RPS2 is equipped with a hot electrostatic precipitator for fly ash removal at approximately 99.5 percent design efficiency when burning coal. RPS2 is connected into CLECO's 230kV transmission system. Transmission service for LPPA's portion of the power output from RPS2 is provided pursuant to a transmission service agreement between CLECO and LCG.

In conjunction with our periodic report work for LPPA, we have reviewed certain unit performance measurements provided by CLECO, such as gross and net generation, station service, heat rate, and availability as indicators of plant performance. These performance measurements are provided in Table 5-11.

**Table 5-11**  
**RPS2 Operating Statistics**

	2001	2002	2003	2004	2005	5-Year Average
Gross Generation (MWh)	3,047,186	3,260,784	2,962,806	3,209,806	3,454,019	3,186,920
Station Service (MWh)	198,831	217,305	210,898	225,587	240,478	218,620
Net Generation (MWh)	2,848,355	3,043,479	2,751,908	2,984,219	3,213,541	2,968,300
Station Service (%)	6.5	6.7	7.1	7.0	7.0	7.0
Net Capacity Factor (%) <sup>(1)</sup>	62.2	66.4	60.1	65.0	69.9	64.7
Hours Available	6,836	7,818	7,091	7,508	7,792	7,409
Net Unit Heat Rate (Btu/kWh)	10,869	10,703	10,800	11,053	11,169	10,919
Availability Factor (%) <sup>(2)</sup>	78.0	89.3	81.0	85.5	88.9	83.8
Forced Outage Factor (%) <sup>(3)</sup>	4.6	1.6	3.6	1.4	0.0	2.2
Scheduled Outage Factor (%)	17.4	9.1	15.4	13.2	11.0	14.1

<sup>(1)</sup> Net Capacity Factor is the actual electric generation divided by the maximum the unit is capable of generating.

<sup>(2)</sup> Availability Factor reflects the percent of the time the unit was capable of providing service.

<sup>(3)</sup> Forced Outage Factor reflects the percent of time the unit was removed from service due to an unplanned failure.

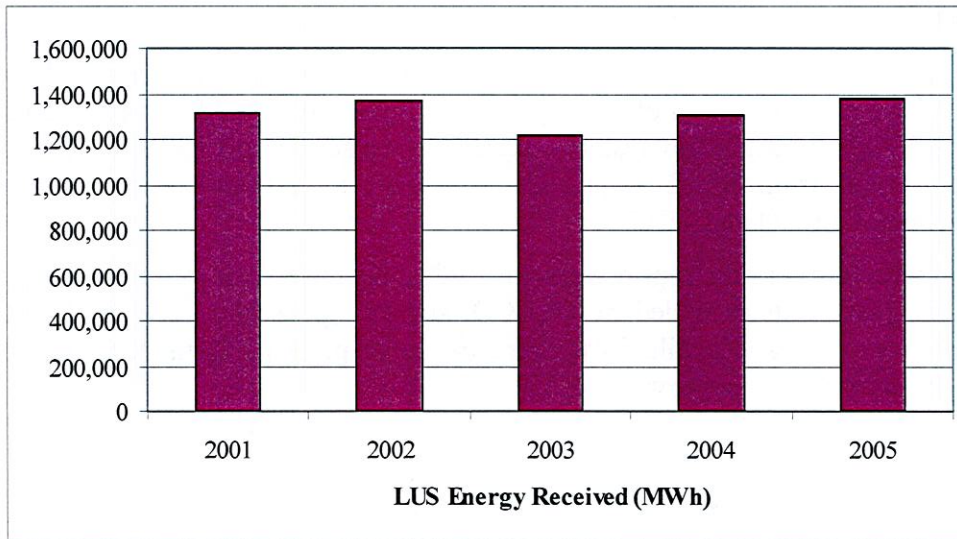
Source: LPPA Manager's Monthly Reports, year ending October 31

The generation statistics shown above are for the entire RPS2 plant, not just LPPA's 50 percent ownership.

Commercial operation of the new CT projects discussed above should work to increase the capacity factor of RPS2. Currently, RPS2 is often curtailed at night because the Doc Bonin Plant is not cycled off-line. With the new CTs in operation, they can be cycled off-line at night resulting in higher nighttime loads at RPS2.

The five-year average availability of the Rodemacher Plant is within the range of expected values for availability at coal-fired power plants of similar size, type and age.

Figure 5-4 shows the MWh delivered to LUS annually from RPS2.



Source: Jeff Stewart, LUS 2/06

**Figure 5-4: Annual RPS2 MWh Delivery to LUS**

### Gas Pipeline

LUS owns one ten mile, 10-inch gas pipeline, which connects to Texas Gas Transmission Corporation and Columbia Gulf Transmission Company pipeline systems. The LUS owned gas pipeline also crosses (but is not interconnected with) two other gas pipelines, Florida Gas Transmission (a subsidiary of CrossCountry Energy, LLC) and Gulf South Pipeline Company, LP. The LUS owned gas pipeline offers an alternative means of supplying gas to the LUS generation facilities in lieu of the above gas supply contract with Crosstex.

## Electric Operations

Scheduling and delivery of reliable energy to the electric utility customers is accomplished through a network of transmission and distribution lines monitored by an integrated communication system and the functions performed by the Electric Operations Division. The discussion below provides a description of the facilities, historical O&M statistics, a summary of the O&M history and plans, and the condition of the facilities as observed by the Consulting Engineer. Additionally, a summary of the major functions of the Electric Operations Division is provided, including transmission, substation, and distribution O&M; inventory management; LUS security, and monitoring of the LUS fiber optic system.



## Transmission and Distribution

LCG's electric transmission system includes 230kV transmission facilities and a 69kV loop. Step-down transformation provides the connection between the 230kV and the 69kV systems and from the 69kV system to the 13.8kV distribution service voltage at 15 substations located throughout the City. The system still has a small amount of 2400 V service at Doc Bonin Plant that will remain in service for the life of the plant. The service area covers approximately 40 square miles and is primarily residential and commercial customers.

The 230kV transmission system is comprised of 15.6 miles of line with interconnections to CLECO at Pont Des Mount Substation in the north, two 138kV ties to Entergy at the Doc Bonin Plant Substation, a 138kV tie to CLECO at the Flanders Substation in the southern part of the City, and a quasi radial tap from the Flanders Substation to Beadle and Elks Substations. The Elks Substation has an autotransformer connecting the 230kV and 69kV systems. The 69kV system has 25.6 miles (not including the Elks Substation to Hargis-Hébert Substation) of line with multiple loops throughout the north and central parts of the City. There are 14 distribution substations typically consisting of two step-down transformers with two to three feeders each, and the T. J Labbé Plant transmission/generation substation. The distribution system has 70 13.8kV feeders with 451 miles of overhead lines and 348 miles of underground cable.

## Operating Statistics

The Electric Operations Manager monitors outages and categorizes them by three primary groups: tree-related, animal-related, and equipment-failure-related. It was reported that tree-related outages were reduced by 27 percent and even more significant, preventable tree-related outages were down by 71 percent. Animal related outages were down 2 percent and equipment failure-related outages were down 9 percent. Tree trimming activities through the use of outside contractors has made continuous progress. The majority of the power lines have had maintenance and it is expected that tree trimming will begin the second pass through as based on the three year tree trimming cycle. This will be the first time in the supervisors 6-year term that tree trimming will beginning the second cycle on time.

Based on conversations between LUS staff and the Consulting Engineer, it appears that reliability continues to be increasing and is within acceptable parameters, and that LUS staff is committed to continuing existing tracking and prevention procedures. However, the number of customers affected by an outage is currently estimated by the field crews, which could affect the outage statistics. In addition, the database is a customized Access database and the responsible staff person keeping the records is retiring next year with no plans for succession. It is not known how the outage statistics will be tracked once the staff person has retired. The GIS system, once completed, can assist in providing more accurate information pertaining to outages and the number of the customers impacted.

## Section 5

Continuous recording of outage data allow staff to quickly identify changes in reliability. Recent historical indices for LUS are summarized in Table 5-12 and Table 5-13 summarizes the same metrics for similar electric systems in the region.

**Table 5-12**  
**LUS Reliability Index Summary**

Year	System Average Interruption Duration Index (SAIDI) Minutes/Customer	System Average Interruption Frequency Index (SAIFI) Interruptions/Customer
1997	153.9	2.34
1998	106.2	2.16
1999	102.9	2.52
2000	65.9	1.42
2001	86.1	2.10
2002	78.4	2.13
2003	64.0	1.20
2004	60.1	1.41
2005	56.0	1.32

Note: The LPSC does not set any minimum for municipally owned utilities.

Source: Ron Landry 02/06, LUS

**Table 5-13**  
**2004 Reliability Index for Similar Utilities**

Energy Provider	SAIDI Minutes/Customer	SAIFI Interruptions/Customer
Entergy	143.4	1.56
Louisiana Valley Electric Cooperative	115.2	2.74
Claiborne Electric Cooperative	207.0	2.48

Note: The LPSC does not set any minimum for municipally owned utilities.

Note: At the time of this Report, 2005 data was not yet available.

Source: Brian McManus, Louisiana Public Service Commission

In addition to the above reliability indices, LUS also monitors crew response time and trouble-shooter response time, which have been reduced from last year's numbers. The response times are as follows:

Average Crew Response Time: 2004 – 20.9 / 2005 – 19.5 minutes

Average Trouble-shooter Response Time: 2004 – 35.5 / 2005 – 26.2 minutes

## Operations and Maintenance

### General

Predictive and preventative maintenance on the system continue to improve the reliability of the electric system. One of the reasons that LUS has been able to demonstrate a high level of system reliability is due to their commitment to equipment



monitoring. Infrared scanning, formal testing programs, and visual inspection continue to enhance the reliability of the electric system.

The LUS Substation Section has implemented the CASCADE (a propriety software system) which is a computerized Maintenance Management System ("CMMS"), for the scheduling and tracking of equipment maintenance. The program can provide assistance with predictive and preventative maintenance items. The results of the oil analysis are also being utilized for the scheduling of major power equipment. Maintenance may be initiated following a predetermined time interval or number of events that "trigger" the need, where triggers could be gas levels, breaker operations, or tap operations to name a few. A Breaker Oil Analysis and Tap Changer Signature Analysis is also used in the predictive maintenance program. These programs should allow LUS to better utilize resources.

**Table 5-14**  
**Maintenance and Equipment Schedule**

	Frequency
Distribution Oil Breakers	2 Years with Triggers
Distribution Gas/Vacuum Breakers	5 Years with Triggers
Transmission Oil Breakers	3 Years with Triggers
Transmission Gas/Vacuum Breakers	5 Years with Triggers
Power Transformers	3 Years with Triggers
Transformer Oil Analysis	Annually
Breaker Oil Analysis	Annually
Distribution Electro/Mechanical Relays	2 Years
Distribution Microprocessor Electronic Relays	3 Years
Transmission Electro/Mechanical Relays	2 Years
Transmission Microprocessor Electronic Relays	3 Years
Batteries	Annually

LUS, using a hand-held infrared device, schedules the following equipment each year to be scanned to identify system weakness or potential overloading conditions:

- Transmission line 69kV and higher
- Distribution lines 13.8kV
- Substation breakers
- Substation bus
- Substation transformer bushings
- Switches

Infrared testing was performed for all substations in August and September of 2005 and a few issues were identified. These were corrected in 2005 and more significant



repairs are scheduled for 2006. Each discovery reflects a case where an electric system outage most likely was prevented.

In addition to infrared scanning, substation transformers are subjected to annual preventive maintenance and testing programs. Bi-annual tests on distribution breakers include oil filtering, oil dielectric tests, contact resistance tests, operational tests and protective relaying tests. Three year maintenance on transmission breakers entails the same testing as distribution equipment with additional maintenance and checks done on hydraulic pneumatic, SF6 systems, and motion analysis. Transformers 2500kVA and above are tested periodically. The transformer turns ratio ("TTR") and sudden pressure relay testing are done on a 3-year basis. Doble analysis is performed every five years and oil analysis is performed annually. In 2004, all breakers and LTCs at 69kV and higher voltages were analyzed using the Breaker Oil Analysis and Tap Changer Signature Analysis tool, totaling 138 tanks. This equipment is scheduled for retesting in 2006. The substation power transformer tanks were tested in 2005.

The monitoring of the 230-138kV CLECO-tie power transformer T5 continued in 2005 due to problems discovered in 2001. Recent test shows that the gas levels are consistent over the past few testing cycles indicating that the transformer condition has stabilized. Presently, T5 is being loaded to 70 percent of nameplate for normal conditions and near nameplate ratings under contingency cases due to a CLECO and Entergy 500/230kV substation addition. With the known issues of the shifting of the core, LUS staff is concerned with the reliability of T5 at the higher load level. A reactor was installed by Entergy/CLECO to better control power flows and reduces potential over loading conditions. In addition, LUS engineering staff has performed power flow analysis under normal and contingency conditions and the results show that all system components are within loading limits, even if T5 is out of service. T5 should be monitored to see if there are any changes in results of the testing.

Another type of reliability test is the visual inspection of all substations. LUS field crews visually inspect all substations on a weekly basis. This includes visual analyses of transformer bushings, the general substation environment, feeder voltages, battery water levels, alarms, and nitrogen bottle levels. Regular maintenance schedules have been extended again in 2005 due to a shortage of available manpower, the change in the supervisor position, and the concentration of effort required for installing the Luke Substation and the T. J. Labbé Plant. Of the 197 high voltage breakers, 48 breakers are due for maintenance and ten of the 47 power transformers are due for maintenance. LUS has 891 protective relays and 247 relays are overdue for calibrations. Plans for 2006 include using a combined effort of outside contractors and LUS resources to reduce the number of overdue maintenance items concerning relay testing and calibration. All battery banks in the substations were tested in 2004 and visually inspected in 2005.

### Transmission and Distribution

The Transmission and Distribution section ("T&D") dispatches all electric, water and wastewater field crews and performs O&M activities for the electric system. The total staffing level in this section was 45 as of October 31, 2005, including the Section Supervisor. Operation and maintenance activities include but are not limited to new



line construction, line rebuilds, relocation projects, trouble-shooting, equipment installation and maintenance, and tree trimming. The T&D line crews are comprised of four overhead line crews, two underground crews, two streetlight crews, and two service crews. The T&D crews are currently understaffed, running at approximately 95 percent of the available positions. Despite recruiting efforts, multiple positions have remained unfilled for the past year.

LUS staff report that the transmission and distribution systems have been prudently planned and designed. The capacity of the transmission and distribution systems are reviewed annually using PTI and ASPEN software analysis programs purchased in 2004 and the results are reported in LUS' Five-Year Planning Report and One-Year Contingency Report. These software programs provide compatibility with the SPP and other utilities interconnected to LUS' transmission system making it more efficient to exchange data and information as required. The analysis concludes that there is sufficient capacity in the transmission system to meet existing and future loads under normal conditions through 2009 and that no system component is loaded above 80 percent of maximum rating. Specific line sections could potentially exceed 100 percent loading under contingency conditions. For these overload conditions, system improvements have been identified and are in the capital improvement plans to resolve the issues.

The distribution system also undergoes an annual power flow analysis of loads and capacities. According to LUS staff, continuing studies find no inadequacies in the distribution system. LUS has continued their efforts in standardizing construction, material specifications, and contract documents, along with close supervision of construction, to ensure that the distribution system operates in accordance with prudent industry practices.

The T&D section conducts a variety of ongoing training classes for its staff including Troubleshooter training, underground systems training, technical training, and climbing labs.

LUS has continued to monitor the street light crew and is planning to combine the service crews and street light crews and form four 2-men crews. Three of these crews will handle service connects and non-arterial street light repairs. The fourth crew will assist in non-arterial street light repairs, but its main function will be to repair arterial lights. LUS is also planning to hire a new underground foreman to give LUS two full underground crews in 2006.

The T&D section's wood pole testing and maintenance program has been in place for several years and continues to aggressively address the integrity of wood poles. Of the original 2000 bad poles identified, there are 267 poles remaining to be replaced. A significant number of the bad poles came from a single supplier. Replacing these deteriorated wood poles is expected to continue in future years. LUS continues to use an ultra-sound tester to facilitate this effort. Each year, LUS utilizes an outside contractor to test the poles with the goal that the complete system will be tested on a 10-year cycle.

For environmental issues regarding transformers, please see Section 9 of this Report.



### Energy Control System

The ECS section is responsible for generating unit commitment, dispatch, the purchase and sale of wholesale power and the operation of the SCADA system for all LUS facilities. TEA performs the wholesale power negotiations and transactions. ECS provides TEA with hourly/daily capacity and load requirement data.

A staff of five operators working 12-hour shifts operates the ECS. In addition, ECS has four electrical engineers (three working primarily on electrical projects and one on water/wastewater projects) and two SCADA technicians. The metering section is staffed by two metering technicians and one metering supervisor. The ECS, Substation, Metering Supervisor oversees the ECS, Substation, and Metering Sections. The ECS Supervisor position is presently not filled. All five operators are NERC certified. This commitment to training is highly advantageous and will assist LUS in positioning itself in a future environment of electric deregulation. The ECS Division was audited by SPP/NERC in 2005 for compliance with standards and operating procedures and found to be 100 percent compliant in all areas reviewed.

### SCADA System

The SCADA system maintains control of all electric transmission and distribution substation breakers, feeder circuit breakers, and other equipment on the electric system. The SCADA system collects a wide range of electric system operating data and information regarding alarms, system energy flow, voltage, switch positions, protective equipment operations and transmission interchange status. The availability of this data positively affects system reliability, as system status information is instantly available to operations and engineering staff.

In 2000, LUS began the pre-planning process to replace the SCADA system with a full-graphics system. LUS has engaged the services of an Energy Management System ("EMS")/SCADA consultant and currently is under contract with a vendor to provide a full replacement system. The new system has been operational since June of 2005 and anticipate to complete all customization requirements specified by the contract by the end of first fiscal quarter of 2006. In order to better optimize efficiencies and increase LUS' understanding of operating costs, Economic Dispatch and Unit Commitment programs are requirements of the new system. Implementation of this new system is assisting both the Doc Bonin Plant staff and ECS staff in strengthening their coordination and help gain an understanding of operating costs to aid future opportunities for power sales and purchases. It will also help in the refinement and verification of O&M costs, start-up costs, and real-time fuel monitoring data.

The SCADA system is designed for full redundancy including a back-up Master Station and parallel communications paths using dedicated fibers (the T-1 Fiber Optic Network) and Ethernet network. This provides an isolated network enhancing the security and the integrity of the system. In addition, the SCADA network is constantly monitored for security issues and will undergo periodic maintenance to ensure the integrity of the EMS and SCADA system based on NERC requirements.



In 2004, the Doc Bonin Plant fuel monitoring system was completed and made operational on a local level. Final acceptance testing and SCADA connectivity will be completed in 2006. This will provide real time fuel flow data monitoring that will be used to calculate unit efficiencies and allow economic dispatch of the generating units.

LUS continues to provide notice to the SPP that they may terminate membership in that power pool in favor of joining a proposed regional transmission organization. The development of a favorable regional transmission organization has not yet developed and LUS continues to maintain its membership in the SPP.

The ECS system collects data from 15 electric substations, 16 water wells, 5 water towers, and 37 lift stations in the wastewater system. LUS intends to eventually install remote terminal units ("RTUs") at all 127 lift stations. Twenty additional wastewater lift stations are planned for SCADA integration by 2006. This effort was planned for 2005, but the lift stations were not made ready to interface with the SCADA system.

In addition to providing system information and control, SCADA system software also maintains a listing of customer locations where life support systems are in place. When outages affect those locations, SCADA operators contact the customer via telephone and convey information regarding the status of the outage and expected system restoration. When service is restored, customers are contacted again to verify that their service was restored. This pro-active and service-oriented customer focus is representative of LUS' mission statement, strategic plan, goals and policy, and is to be commended.

LUS utilizes load tap changers on each of the distribution power transformers to control the system voltage. The compactness of the LUS service area and general load characteristic has enabled LUS to avoid the use of down-line regulators and individual feeder regulation. The result is savings in material and maintenance cost that are typically incurred by most distribution systems. Load and phase balancing is performed on an ongoing basis and VAR management is achieved by installing fixed and switched capacitors on the distribution feeders to achieve an overall system power factor of approximately 98 percent lagging. Switched capacitors are operated on seasonal settings with voltage and time of day over-rides to control power factors. A higher power factor and balanced load reduces system losses and help achieve lower electrical rates.

LUS also continues to upgrade software systems to improve system graphics and improve its interface capability with the GIS mapping system. The current focus of this effort is on updating databases and graphical information. Information pertaining to the electric transmission, water, and wastewater systems has been entered into the GIS system. The electric distribution primary is 100 percent complete with minor adjustments remaining. The electric distribution secondary has some information included. Field verification is being performed on a feeder by feeder basis using GPS coordinates for poles, manholes, padmount transformers, and meters. The field verifications will continue through 2005 and be completed in the second quarter of 2006. Additional database fields are being populated where the data was non-existent.



### Metering

Metering maintains high accuracy levels through a formal testing program. The program tests all commercial and industrial meters that fall under one of the following categories:

- For commercial and industrial customers, every meter is tested once every five years.
- Meters that reflect a deviation of 30 percent or more from the same month, one year-ago, are tested.
- Metering checks all active accounts with little or no electric consumption.
- Meters are tested whenever customers express concern about the accuracy of their bills.

In addition to these scenarios, LUS has in the past conducted random testing of residential meters to determine whether the program should be extended to residential meters. The testing has concluded that it would not be cost effective to extend the program to residential meters.

If a problem is detected through any of the aforementioned procedures, the meter is replaced and tested. If the meter is found to be out of tolerance, it is recalibrated and re-furnished for future use. If necessary, the customer's bill is adjusted based on the findings of the meter test report and historical electrical consumption. Meter Services section issues a monthly report of the top commercial and industrial users. This list aids the identification of meters that require testing. The Meter Shop also keeps abreast of the latest technology available in the meter industry by replacing older obsolete meters with new microprocessor digital meters that provide more accurate readings, thus maximizing revenues. We agree with the progress in meter testing and recommend its continued focus and expansion.

### Substation and Communications

The Substation and Communications section includes 6 employees, which is down two positions from previous years due to two positions being moved to the fiber network. It is responsible for 15 electric transmission / distribution substations. The substation and communication section has highly trained personnel, which has contributed to the achieved reliability.

LUS has also completed or initiated several substation and transmission projects to improve system reliability. Major projects include:

- Luke Substation was energized in 2005. The new station was incorporated into the 69kV loop between Doc Bonin and Guilbeau. This station provides for additional reliability and relieves existing load in this area. This is inclusive of all protective relaying.
- Warehouse Substation. Existing power transformers were replaced with two new LTC transformers. These transformers will allow for greater control of system voltage.



- T. J. Labbé Switchyard. 230/13.8kV was completed and energized in 2005. This yard provides 230kV switching capabilities inclusive of all protective relaying.
- Replacement of 69kV breaker of Elks Substation. This breaker provides tie point with CLECO's Breaux Bridge line.

Currently, substation loads are well within maximum capabilities. During 2005, LUS reports no substation was loaded above 80 percent of its rated capacity during normal operating conditions. Based on project load growth, all substations will be below 80 percent of capacity through 2009 under normal conditions. Under specific contingency conditions, system components could exceed 100 percent of the rated capacity. System improvements have been identified and included in the capital improvement plans.

Spill prevention plans and formal spill procedures are in place for all substations. Some substations have berm walls for oil spill containment and all larger substations have oil spill cleanup materials on site (see Section 9).

No training has been provided for the substation maintenance crews in the past two years. The 2006 budget has funded new training for the substation crews on the ABB DPU relays and future plans call for in-house crews to start performing all the maintenance and testing for the DPU distribution feeder relays. Outside contractors are currently being used to test all electro-mechanical and electronic relays.

A fiber optic based communications system (the T-1 Fiber Optic Network) to link all substations and replace the aging microwave system is in place and functioning. Replacement of the microwave system with a fiber optic system has allowed LUS to keep pace with the increasing communication requirements of a sophisticated protection system. These improvements are recommended and consistent with the high level of customer service commitment made by LUS. The fiber communications system will also provide opportunities for LUS to provide other kinds of communication services using excess capacity in the system.

### **Condition of the Property**

The electric transmission, substation, and distribution facilities are in good condition and are being well maintained. Older facilities are in need of upgrades, such as electronic relays and site upgrades. In general, capital improvements projects are being completed on time based on the 5 Year Planning Report. LUS completed the Luke Substation, several 69kV transmission line reconductoring, equipment replacements, SCADA Master Station, Electronic Bill Presentation and Payment ("EBPP"), and the design of the Elks Substation upgrades, the Hargis-Hébert Substation and interconnecting 69kV transmission line.

### **Facilities Management**

The Facilities Management Division is responsible for inventory control of electric, water, wastewater, and, as of 2005, the fiber optic materials. Additionally, the



Facilities Management Division is responsible for security at all LUS facilities. This was comprised of a combination of in-house and contracted security staffing.

LUS has implemented certain aspects of a vulnerability assessment conducted in 2004 at the Walker Road complex. In 2005, LUS installed controlled access on all exterior doors at the LUS Engineering/Operations Complex, and at the vehicle gate at Walker Road. This allowed the elimination of contracted security guards after-hours at that location. Implementation of restricted "card access" in conjunction with a newly instituted "ID Badge Policy" and enhanced security measures at the Doc Bonin Plant, has improved security at the Walker Road complex. In addition, one substation has video monitoring on a trial basis to determine if it is feasible to monitor additional sites.

The Facilities Management Division has completed the construction of a new truck port, which allows all T&D line and bucket trucks to be housed under roof. Additionally in 2005, warehouse renovations were completed, linking two existing warehouses, creating added enclosed space for LUS material. This renovation included upgrading office space for warehouse staff, and enlarging space for warehousing of fiber optic material. A second storage area is located off of Bowers Road on the north side of the Doc Bonin Plant.

Based on current inventory levels, the size of the warehouse and lay down yards are insufficient at the Walter Road Complex and inventory is stored where ever space will allow. Underground and overhead conductor reels are still being stored outside and are subject to the elements. This causes deterioration of the reels and water penetration in the underground cable. We recommend that this type of material be stored in a covered facility to reduce damage and wasted materials.

Currently, space is limited at the Walker Road Complex. There is, however, unused space where the existing oil storage tanks are located. Although one or more of the existing fuel oil tanks will likely be retained for operational purposes, storage space could be recovered if the other tanks are decommissioned and removed (see Section 9 for more details regarding the fuel oil storage tanks). Any consideration of this option, however, should include an evaluation of potential contamination discovery and remediation requirements associated with tank and piping removal and construction of a covered facility and potential safety issues involving a nearby operational fuel oil tank. The four tanks contain product, but have not been used in over ten years.

## System Maintenance Expenditures

The amounts expended for maintenance of the electric system for the 1996 through 2005 are provided in Table 5-15.



**Table 5-15**  
**Electric System Annual Maintenance Expense**

Year	Power Production	% Change	Transmission & Distribution	% Change	Total Maintenance	% Change
1996	\$1,116,822		\$1,654,229		\$2,771,051	
1997	1,046,799	-6.3%	1,665,082	0.7%	2,711,881	-2.1%
1998	3,618,321	245.7%	2,169,851	30.3%	5,788,172	113.4%
1999	1,542,773	-57.4%	1,957,589	-9.8%	3,500,362	-39.5%
2000	1,876,497	21.6%	1,961,922	0.2%	3,838,419	9.7%
2001	1,909,819	1.8%	2,346,324	19.6%	4,256,143	10.9%
2002	1,334,979	-30.1%	2,195,752	-6.4%	3,530,731	-17.0%
2003	1,945,965	45.8%	3,049,982	38.9%	4,995,948	41.5%
2004	2,903,976	49.2%	3,798,654	24.5%	6,702,630	34.2%
2005	\$3,373,997	16.2%	\$3,584,330	-5.6%	\$6,958,327	3.8%

Source: LUS Financial and Operating Statements

Note: Does not include Operations, Customer Accounting & Collection, Customer Service & Info or A&G

The annual maintenance expenses for the Power Production Division have nearly doubled over the last few years. Along with inflation, the increased maintenance costs are primarily associated with steam turbine outage work at the Doc Bonin plant and increased utilization of the Doc Bonin plant due to curtailments of the RPS2 resource. Doc Bonin plant utilization should decrease and RPS2 utilization should increase in the near term as certain regional transmission upgrades have been completed and the new LUS peaking generation resources are in commercial operation. While the growth in maintenance expenses for the Power Production Division slowed in 2005, we do not anticipate a significant decrease in maintenance expenses going forward because many deferred projects at Doc Bonin are now proceeding since these units are seeing less utilization and there is more time available to schedule longer outages. Some of these projects include a steam turbine inspection on Unit 1 (last inspection was 1999), some delayed boiler maintenance work on the air heaters, tubes and expansion joints on Units 2 and 3, painting on Units 2 and 3, and maintenance on the oil storage and supply system on all 3 boilers. There is capital money allocated for the larger scopes of these projects, but substantial maintenance expense will be incurred on pump repairs, piping rehab, MCC maintenance, etc. during these outage periods. The strategy is that when LUS load grows back into the capacity of the Doc Bonin plant it will be well maintained and reliable when called upon to run.

The annual maintenance expenses for the Transmission and Distribution portion of the Electric Operations division have steadily increased since 1996. The large increases seen from years 2002 to 2004 are due to T&D expenses no longer being capitalized, but being recorded as maintenance expenses.



## Additions to Plant

Table 5-16 provides the fixed plant and equipment expenditures made during 2005. LUS accounts for such expenditures by using a capital work order system. All extensions or improvements made to the Utilities System are considered economically sound or otherwise necessary for the profitable operation of LUS.

**Table 5-16**  
**Capital Workorder Expenditures for 2005**

Source of Funds	Electric
Normal Capital/Special Equipment	\$4,466,681
2004 Revenue Bonds	88,934,708
Retained Earnings	4,831,226
Total	\$98,232,616

Source: "Status of Construction Work Orders" Joan Parish, LUS, 2/06.

## Capital Improvement Program

LUS established a system improvement program, CIP, in 1989. The program is a five-year "look ahead," and is revised annually to plan for and manage the major capital projects for the electric system.

We recommend that LUS review and continue to improve the management of the CIP, including the cost and schedule estimation and control processes. Schedules and the estimated costs of each project should be refined as the project moves from conceptual design to detailed construction design. This will allow a detailed budget and schedule to be established two to six months prior to commencing the project.

The estimated annual capital budget requirement amounts are shown in Table 5-17 and were obtained from LUS' capital budget October 2005.

One major generation addition is planned for 2006. The installation of two LM6000 CTs at the Hargis-Hébert Plant. The total capacity to be added is nominally 100 MW.

Future improvements to the electric distribution system include upgrading of circuit protection, replacing poles, line extensions, re-conductoring, and construction of new circuits, feeders and ring buses.

A new Luke distribution substation was placed in service in 2005 and two of the four distribution feeders were energized. The T.J. Labbé Plant Substation was connected to the transmission grid with Hargis-Hébert Plant Substation to be energized in the first quarter of 2006. Two distribution transformers with LTC replaced the obsolete transformers at the Warehouse Substation. The 69kV breakers at Elks Substation were replaced and two sections of the 69kV transmission line were Reconductor to larger cable to meet the grown electrical demand.

The estimated requirements for improvements to the electric department through October 31, 2010 are summarized in the following table. Each year, as the City



revises its five-year CIP for the Utilities System, the priorities for each of the work items are re-examined by the managers, giving consideration to improvements then in process, and to the developing patterns of growth in the area to be served by the City. This review process needs to be improved in order that priorities and costs are established which are more manageable, and therefore, budget planning becomes an accurate reflection of reality.

**Table 5-17**  
**Estimated Annual Capital Requirement Appropriations**  
**Electric System Improvements (\$1,000)**

Year	Acquisitions	Distribution	Production	Substation	Transmission	General	Total
2006	\$700	\$400	\$4,575	\$4,020	\$300	\$4,845	\$14,840
2007	1,000	200	910	165	680	660	3,615
2008	1,000	1,100	610	4,640	2,130	310	9,790
2009	1,000	100	710	250	1,826	10	3,896
2010	<u>1,000</u>	<u>100</u>	<u>30</u>	<u>100</u>	<u>100</u>	<u>10</u>	<u>1,340</u>
Total	\$4,700	\$1,900	\$6,835	\$9,175	\$5,036	\$5,835	\$33,481

Source: LUS 5-Year Capital Outlay Program Summary, FY 2005-06 Adopted Budget, Combined Summary Retained Earnings and Bond Capital

## Key Issues, Goals, and Achievements

The following are some of the challenges or key issues that LUS and R. W. Beck have identified:

- Limit impact of fuel price volatility.
- Balance staffing levels and workload.
- Utilization of assets, facilities and properties.
- Enhancing the communication and coordination between the power plant operations staff, ECS operations staff, neighboring utilities, and the SPP.

The LUS continues working toward meeting these challenges by setting the following goals related to the electric utility:

- Attract and retain adequate staffing and experience levels.
- Develop best practices-based Energy Risk Management Policy and associated procedures related to power and fuel transactions.
- Completing the GIS mapping system.
- Developing and maintaining relationships with power marketers and other utilities in addition to LUS' traditional business associates in the wholesale power market.
- Maintaining tree trimming program in order to continue reducing tree-related outages.
- Develop succession planning to replace retiring staff.

## Section 5

- Provide training to personnel as needed.
- Hold monthly interdepartmental coordination meetings.
- Continue monitoring of statistical operational data and mapping of unit characteristics.
- Develop a plan to address the existing Microwave communication system.
- Develop a plan for addressing the oil storage tanks at the Doc Bonin Plant to better use the space.

During the past year achieved the following accomplishments:

- Completed construction of the T.J. Labbé Power Plant.
- Energized the Luke Substation and two distribution feeders.
- Continued with significant system improvements and upgrades consistent with the five-year capital improvement budget.
- Operated the system in a manner consistent with prudent utility practice.
- SCADA/EMS Master Station is fully operational and the old SCADA system has been decommissioned.

## Recommendations

Recommendations and their status are provided in Table 5-18. We have indicated the priority of the recommendation as either highest, high or normal.

**Table 5-18**  
**Recommendations**

Electric Utility	Priority	Status
LUS should continue its efforts to investigate new power supply additions for the future	High	Complete
LUS should continue the development of a comprehensive operator training program	High	In Progress
LUS should provide succession planning to replace retiring staff and provide the necessary transfer of knowledge	High	In Progress
LUS should continue to evaluate T&D staffing levels and compensation plans	High	In Progress
LUS should continue to evaluate plant-staffing levels and compensation plans	High	In Progress
LUS should continue transmission and distribution personnel training and develop training for substation relay testing	Normal	In Progress
LUS should continue to install microprocessor relays for new construction and develop plans for replacing electromechanical relays with microprocessor relays	Normal	In Progress



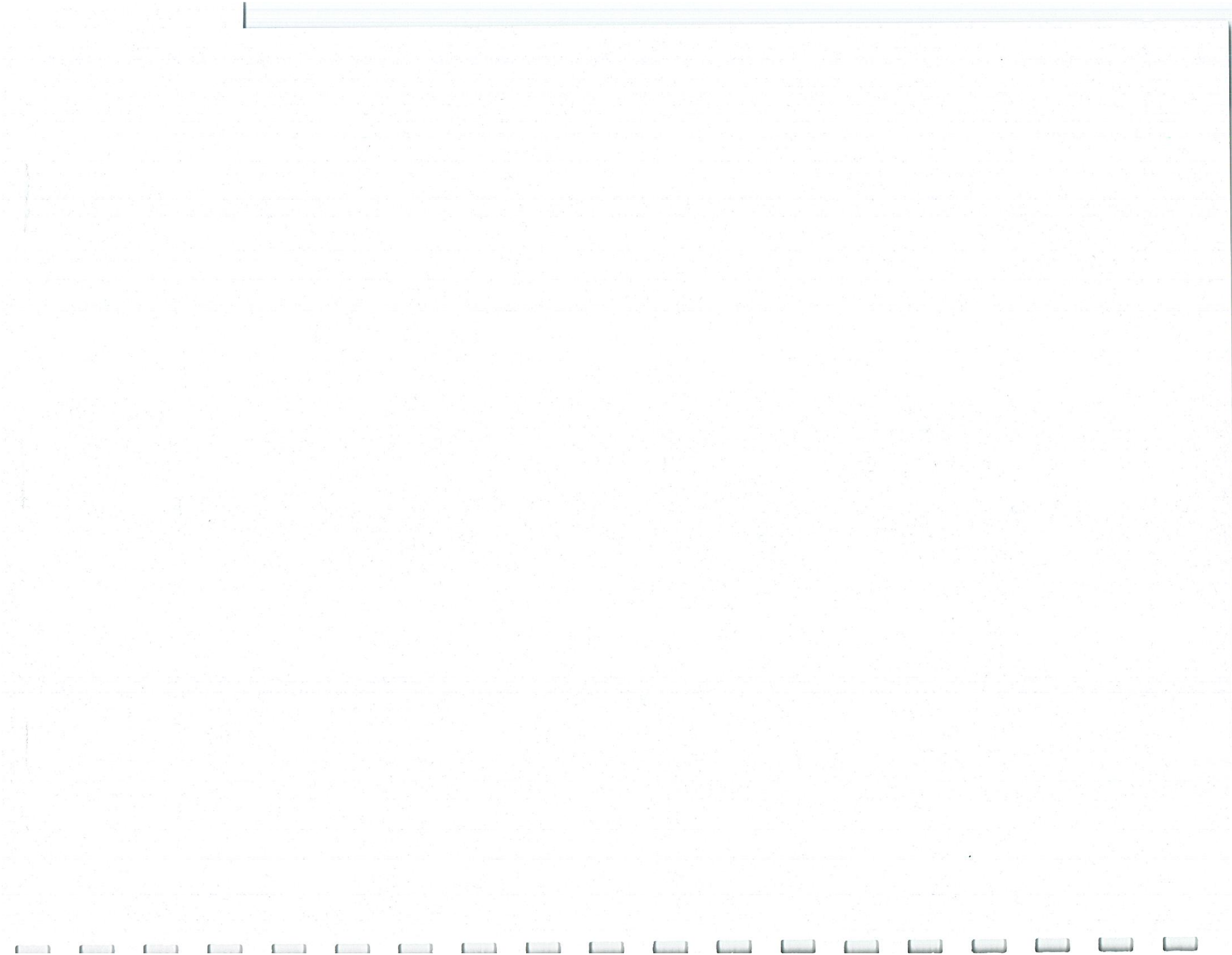
## ELECTRIC UTILITY

Electric Utility	Priority	Status
LUS should continue efforts to complete GIS mapping system	Normal	In Progress
LUS should continue testing generator and other equipment electro-mechanical protective relays at the Doc Bonin Plant through coordination between plant personnel and the LUS transmission and distribution section personnel	Normal	In Progress
LUS should continue the implementation and maintenance of a spare parts and inventory control system, with particular emphasis on the spare parts needs of the new generation projects and other major system components	Normal	In Progress
LUS should continue its implementation and expansion of the preventative and predictive maintenance programs currently in place	Normal	In Progress
LUS should determine the actual heat rate versus output relationship for each of its generating units. The Doc Bonin Plant reports that the project to install energy metering/upgraded gas yard controls of the incoming gas supply is complete. The metering and controls, which is connected to input signals from unit specific fuel flow and generation signals, will provide the actual heat rate versus output relationships forming the basis for economic dispatch and allow the on-line measurement of individual unit heat rates	Normal	In Progress
LUS should perform standard monitoring of the 138/230kV CLECO tie transformer T5	Normal	In Progress
In the transmission and distribution functions, LUS should continue to review OSHA requirements and/or APPA safety guidelines and pursue ongoing training programs for linemen and foremen	Normal	In Progress
LUS should continue to work to implement both internal and external processes to mitigate the impacts of fuel price volatility, including further development of the relationship with a power marketer and development of internal best practices-based Energy Risk Management Policy and associated procedures to set acceptable risk levels related to power and fuel transactions	Normal	Investigating
LUS should expand the 5 Year Planning Report to include a 10-year planning horizon	Normal	Investigating
LUS should proceed with plans to repaint the externals of the Doc Bonin Plant Units 2-3	Normal	Investigating
LUS should continue to review and improve the management of the CIP, including the cost and schedule estimate and control processes	Normal	Investigating











**Section 6**  
**WATER UTILITY**

---





## **Section 6**

# **WATER UTILITY**

---

### **Water Utility System**

This section of the Report sets forth the changes that have occurred to the water system of LUS during 2005. A description and discussion of existing facilities and resources, and summaries of historical service requirements, are presented in the following pages of this section.

During early February 2006, the Consulting Engineer interviewed LUS staff regarding Water Utility operations and performed analyses of operating statistics that are indicative of the general operating condition of LUS' Water Utility facilities.

### **Key Challenges, Issues, and Goals**

Challenges and key issues that LUS has identified for the Water Utility include: security, new water quality regulations, new requirements for certification, succession planning and business continuity issues.

The Water Utility needs to construct capital improvements at water facilities to protect the water system against deliberate, targeted attacks as identified in an evaluation of the Water Utility system required by the Bioterrorism Act.

There is no immediate impact of water regulations already promulgated or under development. LUS continues to monitor legislative activities regarding water regulations both at the federal and state level.

The main issue relating to the new certification requirements is that candidates applying for Water Plant Operator vacancies must attain full certification within six years of appointment. A careful review of the certification requirements suggests that applicants must have two full years of college to meet this six year deadline. However, the current pay scale at LUS appears to be unattractive to candidates with this level of education. The LUS pay rate for new Water Plant Operators may need to be adjusted to attract and retain skilled and certified operators. Further, the Civil Service position description must be changed to reflect these new requirements.

Coupled with the new certification requirements, the Water Utility has several key employees that are nearing retirement based on either years of service or age eligibility.

## Additions to Plant

The expenditures for fixed plant and equipment made during 2005 are presented in Table 6-1. LUS accounts for such expenditures by using a capital work order system. All extensions or improvements made to the water system are considered economically sound or otherwise necessary for the profitable operation of LUS.

**Table 6-1**  
**Capital Work Order Expenditures for 2005**

Source of Funds	Water Utility
Normal Capital/Special Equipment	\$1,298,157
Special Capital	0
Retained Earnings	<u>\$737,888</u>
Total	\$2,036,045

Source: "Status of Construction Work Orders" Joan Parish, LUS 2/06.

## Operation and Maintenance Expenditures

Historical annual O&M expenditures from 1996 through 2005 are shown in Table 6-2 and are graphically displayed in Figures 6-1 and 6-2. O&M costs increased from \$7,360,785 in 2004 to \$8,101,708 in 2005 (\$740,924), a rate of 10.1 percent. Closer examination shows that approximately \$399,000 was due to an increase in General and Administrative Expenses and approximately \$188,000 was due to increase in the Supervision and Engineering, Labor and Supplies, and Expenses components of Purification Expense. These costs are attributed to increases in health insurance cost and re-assignment of costs that were previously capitalized.

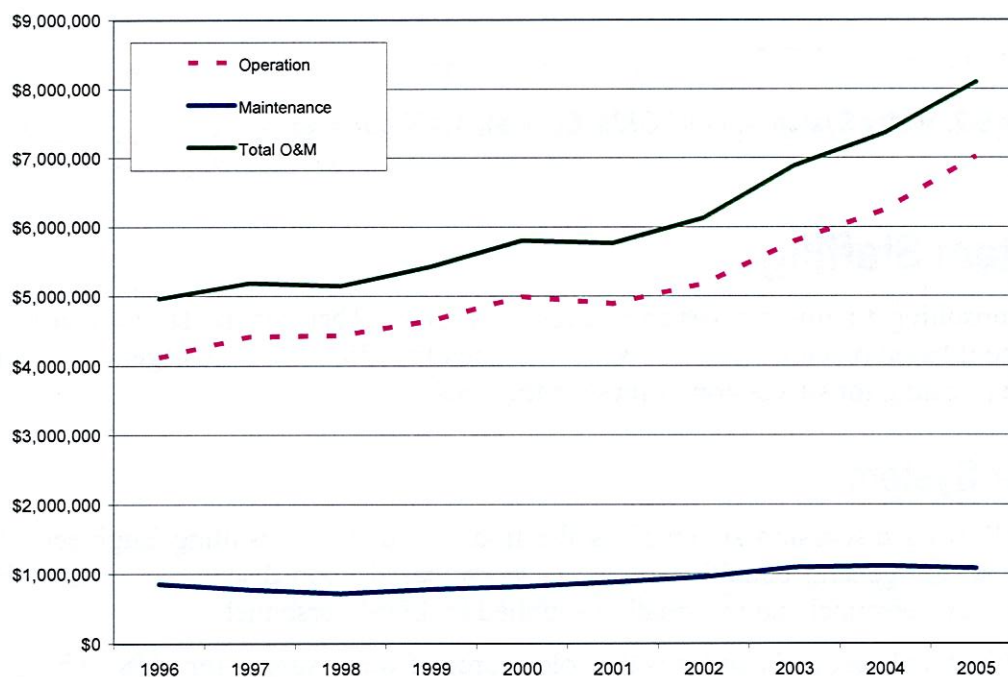


**Table 6-2**  
**Water System Operation and Maintenance Expense**

Year	Operation	Maintenance	Total
1996	\$4,113,916	\$850,581	\$4,964,497
1997	4,420,246	772,946	5,193,192
1998	4,437,304	716,663	5,153,967
1999	4,650,505	779,141	5,429,646
2000	4,991,001	815,534	5,806,535
2001	4,889,916	879,604	5,769,520
2002	5,179,088	953,118	6,132,206
2003	5,791,573	1,091,875	6,883,448
2004	6,245,443	1,115,341	7,360,785
2005	\$7,021,692	\$1,080,016	\$8,101,708

Source: LUS Financial and Operating Statements.

Note: Does not include Customer Accounting & Collection, Customer Service & Info or A&G.



**Figure 6-1: Water System Annual O&M Cost**

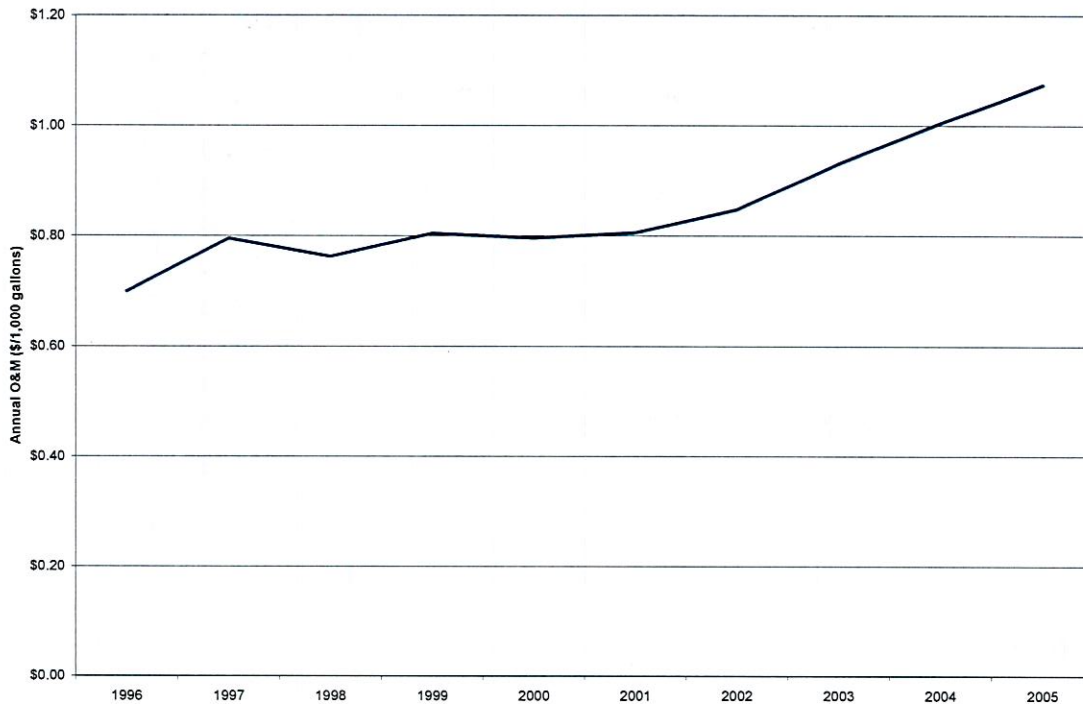


Figure 6-2: Water System Annual O&M (Cost per 1,000 gallons)

## System Staffing

The Consulting Engineer notes that several senior members of the staff are nearing retirement based on either years of service or age eligibility. LUS management should initiate planning for succession of these employees.

## Water System

The following discussion summarizes the findings of the Consulting Engineer with respect to the general condition of the property based upon discussions with utility supervisory personnel and information supplied by LUS' personnel.

The Chicot underground aquifer is the sole source of water supply for LUS. The LUS Water Operations Division has joined with the LDEQ to implement a wellhead protection program for the City's water supply. The LUS Water Operations Division has identified potential contamination sources within the wellhead protection areas and LDEQ is available to take appropriate action to assure contamination is prevented.

The Water System includes 17 wells serving the system with a combined production capacity of 47.7 million gallons per day ("mgd"). In addition, the water system includes two water treatment facilities (the North Plant and the South Plant) which provide for removal of iron and manganese by coagulation, sedimentation and filtration; hardness reduction by a lime-softening process; and chlorination. Well No. 23 (1,000 gpm) located in the southern portion of the water system is intended to



meet peak demand in the weakest portion of the distribution system and is anticipated to reduce the occurrence of low pressures in the area it serves. Minimal water treatment is provided, consisting of chlorination and phosphate addition.

The present treatment capacities of both plants and Well No. 23 are shown in Table 6-3. Although the two plants are each capable of producing over 20 mgd of treated water, the total amount of water that can effectively be delivered to customers is constrained by the capability of the distribution system to deliver the water at an acceptable pressure. The 5-year CIP includes improvements to the distribution system to reduce this constraint. At 90 psi, the total effective production capability is estimated by LUS to be 26.7 mgd.

**Table 6-3**  
**Plant Treatment Capacity <sup>(2)</sup>**

	(mgd)
North Plant	21.5
South Plant	24.0
Well No. 23	1.4
Total Effective Plant Production Capability	26.7 <sup>(1)</sup>

<sup>(1)</sup>Total effective production capability adjusted for a pressure of 90 psi.

<sup>(2)</sup>Treatment Plant capacity is slightly less than total well production capacity.

Treated water storage totals approximately 12.2 million gallons (mg); this includes 4.3 mg of elevated storage and 7.9 mg of ground storage, including pumping station clear wells.

LUS staff has noted that the LUS system is likely to experience difficulty in meeting peak demands of its wholesale customers without addition of water storage either in LUS' system or the wholesale customer's systems. It is recommended that LUS conduct a planning level assessment of such storage requirements and include this in regular planning activities.

LUS has increased the security of its water system by stationing armed, uniformed Sheriff's Department personnel at each water plant 24 hours per day, seven days per week. Security cameras with recorders have been installed at the treatment plants. LUS staff has been provided training in emergency planning and reaction that is integrated with ongoing programs for hurricane emergency response.

## Wholesale Water Sales

In addition to the facilities owned by LCG, LUS operates and maintains the water distribution facilities of certain water districts in accordance with contracts between LCG and the districts. LUS also provides wholesale water service to several water districts and municipalities within the Parish. During 2005, water delivered to wholesale customers amounted to 18.0 percent of the water sold by LUS and 15.7 percent of the revenue. The difference is attributed to the difference between

## Section 6

water rates for wholesale and retail service. Table 6-4 shows wholesale water sales by year for the last five years. Table 6-5 shows wholesale water revenue for the same years.

**Table 6-4**  
**Wholesale Water Sales Volumes (1,000 gallons)**

	2001	2002	2003	2004	2005
City of Scott	283,278	267,036	264,836	271,704	285,683
Water District North	330,563	386,512	291,577	286,737	316,156
City of Broussard	89,482	61,997	63,555	69,216	111,663
Longbridge	0	0	0	0	0
Water District South	227,199	229,469	210,295	228,603	243,106
Milton Water System	99,313	104,944	109,700	79,065	60,631
Town of Youngsville	0	0	62,478	78,208	130,184
Water District North – Wholesale	<u>64,257</u>	<u>72,069</u>	<u>147,668</u>	<u>157,592</u>	<u>156,657</u>
Total Wholesale Water Sales	<u>1,094,092</u>	<u>1,122,027</u>	<u>1,150,109</u>	<u>1,171,125</u>	<u>1,304,080</u>
Total Water Sales (Wholesale and Retail)	7,054,947	7,000,293	7,111,918	6,916,496	7,243,441
Percent of Total Water Sales from Wholesale Sales	15.5%	16.0%	16.2%	16.9%	18.0%

Source: LUS Financial and Operating Statements.

**Table 6-5**  
**Wholesale Water Sales Revenue**

	2001	2002	2003	2004	2005
City of Scott	\$335,506	\$343,443	\$335,133	\$350,499	\$368,531
Water District North	680,289	733,711	608,124	598,741	647,539
City of Broussard	96,279	75,793	79,443	86,519	139,576
Longbridge	0	0	0	0	0
Water District South	281,174	285,446	255,237	285,755	303,884
Milton Water System	111,490	134,882	131,314	97,325	75,787
Town of Youngsville	0	0	78,096	97,758	162,729
Water District North-Wholesale	<u>89,640</u>	<u>91,396</u>	<u>182,594</u>	<u>198,567</u>	<u>197,386</u>
Total Wholesale Water Sales	<u>\$1,594,378</u>	<u>\$1,664,671</u>	<u>\$1,669,941</u>	<u>\$1,715,164</u>	<u>\$1,895,433</u>
Total Water Sales	\$10,891,026	\$11,292,975	\$11,545,449	\$11,600,448	\$12,091,780
Percent of Total Water Sales from Wholesale Sales	14.6%	14.7%	14.5%	14.8%	15.7%

Source: LUS Financial and Operating Statements.



## Unbilled Water Volumes

During the past ten years, the LUS operating results for the amount of unaccounted-for water have been relatively steady. Data for the period 1998 through 2005 are summarized in Table 6-6.

**Table 6-6**  
**Unaccounted for Water Volumes**

Year	Percent Unaccounted-For
1998	2%
1999	2%
2000	2%
2001	2%
2002	3%
2003	4%
2004	6%
2005	4%

Source: LUS Financial and Operating Statements.

The operating statistics for LUS show that unaccounted-for water since 1998 has averaged approximately 3.4 percent annually, which is well below the average for similar water systems. Discussion with LUS staff have concluded that the reason for the decrease in unaccounted for water compared with previously high values is not apparent and implies that the accuracy of the data may be suspect. An audit of water production, distribution, and sales was performed during the first half of 2004. As a result of the audit, LUS has determined that they should put more effort into testing, calibrating and rebuilding large meters to ensure a high percentage of metered sales.

## Drinking Water Quality

LUS, in response to the requirements of the Safe Drinking Water Act ("SDWA"), must prepare and distribute an annual water quality report to its customers. The Water Quality Report includes results of periodic monitoring of the quality of water distributed to LUS customers. The following Table 6-7 summarizes monitoring results for the latest year for which this data is available.

As shown on the table, all monitoring results show LUS water quality to be well within the regulatory limits. Biological water quality is also monitored throughout the system although it is not required to be reported in the annual report.

## Section 6

**Table 6-7  
Water Quality Results**

<b>Monitored Before Any Treatment</b>					
<b>Substance</b>	<b>Major Source in Drinking Water</b>	<b>USEPA Designated Contaminant Level</b>	<b>USEPA Designated Maximum Contaminant Level Goal</b>	<b>LUS Average</b>	<b>LUS Range in Minimum to Maximum</b>
Arsenic	Erosion of natural deposits	10 ppb <sup>(1)</sup>	0 ppb	Less than detection limit	Not detected to 2 ppb
Chromium	Erosion of natural deposits	100 ppb	100 ppb	Less than detection limit	Not detected to 10 ppb
Fluoride	Erosion of natural deposits	4 ppm	4 ppm	0.2 ppm	0.1-0.3 ppm
Gross Alpha Activity	Decay of natural or man-made deposits	15 picocuries per liter	0	0.30 picocuries per liter	Not detected to 2 picocuries per liter
<b>Monitored in the Water Distribution System</b>					
<b>Substance</b>	<b>Major Source in Drinking Water</b>	<b>Maximum Contaminant Level</b>	<b>Maximum Contaminant Level Goal</b>	<b>LUS Average</b>	<b>LUS Range</b>
Total Trihalomethanes (TTHM)	By-Product of drinking water chlorination	80 ppb	—	14.00 ppb	12 to 16 ppb
Haloacetic (HAAS)	By-Product of drinking water chlorination	60 ppb	—	10.75 ppb	2 to 17 ppb
<b>Monitored At Customer's Tap</b>					
<b>Substance</b>	<b>Major Source in Drinking Water</b>	<b>USEPA Designated Action Level (requires treatment) at 90th Percentile</b>		<b>LUS Results at 90th Percentile Testing</b>	
Copper	Corrosion of household plumbing	1.3 ppm <sup>(2)</sup>		0.05 ppm or less*	
Lead	Corrosion of household plumbing	15 ppb		3.5 ppb or less*	

Source: 2004 Water Quality Report, LUS.

\* No individual sample exceeded the Action Level.

<sup>(1)</sup> ppb is parts per billion.

<sup>(2)</sup> ppm is parts per million.

## Historical Water Utility Requirements/Production

The LUS Water Utility has met customer demands for service, and provided its customers with adequate and reliable utility service during the reporting period. The historical water production and growth is presented in Table 6-8.

The growth rate in water production has been approximately 1 percent per year since 1996 while annual growth in the number of customers has been approximately 2 percent per year. In addition to annual requirements, peak day production requirements are also provided in Table 6-8.



The LUS water distribution system consists of 978 miles of pipe, most of which is in the 6-inch to 12-inch diameter range. This represents an increase in total miles of pipe of 1.5 percent above the year 2004 amount. The distribution system includes 19,139 valves and 5,812 fire hydrants.

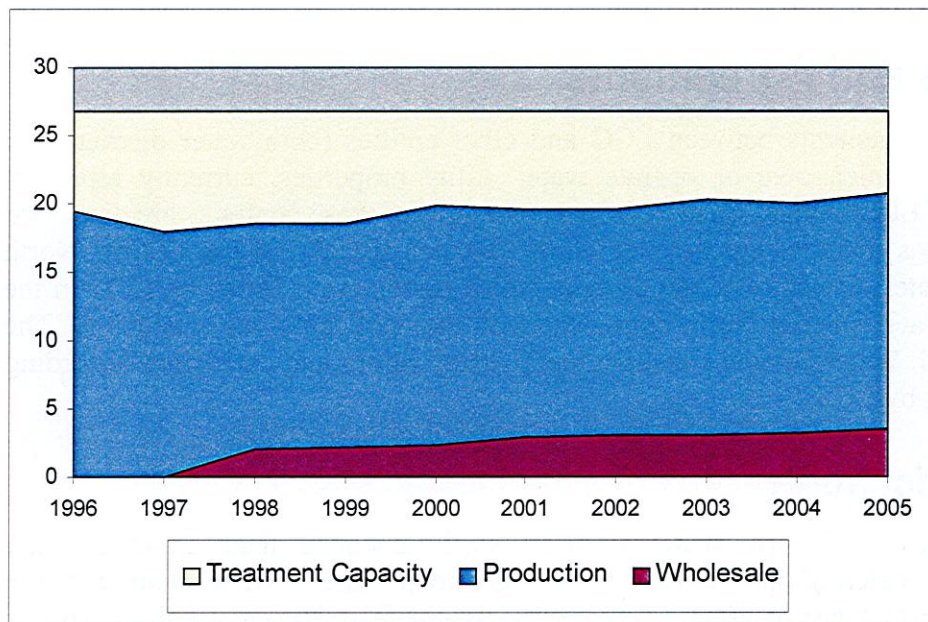
**Table 6-8**  
**Historical Water System Production**

Year	Number of Customers <sup>(1)</sup>	Annual (million gallons)	Annual (mgd)	Peak Day (million gallons)
1996	40,327	7,103	19.4	25.1
1997	41,016	6,536	17.9	26.2
1998	41,886	6,761	18.5	24.1
1999	42,673	6,754	18.5	25.1
2000	44,220	7,294	19.9	26.5
2001	44,339	7,159	19.6	23.2
2002	44,444	7,237	19.8	24.4
2003	45,726	7,392	20.3	25.7
2004	46,622	7,326	20.0	23.0
2005	47,529	7,545	20.7	26.3

(1) Number of meters in service.

Source: LUS Financial and Operating Statements and LUS Water Production Division.

Total water production is shown in Figure 6-3.



**Figure 6-3: Water Production (million gallons per day)**

As shown in Figure 6-3, total water production since 1997 has increased only slightly while wholesale sales have steadily increased. Total retail water sales volume (i.e.

sales to retail customers) has increased slightly since 1997 but recently the volume of water sold per retail customer has decreased by several percent.

Table 6-9 illustrates the historical trends in key water distribution system statistics. Generally, the increase in miles of line, valves, and hydrants has paralleled or slightly lagged the increase in customers.

**Table 6-9**  
**Water Distribution System**

<b>Year</b>	<b>Miles of Main Lines</b>	<b>Number of Valves</b>	<b>Number of Hydrants<sup>(1)</sup></b>
1996	851	16,216	5,150
1997	862	16,514	5,203
1998	873	16,919	5,579
1999	887	17,249	5,634
2000	930	17,623	5,702
2001	934	17,954	5,545 <sup>(1)</sup>
2002	941	18,161	5,605
2003	954	18,495	5,686
2004 <sup>(2)</sup>	963	18,807	5,757
2005	978	19,139	5,812

<sup>(1)</sup> Decrease in 2001 is due to hydrants removed from service for water line relocations.

<sup>(2)</sup> Includes LUS contract service to Water District North.

Source: Tom Simon, LUS 2/06.

## **Contracts and Agreements**

Contractual arrangements between LCG and other entities (both water districts and municipalities), which own or operate water utility properties, currently represent 15.7 percent of LUS' annual water revenues. Features of these contracts are discussed below. LCG has executed agreements with two water districts: Water District North and South. Water service to Water District North customers is billed by LCG in the name of the Water District North consistent with the applicable rate schedules. The North and South Water District construct their own additions and extensions according to standards set by LUS.

### **Water District North**

LCG and Lafayette Parish Water District North amended their existing water agreements by entering into a new water agreement (the "Water District North Agreement") in October of 2002. Term of the agreement is 30 years with provisions for automatic five-year extensions upon concurrence by both parties. Water sales to Water District North amounted to 6.9 percent of total water sales revenue for 2005.

The Water District North Agreement includes the following provisions.



- LCG shall furnish potable water to the entire district and operate and maintain all district water distribution facilities except those specifically excluded by the Water District North Agreement.
- LCG shall construct a water production facility in the northwest region of Lafayette Parish and place it in operation within 12 months of purchasing the site.
- Plans and specifications for District facilities that LCG is obligated to operate and maintain must be approved by LCG as conforming with LCG material and construction standards.
- LCG shall provide meter reading services and customer billing services for all Water District North retail and wholesale meters in accordance with the rate schedule adopted by the Water District North.
- In the event that an area within the Water District North is annexed to LCG, the District properties within the new corporate boundaries shall be sold to LCG by the Water District North upon request by LCG. Calculation of the payment for acquiring the Water District North's properties is described in the Water District North Agreement.

## **Water District South**

This district serves the southern portion of Lafayette Parish, which is neither currently incorporated as a municipality nor included in another water district. The LUS water sales to the Water District South represent approximately 2.5 percent of the total LUS water revenues for 2005.

The wholesale service agreement with Water District South was signed in August 1995 and terminates in August 2035. The agreement provides for delivery of wholesale water to the Water District South's distribution system. Revenues for water service are billed and collected by the Water District South. LUS provides operational assistance.

## **Other Wholesale Water Contracts**

LCG has also entered into contracts to provide wholesale water service to the following entities.

- LCG sells water to the City of Scott, Louisiana, for distribution and resale under a 25-year contract, which terminates May 27, 2022. Water is delivered to the City of Scott at several interconnection points. Water sales to the City of Scott represent approximately 3.0 percent of total LUS water sales revenues for 2005.
- Under the provisions of a contract effective on December 24, 1998 with a term of 40 years, LCG may sell water to the Town of Youngsville, Louisiana for distribution and resale. Water sales to the Town of Youngsville first occurred in 2003 and represent 0.5 percent of LUS water sales revenues for 2005.

## Section 6

- LCG and the City of Broussard, Louisiana signed a 40-year water supply contract, which expires on March 5, 2038. Water sales to the City of Broussard represent approximately 0.7 percent of the total LUS water sales revenues for 2005.
- LCG serves the Milton Water District under a 40-year contract signed April 28, 1997. Water sales to Milton represent approximately 0.6 percent of the total LUS water sales revenues for 2005.

A summary of the contracts and agreements for the Water Utility is provided in Table 6-10 below.

**Table 6-10**  
**Contracts and Agreements**  
**LUS Wholesale Water Sales**

Contracts and Agreements	Date Signed/Renewed	Termination Date
Water District North Consolidated Contract	October 17, 2002	October 17, 2032
Water District South	August 21, 1995	August 21, 2035
City of Scott	May 27, 1997	May 27, 2022
Town of Youngsville	December 24, 1998	December 24, 2038
City of Broussard	March 5, 1998	March 5, 2038
Milton Water District	April 28, 1997	April 28, 2037

Source: Ron Gary, LUS, 2/06.

## Forecasts

Forecasts of water use for the five-year period of 2006 through 2010 are presented below in Table 6-11. The forecasts reflect the current assessment of expected growth for the five-year period.



**Table 6-11**  
**Water System**  
**Projected Requirements**

Year	Production Requirements <sup>(1) (2)</sup>	
	Daily mgd	Peak mgd
2005 (Actual)	20.7	26.3
2006	21.6	25.4
2007	21.9	25.8
2008	22.1	26.1
2009	22.3	26.3
2010	22.5	26.6

<sup>(1)</sup> LUS estimates that the above projections will increase by approximately 15% based recent flow data. This increase is related to new growth on the system.

<sup>(2)</sup> Includes unaccounted-for volumes.

LUS has completed a System Development Plan that is intended to provide a basis for long term planning of the Water Utility system.

Although system growth is projected to grow incrementally, experience has shown that a block of new customers can be added to the system with little or no notice, resulting in a sudden increase in demand. This occurred recently when the Holiday Gardens area was added to the LUS system following bankruptcy of the water system operator that was established by the real estate developer. This occurrence added approximately 400 customers to the water system. There is a possibility that similar circumstances can occur in the future with similar results.

LCG has adopted a water ordinance to assist in reducing the occurrence of low pressure in the water distribution system. The ordinance is directed at reducing peak system demand by restricting watering of lawns to the hours between midnight and 2 p.m. Enforcement of the ordinance began in August of 2001. LCG's ordinance requires wholesale customers to enact similar restrictions or be subject to restrictions on supply of water by LUS during the period from May 1 to September 30 of each year.

## Future Regulatory Requirements

The SDWA passed in 1974 and amended in 1986 and 1996, gives the USEPA the authority to set standards to protect drinking water. USEPA has delegated responsibility for implementing drinking water standards to the Louisiana Department of Health and Hospitals.

There are two categories of drinking water standards: primary and secondary. Primary standards are legally enforceable standards that apply to public water systems. Primary standards protect drinking water quality by limiting the levels of specific contaminants that are known or anticipated to occur in water. Secondary standards are

## Section 6

non-enforceable guidelines regarding contaminants that may cause cosmetic or aesthetic effects. Primary standards go into effect three years after they are finalized. If capital improvements are required, USEPA's Administrator or a state may allow this period to be extended up to two additional years.

New and proposed rules and standards, listed below in Table 6-12, are in various stages of development and publication.

**Table 6-12**  
**New and Proposed Rules**

Rule/Regulation	Compliance Date	Comments
Arsenic Rule	January 2006	Establishes maximum contaminant level of 0.01 mg/L for arsenic in drinking water
Groundwater Rule	August, 2006	Requires monitoring for fecal contamination in distribution system and corrective action as needed
Stage 2 Disinfectants and Disinfection Byproducts Rule	Three Years from Final Rule	Requires assessment/monitoring of system for byproducts of disinfection

LUS is aware of these regulations and has or will incorporate the requirements into current and future operations. Compliance with the regulations is not anticipated to require major capital expenditures.

The USEPA upgraded water treatment plant operator certification requirements on February 5, 1999 upon publication of "Federal Guidelines for the Certification and Re-certification of the Operators of Community and Non-transient Non-community Public Water Systems." In April 2002, the State of Louisiana implemented these guidelines and changed the Louisiana Administrative Code Title 48; Chapter 73 entitled "Certification." The changes require LUS to upgrade the qualifications of its water treatment plant operators by April 2006. This could result in higher wages for operators although the magnitude of any increase is not known at this time. We recommend that LUS consider developing an operator certification (and recertification) program.

## Capital Improvement Program

LUS established a system improvement program in 1989. The CIP is a five-year "look ahead," which is revised annually and is a means to plan for, and manage, the major capital projects for all utilities, including water.

The estimated annual capital budget requirement amounts are presented in Table 6-13 and were obtained from 5 Year CIP in the LCG Adopted Budget for fiscal year 2005-2006.

Major improvements and additions to the water system for the next five-year period include:

- Hypochlorite conversion (primarily to reduce risk of chlorine gas release)



- Water Transmission System Improvements
- New Booster Supply Well (Well No. 24)
- Downtown Street Improvements
- Various line relocations

The installation of additional wells and construction of piping improvements are intended to improve distribution of water into the system and reduce occurrences of low system pressure.

**Table 6-13**  
**Capital Improvement Program 2006 – 2010 (\$1,000)**

Year	Production	Distribution	Totals
2006	\$975	\$2,775	\$3,750
2007	100	1,725	1,825
2008	100	650	750
2009	375	500	875
2010	<u>100</u>	<u>775</u>	<u>875</u>
Total	\$1,650	\$6,425	\$8,075

Source: LUS 5-Year Capital Outlay Program Summary, FY 2005-06 Adopted Budget, Combined Summary Retained Earnings and Bond Capital.

## Key Issues

LUS' Strategic Plan, updated in 2004 (but not reviewed in 2005) addresses the following areas:

- Vision, Values and Mission
- Goals and Key Results Areas
- Cost Containment
- Customers and Community
- Operations
- Performance

Strategic planning elements for each of these areas that are specific to the Water Utility are listed below.

## Cost Containment

- Continue Risk Management chlorine training for LUS personnel
- Review operation standards of other water/wastewater service providers for planning and feasibility

## Customers and Community

- Continued association with American Public Power Association (“APPA”), Water Environment Federation (“WEF”), and American Water Works Association (“AWWA”).

## Operations

- Develop a more interactive database for storing hydrant maintenance information
- Install pressure limiting devices at master metered locations
- Filter rehabilitation at North Water Treatment Plant
- Implement safety and security upgrades
- Develop additional water supply project in northwest Lafayette Parish
- Maintain progress in implementing planned Water Utility capital projects
- Maintain active involvement in water planning organizations and trade associations
- Maintain active involvement in legislative development
- Maintain compliance with drinking water regulations
- Plan and implement selected recommendations of R. W. Beck Comprehensive Engineering Report
- Operate within approved budget
- Perform and document water distribution valve exercising program

## Performance Measurement

- Benchmark water/wastewater against AWWA/WEF indices
- Investigate water/wastewater safety issues & establish benchmarks

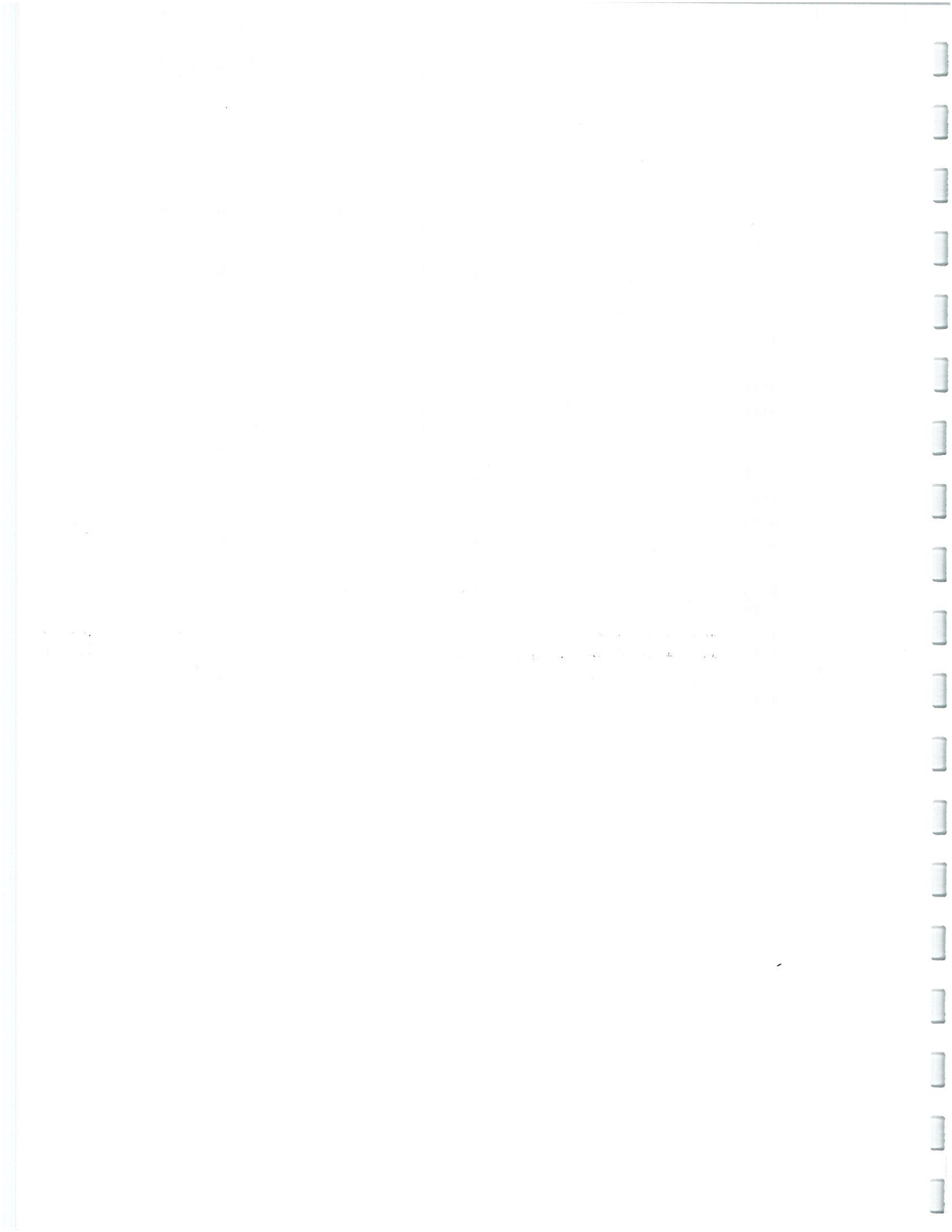
## Recommendations

Recommendations and their status are provided in Table 6-14 below. We have indicated the priority of the recommendation as either highest, high or normal.



**Table 6-14  
Recommendations**

Water Utility Recommendations	Priority	Status
LUS should give priority to constructing booster wells in low pressure areas of system to improve system pressure	Highest	Investigating
LUS should continue to develop in-house expertise with use of water system model and acquire a system capable of modeling time of travel and concentration of introduced pollutants	Highest	Investigating
LUS should consider the following additions to its system to increase system reliability and integrity	Highest	In Progress
<ul style="list-style-type: none"> <li>■ Install additional emergency electric generators at the North Plant</li> <li>■ Install emergency electric generators at all water supply wells</li> <li>■ Install piping at the North and South Plants to allow emergency bypass of treatment units</li> <li>■ Install roofing and covers over the North Treatment Plant treatment units, sludge tanks, backwash tanks and meter pit</li> <li>■ Construct building enclosures of all off-site water wells</li> </ul>		
LUS should give high priority to completing removal of the "Galbestos" building siding at the North Plant	High	In Progress
LUS should initiate succession planning for senior water system management staff	Normal	Investigating
LUS should initiate planning of water storage requirements for wholesale water customers	Normal	Investigating
LUS should consider developing an operator certification (and recertification) program	Normal	New











**Section 7**  
**WASTEWATER UTILITY**

---





## Section 7

# WASTEWATER UTILITY

### Wastewater Utility System

This section of this Report sets forth the changes that have occurred to the wastewater system of LUS during 2005. A description and discussion of existing facilities and resources, and summaries of historical service requirements are presented in the following pages of this section.

During early February 2006, the Consulting Engineer interviewed LUS staff regarding wastewater operations and performed analyses of operating statistics that are indicative of the general operating condition of LUS' wastewater facilities.

### Additions to Plant

Table 7-1 provides expenditures for fixed plant and equipment that were made during 2005. LUS accounts for such expenditures by using a capital work order system. All extensions or improvements made to the wastewater system are considered economically sound or otherwise necessary for the profitable operation of LUS.

Table 7-1  
Capital Workorder Expenditures for 2005

Source of Funds	Wastewater Utility
Normal Capital/Special Equipment	\$671,277
Special Capital	0
Retained Earnings	5,786,655
2004 Revenue Bonds	<u>3,726,858</u>
Total	\$10,184,790

Source: "Status of Construction Work Orders" Joan Parish, LUS 2/06.

### Operation and Maintenance Expenditures

Historical total O&M expenditures from 1996 through 2005 are shown on Table 7-2. Treatment plant maintenance expenses decreased by 2 percent from 2004 to 2005 while collection system maintenance costs increased by 87 percent. The increase is attributed to insurance costs and re-allocation of capitalized costs to annual operation and maintenance.



**Table 7-2**  
**Annual Wastewater System Operation and Maintenance Expense**

Year	Collection			Treatment			Total
	Operation	Maintenance	Total	Operation	Maintenance	Total	
1996	\$517,708	\$961,526	\$1,479,234	\$2,882,182	\$49,627	\$2,931,809	\$4,411,043
1997	599,098	947,445	1,546,543	2,915,586	58,283	2,973,869	4,520,412
1998	687,960	840,815	1,528,775	2,862,296	90,665	2,952,961	4,481,736
1999	678,915	931,017	1,609,932	2,838,603	105,296	2,943,899	4,553,831
2000	737,940	1,052,931	1,790,871	3,116,709	109,496	3,226,205	5,017,076
2001	957,876	1,068,892	2,026,768	3,682,737	123,465	3,806,202	5,832,970
2002	970,139	946,171	1,916,309	3,816,224	113,780	3,930,004	5,846,313
2003	995,725	1,032,366	2,028,092	4,040,399	150,682	4,191,081	6,219,173
2004	1,036,545	1,140,669	2,177,214	4,173,823	153,619	4,327,442	6,504,657
2005	\$1,128,068	\$2,127,847	\$3,255,915	\$4,460,572	\$150,416	\$4,610,988	\$7,866,903

Source: LUS Financial and Operating Statements.

Note: Does not include Customer Accounting & Collection, Customer Service & Info or A&G.

## Wastewater System

The following discussions summarize the findings of the Consulting Engineer with respect to the general condition of the properties based upon discussions with utility supervisory personnel and information supplied by LUS personnel.

The four principal wastewater treatment facilities are the South Plant, the East Plant, the Ambassador Caffery Parkway Plant, and the Northeast Plant. The four treatment plants, the type of treatment, the permitted capacity, and the estimated capacity for each facility are shown in Table 7-3.



**Table 7-3**  
**Wastewater Treatment Plants**

Facility	Treatment Facilities Type	Permitted Capability (mgd)
South Plant	Activated Sludge	7.0 <sup>(1)</sup>
East Plant	Oxidation Ditch	4.0
Ambassador Caffery Plant	Rotating Biological Contactor (RBC) and Oxidation Ditch	6.0
Northeast Plant	Oxidation Ditch	<u>1.5</u>
Total		18.5

<sup>(1)</sup> Hydraulic capacity is 9.0 mgd.

Source: Craig Gautreaux, LUS 2/06.

The wastewater collection system consists of gravity sewers, interceptors, manholes, pumping stations and force mains, as tabulated in Table 7-4.

**Table 7-4**  
**Collection System**

Total miles of pipe	538 <sup>(1)</sup>
Manholes	10,646
Pumping Stations	141

<sup>(1)</sup> Adjusted from previous years due to computation error.

Source: Craig Gautreaux, LUS 2/06.

In the past, the wastewater collection system has experienced excessive wastewater flow resulting in treatment plant bypasses and overflows of the wastewater collection system. The excess flows are attributed to infiltration and inflow of surface and groundwater into the wastewater collection system during and after rainfall. These incidents occurred at various locations in the collection systems serving all four wastewater plants. LUS reported these incidents to the USEPA as required by its wastewater discharge National Pollution Discharge Elimination System ("NPDES") permits. As a result of these reports, the USEPA issued administrative orders ("AO") requiring LUS to take immediate action to stop the overflows and to prepare a report identifying corrective action to prevent additional occurrences.

The AO by the USEPA require the LUS to submit quarterly progress reports as construction of new facilities and repair of existing facilities proceeds. LUS has completed the treatment plant upgrades and expansions required by the AO for the South Plant, East Plant and Northeast Plant. In June 2001, USEPA officially transferred permitting authority for the NPDES to the LDEQ for the South, East and Northeast Plants. Administration of the NPDES permit for the Ambassador Caffery Plant has remained with USEPA due to the AO for this plant. Based on discussions, meetings and correspondence with USEPA, LUS has requested an extension of the

compliance date to March 31, 2007 and the compliance schedule for Ambassador Caffery Plant has been extended to June 2007.

LUS reports that the wastewater treatment plants are in material compliance with their NPDES permit conditions. There are times during or shortly after periods of heavy rainfall when they exceed their permit limits for suspended solids and occasionally biochemical oxygen demand and ammonia. These occurrences are reported to LDEQ by LUS, as required by the permits. The action required by the administrative order described above is intended to reduce flow throughout the system, thereby reducing overflows and bypasses and exceedances. However, there is no assurance the USEPA or LDEQ may not issue future notices of violation in connection with these exceedances.

The wastewater discharge permits for each of the LUS four wastewater treatment plants were renewed in 2003 for a term of five years. The permits for each plant contain the same effluent limits for biological oxygen demand, total suspended solids, ammonia-nitrogen, dissolved oxygen, total residual chlorine and pH. Each plant must, among other things:

- Conduct whole effluent toxicity testing using bioassay methods
- Perform an annual Environmental Audit Report including a resolution from the governing body
- Operate an industrial pretreatment program
- Submit monthly reports to LDEQ

Abandonment of the Driftwood Subdivision wastewater treatment plant and subsequent bankruptcy proceedings against the owner resulted in assignment by court order of operation and maintenance of this wastewater treatment plant to LUS. An NPDES permit was issued in 2004 along with an administrative order to bring the facility into compliance with the permit conditions within three years. LUS intends to connect the subdivision to the LUS sewer system within the three-year time period.

There are three small subdivisions within the Parish that are served by three wastewater plants constructed by the subdivision developer. The developer has abandoned the wastewater facilities due to bankruptcy. LUS anticipates that it will eventually be compelled by court order to take over operation of these facilities. If this occurs, LUS intends to connect the subdivisions to the LUS sewer system and close the facilities.

## Historical Wastewater Utility Requirements

The LUS wastewater facilities have met customer demands for service, and provided its customers with adequate and reliable utility services during the period reported herein. The historical loads and load growth as served by the wastewater system is presented in Table 7-5.



**Table 7-5**  
**Wastewater System Average Day Hydraulic Loads (mgd)<sup>(1)</sup>**

Year	South Plant	East Plant	Ambassador Caffery Plant	Northeast Plant	Totals
1996	6.6	2.9	4.9	1.0	15.4
1997	6.8	3.1	5.2	1.1	16.2
1998	6.7	2.8	5.6	1.2	16.3
1999	6.4	2.3	5.5	1.1	15.3
2000	5.6	2.5	5.2	1.1	14.3
2001	6.9	3.2	5.5	1.2	16.8
2002	7.5	3.0	5.2	1.1	16.8
2003	8.2	3.2	5.2	1.1	17.7
2004	8.0	3.3	5.4	1.3	18.0
2005	6.5	2.9	5.1	1.1	15.6
Permitted Capacity	7.0 <sup>(2)</sup>	4.0 <sup>(3)</sup>	6.0	1.5	18.5

<sup>(1)</sup> Includes infiltration and inflow.

<sup>(2)</sup> Hydraulic capacity is 9.4 mgd.

<sup>(3)</sup> Plant also has 3.0 million gallon equalization.

Source: Craig Gautreaux, LUS 2/06.

Each year, LUS must prepare an annual municipal water pollution prevention audit report for each wastewater plant. The report is submitted to the Parish Council and the LDEQ. The report compares the design hydraulic and biological treatment capacity of each plant with the actual conditions (see Table 7-6).

**Table 7-6**  
**Wastewater Number of Occurrences During Which**  
**Design Capacity was Exceeded**

Flow and Loading	South Plant	East Plant	Northeast Plant	Ambassador Caffery Plant
Flow				
1998	3	0	1	2
1999	3	0	0	1
2000	2	0	0	1
2001	3	3	0	4
2002	8	1	0	2
2003	11	0	0	0
2004	10	3	1	3
2005	3	1	0	1
Biological Loading				
1998	1	0	0	3
1999	1	0	0	8
2000	1	0	0	2
2001	1	1	0	1
2002	1	0	1	14
2003	1	1	0	5
2004	1	0	0	6
2005	0	0	0	3

Source: Craig Gautreaux, LUS 2/06.

It is apparent that the South Plant and the Ambassador Caffery Plant are at or very near their design limits. As described below, both plants are being upgraded.

The South Plant has been upgraded to treat 9.4 mgd of dry weather inflow but capacity is limited to 7 mgd due to sludge digesting and processing limitations. The upgrade included the construction of a 3.5 million gallon retention tank for use during peak wet weather flow conditions. LUS has purchased 18 acres of land adjacent to the South Plant that is available for future expansion and to maintain a buffer between the plant and nearby residences. LUS has also initiated engineering design of improvements to sludge processing to increase total capacity to 12 mgd.

LUS has completed engineering design of additional storage capacity and replacement of the rotating biological contactors with sequential batch reactors at the Ambassador Caffery Plant. Construction started in 2005 with completion of components needed for permit compliance scheduled for 2007. The upgraded capacity will be 9.25 mgd. The upgrade will include the construction of a 7 million gallon retention /equalization basin.

Historical information describing the wastewater collection system is summarized in Table 7-7.



**Table 7-7**  
**Wastewater Collection System**

Year	Number of Customers	Total Miles of Pipe <sup>(1)</sup>	Total Number of Lift Stations
1996	34,475	633.0	106
1997	34,835	621.7	112
1998	35,261	636.8	115
1999	35,695	640.4	116
2000	35,902	647.3	118
2001	35,914	650.9	120
2002	37,420	671.0	128 <sup>(2)</sup>
2003	37,680	673.0	131 <sup>(2)</sup>
2004	38,325	678.0	138 <sup>(2)</sup>
2005	39,056	538.0 <sup>(3)</sup>	141 <sup>(2)</sup>

(1) Not including service lines.

(2) Includes 7 lift stations from Holiday Utilities bankruptcy.

(3) Adjusted from previous years due to computation error.

Source: Craig Gautreaux, LUS 2/06.

The above statistics show that the total pipe in the wastewater collection system has increased at the same rate as the number of customers, while the number of lift stations has increased at a significantly greater rate. The flat topography of the service area means that additional lift stations will be needed as the system expands unless major interceptors are constructed.

The wastewater collection division recorded the number and type of overflows that have occurred in the system. The information is summarized in Table 7-8. LUS staff actively seek rain-related problems during periods of rainfall when normal work assignments are interrupted.

**Table 7-8**  
**Wastewater Collection System Overflows**

Year	Rain Related	Lift Station Equipment Failure	Main Line Stoppage	Broken Pipe	Total	Total Annual Precipitation
1996	51	25	19	5	100	67
1997	69	21	10	4	104	52
1998	60	16	44	6	126	73
1999	34	13	44	11	102	53
2000	6	14	36	9	65	44
2001	39	12	16	2	69	94
2002	40	5	4	4	53 <sup>(1)</sup>	79
2003	40	5	2	3	50	58
2004	141	4	1	3	149 <sup>(2)</sup>	91
2005	34	4	8	5	51 <sup>(3)</sup>	56

<sup>(1)</sup> Does not include occurrences during Category II hurricane event.

<sup>(2)</sup> Includes three large rain events over 10 inches, does not include occurrences during one 17 inch rain event.

<sup>(3)</sup> Does not include overflows caused by electrical outages due to Hurricane Rita.

Source: Craig Gautreaux, LUS 2/06.

In compliance with regulations and administrative orders by USEPA, LUS has initiated a pretreatment, user permit and fee program for the purpose of issuing wastewater discharge permits and pretreatment standards to industrial, commercial and non-residential customers who discharge wastewater to the wastewater collection system. LUS performs this service as a benefit to its customers. If LUS did not have an approved program, these customers could not discharge to the sewer system and would have to construct their own treatment facilities which would very likely be considerably more expensive than discharging to the LUS sewer system. LUS has established a rate for industrial users to recover a portion of program costs. The remaining costs are recovered through wastewater and electric system revenues.

## Contracts and Agreements

Principal contracts and agreements for wastewater services are summarized in the following paragraphs and are listed in Table 7-9.

On June 16, 1975, the City entered into an agreement with Sewerage District No. 6 ("District") to provide treatment and disposal of all sewage collected and to provide the operation and maintenance for the District's sewer system. The term of the agreement is for a period of time until more than 50 percent of the District's customers are located within the City limits.



In August of 1995, LUS entered into a wastewater operation and maintenance agreement with an area known as the Grossie Avenue Area. This area is served by a system that is separately located and owned and consists of a very small number of customers (approximately 50). The 40-year agreement expires in August 2035.

**Table 7-9**  
**Contracts and Agreements**

Contracts and Agreements between		Date Signed/Renewed	Termination Date	Provisions
LCG	Sewerage District 6	June 16, 1975	Until 50% served	Wastewater treatment by LUS
LUS	Grossie Ave Area	August 21, 1995	August 21, 2035	Wastewater treatment by LUS

Source: Craig Gautreaux, LUS 2/06.

## Forecasts

Load forecasts for the wastewater utility system for the five-year period of 2006 through 2010 are presented below. The forecasts reflect the current assessment of expected load growth for the period. The five-year projection of average-day inflow to the wastewater treatment plants is represented in Table 7-10.

**Table 7-10**  
**Wastewater System**  
**Projected Hydraulic Loads**

Year	Average Day Hydraulic Loads (mgd)				Totals
	South Plant	East Plant	Ambassador Caffery Plant	Northeast Plant	
2006	8.1	3.6	5.60	1.4	18.7
2007	8.2	3.7	5.70	1.4	19.0
2008	8.3	3.7	5.80	1.4	19.2
2009	8.4	3.8	5.80	1.4	19.4
2010	8.5	3.8	5.90	1.4	19.6
Permitted Capacity <sup>(1)</sup>	12.0	4.0	9.25	1.5	23.5

<sup>(1)</sup> Includes planned upgrades.

Although water sales are projected to increase by over 15%, this increase is believed to be related to new developments that the wastewater system will not serve.

Source: Craig Gautreaux, 2/06, LUS.

The above forecast of wastewater treatment inflows is based upon recent historical trends for each wastewater plant and taking into account the capability to shift inflow between treatment plants. These projections are subject to change depending upon the success of the inflow and infiltration program in controlling or reducing rain-related effects. It should be noted that there are a number of small package type treatment plants scattered throughout the Parish that serve a total of 2,500 to 3,000 customers.

These systems could, if emergency circumstances dictate, be quickly connected to the LUS system. A sudden increase in wastewater inflow could result. The projections shown herein should be used with prudence and frequently updated based on results of the infiltration and inflow program and additions to the system. LUS plans to re-route wastewater flows among the Ambassador Caffery Plant, the South Plant and the East Plant to avoid overloads and to accommodate construction at Ambassador Caffery. As discussed above, LUS has completed engineering design of improvements and expansions to the South Plant and to the Ambassador Caffery Plant. Upon completion of these projects, neither site will be able to accommodate further increase in treatment capacity due to lack of space. LUS should begin engineering planning for a future treatment plant or plants to provide adequate treatment capacity for areas within the Parish where future growth is anticipated to occur.

## Future Regulatory Requirements

The Federal Water Pollution Control Act Amendments of 1972 and 1977, commonly known as the Clean Water Act, established the basic structure for regulating discharges of pollutants into the waters of the United States. It gives the USEPA the authority to implement pollution control programs such as setting wastewater discharge standards and water quality standards for all contaminants in surface waters. It also funded the construction of sewage treatment plants under the construction grants program and recognized the need for planning to address the critical problems posed by non-point source pollution. Programs implemented by the USEPA that directly affect municipal systems include:

- NPDES Permit Program, including stormwater management, and control of combined sewer and sanitary sewer overflows
- The National Pretreatment Program, emphasizing control and prevention of water pollution from industrial facilities
- Biosolids (sewage sludge) management program promoting compliance with the Federal biosolids rule and practices for managing biosolids
- Administration of the Clean Water State Revolving Fund ("CWSRF")

The USEPA has delegated responsibility for implementing NPDES Permits and setting water quality standards to the LDEQ.

New and existing regulations that may have a future impact on LUS' wastewater treatment plants and related operations are discussed below.

## Sanitary Sewer Overflow Control Policy

In 2003, the USEPA proposed a policy addressing NPDES permit requirements for municipal wastewater treatment plants (serving sanitary sewers) during wet weather conditions. The 2003 proposed policy was intended to provide clarity about managing peak wastewater flows that are sometimes diverted from secondary treatment unit processes during significant wet weather events. USEPA received more than 98,000 public comments and stopped working on the proposal in May 2005 in order to review



different approaches and new information. In October 2005, the Natural Resources Defense Council ("NRDC") and the National Association of Clean Water Agencies ("NACWA") developed joint recommendations to address peak wet weather flow diversions at wastewater treatment plants that are serving sanitary sewer collection systems. USEPA, in December 2005, proposed a policy that is informed by and reflects those joint recommendations.

The proposed policy provides that in limited situations, an NPDES permitting agency can approve anticipated diversions around biological treatment units as a "bypass" in a permit, provided:

- The permittee demonstrates (and the NPDES authority agrees) there are no feasible alternatives to the diversion
- The diversion from the secondary treatment units receives a minimum of primary treatment and any feasible supplemental treatment
- Effluent limitations based on secondary treatment and water quality-based effluent limits will be met

Key provisions:

- All flows diverted from the secondary treatment units in peak wet weather events will receive a minimum of primary treatment and any supplemental treatment or technology shown feasible using the factors outlined in the proposed policy
- Discharges must meet effluent limitations, including the 85 percent removal requirement and other secondary treatment requirements and any other more stringent limitations necessary to meet water quality standards. Existing requirements that discharges meet limits would not change
- Diversions will not be approved when peak flows are largely due to poor collection system maintenance or the lack of investment in or upgrades to treatment capacity
- Diversions are reported to the permitting authority and the public will be notified

The deadline for public comments on the proposed policy was January 26, 2005. USEPA is in the process of reviewing comments and further development of the policy. It appears that the proposed policy might provide some relief to LUS with respect to operating of the wastewater plants during severe wet weather. LUS staff is monitoring development of the final policy.

## Vermilion River Water Quality Standards

Section 303(d) of the 1972 Clean Water Act requires all states to develop a list of their state's impaired water bodies that do not meet state regulatory water quality standards even with the current pollution controls in place. The Clean Water Act requires all states to develop Total Maximum Daily Loads for these waters based on priority ranking. A Total Maximum Daily Loads is a pollution budget for a specific water body (river, lake, stream, etc.) and is the maximum amount of a pollutant from point and non-point sources that it can receive without causing it to violate state water



quality standards. Once the Total Maximum Daily Loads are established, they are then translated into requirements to reduce the contributions of pollutants by point sources such as municipal wastewater treatment plants, industrial wastewater discharges and by non-point sources such as stormwater runoff from agricultural fields. If water quality monitoring shows that the water body is no longer impaired, no further reductions are needed. However, if pollution levels are still unacceptable at the end of a reasonable time period, LDEQ must revise the Total Maximum Daily Loads and implement additional control measures.

The current discharge permits for LUS wastewater plants reflect the Total Maximum Daily Load that were established for the Vermilion watershed after water quality monitoring that occurred in 2003. Requirements to establish stricter wastewater discharge limits did not occur after results of the monitoring were analyzed.

LDEQ adopted Total Maximum Daily Load standards for sulfate for the Vermilion River similar to those for the Atchafalaya River and which are not expected to require LUS to upgrade its wastewater plants to remove sulfate. LDEQ has informed LUS that it will establish Total Maximum Daily Load limits on discharge of mercury to the Vermilion River and has required LUS to conduct testing of its wastewater effluents for mercury starting in 2006 or early 2007. Based on test results, LDEQ could require LUS to implement Best Management Practices for reduction of mercury in its wastewater.

Because the Vermilion River is considered oxygen deficient, maximum waste load allocations have been established for carbonaceous biological oxygen demand and ammonia nitrogen. These allocations limit the quantity of these pollutants that can be discharged to the river. Due to these limitations it is unlikely that LUS will receive any increase its present waste load allocations. This implies that future growth in the wastewater service area will require more efficient wastewater treatment in order to stay within existing allocations. Presently, LDEQ and USEPA are considering a trading program for pollutant discharge allocations. If this occurs it could ease or delay the need for upgrades at the LUS wastewater plants. LUS staff is monitoring these regulatory developments and will incorporate the requirements into planning and capital requirements as they become more definite.

LUS is aware of these regulations and has or will incorporate the requirements into current and future operations. Compliance with the regulations is not anticipated to require major capital expenditures.

## Capital Improvement Program

LUS established a CIP in 1989. The program is a five-year "look ahead," which is revised annually and is a means to plan for and manage the major capital projects for all utility divisions including wastewater.

The estimated annual capital budget requirement amounts are shown in Table 7-11 and were obtained from the LUS Five Year CIP.



Table 7-11  
Capital Improvement Program 2006 – 2010 (\$1,000)

Year	Collection	Treatment	Total
2005	\$13,820	\$14,350	\$28,170
2006	5,090	4,150	9,240
2007	3,450	900	4,350
2008	3,450	650	4,100
2009	<u>2,200</u>	<u>650</u>	<u>2,850</u>
Total	\$28,010	\$20,700	\$48,710

Source: LUS 5-Year Capital Outlay Program Summary, FY 2005-06 Adopted Budget, Combined Summary Retained Earnings and Bond Capital.

## Wastewater System

The wastewater program has seen the greatest growth in the total cost of CIP projects. This is driven by USEPA mandates to eliminate overflows and bypass of wastewater and to reduce inflow and infiltration. Projects planned for the next five years are summarized as follows:

- Rehabilitation of manholes, lift stations, and mainline sewers
- Cleaning of large diameter sewer lines to restore hydraulic capacity
- Television inspection and repair of sewer lines
- Extension of sewer service
- Addition of equalization basins and treatment modifications at Ambassador Caffery Plant
- Improvements to South Plant sludge handling and treatment

Two of the existing treatment plants, the South Plant and the Ambassador Caffery Plant, are both near capacity even with the planned upgrades and additions. LUS has begun evaluating options for providing additional capacity including expanding the South Plant or constructing a new plant or some combination. In addition to the CIP projects, we recommend that LUS implement a certification (and re-certification) training program for its wastewater utility employees.

## Key Issues

The LUS Strategic Plan, updated for 2004 (but not in 2005), addresses the following areas:

- Vision, Values and Mission
- Goals and Key Results Areas
- Cost Containment
- Customers and Community

## Section 7

---

- Operations
- Performance

Strategic planning elements for each of these areas that are specific to the wastewater utility are listed below.

### Cost Containment

- Continue Risk Management chlorine training for LUS personnel
- Review operation standards of other w/ww service providers for planning and feasibility
- Replace/upgrade sludge dewatering equipment at SSTP

### Customers and Community

- Continue to pursue APPA/WEF/AWWA services: information, lobbyists

### Operations

- Implement Environmental Information System (EIS)
- NELAP and LELAP accreditation for wastewater lab
- Implement pretreatment information management database (GERMS)
- Implement Integrated Contingency Plan
- Evaluate use of compost facility for Class A sludge management
- Continuous collection system rehabilitation CIP
- Complete SCADA upgrades in all lift stations
- Complete SCADA upgrades at ACTP
- Implement the I/I component of the Master Wastewater Plan
- Establish an internal system of environmental auditing
- Establish sewer system cleaning/PM program
- Maintain NPDES/LWDPS permits for water/ww/power plants
- Maintain state certification of USEPA standards for QA/QC in laboratories
- Continuous preparation of facilities and documents for LDEQ inspections
- Continue Municipal Water Pollution Prevention program for LDEQ compliance
- Install electric generators at Heymann, Beaver, Acacia, Brown Park lift stations
- Continue "monthly system min/max load report"



## Performance Measurement

- Benchmark water/wastewater against AWWA/WEF indices
- Investigate water/wastewater safety issues & establish benchmarks
- Benchmark water/wastewater against AWWA/WEF indices

## Recommendations

Recommendations and their status are provided in Table 7-12 below. We have indicated the priority of the recommendation as either highest, high or normal.

Table 7-12  
Recommendations

Wastewater Utility	Priority	Status
LUS should continue to develop the wastewater hydraulic model of the system	Highest	In Progress
Continue planning for a new wastewater treatment plant site	High	In Progress
Complete final strategy for sludge processing (Class A/B) and disposal	High	In Progress
Develop policy/strategy for implementing wastewater service Parish-wide	Normal	In Progress











## Section 8

# FIBER UTILITY

---





## Section 8 FIBER UTILITY

---

### Fiber Utility

*'The LUS Powered Network'* is a 65-mile, 96-strand SONET-based fiber backbone infrastructure providing wholesale broadband and high-speed Internet access with direct connections to major carriers with broadband backbone facilities that span the country, called Tier 1 providers ("Fiber Utility"). The Fiber Utility also includes 30 miles of distribution fiber. In 1997, LPUA and the Council approved funding to upgrade the LUS telecommunications capabilities using retained earnings. The initial purpose of the project was to replace an aging and increasingly costly LUS microwave communication system, which was providing internal communications capabilities critical to the operation and reliability of LUS.

The LPUA and the Council approved the installation of a fiber optic cable to replace the LUS microwave system functions. LUS was also authorized to provide enhanced services to LCG and other local, state, and federal governmental entities, as well as third party wholesale customers in the LUS service area. LUS agreed to provide dark fiber to the University of Louisiana at Lafayette in order to connect the main campus and the research park.

The surplus fiber laid the groundwork for high-bandwidth availability of multi-service network connections for use by wholesale customers including Competitive Local Exchange Carriers, Internet Service Providers, and wireless carriers. Each wholesale customer requires specialized applications to promote their business model. LUS Powered Network team works individually with each wholesale customer to determine their telecommunications needs/speeds/applications in order for them to implement their technological ideas while making the most of their financial resources.

The fiber backbone passes within approximately one mile of every home and business in the City, which is considered to be excellent coverage by industry standards. The fiber network has been extended to businesses on an as requested basis by wholesale customers. LUS currently has fiber facilities extended to approximately 116 premise locations.

### System Condition and Capital Requirements

LUS built the fiber optic network in 1999 and began transmitting working traffic in December 2000. Service to wholesale customers began in May 2002 and to date, has exhibited high reliability. For example, during Hurricane Lili (2002) and Hurricane

## Section 8

Rita (2005), hurricanes traveling near Lafayette, the system remained in operation throughout the storms. Capital expenditures for 2005 are shown in Table 8-1.

**Table 8-1**  
**Capital Workorder Expenditures for 2005**

Description	Telecommunications
Normal Capital/Special Equipment	\$50,602
Retained Earnings	<u>1,347,768</u>
Total	\$1,398,370

Source: Joan Parish 2/06.

Capital expenditures in 2005 were a result of extensions to the fiber distribution system and circuit installations required to connect customers and meet growing customer service requirements.

In 2005, LUS continued its evaluation of a retail telecommunications business model that contemplates providing cable, Internet and telephone services to customers within the LUS electric system service territory known as the "Fiber to the Home" project. LUS has retained a telecommunication consultant to evaluate this business venture.

## Customer and Service Offerings

Currently, the LUS Powered Network offers the following services:

- Broadband Service – offers broadband access on the LUS backbone at speeds from 1.544 megabits per second ("Mbps") up to Optical Carrier Level 48 which is 2.4 gigabits per second ("Gbps")
- Last Mile Service – extends major carrier services to the customer premise at speeds between 1.544 Mbps to 2.4 Gbps (also known as "OC 48")
- Packet Services – sends data in packets at speeds between 10 Mbps and 1 Gbps, using either a dedicated or shared packet service
- Direct Internet Access – provides Internet access at speeds from 1.5 Mbps to 45 Mbps
- Customer Premise Equipment Service – offers the necessary equipment to connect customers to the Internet and the LUS fiber network along with monitoring and maintenance services for these routers and transceivers
- Tower Lease Packages – leases space on up to 15 tower locations throughout the City for wireless applications

In 2005, LUS provided wholesale fiber service to 15 governmental, 12 wholesale, and 8 other customers. Other customers include tower lease and dark fiber leases.

LUS has hired an external marketing firm to help develop marketing materials targeting multi-tenant commercial buildings. This marketing effort is expected to attract new customers.



## Financial Performance

Revenue composition by service category for years 2004 and 2005 is shown in Table 8-2. The Non-Reoccurring Connection Fees revenue increase was related to the School Board's customer equipment and fiber extensions to connect 25 additional schools in the City to the network for a total of 28 schools.

**Table 8-2**  
**Revenue Composition by Service Category**

Service Category	2004	2005
Broadband	32.0%	26.9%
Internet	19.0	15.7
Local Loop	23.0	21.7
Other-Tower Lease	13.5	9.4
Customer Premises Equipment	6.1	7.8
Non-Reoccurring Connection Fees	2.9	15.1
Other-Dark Fiber	2.3	1.6
Other	<u>1.2</u>	<u>1.8</u>
Total	100%	100%

Source: Mona Simon 2/06.

## Contracts and Pricing

The LUS Powered Network contracts with customers under a comprehensive standard service agreement for periods of 12 to 60 months. The agreements are flexible and allow customers to add or modify services within the broader terms and conditions set forth in the agreement.

Wholesale pricing is market based and designed to attract new customers. LUS routinely monitors competitor service offerings and prices to ensure its cost competitiveness and strives to offer the lowest priced service for equivalent broadband and Internet services within the City. Customers may receive discounts based on the volume of fiber purchased and the length of the contract term. These incentives enhance the attractiveness of LUS products and services.

## Financial Performance

Fiber wholesale revenues have been indicative of a start-up business with high growth rates as shown in Table 8-3. The fiber wholesale revenues have consistently exceeded LUS' revenue projections.

**Table 8-3**  
**LUS Powered Network Historical Annual Revenues**

Year	Annual Revenues	Percent Change
2002	\$188,990	N/A
2003	485,651	157%
2004	762,256	57%
2005	\$1,272,639	67%

Source: LCG Audited and Financial Operating Statements.

In 2001, LCG began separately recording financial information related to the Fiber Utility. During 2005, LUS management gained the capability of accessing wholesale fiber customer accounting data in a timely manner. Timely financial data is important, as the wholesale fiber business is competitive and steadily growing. During previous years, LUS prepared their own draft financial and operating reports until more timely statements could be provided by LCG. Although duplication of financial reporting still exists, the reports are now accurate and available in a timely manner which is an improvement over 2004.

### Overhead Cost Allocation

Historically, cost accounting for the Fiber Utility has not fully reflected the total cost of the new business. During 2005, the allocation of overhead Administrative and General ("A&G") cost allocations were re-evaluated. The re-evaluation of the A&G costs decreased the Fiber Utility's share of A&G costs by approximately 43 percent from 2004 levels. LUS should continue to investigate how to allocate overhead costs to the Fiber Utility.

Historically, labor expenses have not been properly allocated to the Fiber Utility. During 2005, one foreman and two technicians were transferred into the Telecommunications Operations Division. However, the labor expenses were capitalized in 2005.

### Billing System

As the Fiber Utility wholesale customers continue to increase, the billing system should be re-evaluated to ensure it can handle the demands and specifics related to the fiber wholesale business. The current billing system requires manual handling to enter new customer information and review the monthly bills. The staff time required for this manual review of customer billing could be used more efficiently towards improving the system or working towards gaining new customers. The proposed Fiber to the Home project billing system will likely negate the current billing system inefficiencies.



## Personnel

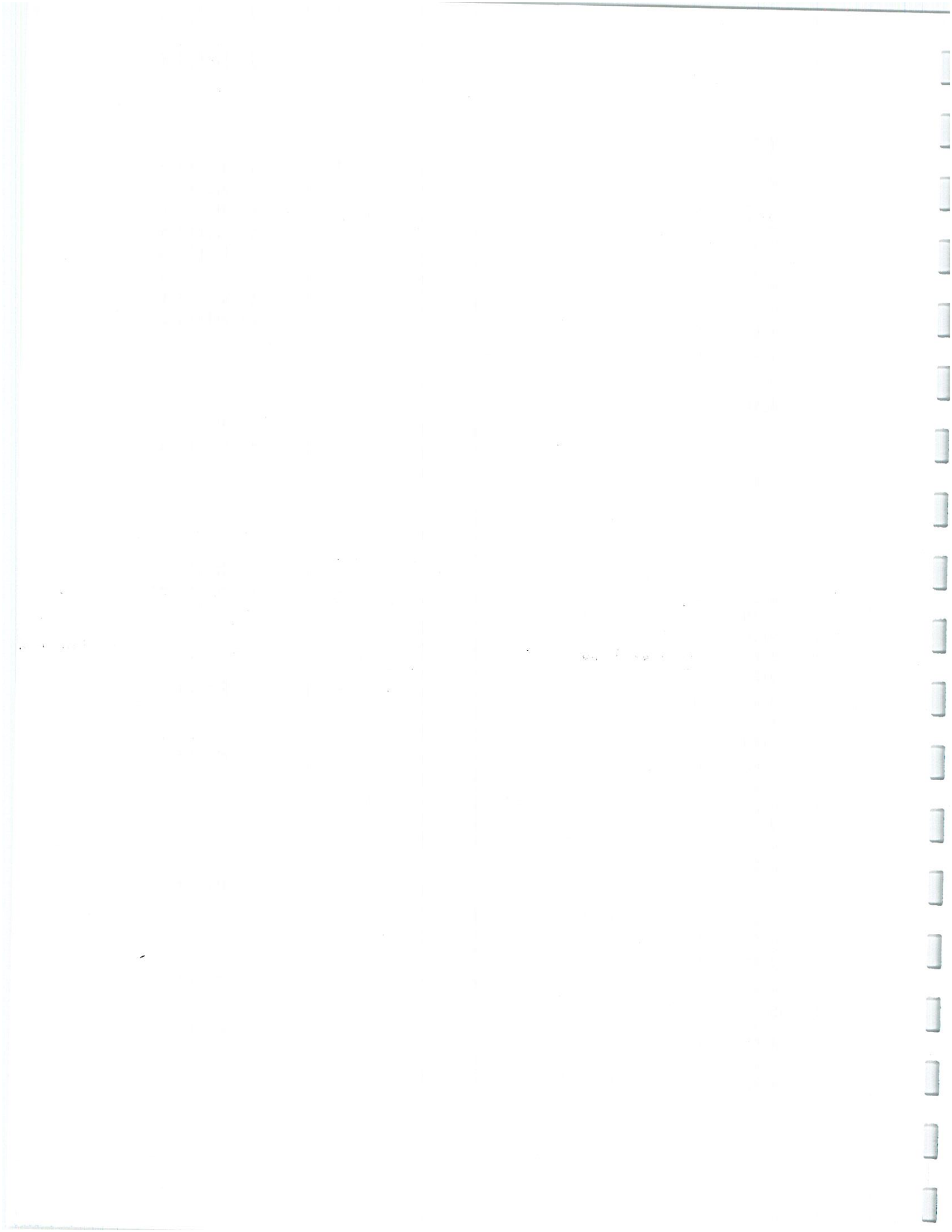
Staffing levels were a major concern in 2005 as the Fiber Utility wholesale system continued to grow. As mentioned above, one foreman and two technicians were transferred into the Telecommunications Operations Division to assist with the operations and maintenance of the Fiber Utility. However, LUS should consider increasing staff levels for functions related to marketing, customer service, billing, and general clerical work of the Fiber Utility, as current staffing levels do not appear to be sufficient. The proposed Fiber to the Home project will likely negate the current staffing level issues assuming LUS can attract and maintain the appropriate personnel for its Fiber Utility.

## Recommendations

Recommendations and their status are provided in Table 8-4 below. We have indicated the priority of the recommendation as either highest, high or normal. During 2005, progress was being made on all of the recommendations below.

**Table 8-4**  
**Recommendations**

Telecommunications Issues	Priority	Status
LUS should focus on hiring additional staff to serve the LUS Fiber Utility customers. Each year the Fiber Utility experiences significant growth and requires staff dedicated to serving the Fiber Utility. The dedicated staff would assist in marketing, billing, and other required services	Highest	New
LUS should develop incremental and full-embedded cost financial reports and pricing analyses to evaluate the short-term and long-term profitability of the Fiber Utility business and specific service offerings	Highest	In Progress
LUS should continue to evaluate how to market their wholesale services within the telecommunications business in recognition that telecommunications is significantly different from a traditional municipal utility. Telecommunications requires head-to-head competition with other service providers that invest heavily in marketing and promotional development	High	In Progress
LUS must improve the flexibility and sophistication of its billing function and the interface of such function with the accounting system. Current limitations in the billing system result in a competitive disadvantage, particularly when pursuing other Tier 1 wholesale customers	High	In Progress
LUS should continue their progression related to properly allocating labor expenses to the Fiber Utility	High	In Progress
LUS should continue reviewing how common costs are allocated to the Fiber Utility. The allocation methodology should consider cost causation and should not be based on revenue allocation methodology	Normal	In Progress











**Section 9**  
**ENVIRONMENTAL ISSUES**

---





## Section 9

# ENVIRONMENTAL ISSUES

---

### Introduction

The LUS electric, water and wastewater utilities are subject to numerous environmental laws and regulations. This section provides a discussion of the current status of major environmental permits and potentially significant environmental liabilities for the Utilities System. This section is not meant to provide a comprehensive environmental compliance assessment of the system and primarily addresses the major laws that affect the electric, water and wastewater systems including: the Clean Air Act and the Clean Air Act Amendments of 1990 ("CAA"), the Clean Water Act ("CWA"), and the SDWA. Requirements of the CAA are addressed through a permit program administered by LDEQ and USEPA. Requirements of the CWA are administered through a permit process whereby any discharge into surface waters requires a NPDES permit. The SDWA establishes standards for public water systems, whereby tap water must meet certain quality standards for different chemicals as established by the USEPA.

In addition to the regulations discussed above, LUS facilities, operations and associated activities are subject to regulations that cover the following areas: waste storage and disposal, superfund liability, groundwater, underground and aboveground petroleum storage tanks, oil spills, emergency planning and community right-to-know, and management of polychlorinated biphenyl compounds ("PCB" or "PCBs"), used oil, pesticides, wood poles, and asbestos.

### Environmental Compliance Division

The Environmental Compliance Division is managed by the Environmental Compliance Manager, Ms. Allyson Pellerin, who reports directly to the Director of Utilities. The Environmental Compliance Division supports the Utilities System in the following areas:

- Regulatory compliance for the electric, water, and wastewater divisions
- Administration of the Industrial Pretreatment Program
- Analytical services relative to analyses of drinking water, wastewater analysis and biosolids reuse

## Electric Generating Stations

LUS operates the Doc Bonin Plant, T.J. Labbé Plant, Hargis-Hébert Plant (currently under construction) and owns an interest in RPS2 in Boyce, Louisiana. Another LUS facility, the Curtis Rodemacher Station in Lafayette, is no longer in operation and is being decommissioned. A brief discussion of environmental compliance and environmental issues at each facility is provided in the sections below and a list of the major permits for each of the plants operated by LUS is provided in Table 9-1.

**Table 9-1**  
**List of Major Permits for LUS Electric Generating Stations**

Permit	Responsible Agency	Expiration Date	Comments/Description
<b>Doc Bonin Electric Generating Station</b>			
Part 70 Operating Permit Number 1520-00002-V0 (Title V Air Permit)	LDEQ	March 24, 2011	Allows for the discharge of air pollutants from the turbine stacks and other major and minor sources located at the site.
Acid Rain Program Permit Number 1520-00002-IV1 (Title IV Air Permit)	USEPA	March 24, 2011	Allows for discharge of acid rain constituents from the turbine stacks and requires the owner to hold annual emissions allowances equal to applicable emissions.
Louisiana Pollution Discharge Elimination System Permit Number LA0005711	LDEQ	October 1, 2008	Allows for the discharge of boiler blowdown, cooling tower blowdown, low volume wastewater, and stormwater runoff to the Vermilion River via local drainage.
<b>T.J. Labbé Electric Generating Station</b>			
Part 70 Operating Permit Number 1520-00128-V0 (Title V Air Permit)	LDEQ	July 20, 2009	Allows for the discharge of air pollutants from the turbine stacks and other major and minor sources located at the site.
Acid Rain Program Permit Number 1520-00128-IV0 (Title IV Air Permit)	USEPA	July 20, 2009	Allows for discharge of acid rain constituents from the turbine stacks and requires the owner to hold annual emissions allowances equal to applicable emissions.
<b>Hargis-Hébert Electric Generating Station</b>			
Part 70 Operating Permit Number 1520-00131-V0 (Title V Air Permit)	LDEQ	September 7, 2009	Allows for the discharge of air pollutants from the turbine stacks and other major and minor sources located at the site.
Acid Rain Program Permit Number 1520-00131-V0 (Title IV Air Permit)	USEPA	September 7, 2009	Allows for discharge of acid rain constituents from the turbine stacks and requires the owner to hold annual emissions allowances equal to applicable emissions.

### Doc Bonin Electric Generating Station

As discussed in detail in Section 5 of this Report, the Doc Bonin Plant is comprised of three electric generating steam units capable of firing natural gas and No. 2 fuel oil. Permits issued to the Doc Bonin Plant generally include all activities of the Walker



Road Complex, which encompasses the Doc Bonin Plant, LUS administrative offices, warehouses, an automobile service station, and a waste collection facility.

### **NPDES Permit**

As indicated in Table 9-1, the Doc Bonin Plant is subject to the requirements of a NPDES. LUS reports that a Stormwater Pollution Prevention Plan has been prepared and implemented pursuant to NPDES requirements. No notices of violation of the NPDES permit were issued by LDEQ in 2005; however, one exceedance of iron concentration was reported in the Discharge Monitoring Reports.

### **Title V Air Permit**

With respect to the Title V Air Permit for the Doc Bonin Plant, a draft initial permit was released for public comment in January 2006. As indicated in the draft permit, Unit 1 and Unit 2 will be allowed to fire either natural gas or No. 2 fuel oil with little restrictions on emissions levels. Additionally, the permit allows unlimited use of Unit 3 firing natural gas and continued restricted use of No. 2 fuel oil for periods when the natural gas supply is interrupted (not to exceed 150 hours per year). Historically, the units at the Doc Bonin Plant have rarely operated on No. 2 fuel oil.

Due to the construction date and size of the Unit 3 boiler, emissions from the boiler must also meet the requirements of the New Source Performance Standards ("NSPS") under the CAA. During 2005, it was observed that the nitrogen oxides ("NO<sub>x</sub>") emissions from Unit 3 were not consistently meeting NSPS requirements. After identification and confirmation of this issue, LUS personnel provided a notification to LDEQ. Since that time, LUS personnel have provided LDEQ with an initial evaluation of potential operational or equipment changes and the results of operational evaluation tests performed Babcock and Wilcox (the boiler manufacturer). The test results suggest that increasing the minimum operating load level of the unit will resolve this issue, and LUS has submitted a proposal to LDEQ to do this. LDEQ has not officially responded to this request or addressed the possibility of issuing LUS a Notice of Violation, Consent Order, and monetary penalty for historic NO<sub>x</sub> exceedances.

Pursuant to the requirements of Acid Rain Program under the CAA, all three units at the Doc Bonin Plant were equipped with continuous emissions monitoring systems ("CEMS") prior to 1996. LUS personnel report that during 2005 the CEMS have complied with the applicable performance specifications for relative accuracy and quality assurance, the required quarterly CEMS reports were submitted to USEPA, and the applicable emissions allowance accounts were covered as necessary.

Pursuant to state requirements, an annual emissions inventory for the Doc Bonin Plant was submitted to LDEQ during 2005.

### **Oil Storage**

The Doc Bonin Plant includes four large fuel storage tanks, which currently contain some No. 6 fuel oil sludge and diesel fuel, as described in Table 9-2 below. LUS indicated that fuel from these storage tanks was not used during 2005.



**Table 9-2**  
**Fuel Oil Storage Tanks**

<b>Tank</b>	<b>Type</b>	<b>Capacity (Gallons)</b>	<b>Contents (Gallons)</b>
Tank No. 1	No. 2 Fuel Oil	440,000	323,000
Tank No. 2	No. 2 Fuel Oil	<u>1,443,000</u>	<u>769,000</u>
No. 2 Fuel Oil Total		1,883,000	1,092,000
Tank No. 3	No. 6 Fuel Oil	2,538,000	101,000 <sup>(1)</sup>
Tank No. 4	No. 6 Fuel Oil	<u>2,538,000</u>	<u>87,000</u> <sup>(1)</sup>
No. 6 Fuel Oil Total		5,076,000	188,000 <sup>(1)</sup>

Source: SPCC Plan and Facility Response Plan, 2005.

<sup>(1)</sup> No. 6 Fuel Oil Sludge.

LUS is reviewing options to retain the use of the No. 2 fuel oil tanks. Due to the age of the contents and the condition of each tank and associated piping, the tanks must be drained, cleaned, inspected, and likely retrofitted with new piping and other associated peripheral equipment prior to future use.

The contents of Tank Nos. 3 and 4 were sold in 1999 (all that remains is sludge), and the forthcoming Title V air permit will not allow for the use of No. 6 fuel oil. LUS is investigating options for removal of the sludge and decommissioning of these tanks.

LUS has prepared and implemented a Spill Prevention Control and Countermeasure ("SPCC") Plan and a Facility Response Plan for the Walker Road Complex and indicated that no reportable spills occurred during 2005. It is noted that some aspects of the Facility Response Plan, including training and retention of an emergency response contractor, are currently in the implementation process.

## **T.J. Labbé Plant**

As discussed in detail in Section 5 of this Report, the T.J. Labbé Plant is comprised of two natural gas fired simple-cycle combustion turbines. Construction was completed during 2005.

## **Title V Air Permit**

As indicated in Table 9-1 above, the T.J. Labbé Plant must maintain compliance with the requirements of its Part 70 Operating Permit and Acid Rain Program Permit. Due to recent federal regulatory changes applicable to combustion turbine units, LUS expects to apply for several permit modifications in 2006 to provide clarity to the existing permit requirements. Compliance during operations is demonstrated by monitoring fuel usage and quality, operating time, and NO<sub>x</sub> emissions with a certified CEMS. LUS personnel report that during 2005 the CEMS have complied with the applicable performance specifications for relative accuracy and quality assurance and



the required quarterly CEMS reports were submitted to USEPA. The requirement to hold the applicable emissions allowance was met March 1, 2006.

Pursuant to state requirements, an annual emissions inventory for the T.J. Labbé Plant must be submitted to LDEQ during 2006. Additionally, quarterly, semi-annual, and annual emissions compliance reports must also be submitted during 2006.

### **Wastewater Discharge**

Process wastewater from the T.J. Labbé Plant, including cooling tower blow down and sanitary wastes, are discharged to the City's sewer system. LUS is evaluating the need to issue an Industrial Wastewater Discharge permit for this facility. Turbine water-wash wastes are collected in the water-wash drain tank, sampled and evaluated, and pumped to the city sewer system or picked up and disposed of by an outside contractor.

### **Oil Storage**

Pursuant to recent regulatory changes, LUS must prepare and implement a SPCC plan for the T.J. Labbé Plant by October 31, 2007. The plan is currently being developed. LUS personnel indicated that no reportable spills occurred during 2005.

### **Hargis-Hébert Plant**

As discussed in detail in Section 5 of this Report, the Hargis-Hébert Plant will be comprised of two natural gas fired simple-cycle combustion turbines. Construction began at the Hargis-Hébert Plant in mid-2005, and completion of construction is anticipated in mid-2006.

As indicated in Table 9-1 above, the Hargis-Hébert Plant must maintain compliance with the requirements of its Part 70 Operating Permit and Acid Rain Program Permit during construction and commissioning activities. Due to recent federal regulatory changes applicable to combustion turbine units, LUS expects to apply for several permit modifications in 2006 to provide clarity to the existing permit requirements.

Other environmental compliance tasks and requirements during the construction and commissioning include the following:

- LUS must evaluate the need to issue an Industrial Wastewater Discharge permit for the facility.
- During construction activities, LUS must continue to maintain compliance with a General Stormwater NPDES permit for construction activities, which includes maintaining the existing Stormwater Pollution Prevention Plan.
- LUS must prepare and implement a SPCC plan for the facility by October 31, 2007. The plan is currently being developed.



### RPS2 in Boyce, LA

As discussed in detail in Section 5, LUS owns a share of the coal-fired electric steam-generating boiler, Unit 2, at the RPS. Since the beginning of 2005, we are aware of the following developments at RPS:

- CLECO submitted an application to build a new wholly owned, coal-fired electric steam generating boiler unit, Unit 3, and public hearings regarding a draft Title V air permit were held during December 2005. Although permitting strategies could have been implemented by CLECO that would have had a negative impact on LUS with regard to capital expenditures or allocation of emission allowances, based on our conversations with CLECO and LUS, we are not aware of any significant impacts this new project will have on RPS2.
- Based on our communications with CLECO, we are of the understanding that the existing permit for the Unit 2 fly ash disposal pond will expire in 2012. At this time it is expected that the permit for renewal will require that the pond be upgraded to a landfill, which will allow for the disposal of more fly ash.
- A draft for the renewal of the NPDES permit allowing the continued disposal of wastewater and stormwater to the Red River Basin was issued for public comment in January 2006. CLECO personnel report that the contents of the draft permit represent a compromise between USEPA and LDEQ with regard to CWA 316(b) applicability. The compromise involves performing a study of the cooling water intake structure while the permit will continue to reflect that the man-made discharge reservoir will not be classified as "Waters of the State." The impacts to LUS as a result of the issued draft permit are unknown at this time.
- During February 2005, CLECO received and forwarded to LUS a Clean Air Section 114 letter from USEPA. This letter requests information pursuant to the Clean Air Act to determine whether projects undertaken at the Rodemacher Power Station may have triggered any of the Clean Air Act's requirements under New Source Review Program ("NSRP"). It is not unusual for electric utilities to have received Section 114 letters from the USEPA. Further, it is noted that during 2005, USEPA revised regulations and guidance regarding the interpretation of routine maintenance, replacement, and repair at power facilities under the NSRP. As a result, power facilities are provided more latitude to perform routine maintenance, replacement, and repair without triggering NSRP and potentially being forced to install emissions controls. CLECO personnel do not expect any actions from USEPA as a result of their response to this letter. Therefore, there is no expected impact on LUS as a result of the Section 114 letter.
- The Clean Air Interstate Rule and the Clean Air Mercury Rule were finalized by USEPA in March 2005. The details of these rules are discussed below. As a result of these regulations, additional costs will be incurred by Unit 2 owners (including LUS) to manage future emissions allowance programs for NO<sub>x</sub> and mercury and a tightened availability of existing sulfur dioxide ("SO<sub>2</sub>") allowances. We are of the understanding that the Unit 2 owners are currently



reviewing compliance options which include installation of new burners and/or emissions control equipment or purchasing unallocated allowances on the open market.

## **PCB Transformers**

The electrical transmission and distribution system includes oil filled electrical equipment. Occasionally, this equipment is replaced and/or repaired which can require disposal of the oil filled contents. A portion of this equipment contains trace amounts of PCBs, which is regulated under the Toxic Substance Control Act. LUS manages their PCB-containing equipment as required by federal and state law and regulations. LUS indicated that there were no PCB transformers (>500 ppm) in its inventory, and they have a program to systematically remove and replace transformers with PCB contamination (>51 ppm). As mentioned earlier, LUS manages the disposal of regulated and non-regulated wastes (including PCB contaminated wastes) from a facility at the Walker Road Complex.

## **Groundwater and/or Soil Contaminated Sites**

Below is a review of environmental compliance activities and known instances of soil and/or groundwater contamination at facilities owned by LUS.

### **Grant Street Substation**

In September of 1991, LUS undertook a project to install and upgrade the electrical capabilities of Grant Street Substation No. 2. During the course of the construction activities, visible traces of petroleum products were discovered in the shallow ground water. Construction was halted and the upgrade plan was suspended.

Subsequent investigations at the site revealed petroleum contamination in the groundwater at the site, under the adjoining property owners' sites and at the nearby Grant Street Substation No. 1. In 2000, LUS submitted a Risk Evaluation Corrective Action Plan ("RECAP") to LDEQ. LUS submitted a RECAP sampling and analysis plan to LDEQ in early 2005 and approved in late 2005. Sampling was performed during late 2005, and the results and scope of future investigations and remediation work are forthcoming. The results of semi-annual ground water monitoring continue to be insignificant. However, future costs associated with soil remediation of this site (Grant Street Substation No. 1 and Grant Street Substation No. 2) could be significant.

### **Beadle Road Substation**

In 2000, LUS began preparing an existing site for a new substation located at Beadle Road. During this process, evidence of subsurface contamination was discovered. LUS removed the sources of contamination from the site and submitted a RECAP to LDEQ in September 2000. In 2003, LUS conducted additional soil sampling at this site and is currently waiting on closure documentation from LDEQ. According to



LUS, there is only a small risk to the environment associated with this site and costs associated with closing out the RECAP process are expected to be insignificant.

### **Curtis Rodemacher Decommissioning**

The Curtis Rodemacher Power Plant has been retired and most of the facility is in the process of decommissioning. Thus far, a new fence has been installed and additional security measures have been implemented and fuel oil tanks, small buildings, above ground piping, boilers, and cooling towers have been removed from the site. Remaining tasks include the remediation of existing PCB contamination and lead-based paint in the power plant building, the demolition the warehouse and power plant building, and the removal of underground piping. Based on current knowledge of the environmental conditions at the site, the process of removing underground piping may identify contamination issues and trigger LDEQ requirements. The long-term plan for the site is still being evaluated, and the future costs associated with remediation of this site could be significant.

### **Water Production and Distribution System**

LUS reports that the North and South Water Treatment Plants are currently complying with their operating permits and meeting all applicable drinking water standards of the SWDA. The South Water Treatment Plant is permitted to discharge wastewater from the treatment of potable water, stormwater and sanitary wastewater under NPDES Permit LA0079278 with an effective date of June 1, 2003 and a term of 5 years.

The North Water Treatment Plant is permitted to discharge wastewater associated with the treatment of potable water under NPDES permit LAG380000 with an effective date of January 1, 2005 and a term of 5 years.

A discussion of the drinking water quality, plant operation, and future regulatory requirements is provided in Section 6 of this Report.

### **Wastewater Collection and Treatment**

The wastewater discharge permits for each of four LUS wastewater treatment plants (Ambassador Caffery, East, South and Northeast) require LUS to regularly test for compliance with permit conditions, and report any violations or exceedences of permit limits, including bypass or overflow of wastewater. A discussion of the plant operation is provided in Section 7. A summary of these permits is included in Table 9-3.



**Table 9-3  
List of Major Permits**

Permit	Responsible Agency	Expiration Date	Comments/Description
<b>Ambassador Caffery Wastewater Treatment Facility</b>			
Louisiana Pollution Discharge Elimination System Permit Number LA0042561	LDEQ	November 1, 2008	Allows the discharge of treated sanitary wastewater into the Vermilion River
<b>East Wastewater Treatment Facility</b>			
Louisiana Pollution Discharge Elimination System Permit Number LA0036382	LDEQ	November 1, 2008	Allows the discharge of treated sanitary wastewater into the Vermilion River
<b>South Wastewater Treatment Facility</b>			
Louisiana Pollution Discharge Elimination System Permit Number LA0036374	LDEQ	November 1, 2008	Allows the discharge of treated sanitary wastewater into the Vermilion River
<b>Northeast Wastewater Treatment Facility</b>			
Louisiana Pollution Discharge Elimination System Permit Number LA0036391	LDEQ	November 1, 2008	Allows the discharge of treated sanitary wastewater into Bayou St. Claire thence to the Vermilion River
<b>Driftwood Subdivision Wastewater Treatment Facility</b>			
Louisiana Pollution Discharge Elimination System Permit Number LA0103764	LDEQ	October 1, 2009	Allows discharge of treated sanitary wastewater into un-named ditch, then to Vermilion River

## Industrial Pretreatment

The Industrial Pretreatment Program ("Pretreatment Program") was implemented in 1984 and is mandated by the LDEQ through the NPDES permits issued to the wastewater treatment plants. LUS manages and enforces the Pretreatment Program to protect the integrity of the wastewater treatment plants and fulfill the following objectives:

- Preventing the introduction of pollutants into the Publicly Owned Treatment Works ("POTW") which will interfere with the operation of the plants, including interference with its use or disposal of municipal sludge
- Preventing the introduction of pollutants into the POTW, which will pass through the treatment works and enter waters of the state
- Reducing the risk of exposure of workers to chemical hazards
- Improving opportunities to recycle and reclaim municipal and industrial wastewaters and sludge

The Pretreatment Program provides a service to the community by allowing industry to discharge pretreated wastewater, to be further treated at the wastewater treatment



plants, in lieu of meeting water quality regulations required for direct dischargers to the waters of the state. The Pretreatment Program regulates significant industrial users with a Wastewater Discharge Permit program which requires monthly reporting requirements and permit fees. Less significant users are regulated under a Best Management Practices program, which enforces a set of guidelines on specified types of industrial activity.

The Pretreatment Program was last audited by LDEQ in 2002. The program was found to be "effectively and efficiently implemented and no significant findings were noted during the audit." Another audit is scheduled during 2006.

As required by the conditions of the NPDES permits, the 2004 Annual Pretreatment Report was submitted in early 2005.

### **Biosolids Beneficial Reuse Land Application Program**

LUS utilizes a land farming program to reuse biosolids that are produced as a result of its wastewater operations and limestone sludge from its water treatment plant operations. This program is operated under a Sewage Sludge Landfarming / Beneficial Reuse Operation Permit (number P-0147) issued by the LDEQ. Compliance with the permit is demonstrated through the sampling, analysis, recordkeeping, and reporting of sludge applied to various properties.

During an internal review during 2005, reporting irregularities were found to have occurred in past reports submitted by LUS to the LDEQ and USEPA. Upon discovery, LUS immediately informed LDEQ and USEPA. No Notices of Violation are anticipated, but as a result LUS has implemented Standard Operating Procedures for the program.

As an alternative to land farming, LUS is considering improving the quality of its biosolids to Class A, which would allow for its use as commercial compost. This alternative may increase the costs associated with sludge disposal; however, this alternative may increase LUS' ability to manage its disposal needs.

### **Spill Prevention Control and Countermeasure Plans**

Electric generation facilities, electric substations, and water and wastewater treatment facilities that are located where oil (or fuel) from a spill could reach navigable waters and have a storage capacity of more than 1,320 gallons at a single facility, must have a SPCC Plan prepared in accordance with federal regulations. SPCC Plans must also be consistent with the Spill Prevention and Control ("SPC") Planning regulations of the state. Recent modifications and proposed modifications to the applicable federal regulations include a requirement to review, revise, and implement SPCC Plans for existing facilities and develop and implement SPCC Plans for new facilities (constructed after July 2002) in accordance with the modified regulation by October 31, 2007. An important requirement of the revised SPCC regulation will be



the implementation of a recognized engineering standard for inspection and maintenance of the large fuel storage tanks at the Doc Bonin Plant. Such a standard will require tanks to be drained, cleaned, and internally inspected on occasion. It is also noted that the recently proposed regulation issued in December 2005 provides some relief from the existing requirement to ensure secondary spill containment for oil filled electrical equipment.

## Future Environmental Regulatory Obligations

During early 2005 the USEPA finalized the Clean Air Interstate Rule ("CAIR") and the Clean Air Mercury Rule ("CAMR"), which will affect power facilities in Louisiana. The CAIR rule will affect all LUS power plants and impose a regionally expanded cap-and-trade program for NO<sub>x</sub> emissions allowances and a reduced pool of a SO<sub>2</sub> allowances currently traded under the Acid Rain Program ("ARP"). As required by CAIR, the details of the NO<sub>x</sub> cap-and-trade program are currently under review and development by LDEQ and must be finalized by September 2006. The CAMR rule establishes standards of performance for new and existing coal-fired electric utility steam generating units and establishes a national cap-and-trade program for mercury emissions allowances.

The CAIR rule applies to electric generating units that are currently subject to Title IV of the CAA (known as ARP), which includes the RPS, Doc Bonin Plant, T.J. Labbé Plant, and the Hargis-Hébert Plant. The rule will be implemented in two phases. Phase 1 NO<sub>x</sub> reductions begin in 2009, while Phase 1 SO<sub>2</sub> reductions begin in 2010. Phase 2 reductions begin in 2015. Under the cap-and-trade program, existing sources would be allocated SO<sub>2</sub> allowances in proportion to the existing SO<sub>2</sub> allowances that were allocated under the ARP. The rule specifies a 50 percent reduction in allowances for 2010 and a 65 percent reduction for 2015. NO<sub>x</sub> allowances will be distributed to states. The method of allocating NO<sub>x</sub> allowances to existing sources is currently under review by LDEQ. Allocations of NO<sub>x</sub> or SO<sub>2</sub> to LUS plants may not cover all emissions during future years. Under such circumstances, LUS would be required to purchase allowances. Alternatively, LUS could modify equipment, install emissions controls, and sell allowances on the open market.

CAMR establishes national caps for mercury emissions from coal-fired electric utility steam generating units, which includes Unit 2 at the RPS. The first phase cap of 38 tons per year becomes effective in 2010 and a second phase cap of 15 tons per year is effective beginning in 2018. Under the rule, facilities will be allocated allowances and must hold one "allowance" for each ounce of mercury emitted in any given year. Allowance allocations for individual plants and units have not been determined at the present time.

The CAMR is closely tied to the CAIR, since it is expected that significant reductions in mercury emissions can be obtained as a "co-benefit" of controlling emissions of SO<sub>2</sub> and NO<sub>x</sub>. Due to the nationwide emission reductions expected to be achieved as a result of CAIR rule implementation, it is not expected that any facilities will be required to add controls for mercury in order for the Phase I cap of 38 tons per year to be met. In addition to emission limitations, CAMR contains requirements for

performance testing, initial compliance, and continuous compliance demonstrations. It is too early to determine the final implications of CAMR to the RPS2 stakeholders (including LUS).

### Recommendations

Recommendations and their status are provided in Table 9-4 below. We have indicated the priority of the recommendation as either highest, high or normal.

**Table 9-4**  
**Recommendations**

Environmental Issues	Priority	Status
LUS should continue dialog with LDEQ regarding Doc Bonin Plant Unit 3 NO <sub>x</sub> emissions compliance and aggressively evaluate the proposed compliance strategy to bring this issue to a conclusion.	High	In Progress
LUS should develop and implement a plan to clean and decommission the No. 6 fuel oil sludge aboveground storage tanks located the Doc Bonin Plant.	Normal	In Progress
LUS should develop and implement a plan to drain, clean, inspect, decommission and/or reconstruct the No. 2 fuel oil aboveground storage tanks and associated piping located the Doc Bonin Plant.	Normal	In Progress
LUS should monitor the monetary implications of the permitting and construction activities at RPS2.	Normal	In Progress
LUS should continue to evaluate alternatives for its biosolid disposal program.	Normal	In Progress
LUS should continue to evaluate and update its environmental plans, including its SPCC plans, Facility Response Plan, Stormwater Pollution Prevention Plan, etc, to ensure that they include the latest changes to the respective regulations and facility infrastructure.	Normal	In Progress
LUS should monitor the development and implementation of the CAIR and CAMR regulations to ensure compliance strategies are implemented for all affected power plants.	Normal	In Progress







