



FISCAL YEAR 2017 BUSINESS AND CAPITAL PLANS



L O W E R C O L O R A D O R I V E R A U T H O R I T Y

June 2016

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The Board of Directors is composed of 15 members appointed by the governor. Directors represent counties in LCRA's electric and water service areas. The directors meet regularly to set strategic corporate direction for the general manager and staff, to approve projects and large expenditures, and to review progress on major activities and industry issues.

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These business and capital plans present a long-term vision and summary of operational plans for LCRA and its nonprofit corporations. The business and capital plans should not be used as a basis for making a financial decision with regard to LCRA or any of its securities or other obligations. These business and capital plans are intended to satisfy the official intent requirements set forth in Section 1.150-2 of the IRS Treasury Regulations. For more complete information on LCRA and its obligations, refer to LCRA's annual financial report, the official statements relating to LCRA's bonds, and the annual and material event disclosures filed by LCRA with nationally recognized municipal securities information repositories and the State Information Depository pursuant to Rule 15c2-12 of the U.S. Securities and Exchange Commission. The information in this report and within each of the documents referred to applies only as of the report's date. The business and capital plans include forecasts based on current assumptions used for planning purposes only and are subject to change. Copies of the documents referenced in this report may be obtained from Stephen Kellicker, director of Financial Planning and Analysis, LCRA, 3700 Lake Austin Blvd., Austin, TX 78703.

LCRA's Mission

To enhance the quality of life of the Texans we serve through water stewardship, energy and community service.



MY COLORADO COMMITMENT

I will make every LCRA
endeavor outstanding.

My Colorado Commitment

Making every LCRA endeavor outstanding

LCRA has been committed to enhancing the lives of Texans for more than 80 years. In December 2014, we adopted a clear statement expressing our mission:

To enhance the quality of life of the Texans we serve through water stewardship, energy and community service.

This year, we've translated our mission to make it personal for each and every LCRA employee by adopting My Colorado Commitment:

I will make every LCRA endeavor outstanding.

In making the Colorado Commitment, every LCRA employee has made a personal pledge to themselves, their teammates, our customers and the Texans we all serve.

In action, My Colorado Commitment is exemplified by an employee performing predictive maintenance on equipment in one of our power plants; stringing a new transmission line to bring much-needed power to our growing region; maintaining one of our dams to keep it operating in a safe and effective manner; or providing exceptional customer service to a visitor at one of our beautiful parks.

When we each commit to doing our individual jobs in an outstanding fashion, our combined efforts cumulate in real improvements for the lives of the Texans we serve.

Some of our recent accomplishments for Texans include:

- Identifying more than \$350 million in expected rate relief over the next five years for our wholesale power customers through a combination of reducing costs and improving the way we compete in the wholesale power market.
- Providing safe, reliable, environmentally responsible and cost-effective transmission services to meet the growing need for power in Texas through projects such as upgrading the McNeil to Marshall Ford transmission line, which came in under budget and saved ratepayers about \$24 million compared with the potential cost of a new line.
- Effectively managing the region's water supplies through both drought and floods.
- Increasing the region's water supplies by drilling groundwater wells and making significant progress toward building the Lane City Reservoir in Wharton County, which will benefit the entire basin by helping reduce demands on the Highland Lakes.

Going From Good to Great

- Implementing a new, state-approved Water Management Plan that better protects the water supply for firm customers – mainly cities and industrial users – and enables LCRA to more quickly adapt its operations as drought conditions change.
- Providing public services such as law enforcement; emergency assistance; critical infrastructure protection; soil, water and wildlife conservation; and access to nature through our robust park system.

Looking ahead

Heading into fiscal year 2017, we're continuing our individual and collective efforts to make every LCRA endeavor outstanding.

Our wholesale power rate in fiscal year 2017 will be 24 percent lower than it was in 2015. We'll continue to look for ways to further reduce our rate while providing outstanding service for our customers.

In the next five years, LCRA Transmission Services Corporation is planning to invest about \$1.2 billion to build new transmission facilities and improve existing ones. These projects help make electric service in Texas more reliable and support the growing number of customers throughout the state.

We're moving full steam ahead on our current water supply projects, and we have other potential projects on the horizon to increase water supplies even more. We plan to invest more than \$43 million to complete as much of the design, permitting and land acquisition as possible for new regional water supply projects, so we'll be ready to proceed when a customer approaches us with a need for those new supplies.

Our vision

These fiscal year 2017 business and capital plans serve as a guide to the first year of a five-year vision to make LCRA a great organization. Over the next five years, we plan to:

- Become the premier public power provider in Texas as measured by metrics such as the amount of electric service we provide.
- Continue growing LCRA Transmission Services Corporation.
- Provide significant new water supplies for our basin.
- Continue striving for financial self-sufficiency of our public services.

The vision, goals and strategies outlined in these business and capital plans – along with our commitment to make every LCRA endeavor outstanding – will enable us to continue fulfilling our mission to enhance the quality of life of the Texans we serve.

LCRA's Goals and Strategies

LCRA

Goal: Continue to seek new business opportunities and increase revenue by providing exceptional customer service at a low cost.

Wholesale Power

Goal: Achieve significant progress toward our five-year vision to become the premier public power provider in Texas, and continue to provide our wholesale electric customers with reliable, low-cost power within a sustainable Wholesale Power business.

Strategies:

- Maximize the net margin of LCRA's generating units while providing power reliably and safely.
- Maintain and improve operational excellence throughout Wholesale Power.
- Minimize the fluctuations of the wholesale fuel rate component.
- Grow the Wholesale Power business by helping our existing customers gain more load and acquiring new customers outside of LCRA's traditional electric service territory through WSC Energy.
- Implement these strategies while complying with all applicable laws, rules and regulations.

Transmission

Goal: Grow the LCRA Transmission Services Corporation business, and continue to provide safe, reliable, environmentally responsible and cost-effective transmission services throughout the state of Texas.

Strategies:

- Ensure the transmission system is properly planned, designed, engineered, constructed, operated and maintained to safely and reliably serve existing and new customers and improve the efficiency of Electric Reliability Council of Texas (ERCOT) market operations.
- Achieve targeted levels of system availability, performance and efficiency.
- Grow the LCRA TSC business by meeting the electric service requirements statewide through cost-effective transmission products and services.
- Manage costs to avoid the need for a transmission cost of service rate case for the foreseeable future.
- Perform financially at or better than budget for debt service coverage.

LCRA's Goals and Strategies

Water

Goal: Increase and preserve the region's water supplies.

Strategies:

- Expand the region's water supplies by constructing the Lane City Reservoir and pursuing additional future water development opportunities.
- Minimize costs for customers by:
 - Efficiently operating and maintaining equipment and infrastructure.
 - Identifying new, cost-effective sources of water supply for the region.
 - Pursuing low-cost, innovative measures – including grants and loans – to pay for new water supplies.
 - Working toward full recovery of all costs associated with providing water for downstream interruptible customers.
- Implement the state-approved Water Management Plan, including providing water and managing the river under the provisions of the plan. Work with existing and future customers to meet their long-term water needs.
- Maintain and invest in LCRA's system of dams to ensure their continued safe and effective operation, which is critical for water supplies in the basin.
- Monitor and protect the water quality and the health of the lower Colorado River basin. Obtain the data and analysis necessary to do this.

- Focus on water conservation with programs such as:
 - Teaming with municipal customers on cost-sharing grants and rebates for conservation projects.
 - Providing irrigation evaluations for domestic water users.
 - Providing technical assistance and review of customer water conservation and drought contingency plans.

Public Services

Goal: Continue providing public services that are authorized by LCRA's enabling legislation while making meaningful progress toward achieving financial self-sufficiency for those services.

Strategies:

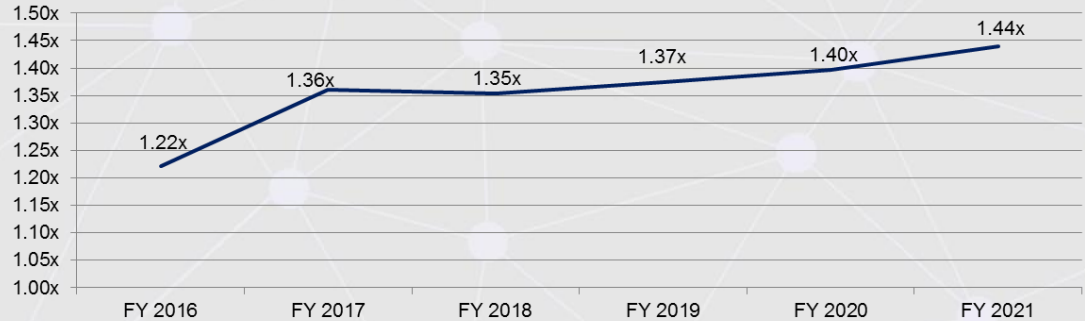
- Provide outdoor adventure, river access and natural science education to communities throughout the Colorado River basin through LCRA's system of parks, recreation areas, natural resources areas and river access sites.
- Contribute to LCRA's land stewardship mission through soil, water and wildlife conservation on LCRA lands and through support of the Colorado River Land Trust.
- Improve public safety through law enforcement and emergency assistance during floods and other disasters that may affect the communities LCRA serves.
- Help protect critical infrastructure – including dams and the Texas power grid – from potential cyberattacks and physical threats.

LCRA Financial Summary

- Approval of this business plan authorizes LCRA to spend \$292.9 million for operations in fiscal year 2017.
- Debt service coverage, a widely used measure of financial performance, is forecast to be 1.36x in FY 2017.
- Debt service coverage is projected to remain in the 1.30x range, increasing to 1.44x by FY 2021.
- Stable debt service coverage reflects LCRA's commitment to growing revenue and managing costs.

Note: GenTex 1 is the original 250-megawatt portion of the Lost Pines 1 Power Project from which energy is sold directly to wholesale electric customers.

LCRA Debt Service Coverage



(Dollars in millions)

	Budgeted	Proposed	Forecast			
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Revenues ¹	\$ 1,012.4	849.8	895.3	898.6	921.5	964.4
Fuel & Power Cost Recovery (F&PCR)	288.9	153.0	170.1	144.9	146.5	156.2
Operations and Maintenance Expenses ¹	281.5	292.9	307.6	306.9	308.2	323.5
Net Operating Margin	442.0	403.9	417.6	446.7	466.8	484.7
Less: GenTex Funds ²	-	(1.1)	(1.7)	(0.3)	(1.5)	(2.1)
Net Margin Available for Debt Service	442.0	402.8	416.0	446.4	465.3	482.5
Debt Service	\$ 361.9	296.0	307.3	324.7	333.2	335.2
Debt Service Coverage	1.22x	1.36x	1.35x	1.37x	1.40x	1.44x
Net Margin After Debt Service ³	80.1	107.9	110.3	122.1	133.6	149.5

¹ Revenues and expenses are net of intracompany transfers. Revenues include interest income. Expenses exclude the LCRA TSC capital charge, which is a capital expense for LCRA consolidated.

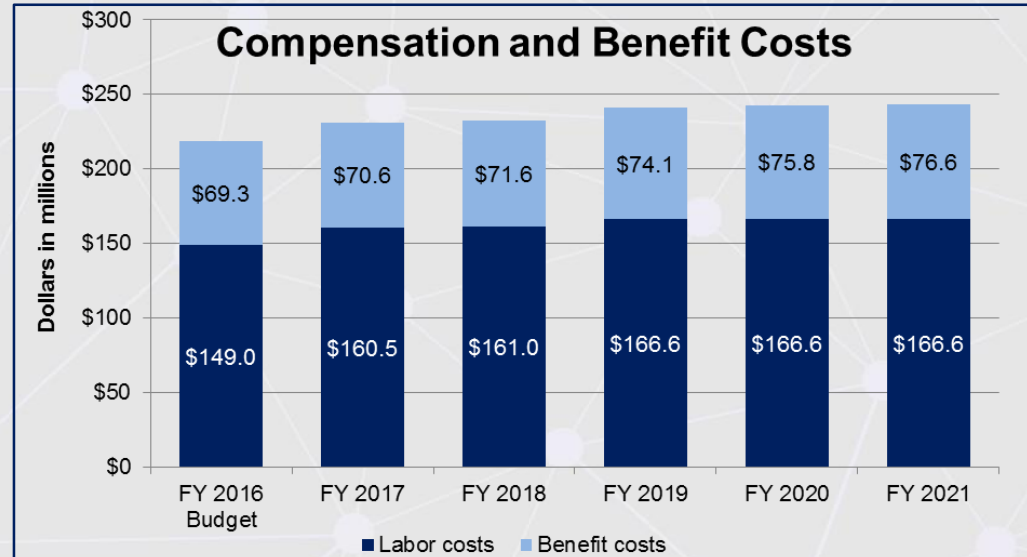
² Includes adjustments related to GenTex 1 capital funding and reserve funding.

³ Net Margin After Debt Service includes funds dedicated to GenTex 1.

Compensation and Benefits

Compensation and benefits are key drivers of LCRA's budget.

- Budgeted positions for FY 2017 are 1,896, which is an increase of 58 positions (3.2 percent) from the FY 2016 budget.
- Transmission is the driver of the increase to budgeted positions, adding 54 new positions to respond to an increasing capital program.
- Transmission added positions to expand the existing line construction, substation and construction support functions. These costs will be recovered through interim capital additions.
- Positions in LCRA – excluding Transmission – increased by four. The Project Services group is adding five new positions to support Transmission's capital program.



- FY 2017 reflects a 4 percent increase to labor costs for performance awards and market adjustments that were implemented in October 2015.
- An additional 3.5 percent labor cost increase is planned in FY 2019, with all other years assuming a flat labor budget.
- LCRA continues to manage benefit costs, which range from 44 to 46 percent of labor costs for the next five years.

Wholesale Power – Financial Summary

- Wholesale Power shows continued financial strength for a sustainable business.

Financial summary:

- Debt service coverage is 1.20x in FY 2017, which provides sufficient dollars for cash needs during the fiscal year.
- Debt service coverage will return to 1.25x in FY 2018.
- Financials remain strong and support the goal of providing reliable, low-cost power within a sustainable Wholesale Power business.

(Dollars in millions)

	Budgeted	Proposed	Forecast			
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Revenues ¹						
Nonfuel Revenues	\$ 285.3	245.8	256.8	260.1	257.0	275.0
Fuel Revenues	288.9	153.0	170.1	144.9	146.5	156.2
Total Revenue	574.2	398.7	426.9	404.9	403.5	431.3
Expenses ¹						
Net F&PCR ² Expenses	288.9	153.0	170.1	144.9	146.5	156.2
Total Nonfuel Operations and Maintenance	88.3	85.2	96.9	89.8	86.9	101.0
Total Expense	377.2	238.1	266.9	234.7	233.4	257.2
Net Operating Margin	197.0	160.6	159.9	170.3	170.1	174.0
Plus: Interest Income	0.9	0.7	2.8	5.7	6.0	6.4
Less: Assigned Enterprise Expense	26.8	28.7	28.4	29.3	29.6	29.9
Public Service Fund	10.5	8.4	8.6	8.8	8.8	9.3
Net Margin Available for Debt Service	160.6	124.2	125.7	137.9	137.7	141.2
Less: GenTex Funds ³	-	(1.1)	(1.7)	(0.3)	(1.5)	(2.1)
Adjusted Net Margin Available for Debt Service	160.6	123.1	124.1	137.5	136.2	139.1
Debt Service	\$ 158.4	102.8	98.9	110.0	109.1	111.2
Debt Service Coverage	1.01x	1.20x	1.25x	1.25x	1.25x	1.25x

¹ Includes GenTex Power Corporation.

² F&PCR = fuel and power cost recovery.

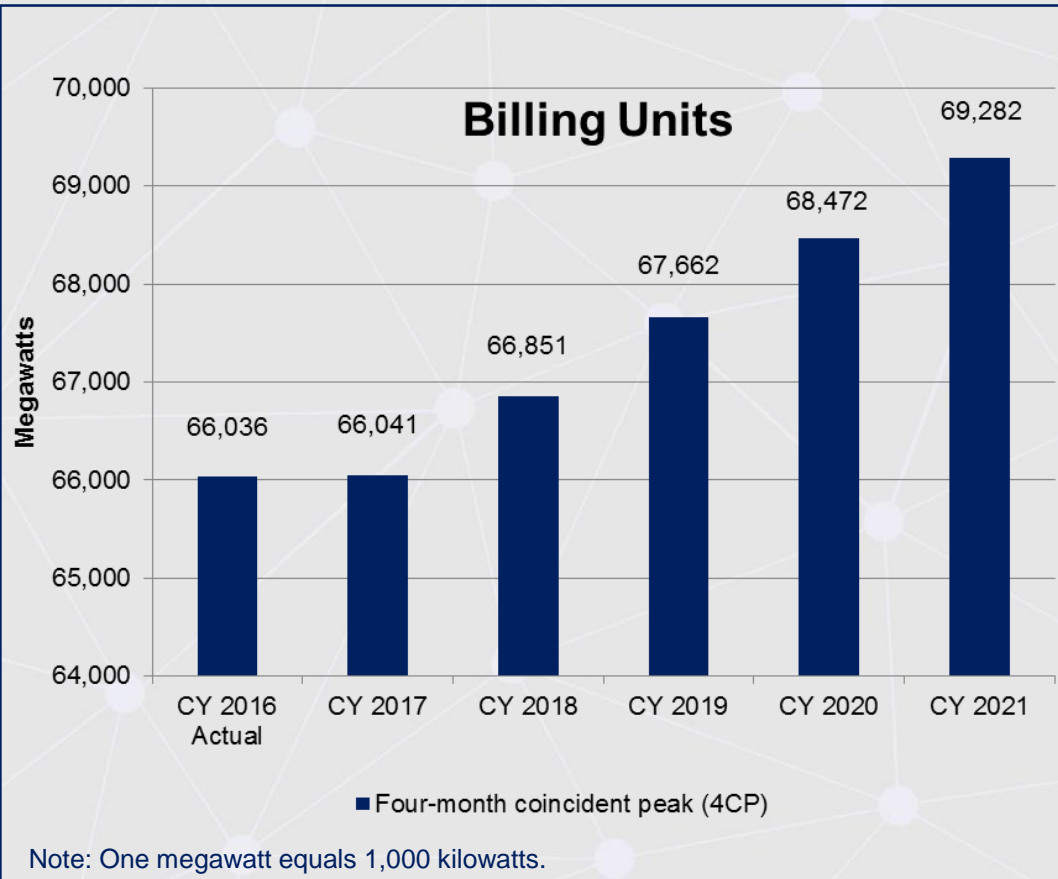
³ Includes adjustments related to GenTex 1 capital funding and reserve funding.

LCRA TSC – Billing Units

- *LCRA TSC's billing unit is the four-month coincident peak (4CP) in the ERCOT market.*

Transmission billing units:

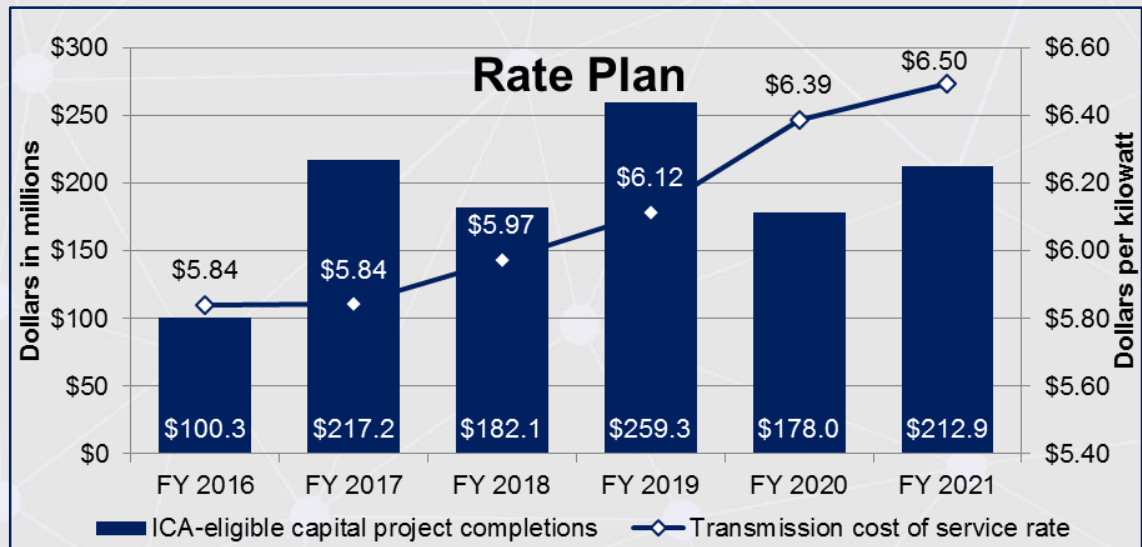
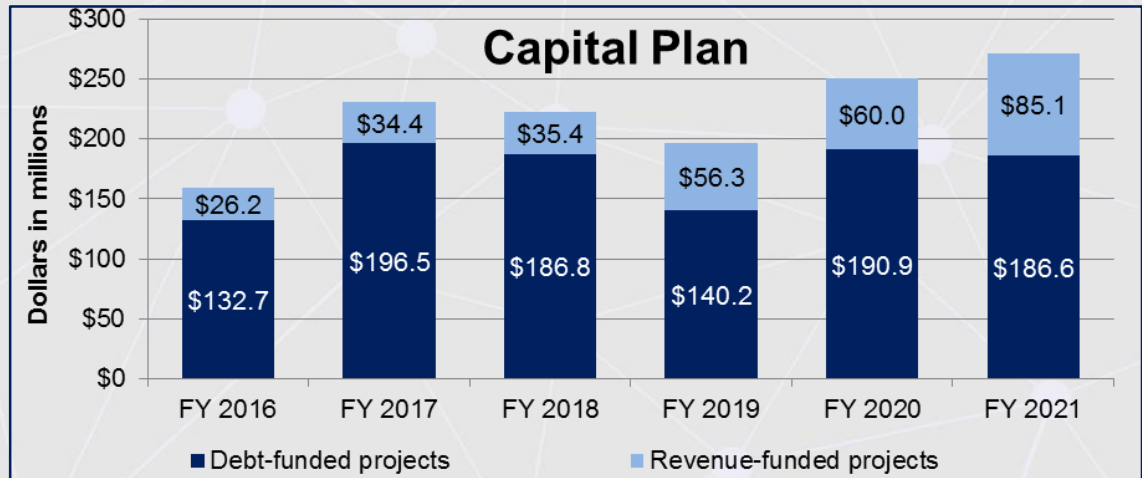
- 4CP is the average of the peak ERCOT electrical demands (measured in kilowatts) during the months of June, July, August and September of the previous calendar year.
- The Public Utility Commission of Texas (PUC) approves the average of these four ERCOT system peaks each year to establish a 4CP for the following calendar year.
- Temperatures can have an effect on electrical demands. In calendar year 2015, the average temperature for June to September in the ERCOT region was 99.2 compared with a historical average of 98.
- 4CP is forecast to grow about 1.2 percent per year across ERCOT; however, 4CP in 2017 is similar to 4CP in 2016 as a result of the increased temperatures in 2015.



LCRA TSC – Capital and Rates

Growing the transmission system to meet customer needs:

- LCRA TSC plans to spend about \$1.2 billion over the five-year planning period on capital projects to support the needs of the ERCOT and LCRA TSC systems.
- LCRA TSC plans to recover about \$1.1 billion of capital expenses for projects that are completed and energized through interim capital addition (ICA) filings in FY 2018 through FY 2021.
- LCRA TSC will continue to recover costs associated with additional projects once they are completed and energized beyond FY 2021.



LCRA TSC – Financial Summary

Financial summary:

- LCRA continues to expand the Transmission organization, adding staff and equipment needed to increase its current capacity to operate and construct facilities for LCRA TSC and provide customer services.
- Transmission plans to manage costs to maintain its debt service coverage ratios between 1.32x and 1.45x.

(Dollars in millions)

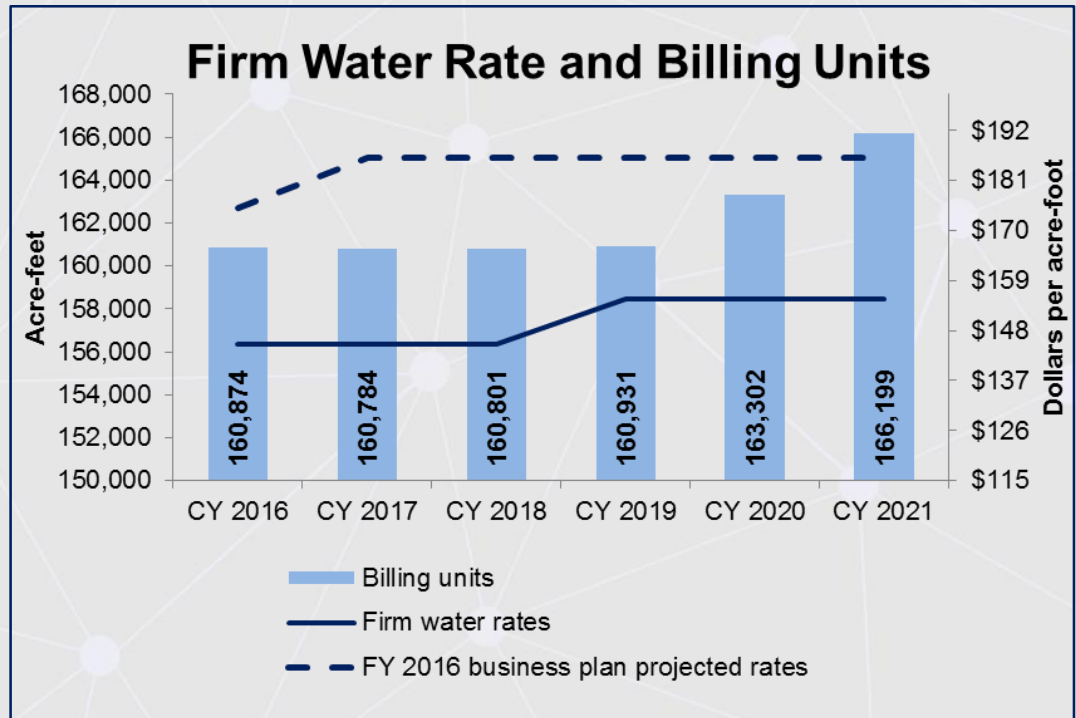
	Budgeted	Proposed	Forecast			
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
<u>LCRA Transmission Services Corporation</u>						
Revenues	\$ 387.4	399.7	408.6	422.8	444.1	459.5
Operations and Maintenance	90.2	97.0	100.8	104.5	107.0	108.5
Net Operating Margin	297.2	302.7	307.9	318.3	337.0	350.9
Plus: Interest Income	0.7	0.8	3.4	6.9	7.4	7.5
Less: Assigned Enterprise Expense	41.5	43.4	43.2	44.6	45.1	45.7
Public Service Fund	11.6	12.0	12.3	12.7	13.3	13.8
Resource Development Fund	7.7	8.0	8.2	8.5	8.9	9.2
Net Margin Available for Debt Service	237.1	240.2	247.6	259.4	277.1	289.8
Debt Service	\$ 179.4	174.3	188.1	191.0	201.4	199.9
Debt Service Coverage	1.32x	1.38x	1.32x	1.36x	1.38x	1.45x

Water – Firm Billing Units and Rates

- LCRA lowered the firm water rate to \$145 per acre-foot starting with the January 2016 billing period.
- Lane City Reservoir financing costs are excluded from the firm water rate.

Managing costs under a lower firm water rate:

- Billing units are forecast to be flat through calendar year 2019 and then grow about 1.5 percent annually.
- Lane City Reservoir financing costs are excluded from the firm water rate during the planning horizon.
- Future funding for new regional water supply projects is still being developed.
- The firm water rate is projected to increase to \$155 per acre-foot beginning January 2019 to fund the ongoing rehabilitation projects at the Mansfield and Buchanan water supply dams.



Note: Water supplies managed by LCRA are divided into firm and interruptible water. Firm water is available even during a severe drought. During water shortages, interruptible water is cut back or cut off.

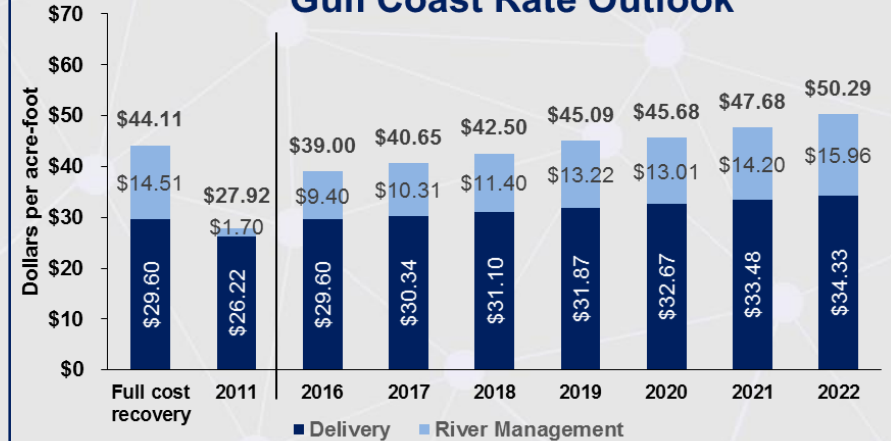
Water – Interruptible Rates

➤ *Interruptible sales are projected to start again in 2016.*

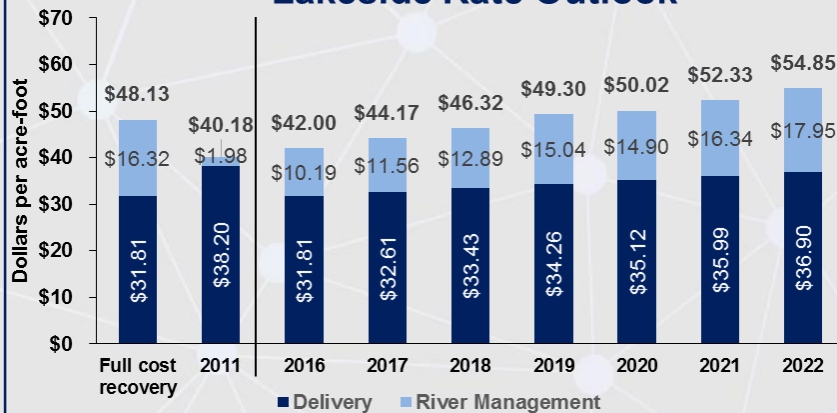
Full cost recovery assumes a gradual approach.

- Rates for calendar year 2016 were approved by the Board in December 2015.
- Calendar year rates for Gulf Coast, Lakeside and Garwood irrigation divisions are projected to increase to recover all delivery costs and gradually recover allocated share of river management costs by calendar year 2022, assuming full water availability.

Gulf Coast Rate Outlook



Lakeside Rate Outlook



Garwood Rate Outlook



Water – Capital

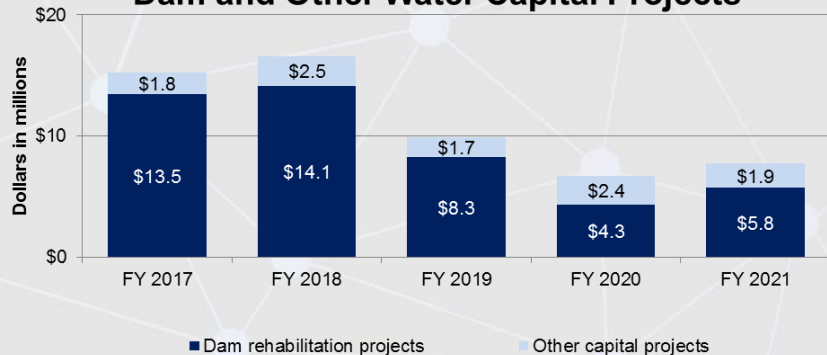
Dam rehabilitation and other capital projects:

- LCRA plans to spend \$46 million on dam rehabilitation projects over the next five years for their safe and effective operation.
- As the projects continue, the costs to rehabilitate the dams could increase.
- LCRA will issue debt to pay for these projects and recover the costs in the firm water rate.

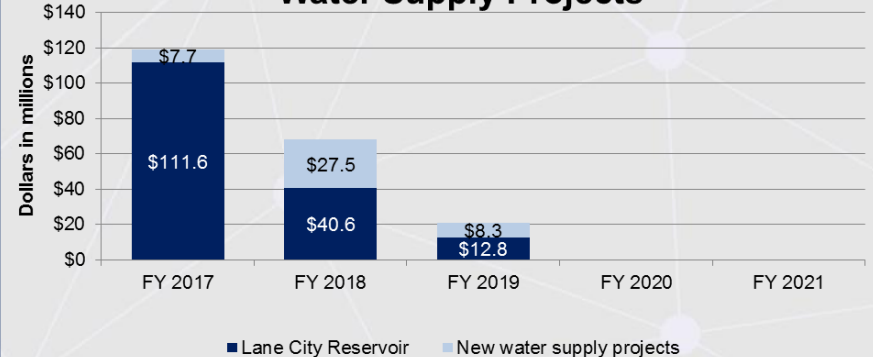
New water supply capital projects:

- Capital costs for the Lane City Reservoir will continue through FY 2019, but the financing costs are excluded from the firm water rate for the first 20 years.
- LCRA plans to spend more than \$43 million over the next five years for new regional water supply projects prior to the construction phases (e.g., permitting, engineering, etc.), which will be debt-funded.
- Timing and funding for the construction phases have not yet been identified.

Dam and Other Water Capital Projects



Water Supply Projects



Note: Other capital projects include capital for irrigation and minor capital needs for Water.

Water – Financial Summary

➤ *Providing long-term water supply at a lower rate.*

Financial summary:

- FY 2017 revenues reflect the firm rate of \$145 per acre-foot.
- A portion of firm revenues is deferred to a rate stabilization fund, which is excluded from revenues until the fund is used.
- The financial summary assumes agricultural water deliveries in every year.
- Annual debt service includes the Texas Water Development Board Lane City Reservoir debt, paid from the Resource Development Fund.

(Dollars in millions)

	Budgeted	Proposed	Forecast			
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Water Revenues						
Firm Water	\$ 28.2	19.4	20.3	22.8	23.7	23.3
Agricultural	4.3	11.5	12.0	12.6	13.4	13.4
Other	3.3	3.3	3.3	3.3	3.4	3.4
Total Water Revenues	35.8	34.2	35.6	38.7	40.5	40.1
Operations and Maintenance	14.3	17.7	17.6	17.9	19.2	17.9
Net Operating Margin	21.5	16.5	18.0	20.8	21.3	22.2
Plus: Interest Income	0.0	0.0	0.2	0.5	0.6	0.6
Less: Assigned Enterprise Expense	4.8	3.9	4.8	5.0	5.1	5.2
Public Service Fund	1.1	1.0	1.1	1.1	1.2	1.2
Net Margin Available for Debt Service	15.7	11.6	12.4	15.1	15.6	16.5
Debt Service	\$ 18.9	14.7	15.5	18.8	18.2	20.6
Debt Service Coverage	0.83x	0.79x	0.80x	0.80x	0.86x	0.80x
Plus: Resource Development Fund	11.6	10.2	10.2	10.2	10.7	13.0
Debt Service Coverage Adjusted	1.44x	1.48x	1.46x	1.34x	1.44x	1.43x

Note: The Water financial summary includes water and wastewater utilities, which LCRA is phasing out due to the divestiture of the assets.

Public Service Fund

- *LCRA uses the Public Service Fund (PSF) to fund statutory programs that do not fully recover their costs.*

- Public Service Fund activities include:
 - Parks.
 - Natural science centers.
 - Natural resource protection.
- These services provide some revenue, but require annual support to cover the costs of operations, Enterprise Support and capital.
- Revenue includes a \$2 per site per night increase for overnight camping facilities, effective July 2016.
- The PSF includes \$1 million annually for the Community Development Partnership Program (CDPP).
- Fund sources include contributions from operations:
 - 3 percent from budgeted nonfuel Wholesale Power costs.
 - 3 percent of budgeted GenTex 1 revenue.
 - 3 percent of budgeted Transmission revenue.
 - 3 percent of budgeted Water revenue.
 - 3 percent from budgeted Strategic Services revenue.

(Dollars in millions)

	Budgeted	Proposed	Forecast			
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Revenue	\$ 3.2	3.4	3.5	3.5	3.5	3.5
Total Operating Expense	16.1	17.9	17.9	18.3	18.4	18.5
Operating Funding Requirement	12.9	14.5	14.4	14.8	14.8	14.9
Capital Spending	2.2	2.5	2.2	2.3	2.0	2.1
Assigned Enterprise Capital	0.3	0.5	0.6	0.3	0.4	0.3
Reserves	0.0	0.0	0.0	0.1	0.0	0.0
CDPP	1.0	1.0	1.0	1.0	1.0	1.0
Total Funding Requirement	\$ 16.4	18.4	18.2	18.5	18.3	18.4

(Dollars in millions)

	Budgeted	Proposed	Forecast			
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Sources						
Public Service Funds						
Generation	\$ 9.4	7.1	7.3	7.5	7.4	7.9
GenTex Power Corporation	1.1	1.3	1.3	1.3	1.4	1.4
Transmission	11.6	12.0	12.3	12.7	13.3	13.8
Water	1.1	1.0	1.1	1.1	1.2	1.2
Strategic Services	0.5	0.5	0.5	0.6	0.6	0.6
Subtotal	23.8	21.9	22.5	23.2	23.9	24.9
Uses						
Public Service Activities	16.4	18.4	18.2	18.5	18.3	18.4
Environmental Lab	0.8	0.4	0.0	0.0	0.0	0.0
Resource Development Fund	6.5	3.1	4.3	4.7	5.6	6.5
Subtotal	23.8	21.9	22.5	23.2	23.9	24.9
Remaining PSF Funds	\$ 0.0	0.0	0.0	0.0	0.0	0.0

Strategic Services

➤ *Strategic Services include external services that people pay LCRA to provide.*

- Strategic Services primarily include:
 - Transmission Customer Service.
 - Environmental Lab Services.
 - Telecommunication Radio sales.
- These are not new services, but they have been broken out separately under this new category for better tracking and reporting. The FY 2016 budget has been restated here and throughout the document to reflect this.
- New initiatives that support LCRA's new business goals will be included in Strategic Services going forward.

(Dollars in millions)

	Budgeted	Proposed	Forecast			
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Revenues	\$ 16.0	16.5	18.9	19.7	20.0	19.8
Expenses	11.6	11.6	12.2	12.4	12.3	12.2
Net Operating Margin	4.4	4.9	6.8	7.3	7.7	7.6
Plus: Interest Income	0.0	0.0	0.0	0.0	0.0	0.0
Less: Assigned Enterprise Expense	2.7	3.4	3.4	3.5	3.6	3.6
Public Service Fund	0.5	0.5	0.5	0.6	0.6	0.6
Resource Development Fund	0.3	0.2	0.2	0.2	0.3	0.3
Net Margin	0.9	0.8	2.6	3.0	3.3	3.2

Enterprise Support

- *Enterprise costs consist of essential functions that support business operations across all of LCRA.*

- Enterprise Support includes:
 - Information Technology.
 - Facilities.
 - Legal.
 - Financial.
 - Regulatory.
 - Others.
- FY 2017 costs increase due to technology initiatives and the reorganization of Project Services.
- Some costs are direct-charged when specific services are performed for a product line.
- Most other costs are assigned based on a three-factor formula of assets, labor hours and revenue.

(Dollars in millions)	Budgeted	Proposed	Forecast			
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Gross Enterprise Costs	\$ 104.9	114.2	112.7	115.9	117.1	118.2
Total Revenue	(5.8)	(4.8)	(4.9)	(4.9)	(4.9)	(4.9)
Direct-Charged	(9.7)	(12.7)	(11.7)	(12.1)	(12.3)	(12.4)
Net Enterprise Costs	89.4	96.7	96.1	98.9	99.9	101.0
Cost Assignment						
Wholesale Power - Nonfuel	26.8	28.7	28.4	29.3	29.6	29.9
Wholesale Power - Fuel	0.9	0.8	0.8	0.8	0.8	0.8
Transmission	42.9	43.4	43.2	44.6	45.1	45.7
Water	6.1	3.9	4.8	5.0	5.1	5.2
Public Service Fund Activities	3.0	3.4	3.4	3.5	3.5	3.6
Strategic Services	-	3.4	3.4	3.5	3.6	3.6
Capital/Other	9.6	13.1	12.0	12.2	12.2	12.3
Total	\$ 89.4	96.7	96.1	98.9	99.9	101.0
Capital Expenditures						
Revenue-Funded	\$ 22.8	29.7	20.5	14.1	15.6	12.7
Debt-Funded	-	-	-	-	-	-
Third Party/Proceeds-Funded	0.5	-	-	-	-	-
Total Capital	\$ 23.3	29.7	20.5	14.1	15.6	12.7

LCRA Capital Plan – by Status

- Approval of this capital plan authorizes the initiation of all recommended projects at their individually stated lifetime budgets as shown in the plan.
- Board approval of this plan also authorizes the proposed \$410 million budget for fiscal year 2017 capital spending, which includes \$105 million for recommended projects and \$305 million for projects the Board approved previously.
- The plan includes spending on future water supply projects in FY 2017 that will need additional Board authorization after this plan is approved.

FY 2017-FY 2021 Capital Spending for Recommended, Approved and Future Projects LCRA Total (Including Austin Energy's Share and the City of San Marcos' Share)

(Dollars in millions)

Status	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Five-Year Total	Lifetime
Recommended Projects	\$	104.5	57.9	41.7	18.8	-	222.8	222.8
Approved Projects		305.2	160.5	77.3	21.3	7.7	571.9	879.1
Subtotal Recommended and Approved		409.7	218.3	118.9	40.1	7.7	794.8	1,101.9
Future Projects		3.8	125.5	140.4	256.7	313.3	839.5	1,014.3
Total FY 2017 Capital Plan		413.5	343.8	259.3	296.8	321.0	1,634.3	2,116.2
Less: Co-owners' Shares		1.9	0.9	1.3	1.7	0.5	6.4	15.6
LCRA's Share		411.5	342.9	258.0	295.0	320.5	1,627.9	2,100.5
Comparison to Previous Plan								
Total FY 2016 Capital Plan (with co-owners)		264.8	384.7	315.1	230.8	211.8	1,407.2	2,146.4
Difference*	\$	n/a	28.8	28.7	28.5	85.0	227.1	(30.2)

*Difference for five-year total is based on a rolling five-year comparison, i.e., FY 2017-FY 2021 spending from the current plan compared to FY 2016-FY 2020 from last year's plan.

LCRA Capital Plan – by Business

LCRA's share of the total FY 2017 capital budget for recommended and approved projects, not including future projects included in the table to the right, is \$407.7 million. LCRA estimates it will fund about 21 percent of that amount with revenue.

LCRA's share of the five-year total capital budget, including recommended, approved and future projects, is \$1.6 billion. LCRA estimates it will fund about 30 percent of that amount with revenue.

(Dollars in millions)

	Budgeted	Proposed	Forecast			
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
LCRA Capital Expenditures						
<u>Revenue-Funded</u>						
Wholesale Power and Nonprofit Corps.	\$ 6.2	12.7	13.3	14.1	19.9	21.6
Transmission Services Corporation	26.2	34.4	35.4	56.3	60.0	85.1
Water	2.6	4.4	4.1	3.9	5.1	6.4
Enterprise Support	22.8	29.7	20.5	14.1	15.6	12.7
Public Services	2.2	2.5	2.2	2.3	2.0	2.1
	60.0	83.7	75.5	90.7	102.6	127.9
<u>Debt-Funded</u>						
Wholesale Power and Nonprofit Corps.	-	-	-	-	-	4.7
Transmission Services Corporation	132.7	196.5	186.8	140.2	190.9	186.6
Water	70.1	129.7	80.3	27.1	1.6	1.3
	202.8	326.2	267.0	167.3	192.5	192.6
<u>Third Party/Proceeds-Funded</u>						
Wholesale Power and Nonprofit Corps.	0.1	-	-	-	-	-
Transmission Services Corporation	-	1.2	-	-	-	-
Water	0.2	0.4	0.4	-	-	-
Enterprise Support	0.8	-	-	-	-	-
	1.0	1.6	0.4	0.0	-	-
Total LCRA Capital	\$ 263.9	411.5	342.9	258.0	295.0	320.5

LCRA Capital Plan – Approach

Capital Planning Approach

LCRA includes projects in the capital plan with the goal of ensuring LCRA can continue to offer its customers energy, water and public services in a reliable, competitively priced, environmentally responsible and safe manner. Each project undergoes a thorough review by LCRA's Asset Management work group and other staff members who separate the projects into three categories: recommended (projects that management has reviewed and recommended for Board approval); approved (projects the Board approved previously); and future (projects staff may recommend implementing within the next five years).

Staff does not submit future projects for Board approval at this time and includes them in this document only for strategic planning purposes. The cost and timing of future projects presented in this document could change. For this reason, LCRA repeats the capital planning process annually and updates the plan as necessary. LCRA will bring future projects back to the Board for approval.

Determining Need and Financial Analysis

Capital plan projects must support the goals of the business plan within financial parameters established by LCRA's Board and chief financial officer.

LCRA includes projects based on multiple factors, such as current and anticipated demand for LCRA's services and the need to maintain or build facilities or infrastructure to meet those demands. Other factors include compliance with applicable state or federal regulations, safety and security needs, potential for increased revenues, and better management and protection of natural resources.

Staff has rigorously reviewed and analyzed the recommended projects. The project criteria may vary, but all will involve either a "payback period" test, net present value analysis or other analyses to ensure the project is the most cost-effective approach. Executive management reviews each project to ensure the project warrants funding and inclusion in the capital plan. When appropriate, affected customers and stakeholders have the opportunity to review and comment on the proposed project scope and budget.

LCRA Capital Plan – Approach (Continued)

Developing Project Estimates

LCRA staff develops project cost estimates using one of three estimating levels: preliminary, budgetary or final.

An estimate's accuracy is based on identifying the work and resources necessary to complete the project objectives. Cost estimates are revised and become more accurate as more information regarding the scope and deliverables is available.

The capital planning cycle involves these steps:

- Developing and refining a list of business needs based on planning criteria and asset owner input.
- Defining the scope and approach necessary to address those needs.
- Performing business analyses and cost estimates to establish a proposed project budget and to evaluate affordability, economic viability and portfolio prioritization.
- Seeking approval of the capital plan to validate strategic direction, establish lifetime and fiscal year budgets, and allow business planning for the future.

LCRA generally recommends projects to the Board for approval using a budgetary estimate. LCRA may recommend some projects using preliminary estimates because of the timing in determining the specific technology that would be implemented. Projects recommended in this plan at a preliminary estimate are noted in the project description.

Regardless of the estimating level or the method used to generate the cost estimate, LCRA Board Policy 304 – Financial Planning and LCRA TSC Board Policy T304 – Financial Planning require LCRA and LCRA TSC to bring previously authorized projects to the Board for additional review and approval if staff expects the projects to exceed the Board-approved lifetime budget by 10 percent and \$300,000.

Project Prioritization

LCRA reviews and prioritizes its projects based on criteria that include safety, cost, reliability, competitiveness, environmental considerations and other factors. The appropriate executive reviews staff recommendations.

LCRA Capital Plan – Approach (Continued)

Project Prioritization (Continued)

Projects that are essential to ensure the continued reliable and cost-effective delivery of LCRA services, concern public safety (including loss of life or property), or limit interruption of services receive the highest priority. The highest priority projects could have substantial financial, health or safety impacts to customers or stakeholders. LCRA also assigns higher priority to projects with regulatory issues that may result in substantial financial impacts for noncompliance, projects already in progress that have a substantial cost to stop, and projects with contractual requirements that could have substantial financial impacts to LCRA.

Medium priority projects include those in progress that have a moderate financial impact associated with stopping them, or those that have contractual, regulatory or reliability issues that would have a moderate to minimal financial or health and safety impact to LCRA, customers and stakeholders.

A lower priority project is not unimportant to LCRA or to stakeholders. Staff may assign lower priority rankings to projects that have a more moderate monetary or stakeholder impact and would have minimal impacts to safety, the environment, contractual obligations or revenue if they were stopped or delayed.

Project Approval and Monitoring

LCRA brings each capital project recommended to begin in the next fiscal year to the LCRA Board for approval with this plan. Board approval authorizes projects and delegates the authority to LCRA's executives to release funds to execute the identified projects. Executives may authorize funding in stages or all at once for the entire project.

Project management staff provides to LCRA's executives quarterly capital project status reports on approved projects. Reports include cost variances, estimated completion dates, comparisons of work completed to budget spent, fiscal year spending forecasts and project estimates at completion compared to the current capital plan. The reports also highlight any significant changes to the capital program, including project cancellations, delays and budget-to-actual expenditures. From time to time, conditions change rapidly and may create a need for immediate action. In these cases, LCRA identifies new projects, adjusts the plan and presents the new projects to the Board for approval.

LCRA Capital Plan – Approach (Continued)

Contingency

Contingency refers to a dollar amount added to a project's spending estimate to address items that are unknown when the estimate is prepared. This dollar amount is often based on a percentage of total construction or project costs, and the percentage is often based on the amount of planning and scope definition available at the time of the estimate. LCRA staff estimates and manages many different types of projects, including major wholesale power facilities, new electric transmission lines, dam and hydroelectric upgrades, water delivery and utilities, telecommunication facilities, software system installations, park development projects and facility improvements. Despite this diversity of project types, LCRA has arrived at certain standards for estimating, reporting and managing contingency for all of LCRA's capital projects.

LCRA discloses contingency amounts incorporated into project estimates in the capital plan. Staff also discloses contingency for each recommended, approved and future project to the chief financial officer during the annual planning process. LCRA submits the capital plan, including the contingency amount in each recommended project lifetime budget, for Board review and approval. Project tables in the following pages show the contingency amount included in each recommended project.

Individual project managers manage contingency amounts included in the lifetime budgets in accordance with LCRA standards as part of the overall budgets for the projects. LCRA staff monitors the status of contingencies on all projects and provides reports at least quarterly to executive management.

Capital Plan Approval and Reporting

LCRA Board approval of this capital plan authorizes the initiation of all recommended projects at their individually stated lifetime budgets. These recommended projects include annual budgets for general additions and minor capital. General additions are small capital additions or replacement projects not to exceed \$300,000. Minor capital budgets are used to fund purchases of equipment that is ready to place in service upon delivery, such as fleet assets or Information Technology hardware.

LCRA Capital Plan – Approach (Continued)

Capital Plan Approval and Reporting (Continued)

Board approval of this plan also authorizes the proposed \$410 million budget for FY 2017 capital spending for recommended and approved projects.

LCRA incorporates spending projections in the capital plan into the financial performance and rate impacts shown in the business plan. Upon approval and throughout FY 2017, LCRA will provide to the Board regular reports on project progress and compliance with the project budgets and fiscal year spending constraints established in the plan.

The following pages include specific project details and proposed lifetime budgets for recommended projects, as well as annual spending projections for approved and future projects. At this time, LCRA is not seeking Board approval for future projects. LCRA will bring any future project determined to require initiation in FY 2017 to the Board for approval individually.

Wholesale Power Projects

Information about Wholesale Power capital projects included in the capital plan is considered confidential and has been removed from this version of the document.

Transmission Projects

Transmission Services Corporation

The LCRA capital plan includes all capital projects approved separately in the LCRA TSC capital plan by the LCRA TSC Board of Directors. The transmission projects address transmission electric system reliability requirements, respond to ERCOT systems needs, meet projected area load growth, respond to existing customer needs and connect new generators to the LCRA TSC electric system.

Recommended and approved transmission projects total \$232.1 million in FY 2017 and \$528 million over the next five years through FY 2021. Future projects total \$645.4 million through FY 2021.

LCRA TSC FY 2017 Recommended Projects

Arco Tap Circuit Breaker Addition – The project will add 138-kilovolt (kV) circuit breakers to the Arco Tap Substation in Crane County to improve reliability of transmission service to loads that exceed 10 megawatts during peak loading conditions. The recommended project completion date is Oct. 31, 2017.

Autotransformer Monitoring Additions – Phase 3 Substation Upgrade – The project's scope is to add monitoring equipment to the autotransformers at the Zorn and Clear Springs substations to improve the reliability of the transmission system. The substations are located in Guadalupe County. The recommended project completion date is June 30, 2017.

Bergheim Substation Upgrade – The project's scope is to terminate the Kendall-to-Hays Energy 345-kV transmission line at the Bergheim Substation, add a 345/138-kV, 336 megavolt ampere (MVA) autotransformer at the Bergheim Substation, and upgrade facilities at the Bergheim, Kendall, Hays Energy and Sisterdale locations to resolve potential loading issues. This project is located in Kendall, Comal and Hays counties. The recommended project completion date is May 31, 2019.

Brenham North-Chappell Hill Double Circuit Break-Off Structure Transmission Line Overhaul – The overhaul's scope is to inspect and replace deteriorated wooden poles, structures, cross arms and braces and add an optical ground wire (OPGW) shield wire on the Brenham North-to-Highway 36 9.1-mile, 138-kV transmission line and the Brenham North-to-Waller 20.8-mile, 138-kV transmission line from the Brenham North Substation to the Chappell Hill double circuit break-off structure to maintain safe and reliable operation of the transmission network. This project is located in Washington County. The replacement structures will be 138-kV with 795 aluminum conductor steel reinforced (ACSR) conductor and optical ground wire. The structures will meet Public Utility Commission of Texas (PUC) storm hardening requirements. The recommended project completion date is May 31, 2017.

Transmission Projects (Continued)

LCRA TSC FY 2017 Recommended Projects (Continued)

Bus Differential Redundancy Substation Upgrade – The project's scope is to install upgraded secondary bus differential panels at the Gillespie, North McCamey and Zorn substations to increase the reliability of substation equipment. The substations are located in Gillespie, Guadalupe and Upton counties. The recommended project completion date is June 30, 2018.

Camp Wood-Leakey Transmission Line Overhaul – The overhaul's scope is to replace deteriorated wood poles, structures and equipment on the 17.3-mile Camp Wood-Leakey 69-kV transmission line and upgrade the line to 795 ACSR conductor, 138-kV capable structures and an OPGW shield wire. This project is located in Real County, and the recommended project completion date is May 31, 2019.

Chappell Hill Circuit Breaker Addition – The project will add 138-kV circuit breakers to the Chappell Hill Substation in Washington County to improve reliability of transmission service to loads that exceed 10 megawatts during peak loading conditions. The recommended project completion date is June 30, 2017.

Chappell Hill Double Circuit Break-Off Structure-Highway 36 Transmission Line Overhaul – The overhaul's scope is to inspect and replace deteriorated wooden poles, structures, cross arms and braces and add OPGW shield wire on the Brenham North-to-Highway 36 9.1-mile, 138-kV transmission line from the Chappell Hill double circuit break-off structure to the Highway 36 Substation to maintain safe and reliable operation of the transmission network. This project is located in Washington County. The replacement structures will be 138-kV with 795 ACSR conductor and optical ground wire. The recommended project completion date is May 31, 2017.

Cheapside-Cuero Transmission Line Storm Hardening – The storm hardening project's scope is to replace bracing on six lattice transmission line structures on the Cheapside-Cuero 138-kV transmission line located in Gonzales and Dewitt counties to meet National Electric Safety Code (NESC) storm hardening requirements. The recommended project completion date is May 31, 2017.

Cheapside-Gonzales Transmission Line Storm Hardening – The storm hardening project's scope is to replace bracing on two lattice transmission line structures on the Cheapside-Gonzales 138-kV transmission line located in Gonzales County to meet NESC storm hardening requirements. The recommended project completion date is May 31, 2017.

Transmission Projects (Continued)

LCRA TSC FY 2017 Recommended Projects (Continued)

Circuit Breaker Operator Upgrades – Phase 4 Substation Upgrade – The upgrade will increase reliability of substation equipment at the Clear Springs Substation in Guadalupe County by replacing four circuit breaker operators. The recommended project completion date is June 30, 2017.

Circuit Breaker Replacements – Phase 5 Substation Upgrade – The upgrade will increase reliability of substation equipment at the Boerne-Cico, Burnet, Cuero, Garfield and Sandy Creek substations located in Bastrop, Burnet, DeWitt, Kendall and Llano counties by replacing eight circuit breakers and associated equipment. The recommended project completion date is June 30, 2018.

Circuit Switcher Replacement Program – Phase 10 Substation Upgrade – The upgrade will increase reliability of substation equipment at the McCarty Lane, Webberville, Seguin and Giddings substations in Hays, Travis, Guadalupe and Lee counties by replacing 10 circuit switchers and associated equipment. The recommended project completion date is June 30, 2017.

Cuero-Luling Transmission Line Overhaul – The overhaul's scope is to inspect and replace deteriorated wooden poles, structures, cross arms and braces on a 10-mile section of the Cuero-Luling 69-kV transmission line in Caldwell and Gonzales counties to maintain safe and reliable operation of the transmission network. The replacement structures will be 138-kV capable with 795 ACSR conductor and an OPGW shield wire. The structures will meet PUC storm hardening requirements. The recommended project completion date is May 31, 2017.

Cuero-Yoakum Gartner Road Transmission Line Overhaul – The overhaul's scope is to inspect and replace deteriorated wooden poles, structures, cross arms and braces and install OPGW shield wire on the Cuero-to-Yoakum Gartner Road 13.8-mile, 138-kV transmission line in DeWitt County to maintain safe and reliable operation of the transmission network. The replacement structures will be 138-kV capable with 795 ACSR conductor and an OPGW shield wire. The structures will meet PUC storm hardening requirements. The recommended project completion date is May 31, 2017.

Cushman-Seguin Transmission Line Storm Hardening – The storm hardening project's scope is to replace 20 structures on the Cushman-to-Seguin 138-kV transmission line in Guadalupe County to meet NESC storm hardening requirements. New structures will be 959 ACSS/TW Suwannee conductor capable. The recommended project completion date is May 31, 2017.

Transmission Projects (Continued)

LCRA TSC FY 2017 Recommended Projects (Continued)

Dale-Lockhart Transmission Line Overhaul – The overhaul’s scope is to inspect and replace deteriorated wooden poles, structures, cross arms and braces on the 7.3-mile Dale-Lockhart 69-kV transmission line in Caldwell County to maintain safe and reliable operation of the transmission network. The recommended project completion date is May 31, 2017.

Elroy Substation Upgrade – The project’s scope is to add 22 bus supports and replace expansion joints at the Elroy Substation to improve reliability. The project is located in Travis County, and the recommended project completion date is June 30, 2017.

Energy Management System NERC CIP System Upgrade – This project’s scope is to upgrade the LCRA TSC Energy Management System (EMS) Network Infrastructure Architecture to reduce the overall number of in-scope cyber assets for North American Electric Reliability Council (NERC) Critical Infrastructure Protection (CIP) compliance. The project is located in Travis County, and the recommended project completion date is June 30, 2017.

Environmental Permitting System Upgrade – This project’s scope is to obtain an LCRA Transmission Services Corporation systemwide Section 10(a)(1)(B) permit and Habitat Conservation Plan for maintenance and construction activities throughout the LCRA TSC service area. This permit will be issued by U.S Fish and Wildlife Service and will provide coverage for the incidental take of endangered species covered by the permit. The recommended project completion date is June 30, 2019.

Esperanza Substation Addition – Pedernales Electric Cooperative will purchase property and construct a new 138-kV substation on the Fair Oaks-Fair Oaks Ranch 138-kV transmission line in Kendall County. LCRA TSC will own and construct the 138-kV high side of the substation and install a meter panel, a remote terminal unit and telecommunications equipment to support the project. The recommended project completion date is Dec. 1, 2019.

Fayetteville-Round Top Transmission Line Overhaul – The overhaul’s scope is to inspect and replace deteriorated wooden poles, structures, cross arms and braces on the 8.8-mile Fayetteville-Round Top 138-kV transmission line in Fayette County to maintain safe and reliable operation of the transmission network. The replacement structures will be 138-kV, 795 ACSR conductor and OPGW capable. The structures will meet PUC storm hardening requirements. The recommended project completion date is May 31, 2017.

Transmission Projects (Continued)

LCRA TSC FY 2017 Recommended Projects (Continued)

Flatonia-Hallettsville Transmission Line Upgrade – The project's scope is to increase the capacity of the Flatonia-Hallettsville transmission line and associated equipment at the Flatonia and Hallettsville substations. This project is located in Fayette and Lavaca counties, and the recommended project completion date is May 31, 2020.

FPP Bus Tie Substation Upgrade – The project's scope is to increase the capacity of the bus ties and associated station equipment between Fayette Power Plant Yard No. 1 and Yard No. 2 in Fayette County. The recommended project completion date is May 31, 2018.

Galloping Remediation Transmission Line Upgrade – The project's scope is to add anti-galloping devices to 12 138-kV transmission lines and four 345-kV transmission lines to improve reliability. The recommended project completion date is May 31, 2018.

General Additions – The general additions will maintain funding for required, but unplanned, system improvements to accommodate load increases, failed equipment, substation reliability enhancements or changing system conditions as they occur through June 30, 2017.

Georgetown South Circuit Breaker Addition – The project will add 138-kV circuit breakers to the Georgetown South Substation in Williamson County to improve reliability of transmission service to loads that exceed 10 megawatts during peak loading conditions. The recommended project completion date is June 30, 2017.

Giddings Substation Upgrade – The project's scope is to increase the capacity and reliability of substation distribution and transformation equipment at the Giddings Substation in Lee County. The recommended project completion date is June 30, 2018.

Gilleland Creek-Hutto Transmission Line Upgrade – This project will upgrade LCRA TSC's terminal equipment at LCRA TSC's Gilleland Creek Substation in support of ONCOR's project to increase the capacity of ONCOR's Gilleland Creek to Pflugerville transmission line. The Gilleland Creek Substation is located in Williamson County, and the recommended project completion date is May 31, 2017.

Transmission Projects (Continued)

LCRA TSC FY 2017 Recommended Projects (Continued)

Glidden Area Transmission Line Upgrade – The project's scope will increase the capacity and operating voltage of LCRS TSC's Glidden-Altair and Altair-Nada transmission lines and associated equipment at five substations. This project is located in Colorado County, and the recommended project completion date is May 31, 2020.

Hays Energy Substation Upgrade – The project's scope is to upgrade the Hays Energy Substation to a double bus/double breaker configuration and add two 345-kV circuit breakers to increase transmission reliability. This project is located in Hays County. The recommended project completion date is May 31, 2018.

Marble Falls-Mormon Mills Tap Transmission Line Overhaul – The overhaul's scope is to inspect and replace deteriorated wooden poles, structures, cross arms and braces on the 4.9-mile Marble Falls-Mormon Mills Tap 138-kV transmission line in Burnet County to maintain safe and reliable operation of the transmission network. The recommended project completion date is May 31, 2017.

Marion Substation Relay Upgrade – The project's scope is to replace obsolete line relaying and associated equipment at the Marion Substation located in Guadalupe County. The recommended project completion date is June 30, 2017.

Marshall Ford-McNeil Transmission Line Overhaul – The overhaul's scope is to inspect and replace deteriorated wooden poles, structures, cross arms and braces on the 13.5-mile Marshall Ford-McNeil 69-kV transmission line in Travis County to maintain safe and reliable operation of the transmission network. The recommended project completion date is May 31, 2017.

Mason CTEC Circuit Breaker Addition – The project will add 138-kV circuit breakers to the Mason CTEC Substation in Mason County to improve reliability of transmission service to loads that exceed 10 megawatts during peak loading conditions. The recommended project completion date is May 31, 2017.

Meadow Lake Substation Addition – Guadalupe Valley Electric Cooperative will purchase property and construct a new 138-kV substation on the Cushman-Highway 123 138-kV transmission line in Guadalupe County. LCRA TSC will own and construct the 138-kV high side of the substation and install a meter panel, a remote terminal unit and telecommunications equipment to support the project. The recommended project completion date is June 30, 2019.

Transmission Projects (Continued)

LCRA TSC FY 2017 Recommended Projects (Continued)

Megastar Microwave Telecommunications Upgrade – The project will upgrade the Megastar microwave system with new microwave equipment at the Creedmoor, Luling, Gonzales North, Moulton, Weimar, Alleyton, Eagle Lake, Rutersville, Welcome, RF building and FPP microwave sites. The existing Megastar microwave system has reached the end of its useful life, and the manufacturer is no longer supporting it. This project is located in various counties, and its recommended completion date is June 30, 2019.

Minor Capital – The scope of minor capital projects is to purchase equipment that is ready to place in service upon delivery for projects related to transmission lines, substations or related equipment.

Most Limiting Series Element Substation Upgrade – The project's scope is to increase the capacity of transmission circuits by upgrading limiting elements at the Sim Gideon, Winchester, Austrop, Bastrop City, McNeil and Gilleland Creek substations to improve transmission reliability. The project is located in Bastrop, Fayette and Travis counties. The recommended project completion date is June 30, 2017.

Out-of-Band Management System Telecommunications Upgrade – The project's scope is to upgrade the existing Out-of-Band Management (OBM) Network by adding IP routing hardware (routers) and reconfiguring existing switches to improve reliability of the network. The project is located in multiple counties. The recommended project completion date is June 30, 2018.

Power Transformer Bypass Capability Substation Upgrade – The project's scope is to install substation equipment at the Bastrop City, Boerne, Boerne Cico, Burnet, Goldthwaite, Hallettsville, La Grange, Lampasas, Smithville, Waller and Yoakum Gartner Road substations to increase reliability during certain maintenance activities. The project is located in Bastrop, Kendall, Burnet, Williamson, Mills, Lavaca, Fayette, Lampasas, Waller and Dewitt counties. The recommended project completion date is June 30, 2018.

Radial Autotransformer Redundancy Substation Upgrade – The project's scope is to install switching equipment to provide autotransformer redundancy and improve reliability at the Fort Mason and Mason CTEC substations located in Mason County. The recommended project completion date is June 30, 2018.

Transmission Projects (Continued)

LCRA TSC FY 2017 Recommended Projects (Continued)

Radio System MPLS Migration Telecommunications Upgrade – The project's scope is to upgrade transport electronics equipment at 16 communication sites to improve the reliability of the radio system. This project is located in various counties, and its recommended completion date is June 30, 2017.

San Marcos Radio Site Telecommunications Upgrade – The project's scope is to upgrade the microwave backhaul for the San Marcos Radio Site from 2.4-gigahertz (GHz) unlicensed frequencies to a 6-GHz licensed microwave hop to improve the reliability and security of the microwave system. This project is located in Hays County, and its recommended completion date is June 30, 2017.

Seguin West Substation Upgrade – The project's scope is to add additional feeder bays at the Seguin West Substation to increase the delivery system capacity. This project is located in Guadalupe County, and its recommended completion date is June 30, 2017.

Shadow Glen Circuit Breaker Addition – The project will add 138-kV circuit breakers to the Shadow Glen Substation in Williamson County to improve reliability of transmission service to loads that exceed 10 megawatts during peak loading conditions. The recommended project completion date is June 30, 2017.

Sim Gideon-Winchester Transmission Line Overhaul – The overhaul's scope is to inspect and replace deteriorated wooden poles, structures, cross arms and braces on the 24.7-mile Sim Gideon-Winchester 138-kV transmission line in Bastrop, Fayette and Lee counties to maintain safe and reliable operation of the transmission network. The replacement structures will be 138-kV and 795 ACSR conductor capable. The structures will meet PUC storm hardening requirements. The recommended project completion date is May 31, 2018.

Smithville-Winchester Transmission Line Overhaul – The overhaul's scope is to inspect and replace deteriorated wooden poles, structures, cross arms and braces on the 14.6-mile Smithville-to-Winchester 138-kV transmission line in Bastrop, Fayette and Lee counties to maintain safe and reliable operation of the transmission network. The replacement structures will be 138-kV and 795 ACSR conductor capable with an OPGW shield wire. The structures will meet PUC storm hardening requirements. The recommended project completion date is May 31, 2018.

Transmission Projects (Continued)

LCRA TSC FY 2017 Recommended Projects (Continued)

Starcke Circuit Breaker Addition – The project will add 138-kV circuit breakers to the Starcke Substation in Burnet County to improve reliability of transmission service to loads that exceed 10 megawatts during peak loading conditions. The recommended project completion date is June 30, 2017.

Station Service Substation Upgrade – The project's scope is to install a single phase 345-kV power voltage transformer (PVT) and associated equipment to replace the existing on-site generators used for backup station service at the Bitter Creek, Divide, Gasconades Creek and Hays Energy substations to improve transmission reliability. The project is located in Coke, Hays, Nolan and Sterling counties. The recommended project completion date is June 30, 2017.

Synchrophasor Measurement – Phase 2 Substation Upgrade – The project's scope is to install synchrophasor measurement equipment at 10 substations to improve post-disturbance event analysis. This project is located in several counties spanning from McCamey to northwest of Houston, as well as the LCRA TSC Etof Soderberg System Operations Control Center. The recommended project completion date is June 30, 2017.

System Restoration Improvements Substation Upgrade – The project will increase the reliability of substation equipment at 37 substations by replacing the existing battery chargers and creating new battery monitoring remote terminal unit points. The project is located in several counties served by the LCRA TSC transmission system. The recommended project completion date is June 30, 2017.

Tahitian Village Circuit Breaker Addition – The project will add 138-kV circuit breakers to the Tahitian Village Substation in Bastrop County to improve reliability of transmission service to loads that exceed 10 megawatts during peak loading conditions. The recommended project completion date is June 30, 2017.

Twin Buttes Autotransformer Addition – The project's scope is to replace the existing 345/138-kV 280 MVA autotransformer with a 345/138-kV 672 MVA autotransformer to increase capacity and reliability at the Twin Buttes Substation in Tom Green County and install a 345-kV, 50-megavolt ampere reactive (MVAR) reactor bank at Divide Substation to improve transmission system voltage control. The recommended project completion date is Dec. 31, 2017.

Transmission Projects (Continued)

LCRA Transmission Services Corporation
 FY 2017 Capital Plan Recommended Projects
 (Dollars in thousands)

Project Name	Contingency	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Five-Year	
							Total	Lifetime
Recommended								
Arco Tap Circuit Breaker Addition	5%	2,319	3,567	-	-	-	5,886	5,886
Autotransformer Monitoring Additions – Phase 3 Substation Upgrade	2%	528	-	-	-	-	528	528
Bergheim Substation Upgrade	3%	249	827	10,244	-	-	11,320	11,320
Brenham North-Chappell Hill Double Circuit Break-Off Structure Transmission Line Overhaul	10%	5,346	-	-	-	-	5,346	5,346
Bus Differential Redundancy Substation Upgrade	2%	933	1,896	-	-	-	2,829	2,829
Camp Wood-Leakey Transmission Line Overhaul	0%	722	6,034	22,853	-	-	29,609	29,609
Chappell Hill Circuit Breaker Addition	4%	3,290	-	-	-	-	3,290	3,290
Chappell Hill Double Circuit Break-Off Structure-Highway 36 Transmission Line Overhaul	10%	1,296	-	-	-	-	1,296	1,296
Cheapside-Cuero Transmission Line Storm Hardening	10%	330	-	-	-	-	330	330
Cheapside-Gonzales Transmission Line Storm Hardening	10%	249	-	-	-	-	249	249
Circuit Breaker Operator Upgrades – Phase 4 Substation Upgrade	2%	554	-	-	-	-	554	554
Circuit Breaker Replacement – Phase 5 Substation Upgrade	2%	761	1,140	-	-	-	1,901	1,901
Circuit Switcher Replacement Program – Phase 10 Substation Upgrade	2%	1,698	-	-	-	-	1,698	1,698
Cuero-Luling Transmission Line Overhaul	0%	9,022	-	-	-	-	9,022	9,022
Cuero-Yoakum Gartner Road Transmission Line Overhaul	10%	4,356	-	-	-	-	4,356	4,356
Cushman-Seguin Transmission Line Storm Hardening	10%	3,929	-	-	-	-	3,929	3,929
Dale-Lockhart Transmission Line Overhaul	10%	859	-	-	-	-	859	859
Elroy Substation Upgrade	2%	256	-	-	-	-	256	256
Energy Management System NERC CIP System Upgrade	2%	200	-	-	-	-	200	200
Environmental Permitting System Upgrade	2%	26	26	666	-	-	718	718
Esperanza Substation Addition	7%	21	49	770	4,233	-	5,073	5,073
Fayetteville-Round Top Transmission Line Overhaul	10%	2,064	-	-	-	-	2,064	2,064
Flatonia-Hallettsville Transmission Line Upgrade	9%	132	272	401	6,935	-	7,740	7,740
FPP Bus Tie Substation Upgrade	0%	484	5,774	-	-	-	6,258	6,258
Galloping Remediation Transmission Line Upgrade	10%	195	1,645	-	-	-	1,840	1,840
General Additions	2%	4,000	-	-	-	-	4,000	4,000

Transmission Projects (Continued)

LCRA Transmission Services Corporation
 FY 2017 Capital Plan Recommended Projects
 (Dollars in thousands)

Project Name	Contingency	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Five-Year Total	Lifetime
Recommended (Continued)								
Georgetown South Circuit Breaker Addition	5%	3,857	-	-	-	-	3,857	3,857
Giddings Substation Upgrade	2%	127	997	-	-	-	1,124	1,124
Gilleland Creek-Hutto Transmission Line Upgrade	2%	244	-	-	-	-	244	244
Glidden Area Transmission Line Upgrade	4%	144	424	2,731	7,001	-	10,300	10,300
Hays Energy Substation Upgrade	5%	398	4,369	-	-	-	4,767	4,767
Marble Falls-Mormon Mills Tap Transmission Line Overhaul	10%	267	-	-	-	-	267	267
Marion Substation Relay Upgrade	2%	763	-	-	-	-	763	763
Marshall Ford-McNeil Transmission Line Overhaul	10%	356	-	-	-	-	356	356
Mason CTEC Circuit Breaker Addition	2%	1,115	-	-	-	-	1,115	1,115
Meadow Lake Substation Addition	4%	72	371	2,520	-	-	2,963	2,963
Megastar Microwave Telecommunications Upgrade	0%	610	610	813	-	-	2,033	2,033
Minor Capital	0%	351	-	-	-	-	351	351
Most Limiting Series Element Substation Upgrades	2%	763	-	-	-	-	763	763
Out-of-Band Management System Telecommunications Upgrade	0%	453	301	-	-	-	754	754
Power Transformer Bypass Capability Substation Upgrade	2%	955	1,568	-	-	-	2,523	2,523
Radial Autotransformer Redundancy Substation Upgrade	2%	118	813	-	-	-	931	931
Radio System MPLS Migration Telecommunications Upgrade	10%	448	-	-	-	-	448	448
San Marcos Radio Site Telecommunications Upgrade	5%	122	-	-	-	-	122	122
Seguin West Substation Upgrade	2%	624	-	-	-	-	624	624
Shadow Glen Circuit Breaker Addition	2%	1,652	-	-	-	-	1,652	1,652
Sim Gideon-Winchester Transmission Line Overhaul	10%	312	7,730	-	-	-	8,042	8,042
Smithville-Winchester Transmission Line Overhaul	0%	754	11,557	-	-	-	12,311	12,311
Starcke Circuit Breaker Addition	2%	1,518	-	-	-	-	1,518	1,518
Station Service Substation Upgrade	2%	1,724	-	-	-	-	1,724	1,724
Synchrophasor Measurement – Phase 2 Substation Upgrade	2%	371	-	-	-	-	371	371
System Restoration Improvements Substation Upgrade	2%	2,495	-	-	-	-	2,495	2,495

Transmission Projects (Continued)

LCRA Transmission Services Corporation

FY 2017 Capital Plan Recommended and Approved Projects

(Dollars in thousands)

Project Name	Contingency	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Five-Year Total	Lifetime
Recommended (Continued)								
Tahitian Village Circuit Breaker Addition	2%	1,547	-	-	-	-	1,547	1,547
Twin Buttes Autotransformer Addition	2%	2,246	7,009	-	-	-	9,255	9,255
Recommended Subtotal		68,225	56,979	40,998	18,169	-	184,371	184,371
Approved								
Altair-Glidden Transmission Line Overhaul	2%	9,183	-	-	-	-	9,183	11,877
Bakersfield Reactor Addition	2%	3,521	-	-	-	-	3,521	3,789
Battery Replacements – Phase 2 Substation Upgrade	2%	315	-	-	-	-	315	735
Blewett Substation Addition	4%	1,656	-	-	-	-	1,656	5,086
Blumenthal Substation Addition	10%	7,492	4,691	-	-	-	12,183	15,054
Bow Wood Substation Addition	4%	5,624	-	-	-	-	5,624	12,737
Brady Asset Purchase Addition	8%	995	-	-	-	-	995	1,647
Castillo Substation and Transmission Line Addition	6%	2,066	-	-	-	-	2,066	8,708
Clear Springs Substation Upgrade	3%	323	2,381	-	-	-	2,704	2,783
Cost Substation Addition	2%	5	5	125	104	-	239	254
DVM Microwave Telecommunications Upgrade	2%	559	619	487	-	-	1,665	2,888
Elgin Switch-Gilliland Creek Transmission Line Overhaul	2%	2,139	-	-	-	-	2,139	5,160
Elgin Switch-Sim Gideon Transmission Line Overhaul	2%	13,859	-	-	-	-	13,859	17,224
Ferguson-Sandy Creek Transmission Line Overhaul	6%	3,461	-	-	-	-	3,461	4,330
Flatrock Substation Upgrade	2%	169	-	-	-	-	169	212
FM 725 Substation Addition	10%	5	5	5	286	-	301	309
FM 758 Substation Addition	10%	1,691	-	-	-	-	1,691	1,881
Freiheit Road Substation Upgrade	2%	1,489	1,951	-	-	-	3,440	3,503
Garfield Substation Upgrade	10%	82	-	-	-	-	82	223
Georgetown South Substation Upgrade	10%	497	-	-	-	-	497	814

Transmission Projects (Continued)

LCRA Transmission Services Corporation

FY 2017 Capital Plan Approved Projects

(Dollars in thousands)

Project Name	Contingency	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Five-Year	
							Total	Lifetime
Approved (Continued)								
Georgetown-Rivery Transmission Line Upgrade	10%	1,226	-	-	-	-	1,226	1,642
Gilleland Creek Autotransformer Addition	2%	5,417	1,544	-	-	-	6,961	8,667
Goldthwaite-Lampasas Transmission Line Upgrade	6%	33,420	11,240	-	-	-	44,660	73,085
Helena Circuit Breaker Addition	10%	1,057	-	-	-	-	1,057	1,339
Henne Power Transformer Addition	2%	219	-	-	-	-	219	285
Henne-Comal Transmission Line Upgrade	3%	109	11,187	-	-	-	11,296	12,583
Henne-McCarty Lane Transmission Line Upgrade	2%	3,944	8,367	-	-	-	12,311	13,996
Kerrville Stadium-Harper Road Transmission Line Upgrade	2%	27	179	4,527	-	-	4,733	5,131
Leander-Parmer-Round Rock Transmission Line Addition	10%	553	19,218	10,812	11,821	-	42,404	43,867
Lincoln Substation Addition	6%	2,892	-	-	-	-	2,892	3,387
Lockhart-Luling Transmission Line Upgrade	10%	7,573	-	-	-	-	7,573	12,664
Luling-Nixon Transmission Line Overhaul	2%	14,625	-	-	-	-	14,625	18,079
Lytton Springs Autotransformer Relocation	2%	386	-	-	-	-	386	1,136
Marion Power Transformer Addition	2%	1,638	42	-	-	-	1,680	1,715
Marion Substation Upgrade	5%	3,049	-	-	-	-	3,049	5,012
Meter Upgrades Substation Upgrade	7%	84	-	-	-	-	84	565
Mobile 10919 Substation Upgrade	2%	443	-	-	-	-	443	357
Mobile Transformer Hookup Switches – Phase 2	2%	380	91	-	-	-	471	1,722
Moulton South Substation Addition	2%	976	-	-	-	-	976	1,955
Nopal Substation Addition	4%	168	-	-	-	-	168	2,426
Physical Security Substation Upgrade	10%	4,316	-	-	-	-	4,316	18,961
Pittsburg-Sandy Creek Transmission Line Overhaul	2%	5,895	-	-	-	-	5,895	9,702
Protection System Upgrades – Substation Upgrade	2%	1,333	613	1,315	-	-	3,261	6,125
Rincon-Rockport Transmission Line Relocation	5%	1,024	-	-	-	-	1,024	1,376
Schneeman Draw Substation Addition	3%	4,053	1,550	14	-	-	5,617	8,680
Seawillow Substation Addition	3%	5	5	213	3,926	335	4,484	5,001

Transmission Projects (Continued)

LCRA Transmission Services Corporation
 FY 2017 Capital Plan Approved and Future Projects
 (Dollars in thousands)

Project Name	Contingency	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Five-Year	
							Total	Lifetime
Approved (Continued)								
Sherwood Shores Circuit Breaker Addition	2%	2,006	1,863	-	-	-	3,869	3,897
Sonne Substation Addition	4%	2,267	-	-	-	-	2,267	3,810
SubWAN Upgrades Substation Upgrade	2%	26	-	-	-	-	26	839
Twin Buttes Autotransformer Addition	2%	888	-	-	-	-	888	12,983
Upton Circuit Breaker Addition	4%	3,850	-	-	-	-	3,850	4,386
Warda-Giddings Transmission Line Upgrade	10%	2,073	178	12	-	-	2,263	2,501
Zorn Area Transmission Line Restoration	10%	649	-	-	-	-	649	6,914
Zorn-Marion Transmission Line Addition	9%	2,204	42,478	37,531	-	-	82,213	83,346
Approved Subtotal		163,906	108,207	55,041	16,137	335	343,626	477,348
Future								
Adamsville-Evant Circuit Breaker Addition		-	2,295	-	-	-	2,295	2,295
Andice T1/T2 Substation Upgrade		-	-	90	-	-	90	90
Austrop-Sandow Transmission Line Upgrade (CCN)		-	1,500	2,000	10,000	15,000	28,500	63,921
Bakersfield-Big Hill Autotransformer Addition		-	-	3,000	22,000	-	25,000	25,000
Bellville North Circuit Breaker Addition		-	2,446	-	-	-	2,446	2,446
Bergheim Power Transformer Addition		-	-	2,000	-	-	2,000	2,000
Blockhouse Power Transformer Addition		-	-	90	-	-	90	90
Brewster County Substation and Transmission Line Addition (CCN)		-	592	1,000	9,553	31,842	42,987	97,500
Butler Circuit Breaker Addition		-	1,935	-	-	-	1,935	1,935
Caddo Substation Addition		-	-	-	500	3,400	3,900	3,900
Colton Circuit Breaker Addition		-	1,869	-	-	-	1,869	1,869
Columbus-Stafford Hill Circuit Breaker Addition		-	2,555	-	-	-	2,555	2,555
Cooks Point Substation and Transmission Line Addition (CCN)		-	592	1,000	19,129	26,279	47,000	47,000
Cypress Creek Circuit Breaker Addition		-	2,027	-	-	-	2,027	2,027

Transmission Projects (Continued)

LCRA Transmission Services Corporation
 FY 2017 Capital Plan Future Projects
 (Dollars in thousands)

Project Name	Contingency	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Five-Year	
							Total	Lifetime
Future (Continued)								
Darst Creek Circuit Breaker Addition	-	-	-	2,882	-	-	2,882	2,882
Dimmit Circuit Breaker Addition	-	-	-	2,451	-	-	2,451	2,451
Dobyville-Graphite Mine Circuit Breaker Addition	-	-	-	2,438	-	-	2,438	2,438
E. Babe Smith-Naruna Circuit Breaker Addition	-	-	-	1,775	-	-	1,775	1,775
Fayette County Substation and Transmission Line Addition (CCN)	-	500	2,000	27,416	-	-	29,916	29,916
Fayetteville Substation Autotransformer Addition	-	-	2,000	8,623	-	-	10,623	10,623
Flood Remediation Substation Upgrade	-	250	3,750	-	-	-	4,000	4,000
Frelsburg-Mockingbird Circuit Breaker Addition	-	-	2,335	-	-	-	2,335	2,335
Friendship Substation Upgrade	-	-	90	-	-	-	90	90
Gabriel Power Transformer Upgrade	-	-	-	90	-	-	90	90
Gabriel-Jarrell Transmission Line Upgrade	-	-	5,465	-	-	-	5,465	5,465
Garfield Cut-In (Austin Energy-Requested Interconnection) Substation Addition	-	500	3,100	-	-	-	3,600	3,600
General Additions	-	4,000	4,000	4,000	4,000	4,000	16,000	16,000
Giddings Power Transformer Addition	-	-	-	-	-	2,000	2,000	2,000
Giddings-Warda Transmission Line Upgrade	-	-	500	18,217	-	-	18,717	18,717
Graphite Mine Substation Upgrade	-	-	-	-	-	90	90	90
Hallettsville-Hallettsville City Transmission Line Addition	-	-	-	-	-	5,355	5,355	5,355
Harris Branch Substation Upgrade	-	-	-	2,000	-	-	2,000	2,000
High Point Substation Addition	-	-	950	-	-	-	950	950
Horseshoe Bay Power Transformer Upgrade	-	-	90	-	-	-	90	90
Howard Lane Substation Upgrade	-	-	-	-	2,974	-	2,974	2,974
Hueco Springs Substation Addition (CCN)	-	-	-	-	-	27,000	27,000	27,000
Hunter Power Transformer Addition	-	-	90	-	-	-	90	90
Kempner Circuit Breaker Addition	-	-	2,646	-	-	-	2,646	2,646
Kendall CTEC Circuit Breaker Addition	-	-	2,414	-	-	-	2,414	2,414
Lakeway Power Transformer Addition	-	90	-	-	-	-	90	90

Transmission Projects (Continued)

LCRA Transmission Services Corporation

FY 2017 Capital Plan Future Projects

(Dollars in thousands)

Project Name	Contingency	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Five-Year Total	Lifetime
Future (Continued)								
LCRA TSC Transmission Line Fiber Upgrade – FY 2018	-	4,077	-	-	-	-	4,077	4,077
LCRA TSC Transmission Line Fiber Upgrade – FY 2019	-	-	4,077	-	-	-	4,077	4,077
LCRA TSC Transmission Line Fiber Upgrade – FY 2020	-	-	-	4,077	-	-	4,077	4,077
LCRA TSC Transmission Line Fiber Upgrade – FY 2021	-	-	-	-	-	4,077	4,077	4,077
Lexington Circuit Breaker Addition	-	-	-	-	2,286	-	2,286	2,286
Lockhart-Seguín Split Transmission Line Upgrade (CCN)	-	-	-	1,000	3,000	25,000	29,000	69,300
Luling Mag-Magnolia Mercer Circuit Breaker Addition	-	-	-	-	2,428	-	2,428	2,428
Lyons Circuit Breaker Addition	-	-	-	-	122	-	122	122
McElmurray Substation Circuit Breaker Addition	-	2,400	-	-	-	-	2,400	2,400
Merrelltown Substation Addition	-	-	-	-	-	2,831	2,831	2,831
Milton Capacitor Bank Addition	-	1,081	-	-	-	-	1,081	1,081
Minor Capital	-	477	359	440	493	-	1,769	1,769
Mountain Home Substation Addition (CCN)	-	1,000	3,000	15,000	45,000	-	64,000	64,000
New Bremen-Willow Springs Circuit Breaker Addition	-	-	-	-	2,349	-	2,349	2,349
Pflugerville South Substation Addition	-	-	-	3,234	-	-	3,234	3,234
Pharr-Weslaco Transmission Line Relocation	-	1,500	-	-	-	-	1,500	1,500
Pisek-Welcome Circuit Breaker Addition	-	-	-	-	2,417	-	2,417	2,417
Pooley Road Circuit Breaker Addition	-	-	-	-	1,905	-	1,905	1,905
Power Lane Transmission Line Upgrade (CCN)	-	500	1,000	4,000	14,535	-	20,035	37,035
Ranch Road 12 Circuit Breaker Addition	-	-	-	-	2,009	-	2,009	2,009
Riverside Circuit Breaker Addition	-	-	-	-	2,446	-	2,446	2,446
RTU Upgrades Substation Upgrade	-	1,248	-	-	-	-	1,248	1,248
Santa Clara Substation Addition	-	-	-	-	281	-	281	281
Seguín North Substation Addition	-	-	-	1,500	4,140	-	5,640	5,640
Seguín West Powertransformer Addition	-	-	-	2,165	-	-	2,165	2,165
Shiner Circuit Breaker Addition	-	-	-	-	-	2,118	2,118	2,118

Transmission Projects (Continued)

LCRA Transmission Services Corporation
 FY 2017 Capital Plan Future Projects
 (Dollars in thousands)

Project Name	Contingency	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Five-Year Total	Lifetime
Future (Continued)								
Southeast Leander Substation Addition		-	-	-	3,900	-	3,900	3,900
Transmission Line Overhauls – FY 2018		-	17,979	-	-	-	17,979	17,979
Transmission Line Overhauls – FY 2019		-	-	20,160	-	-	20,160	20,160
Transmission Line Overhauls – FY 2020		-	-	-	15,231	-	15,231	15,231
Transmission Line Overhauls – FY 2021		-	-	-	-	23,898	23,898	23,898
Triple R Ranch Substation Addition		-	-	-	500	3,400	3,900	3,900
TXI Transmission Line Addition (CCN)		-	3,000	8,000	12,838	-	23,838	23,838
Warda Circuit Breaker Addition		-	-	-	-	2,680	2,680	2,680
Webberville Circuit Breaker Addition		-	-	-	-	1,720	1,720	1,720
Weimar Circuit Breaker Addition		-	-	-	-	2,788	2,788	2,788
Wimberly Loop Substation and Transmission Line Addition (CCN)		-	588	3,527	11,757	20,128	36,000	36,000
Wolf Creek Circuit Breaker Addition		-	-	-	-	2,558	2,558	2,558
XS Ranch Substation Addition		-	-	-	3,900	-	3,900	3,900
Yorktown - Nordheim Circuit Breaker Addition		-	-	-	-	2,165	2,165	2,165
Zorn Autotransformer Replacement		-	2,000	4,317	-	-	6,317	6,317
Future Subtotal		-	57,001	100,495	216,554	271,331	645,381	792,615
Total LCRA Transmission Services Corporation		232,131	222,187	196,534	250,860	271,666	1,173,379	1,454,335

Water Projects

Water

Water projects in the capital plan include capital improvements for managing and delivering raw water and for water utilities. This plan focuses resources on managing the river, improving infrastructure – including LCRA’s Hydromet system – and planning to meet the basin’s future water needs. The plan also assumes the current status of the sale agreements for LCRA’s remaining water and wastewater utilities. Therefore, it only includes water utility capital expenditures that support the continued reliable operation of, or fulfill regulatory requirements for, the remaining systems and the systems being purchased by Corix Utilities (Texas), pending completion of the sale, transfer and merger process.

Water recommended and approved projects total \$130.7 million in FY 2017 and \$212.3 million over the next five years through FY 2021. Future projects total \$52.3 million through FY 2021.

FY 2017 Recommended Projects

Dam Instrumentation Raw Water – The dams LCRA operates for water supply, hydroelectric generation and power plant cooling must be monitored continually for dam safety compliance. Instruments are installed in the dam to evaluate the stability of the dam, which may be affected by uplift forces under the dam’s base. The recommended project scope is to install instruments at Buchanan Dam to measure hydrostatic pressures under the dam, collect the measurement data and transmit the data to a central repository.

Gulf Coast Plant No. 1 Intake and Banks – Gulf Coast Plant No. 1 distributes water to the OXEA Corporation chemical plant – a firm water customer – and to interruptible water customers irrigating about 8,000 acres of farmland. The intake structure houses two vertical turbine pumps, which pump water from the Colorado River into the canals. Significant erosion on the bank of the Colorado River immediately adjacent to the Gulf Coast Plant Number 1 threatens surface level infrastructure, such as roads, fences and existing sheet piling walls. Continued erosion would create safety concerns and threaten the building’s structural integrity. The recommended project scope is to reconstruct the sheet piling retaining wall to eliminate these problems.

Water Projects

Water FY 2017 Recommended Projects

Oyster Lake Gates – The Gulf Coast Irrigation Division has a serviceable area of 490 square miles and 350 miles of managed canals. Water is conveyed and controlled through the canal system using manually operated lock structures and gates built in the 1920s and 1930s. This operation is inefficient with frequent spillages of water. The recommended project scope is to retrofit and install 17 lock structures consisting of aluminum slide gates for 12 sites with actuators and instrumentation for automatic control; a fully automated system with level monitoring instrumentation; a spill monitoring site; and a radio-based data communication system. The project scope also includes incorporating the new gate data communication system into the existing supervisory control and data acquisition (SCADA) system. Automating new aluminum lock structures will decrease loss of water over the gates and eliminate staff time to reposition gates.

General Additions – General addition projects will maintain infrastructure and improve reliability and efficiency for the following: Hydromet; Irrigation; Raw Water; and Water Utilities.

Minor Capital – The scope of minor capital projects is to purchase equipment that, essentially, is ready to place in service upon delivery for the following: Hydromet; Irrigation; and Raw Water.

Water Projects (Continued)

Water

FY 2017 Capital Plan Recommended and Approved Projects

(Dollars in thousands)

Project Name	Contingency	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Five-Year Total	Lifetime
Recommended								
Raw Water								
Dam Instrumentation Raw Water	15%	765	-	-	-	-	765	765
General Additions – Hydromet – FY 2017	0%	30	-	-	-	-	30	30
General Additions – Irrigation Systems – FY 2017	0%	420	-	-	-	-	420	420
General Additions – Raw Water – FY 2017	0%	200	-	-	-	-	200	200
Gulf Coast Plant Number 1 Intake and Banks	9%	300	-	-	-	-	300	300
Oyster Lake Gates	6%	400	-	-	-	-	400	400
Minor Capital – Hydromet – FY 2017	0%	98	-	-	-	-	98	98
Minor Capital – Irrigation – FY 2017	0%	292	-	-	-	-	292	292
Minor Capital – Raw Water – FY 2017	0%	35	-	-	-	-	35	35
Water Utility								
General Additions – FY 2017	0%	12	-	-	-	-	12	12
Recommended Subtotal		2,552	-	-	-	-	2,552	2,552
Approved								
Raw Water								
Buchanan Dam Spalling Concrete Rehabilitation – Phase 3	7%	3,009	2,819	3,493	3,165	4,967	17,453	36,000
Buchanan Floodgate Rehabilitation – Phase 2	14%	8,013	6,405	3,906	-	-	18,324	50,072
Buchanan Intake Structure	9%	810	-	-	-	-	810	1,119
New Regional Water Supply Projects - Phase 1 (formerly Integrated Water Projects – Phase 1)	0%	3,891	-	-	-	-	3,891	6,179
Lane City Reservoir	10%	111,562	40,644	12,789	-	-	164,995	250,000
Mansfield Dam Paradox Gate Rehabilitation – Phase 2	7%	859	893	861	851	808	4,272	10,416
Approved Subtotal		128,144	50,761	21,049	4,016	5,775	209,745	353,786

Water Projects (Continued)

Water

FY 2017 Capital Plan Future Projects

(Dollars in thousands)

Project Name	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Five-Year Total	Lifetime
Future							
Raw Water							
Buchanan 7 Gate Deck and Hoist Recoating	-	500	-	-	-	500	500
General Additions – Irrigation Systems	-	565	455	455	255	1,730	1,730
General Additions – Raw Water	-	390	200	300	-	890	890
Gulf Coast Plant No. 1 – Pumps 1 and 2	-	-	-	700	-	700	700
Gulf Coast Wadsworth Gates	-	365	-	-	-	365	365
New Regional Water Supply Projects - Phase 2 (formerly Integrated Water Projects – Phase 2)	3,775	27,453	8,281	-	-	39,509	39,509
Irrigation Supervisory Control and Data Acquisition System	-	235	257	-	-	492	492
Lakeside Automated Gates	-	-	-	370	370	740	1,850
Lakeside Canal Easement Acquisition	-	-	300	300	300	900	1,200
Lakeside Lake Plant Building Office and Meeting Room	-	-	-	-	300	300	300
Lakeside Lake Plant Variable Frequency Drive and Switch Gear Building	-	500	-	-	-	500	500
Mansfield Dam Bridge and Structures	-	2,230	-	-	-	2,230	2,230
Mansfield Dam Dehumidification System	-	500	-	-	-	500	500
Mansfield Dam Floodgate Hydraulic Piping	-	785	-	-	-	785	785
Minor Capital – Hydromet	-	167	167	167	167	668	668
Minor Capital – Irrigation	-	250	287	375	555	1,467	1,467
Future Subtotal	3,775	33,940	9,947	2,667	1,947	52,276	53,686
Total Water	134,471	84,701	30,996	6,683	7,722	264,573	410,024

Public Service Projects

Public Services

LCRA acts under its legislative authority and Board direction to develop and manage parks, recreation facilities and natural science centers in its statutory district, providing public recreation and water access along the Colorado River and its tributaries and LCRA's power plant reservoirs. LCRA's public park system includes more than 40 parks, recreation areas, natural resource areas and river access sites on about 13,500 acres. The parks and natural science centers enhance the public's use and enjoyment of LCRA lands and provide diverse outdoor recreation and education opportunities.

LCRA's public service funding aims to keep pace with the growing Central Texas population and expected increases in park visitation; protect natural resources and water quality along the Colorado River; and develop facilities that help achieve LCRA's cost-recovery goals for parks.

Public Service recommended and approved projects total \$2.5 million in FY 2017 and \$4.9 million over the next five years through FY 2021. Future projects total \$6.2 million through FY 2021.

FY 2017 Recommended Projects

Camp Creek Recreation Area Facilities – Camp Creek Recreation Area is an undeveloped park on Lake Travis. Currently, no entrance fees are collected. The proposed project is to design and install facilities so entrance fees can be collected. Adding basic infrastructure will help increase visitation and revenue. Providing basic infrastructure for park activities will help attract potential revenue-generating partnership opportunities.

Shaffer Bend Recreation Area Facilities – Shaffer Bend Recreation Area, with 520 acres on the north side of Lake Travis in Burnet County and about 8 miles east of Marble Falls, is one of LCRA's largest undeveloped recreation areas. Currently, there are no LCRA parks developed on Lake Travis equivalent to South Shore Park on Lake Bastrop or Black Rock Park on Lake Buchanan. The proposed project to provide amenities for visitors will help to increase visitation and revenues. Providing basic infrastructure for park activities will help attract potential revenue-generating partnership opportunities.

Public Service Projects

Public Services FY 2017 Recommended Projects

General Additions – General addition projects will maintain infrastructure and improve safety for parks.

Minor Capital – The scope of minor capital projects is to purchase equipment that, essentially, is ready to place in service upon delivery for the following: Parks and other public services.

Public Service Projects (Continued)

Public Services

FY 2017 Capital Plan Recommended, Approved and Future Projects

(Dollars in thousands)

Project Name	Contingency	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Five-Year Total	Lifetime
Recommended								
Parks								
Camp Creek Recreation Area Facilities	8%	80	400	-	-	-	480	480
General Additions – FY 2017	0%	572	-	-	-	-	572	572
Minor Capital – FY 2017	0%	181	-	-	-	-	181	181
Shaffer Bend Recreation Area Facilities	10%	430	370	664	600	-	2,064	2,064
Other Public Services								
Minor Capital – FY 2017	0%	390	-	-	-	-	390	390
Recommended Subtotal		1,653	770	664	600	-	3,687	3,687
Approved								
Parks								
McKinney Roughs Equestrian Camping	10%	831	343	-	-	-	1,174	1,280
Approved Subtotal		831	343	-	-	-	1,174	1,280
Future								
Parks								
Black Rock Park Entrance Station		-	40	250	-	-	290	290
General Additions		-	-	-	165	110	275	850
Lake Bastrop North Shore Camping Lodging		-	-	-	-	100	100	400
Lake Bastrop North Shore Facilities		-	112	480	-	-	592	592
Matagorda Bay Nature Park Yacht Camping		-	-	80	320	-	400	400

Public Service Projects (Continued)

Public Services

FY 2017 Capital Plan Future Projects

(Dollars in thousands)

Project Name	Contingency	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Five-Year	Lifetime
Future (Continued)								
Parks (Continued)								
McKinney Roughs Equestrian Pavilion and Roads		-	225	275	-	-	500	500
Minor Capital		-	134	205	140	92	571	571
Muleshoe Bend Recreation Area Facilities	9%	-	430	-	-	-	430	430
Muleshoe Bend Recreation Area Facilities – FY 2019		-	-	60	300	-	360	360
Pedemales River Nature Park Facilities		-	-	-	200	400	600	600
Pedemales River Nature Park Overnight Facilities		-	-	-	250	375	625	625
Plum Park Facilities		-	-	-	-	200	200	400
Shaffer Bend Recreation Area Facilities		-	-	-	-	640	640	1,375
Other Public Services								
Minor Capital		-	153	261	72	148	634	634
Future Subtotal		-	1,094	1,611	1,447	2,065	6,217	8,027
Total Public Services		2,484	2,207	2,275	2,047	2,065	11,078	12,994

Enterprise Support Projects

Enterprise Support

Enterprise Support capital projects provide the facility, telecommunications and information technology infrastructure that support the business operations of the organization. LCRA's power, transmission and water rates fund the projects, making predicting costs to include in LCRA's rates especially important. Unless an emergency arises, LCRA adjusts Enterprise Support priorities throughout the year to stay within the approved capital plan budget for each fiscal year instead of seeking additional funding authority from the Board.

Enterprise Support recommended and approved projects total \$29.7 million in FY 2017 and over the next five years through FY 2021. Future projects total \$62.9 million through FY 2021.

FY 2017 Recommended Projects

GOC and Service Center Building Automation System – A building automation system controls and monitors all or some building functions, including both mechanical and electrical equipment and components. Currently, the controls that monitor and control LCRA's heating, ventilating and air conditioning (HVAC) systems at the General Office Complex and Dalchau Service Center are running on Windows NT, 2000 and XP. Outages have occurred at the Service Center. The recommended project scope is to replace or upgrade the HVAC control systems for the GOC and Service Center into a single unified system.

Physical Access Control System – Phase 2 – Physical access control is the enforcement of selective restriction to a location or resource based on a predefined set of criteria. The predefined set of criteria establishes permissions that initiate authorization to a location or resource. Physical access control systems assist in managing this process as well as logging an automated transaction of events. Currently, LCRA has two physical access control systems. The vendor will no longer support the Facility Commander software in 2019, the servers that run it are all out of manufacturer warranty and all physical equipment is at or nearing the end of its useful life. This project will serve as the continuation of an initiative to migrate all LCRA locations from Facility Commander to a single access control system. The recommended project scope is to replace the access and video controls for LCRA's major office complexes. This includes the General Office Complex – including the Redbud Center – and the Dalchau Service Center.

Enterprise Support Projects (Continued)

Enterprise Support FY 2017 Recommended Projects (Continued)

Asset and Work Management Upgrade – The Maximo application generates work orders for every function at LCRA. Maximo supports asset lifecycle and maintenance management, material purchases, inventory tracking, vendor requisitions, project management cost tracking, and department operations. The current version of Maximo will reach the end of its useful life on April 30, 2017. There also are software infrastructure components that are at the end of their useful lives and have known vulnerabilities. The recommended project scope is to upgrade LCRA's asset and work management application.

Core Switch Upgrade – Core switches, the backbone of LCRA's network, are close to the end of their useful lives and do not support the technologies necessary to promote data center stability and resiliency. Failure of a component at one data center can impact the redundant data center. The recommended project scope is to deploy a modern architecture with current infrastructure that offers a scalable, highly secure and resilient environment for supporting LCRA's unique lines of business. This investment also will support future revenue-generating efforts.

SIEM Redundancy – The SIEM (Security Incident and Event Management) system is a cybersecurity system that provides near real-time analysis of logs generated by information systems, including servers, desktops, databases, network devices and other security tools. The current environment is a stand-alone instance, resulting in the system being a single point of failure. The recommended project scope is to purchase and implement a redundant SIEM system.

Scheduling Tool – Foursight is an LCRA-developed application added to Maximo, LCRA's work and asset management tool, and is the scheduling system for the Generation Reliability group. This group includes employees in the Plant Support Services group and maintenance crews at Fayette Power Project, Lost Pines 1 Power Project, Thomas C. Ferguson Power Plant, Hilbig Gas Storage Facility and Smithville Rail Fleet Maintenance Facility. Foursight links together several disconnected functions, aggregating information to visualize the schedule in a way that brings situational awareness so staff can take action to add or remove work and labor. Foursight is exclusively maintained by one resource, and there is no system documentation and no formal support plan. The recommended project scope is to determine and implement a replacement for Foursight with an out-of-the box solution. The scope also includes exploring expansion of the scheduling tool to meet needs throughout LCRA.

Enterprise Support Projects (Continued)

Enterprise Support FY 2017 Recommended Projects (Continued)

Time and Attendance System – WorkForce is LCRA’s enterprise software for tracking employee time and labor and fleet use. The current version of WorkForce is at the end of its useful life, and the vendor no longer supports it. The recommended project scope is to upgrade WorkForce or implement a new product.

Treasury Management – Phase 1 – The current application LCRA uses for Treasury management has not been integrated with PeopleSoft, resulting in many manual processes for LCRA’s Accounting and Treasury groups. The vendor has announced that support for the product is being reduced and will be discontinued within three years, effectively eliminating any consideration for a cost-effective integration with PeopleSoft. This project’s scope is to replace the current application and implement the most cost-effective tool to achieve improved efficiencies in monitoring and forecasting cash requirements, performing automated bank reconciliations, and automating generation of accounting entries, with as few customizations as possible.

Tower Upgrades – Phase 2 – The upgrades will increase the capacity and reliability of telecommunications tower equipment at the Council Creek and Smithson Valley telecommunications facilities, as well as the Elgin, Lyle Wolz and Lexington substations. The recommended project completion date is June 30, 2017.

General Additions – General addition projects will maintain infrastructure and improve reliability for the following: Facilities; Information Technology, including various projects to comply with North American Electric Reliability Corporation regulations, maintain infrastructure, and improve reliability for LCRA technology systems and applications; and Telecommunications, including projects for required, but unplanned, system improvements to accommodate failed equipment, telecommunications system reliability enhancements or changing system conditions as they occur.

Minor Capital – The scope of minor capital projects is to purchase equipment that, essentially, is ready to place in service upon delivery for the following: Information Technology; Public Safety; Telecommunications; and Unregulated Transmission.

Enterprise Support Projects (Continued)

Enterprise Support

FY 2017 Capital Plan Recommended Projects

(Dollars in thousands)

Project Name	Contingency	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Five-Year	
							Total	Lifetime
Recommended								
Facilities								
General Additions – FY 2017	0%	320	-	-	-	-	320	320
GOC and Service Center Building Automation System	10%	600	-	-	-	-	600	600
Information Technology								
Asset and Work Management Upgrade	10%	1,000	-	-	-	-	1,000	1,000
Core Switch Upgrade	10%	500	-	-	-	-	500	500
General Additions – FY 2017	0%	1,575	-	-	-	-	1,575	1,575
Minor Capital – FY 2017	0%	1,725	-	-	-	-	1,725	1,725
Scheduling Tool	10%	300	-	-	-	-	300	300
SIEM Redundancy	10%	300	-	-	-	-	300	300
Time and Attendance System	10%	280	-	-	-	-	280	280
Treasury Management - Phase 1	10%	405	-	-	-	-	405	405
Public Safety								
Minor Capital – FY 2017	0%	278	-	-	-	-	278	278
Physical Access Control System – Phase 2	10%	995	-	-	-	-	995	995
Telecommunications								
General Additions – FY 2017	0%	1,000	-	-	-	-	1,000	1,000
Minor Capital – FY 2017	0%	306	-	-	-	-	306	306
Tower Upgrades – Phase 2	10%	715	-	-	-	-	715	715
Unregulated Transmission								
Minor Capital – FY 2017	0%	15,962	-	-	-	-	15,962	15,962
Recommended Subtotal		26,261	-	-	-	-	26,261	26,261

Enterprise Support Projects (Continued)

Enterprise Support

FY 2017 Capital Plan Approved and Future Projects

(Dollars in thousands)

Project Name	Contingency	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Five-Year	
							Total	Lifetime
Approved								
Information Technology								
Enterprise Resource Planning System	10%	3,444	-	-	-	-	3,444	6,888
LCRA Enterprise Historian	10%	39	-	-	-	-	39	866
Approved Subtotal		3,483	-	-	-	-	3,483	7,754
Future								
Environmental Lab								
Minor Capital		-	120	182	245	250	797	797
Facilities								
General Additions		-	500	500	500	-	1,500	1,500
GOC Campus Lighting		-	-	250	-	-	250	250
GOC Hancock Building Chiller Plant Mag Drive		-	-	-	1,000	-	1,000	1,000
GOC Xeriscaping		-	-	300	-	-	300	300
Minor Capital		-	264	187	129	47	627	627
Information Technology								
Asset and Work Management Upgrade – FY 2021		-	-	-	-	1,000	1,000	1,000
Cloud Data Migration Tool		-	500	-	-	-	500	500
Document Management – FY 2020		-	-	-	1,000	-	1,000	1,000
eDiscovery – FY 2020		-	-	-	500	-	500	500
Enterprise Resource Planning System – FY 2021-FY 2022		-	-	-	-	1,000	1,000	2,000
General Additions		-	1,400	1,400	1,400	1,400	5,600	12,600
Generation Billing System		-	1,000	1,000	-	-	2,000	2,000
Generation Management System		-	-	600	-	-	600	600

Enterprise Support Projects (Continued)

Enterprise Support

FY 2017 Capital Plan Future Projects

(Dollars in thousands)

Project Name	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Five-Year Total	Lifetime
Future (Continued)							
Information Technology (Continued)							
LCRA Enterprise Historian – FY 2020	-	-	-	800	-	800	800
Minor Capital	-	581	500	1,240	500	2,821	6,221
Project Management Information System	-	800	-	-	-	800	800
Treasury Management - Phase 2	-	405	-	-	-	405	405
Wireless Replacement	-	500	-	-	-	500	500
Public Safety							
Minor Capital	-	512	321	240	156	1,229	1,229
Physical Access Control System – Phase 3	-	760	-	-	-	760	760
Physical Access Control System – Phase 4	-	-	420	-	-	420	420
Physical Access Control System – Phase 5	-	-	-	330	-	330	330
Telecommunications							
Backbone Fiber Upgrades	-	4,000	4,000	4,000	4,308	16,308	16,308
Fayette Power Project Diverse Fiber Entrance	-	1,500	-	-	-	1,500	1,500
General Additions	-	1,000	1,000	1,000	1,000	4,000	4,000
Kyle Open Sky Site	-	275	-	-	-	275	275
Minor Capital	-	92	114	98	70	374	374
Site Uninterruptible Power Source Replacement	-	672	-	-	-	672	672
Tower Upgrades – Phase 3	-	885	-	-	-	885	885
West Hays Open Sky Site	-	275	-	-	-	275	275
Unregulated Transmission							
Minor Capital	-	4,474	3,301	3,091	3,000	13,866	13,866
Future Subtotal	-	20,515	14,075	15,573	12,731	62,894	74,294
Total Enterprise Support	29,744	20,515	14,075	15,573	12,731	92,638	108,309

Appendix – Financial Tables

LCRA Consolidated (Including Nonprofit Corporations)

(Dollars in millions)

	Budgeted	Proposed	Forecast			
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Revenues¹						
Wholesale Power	\$ 575.1	399.6	429.2	410.6	409.6	437.5
Transmission	388.1	400.5	412.0	429.7	451.4	466.9
Water	35.8	34.2	35.8	39.2	41.1	40.7
Other	19.2	20.0	22.5	23.2	23.5	23.3
Less Intracompany Eliminations	(5.8)	(4.6)	(4.3)	(4.1)	(4.1)	(4.1)
Total Net Revenue	1,012.4	849.8	895.3	898.6	921.5	964.4
Expenses¹						
Fuel and Power Cost Recovery (F&PCR)	288.9	153.0	170.1	144.9	146.5	156.2
Operations and Maintenance	281.5	292.9	307.6	306.9	308.2	323.5
Total Net Expense	570.4	445.9	477.7	451.8	454.7	479.8
Net Margin for Debt Service	442.0	403.9	417.6	446.7	466.8	484.7
Less: GenTex 1 Funds ²	-	(1.1)	(1.7)	(0.3)	(1.5)	(2.1)
Adjusted Net Margin Available	442.0	402.8	416.0	446.4	465.3	482.5
Debt Service	\$ 361.9	296.0	307.3	324.7	333.2	335.2
Debt Service Coverage, Adjusted	1.22x	1.36x	1.35x	1.37x	1.40x	1.44x
Net Margin After Debt Service³	\$ 80.1	107.9	110.3	122.1	133.6	149.5
Plus:						
Use of Additional Cash Funds	16.2	0.0	0.0	0.0	0.0	0.0
Less:						
Operating Reserves	11.9	10.4	22.0	5.5	10.6	12.2
Revenue-Funded Capital	60.0	83.7	75.4	90.7	102.6	128.0
Noncash Revenue	1.9	1.9	1.9	1.9	1.9	1.9
Resource Development Fund	10.8	7.6	6.6	10.6	10.7	4.0
Restricted for Capital/Debt Retirement	10.7	3.3	3.3	12.5	6.8	2.5
CDPP Grants	1.0	1.0	1.0	1.0	1.0	1.0
Net Cash Flow	\$ 0.0	0.0	0.0	0.0	0.0	0.0

¹ Total net revenues and total net expenses are net of intracompany transfers. Total revenues include interest income. Operations and maintenance expense excludes the LCRA TSC capital charge, which is a capital expense for LCRA consolidated.

² Includes adjustments related to GenTex 1 capital funding and reserve funding.

³ Net Margin After Debt Service includes funds dedicated to GenTex 1.

Wholesale Power (Including Nonprofit Corporations)

(Dollars in millions)	Budgeted	Proposed	Forecast			
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Revenues¹						
Nonfuel Revenues	\$ 285.3	246.0	256.4	260.0	257.1	274.9
Fuel Revenues	288.9	153.0	170.1	144.9	146.5	156.2
Total Revenue	574.2	398.9	426.4	404.9	403.6	431.2
Expenses¹						
Net F&PCR ² Expenses	288.9	153.0	170.1	144.9	146.5	156.2
Total Nonfuel Operations and Maintenance	88.3	85.2	96.9	89.8	86.9	101.0
Total Expense	377.2	238.1	266.9	234.7	233.4	257.2
Net Operating Margin	197.0	160.8	159.5	170.3	170.2	173.9
Plus: Interest Income	0.9	0.7	2.8	5.7	6.0	6.4
Less: Assigned Enterprise Expense	26.8	28.7	28.4	29.3	29.6	29.9
Public Service Fund	10.5	8.4	8.6	8.8	8.8	9.3
Net Margin Available for Debt Service	160.6	124.4	125.3	137.9	137.8	141.1
Less: GenTex 1 Funds ³	-	(1.1)	(1.7)	(0.3)	(1.5)	(2.1)
Adjusted Net Margin Available	160.6	123.3	123.6	137.5	136.3	139.0
Total Debt Service	\$ 158.4	102.8	98.9	110.0	109.1	111.2
Debt Service Coverage	1.01x	1.20x	1.25x	1.25x	1.25x	1.25x
Net Margin After Debt Service	\$ 2.2	21.6	26.4	27.9	28.7	29.9
Plus:						
Settlement Funds	6.3	0.0	0.0	0.0	0.0	0.0
Additional Cash Funds	9.9	0.0	0.0	0.0	0.0	0.0
Less:						
Operating Reserves	0.0	0.9	7.2	0.0	0.8	6.2
Assigned Enterprise Capital	4.5	4.6	4.1	3.5	3.7	2.2
Revenue-Funded Capital	6.2	12.7	13.3	14.1	19.9	21.6
Restricted for Debt Retirement	7.7	3.3	1.8	10.3	4.3	0.0
Net Cash Flow	\$ 0.0	0.0	0.0	0.0	0.0	0.0

LCRA TSC

(Dollars in millions)

	Budgeted	Proposed	Forecast			
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Corporation Total						
Revenues	\$ 387.4	399.7	408.6	422.8	444.1	459.5
Operations and Maintenance	90.2	97.0	100.8	104.5	107.0	108.5
Net Operating Margin	297.2	302.7	307.9	318.3	337.0	350.9
Plus: Interest Income	0.7	0.8	3.4	6.9	7.4	7.5
Less: Assigned Enterprise Expense	41.5	43.4	43.2	44.6	45.1	45.7
Public Service Fund	11.6	12.0	12.3	12.7	13.3	13.8
Resource Development Fund	7.7	8.0	8.2	8.5	8.9	9.2
Net Margin Available for Debt Service	237.1	240.2	247.6	259.4	277.1	289.8
Debt Service	\$ 179.4	174.3	188.1	191.0	201.4	199.9
Debt Service Coverage	1.32x	1.38x	1.32x	1.36x	1.38x	1.45x
Net Margin After Debt Service	\$ 57.7	65.9	59.6	68.4	75.7	89.9
Less:						
Operating Reserves	11.8	9.5	14.4	5.2	9.4	6.0
Assigned Enterprise Capital	5.1	7.4	9.8	5.8	7.0	6.0
Revenue-Funded Capital	26.2	34.4	35.4	56.3	60.0	85.1
Transfer to LCRA ¹	7.1	6.5	4.1	7.3	6.7	1.1
Assigned Transmission Minor Capital	11.3	15.3	4.3	3.2	3.0	2.9
Plus:						
Amortization of Enterprise/Minor Capital ²	3.8	7.0	8.4	9.3	10.3	11.2
Net Cash Flow	\$ 0.0	0.0	0.0	0.0	0.0	0.0

¹ An initial transfer from LCRA TSC to LCRA was authorized by the LCRA and LCRA TSC boards of directors in April 2014. Under the initial contractual commitment entered into by LCRA and LCRA TSC, the Board must make an annual determination to authorize each year's transfer. Such annual transfers are payable only if all other financial commitments have been met as required by LCRA TSC's financial policies.

² In FY 2012, LCRA TSC began funding minor capital and its share of enterprise capital with current year revenues. It will include an amortization of the amount in each year to recover in rates.

Water

(Dollars in millions)

	Budgeted	Proposed	Forecast			
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Revenues						
Firm water	\$ 28.2	19.4	20.3	22.8	23.7	23.3
Agricultural	4.3	11.5	12.0	12.6	13.4	13.4
Other	3.3	3.3	3.3	3.3	3.4	3.4
Total Revenues	35.8	34.2	35.6	38.7	40.5	40.1
Operations and Maintenance	14.3	17.7	17.6	17.9	19.2	17.9
Net Operating Margin	21.5	16.5	18.0	20.8	21.3	22.2
Plus: Interest Income	0.0	0.0	0.2	0.5	0.6	0.6
Less: Assigned Enterprise Expense	4.8	3.9	4.8	5.0	5.1	5.2
Public Service Fund	1.1	1.0	1.1	1.1	1.2	1.2
Net Margin Available for Debt Service	15.7	11.6	12.4	15.1	15.6	16.5
Debt Service	\$ 18.9	14.7	15.5	18.8	18.2	20.6
Debt Service Coverage	0.83x	0.79x	0.80x	0.80x	0.86x	0.80x
Plus: Resource Development Funding	11.6	10.2	10.2	10.2	10.7	13.0
Adjusted Debt Service Coverage	1.44x	1.48x	1.46x	1.34x	1.44x	1.43x
Net Margin After Debt Service	\$ 8.4	7.1	7.1	6.5	8.1	8.9
Less:						
Operating Reserves	0.1	0.0	0.2	0.1	0.3	0.0
Assigned Enterprise Capital	0.7	0.8	0.8	0.5	0.7	0.5
Revenue-Funded Capital	2.6	4.4	4.1	3.9	5.1	6.4
Restricted for Capital/Debt Retirement	3.1	0.0	0.0	0.0	0.1	0.1
Noncash Revenues	1.9	1.9	1.9	1.9	1.9	1.9
Net Cash Flow	\$ 0.0	0.0	0.0	0.0	0.0	0.0

Note: The Water financial summary includes water and wastewater utilities, which LCRA is phasing out due to the divestiture of the assets.

Strategic Services

(Dollars in millions)

	Budgeted	Proposed	Forecast			
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Revenues	\$ 16.0	16.5	18.9	19.7	20.0	19.8
Expenses	11.6	11.6	12.2	12.4	12.3	12.2
Net Operating Margin	4.4	4.9	6.8	7.3	7.7	7.6
Plus: Interest Income	0.0	0.0	0.0	0.0	0.0	0.0
Less: Assigned Enterprise Expense	2.7	3.4	3.4	3.5	3.6	3.6
Public Service Fund	0.5	0.5	0.5	0.6	0.6	0.6
Resource Development Fund	0.3	0.2	0.2	0.2	0.3	0.3
Net Margin	0.9	0.8	2.6	3.0	3.3	3.2
Plus:						
Environmental Lab Support	0.0	0.4	0.0	0.0	0.0	0.0
Less:						
Operating Reserves	0.0	0.0	0.2	0.1	0.0	0.0
Assigned Enterprise Capital	0.2	0.5	0.7	0.4	0.5	0.5
Restricted for Capital/Debt Retirement	0.0	0.0	0.0	0.0	0.0	0.0
Assigned Transmission Minor Capital	0.7	0.7	0.3	0.3	0.4	0.4
Net Cash Flow	\$ 0.0	0.0	1.4	2.2	2.4	2.3

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