



TRAINING, SAFETY &
ENVIRONMENTAL
8142 Hwy 412B, PO Box 609
Chouteau, OK 74337-0609
918-256-5545

May 8, 2020

Ms. Amber Edwards
Environmental Programs Manager
Land Protection Division
Oklahoma Department of Environmental Quality
707 North Robinson
P.O. Box 1677
Oklahoma City, Oklahoma 73101-1677

**RE: Financial Strength Information and
Closure Post Closure Cost Adjustment
Grand River Dam Authority (GRDA)
Grand River Energy Center (GREC) Landfill
Chouteau, Mayes County, Oklahoma
Solid Waste Permit No. 3549012**

Dear Ms. Edwards:

GRDA is submitting Financial Strength Information to support utilization of the Corporate Financial Test as the mechanism for financial assurance of the above referenced landfill.

This information is being submitted in accordance with the financial assurance requirements as found in OAC 252:517-17-81 of the Oklahoma Disposal of Coal Combustion Residuals From Electric Utilities regulations.

On March 31, 2020, GRDA requested a 45 day extension, until May 15, 2020, for the submittal of the financial strength information. On April 6, 2020 ODEQ granted that request.

Information being provided includes:

- A demonstration of financial assurance for closure and post-closure costs, signed and notarized by the GRDA Chief Financial Officer/Corporate Treasurer of GRDA
- Independent accountant's report on applying agreed upon procedures
- The independent auditor's report embedded in the financial statements of GRDA
- The 2020 worksheet for calculating closure and post-closure cost estimates (previously provided to ODEQ)

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and a commitment to
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STEWARDSHIP.

We are dedicated to
ECONOMIC DEVELOPMENT,
providing resources and
supporting economic growth.

Our EMPLOYEES
are our greatest asset in
meeting our mission to be an
Oklahoma Agency
of Excellence.



As required, a copy of this information is being placed into the operating record of the facility.

If you have any questions on this matter, or if you require any additional information, please do not hesitate to contact me,

Sincerely,

A handwritten signature in black ink, appearing to read "Michael L. Bednar".

Michael L. Bednar
Manager of Environmental Compliance



ADMINISTRATION
PO Box 669
Chouteau, OK 74337
918-256-5545

March 25, 2020

Ms. Carol Bartlett
Environmental Program Specialist
Land Protection Division
Department of Environmental Quality
P. O. Box 1677
Oklahoma City, Oklahoma 73101-1677

Dear Ms. Bartlett:

I am the Chief Financial Officer of the Grand River Dam Authority, an agency of the State of Oklahoma, with its principal place of business located in Chouteau, Oklahoma. This letter is in support of this agency's use of the financial test to demonstrate financial assurance for closure and/or post-closure costs as specified in 27 A.O.S. Sections 2-10-701(C)(6) and OAC 252:517-17.

This agency is the owner or operator of the following facilities for which financial assurance for closure or post-closure care is demonstrated in accordance with the Oklahoma Administrative Code and the Oklahoma Solid Waste Management Act. We have updated our estimates, and the current closure and/or post-closure cost estimates covered by the test are shown for each facility:

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of Excellence.



GRDA Units No. 1 and No. 2 Fly Ash Disposal Chouteau, Oklahoma	Closure \$1,546,078.78 Post-Closure \$900,574.35
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The effective date of the responses is for the fiscal year of this agency which ends on December 31, 2019. The figures for the following items marked with an asterisk are derived from this agency's independently audited, year-end financial statements for the latest completed fiscal year, ended 2019:

1. Sum of current closure and post-closure cost estimates: \$1,546,078.78 Closure and \$900,574.35 Post-Closure for a sum of \$2,446,653.13.
2. Current bond ratings of most recent issuance of this firm and name of rating service: A1 Moody's Investors Service, Inc., AA- Standard & Poor's Rating Services, A+ Fitch Ratings, Ltd.
3. Date of issuance of bond: August 30, 2017
4. Date of maturity of bond: 2021-2040
- *5. Tangible net worth: \$676,438,114

ADMINISTRATION
PO Box 559
Cheyenne, WY 82001
307.261.6545

Ms. Carol Bartlett
March 25, 2020
Page 2

- *6. Total assets in United States: \$1,827,470,820
- 7. Is line 5 at least \$10 million? Yes
- 8. Is line 5 at least 6 times line 1? Yes
- 9. Are at least 90% of firm's assets located in the United States? Yes
- 10. Is line 6 at least 6 times line 1? Yes

I hereby certify that the representations made in this letter are, to the best of my knowledge, true and accurate.

 Digitally signed by Gudde, Lorie
Date: 2020.03.30 13:18:28 -05'00'

Date: 03/30/2020

Lorie Gudde
Chief Financial Officer/Corporate Treasurer

ACKNOWLEDGMENT

STATE OF OKLAHOMA)
)
COUNTY OF CRAIG)

Before me, a Notary Public, in and for said county and state, on this 30th day
of MARCH, personally appeared Lorie Gudde, Chief Financial
Officer/Corporate Treasurer, to me known to be the identical person who
executed the within and foregoing instrument.



Notary Public

My commission expires: 09/05/2022



Independent Accountants' Report on Applying Agreed-Upon Procedures

To the Board of Directors
Grand River Dam Authority
Vinita, Oklahoma

We have performed the procedures enumerated below, which were agreed to by Grand River Dam Authority ("the Authority") and the Oklahoma Department of Environmental Quality ("DEQ"), solely to assist the Authority and the DEQ in evaluating the Authority's compliance with the financial test option as of December 31, 2019, included in the accompanying letter dated March 25, 2020, from Lorie Gudde, Chief Financial Officer and Corporate Treasurer of the Authority to Carol Bartlett, Environmental Program Specialist of the DEQ. The sufficiency of these procedures is solely the responsibility of the parties specified in this report. Consequently, we make no representation regarding the sufficiency of the procedures enumerated below either for the purpose for which this report has been requested or for any other purpose.

The procedures performed and the related findings are as follows:

- 1) We compared the tangible net worth amount included in item 5 of the letter referred to above with the corresponding ending net position balance in the basic financial statements of the Authority as of and for the year ended December 31, 2019 and noted that such amounts were in agreement.
- 2) We compared the total assets in United States amount included in item 6 of the letter referred to above with the corresponding total assets balance in the basic financial statements of the Authority as of and for the year ended December 31, 2019 and noted that such amounts were in agreement.
- 3) We multiplied the sum of closure and post-closure cost estimates in item 1 of the letter by 6 and noted that the tangible net worth amount in item 5 of the letter is greater than the product of this multiplication.
- 4) We multiplied the sum of closure and post-closure cost estimates in item 1 of the letter by 6 and noted that the amount of total assets in the United States of America included in item 6 of the letter is greater than the product of this multiplication.

This agreed-upon procedures engagement was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants (AICPA). We were not engaged to, and did not, conduct an audit or review, the objective of which would be the expression of an opinion or conclusion, respectively on compliance regarding the accompanying letter dated March 25, 2020 and the information contained therein. Accordingly, we do not express such an opinion or conclusion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

This report is intended solely for the information and use of Authority and the DEQ, and is not intended to be, and should not be, used by anyone other than the specified parties.



Madison, Wisconsin
April 13, 2020



Grand River Dam Authority

(A Component Unit of the State of Oklahoma)

Basic Financial Statements as of and for the
Years Ended December 31, 2019 and 2018
Required Supplementary Information (Unaudited)
and Independent Auditors' Report

GRAND RIVER DAM AUTHORITY
(A Component Unit of the State of Oklahoma)

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INDEPENDENT AUDITORS' REPORT

To the Board of Directors
Grand River Dam Authority
Tulsa, Oklahoma

Report on the Financial Statements

We have audited the accompanying financial statements of Grand River Dam Authority, as of and for the years ended December 31, 2019 and 2018, and the related notes to the financial statements, which collectively comprise the Grand River Dam Authority's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control over financial reporting relevant to the Grand River Dam Authority's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Grand River Dam Authority's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Grand River Dam Authority as of December 31, 2019 and 2018, and the respective changes in financial position and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the required supplementary information as listed in the table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have issued our report dated March 27, 2020 on our consideration of the Grand River Dam Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Grand River Dam Authority internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Grand River Dam Authority's internal control over financial reporting and compliance.

A handwritten signature in black ink that reads "Baker Tilly Virchawwala Krause, LLP". The signature is fluid and cursive, with "Baker Tilly" on the first line, "Virchawwala" on the second line, and "Krause, LLP" on the third line.

Madison, Wisconsin
March 27, 2020

Management's Discussion and Analysis – Unaudited

The following discussion and analysis of the Grand River Dam Authority's (GRDA or the Authority) financial performance provides an overview of the Authority's financial activities for the year ended December 31, 2019, and provides a comparison with the prior years' financial results. Please read it in conjunction with the financial statements, which follow this section.

USING THIS FINANCIAL REPORT

This annual financial report consists of a series of financial statements and reflects the self-supporting, proprietary activities of the Authority funded primarily by the sale of electrical power and energy.

The State of Oklahoma reports the business-type activities of the Authority as a discretely presented major component unit.

The basic financial statements presented in this report consist of the Statements of Net Position; the Statements of Revenues, Expenses, and Changes in Net Position; the Statements of Cash Flows; and the Notes to Financial Statements.

STATEMENTS OF NET POSITION; STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION; STATEMENTS OF CASH FLOWS; AND NOTES TO FINANCIAL STATEMENTS

The Authority's Statements of Net Position and Statements of Revenues, Expenses, and Changes in Net Position provide an indication of the Authority's financial health.

The Statements of Net Position include all of the Authority's assets and liabilities, using the accrual basis of accounting, as well as an indication of which assets can be used for general purposes and which are restricted as a result of bond covenants, contracts, or for other purposes.

The Statements of Revenues, Expenses, and Changes in Net Position report all of the Authority's revenues and expenses recognized during the time periods indicated.

The Statements of Cash Flows report the cash provided and used by operating activities, as well as other cash sources, such as investment income or bond proceeds, and other cash uses, such as cash payments for repayment of bonds and capital additions.

The Notes to Financial Statements provide additional explanation and details about the financial information, as well as required disclosures.

FINANCIAL HIGHLIGHTS

While the Authority's financial focus for 2018 was on "The Year of Efficiency," 2019 was dedicated to "The Year of Implementation." As the Grand River Energy Center (GREC) Unit 3 (GREC 3) remained a strong and efficient unit throughout 2019, the Authority's watershed also experienced heavy, sustained rainfall during the majority of the year, which resulted in abundant hydro generation.

In late 2019, both Fitch Ratings and Moody's Investor Service issued rating affirmations of A+, with a stable outlook and A1, with a stable outlook, respectively. These affirmations were largely due to the Authority's continuing financial health and increasing debt leverage. Fitch based its decision, in part, on GRDA's "continued strong financial performance and very low operating costs." Moody's noted GRDA's "diverse and competitively-priced resource mix" as a key reason for its rating.

On the evening of July 1, 2016, a lightning strike precipitated a fire at the GREC, which resulted in a prolonged outage of GREC Unit 2 (GREC 2). GREC 2 was returned to service in September 2017, though restoration work continued into 2018. As of the end of 2018, restoration of the turbine-generator and auxiliary systems were completely finalized.

On July 29, 2019, GREC 2 experienced a mechanical failure and subsequent shutdown, which resulted in damages to the low pressure (LP) section of the turbine. While restoration of the damage is currently estimated at roughly \$13 million, the Authority has received confirmation from its insurance carrier that the event will be insured, limiting the cash outlay to the \$1.3 million insurance deductible. Assets damaged by the mechanical failure were not refurbished or replaced during the 2016 fire event. GREC 2 is expected to return to service in the second quarter of 2020.

On October 9, 2019, the Board of Directors voted to remove GREC Unit 1 (GREC 1) from service pending the final approval and determination of an official retirement date by Southwest Power Pool (SPP).

The Authority has contracts for firm wind purchases of 387 MW from Oklahoma wind farms, with 140 MW of that being placed into service January 1, 2018. In combination with existing hydroelectric generation, these diverse resources allow the Authority to provide reliable electricity for customers while also striving to excel in environmental stewardship.

FINANCIAL HIGHLIGHTS - DECEMBER 31, 2019, 2018, AND 2017

	2019	2018	2017
CONDENSED SCHEDULE OF NET POSITION			
Assets:			
Current assets	254,560,021	260,455,415	204,502,845
Net utility plant	1,252,699,332	1,218,249,936	1,246,041,479
Noncurrent investments	317,211,399	308,789,981	323,806,627
Other noncurrent assets	3,000,068	1,772,872	97,059
Total assets	1,827,470,820	1,789,268,204	1,774,448,010
Deferred outflows related to pension plans	4,286,903	7,326,606	10,358,992
Deferred outflows related to other postemployment benefits	1,051,412	1,068,541	-
Deferred outflows related to loss on reacquired debt	31,079,603	34,523,355	37,967,108
Deferred outflows related to derivative hedges	2,595,165	-	539,198
Total deferred outflows	39,018,083	42,918,502	48,865,298
Liabilities:			
Current liabilities	75,710,901	80,407,089	63,263,166
Noncurrent liabilities	1,034,426,516	1,078,066,715	1,108,505,456
Total liabilities	1,110,137,417	1,158,473,804	1,171,768,622
Deferred inflows related to pension plans	1,905,145	3,574,189	3,582,289
Deferred inflows related to other postemployment benefits	829,895	-	-
Deferred inflows related to regulated operations	77,173,332	46,947,793	42,959,617
Deferred inflows related to derivative hedges	-	700,390	-
Total deferred inflows	79,908,372	51,222,372	46,541,906
Net Position:			
Net investment in capital assets	281,454,483	239,876,589	269,911,995
Restricted for:			
Debt service	21,877,917	15,286,250	8,610,000
Other special purposes	2,186,412	2,201,996	2,230,264
Unrestricted	370,919,302	365,125,695	324,250,521
Total net position	676,438,114	622,490,530	605,002,780

FINANCIAL HIGHLIGHTS - DECEMBER 31, 2019, 2018, AND 2017 (continued)

	2019	2018	2017
CONDENSED SCHEDULE OF CHANGES IN NET POSITION			
Operating Revenues:			
Sales of power	395,996,173	399,488,356	422,294,469
Other operating revenues	26,034,975	37,037,056	13,710,781
Regulatory asset revenues	2,949,837	1,098,338	535,403
Total operating revenues	424,980,985	437,623,750	436,540,653
Non-Operating Revenues:			
Investment income	9,506,749	4,620,856	7,582,222
Net increase (decrease) in fair value of investments	9,909,326	(1,222,703)	606,602
Award revenue (loss) - operating	(259,865)	253,218	487,466
Income (loss) - nonoperating	(40,734)	(97,966)	10,565,313
Income from nonutility operations	(4,160,775)	(877,453)	(883,924)
Costs (recovered) to be recovered	(33,196,760)	(5,070,883)	(15,259,799)
Total non-operating revenues	(18,242,059)	(2,394,931)	3,097,880
Total revenues	406,738,926	435,228,819	439,638,533
Operating Expenses:			
Fuel	(103,946,966)	(94,802,749)	(70,435,652)
Depreciation	(75,266,780)	(80,383,786)	(71,935,555)
Purchased power – net	(64,864,171)	(88,779,253)	(138,401,740)
Operations	(62,042,306)	(61,009,966)	(61,887,909)
Maintenance	(24,447,446)	(28,162,855)	(29,456,552)
Administrative and general	(23,633,834)	(18,132,047)	(22,355,136)
Total operating expenses	(354,201,503)	(371,270,656)	(394,472,544)
Non-Operating Expenses:			
Interest expense	(49,296,921)	(50,110,812)	(50,821,244)
Amortization of debt discount and expense	(92,894)	(92,894)	(878,282)
Amortization of bond premium	11,028,883	11,206,324	10,450,953
Total non-operating expenses	(38,360,932)	(38,997,382)	(41,248,573)
Total expenses	(392,562,435)	(410,268,038)	(435,721,117)
Award revenue - capital	39,771,093	5,170,213	3,197,654
Net increase in net position	53,947,584	30,130,994	7,115,070
Net Position – Beginning of year	622,490,530	605,002,780	597,887,710
Adoption of new accounting standard	-	(12,643,244)	-
Net Position – Beginning of year, as restated	622,490,530	592,359,536	597,887,710
Net Position – End of year	676,438,114	622,490,530	605,002,780

While the events that drove the results for the Authority in 2018 centered on efficiency, the continuation of that effort in 2019 was the implementation of the many operational efficiencies identified and planned in 2018.

GRDA is a member of the Southwest Power Pool (SPP) Regional Transmission Organization (RTO). The SPP Integrated Marketplace provides a supply of low-cost energy to meet the requirements of GRDA customers. A combination of low natural gas prices and an abundant supply of wind generation has resulted in lower costs for GRDA customers over the last several years, and both 2018 and 2019 results were reflective. Consistent with the last two prior years, Sales of Power continued to decline slightly in 2019, decreasing by less than 1%. Sales of Power for 2018 were 5% less than 2017. This is discussed further in Operating Revenues.

The Authority implemented Governmental Accounting Standards Board (GASB) Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits other than Pensions* (GASB 75) that required the restatement of opening net position for 2018. See Note 7 to Financial Statements, Retirement Plans, Postretirement, and Other Employee Benefits for the impact to the Authority.

The financial results are further discussed in the following paragraphs and reflect the financial impact of the highlights mentioned.

Net Position

The Net Position increased by \$53.9 million or 9%, following a \$17.5 million or 3% increase in 2018. Both increases in Net Position were the result of net income.

Total Assets increased by \$38.2 million or 2% in 2019, following a \$14.8 million or 1% increase in 2018. The 2019 increase is materially due to a \$34.4 million increase in Net Utility Plant, which resulted from the construction of several significant transmission and distribution assets. The 2018 increase is mostly attributable to the \$58.3 million increase in current cash and investments, offset by a \$27.8 million reduction in Net Utility Plant and a decrease of \$12.9 million in Under Recovered Fuel Costs.

Current Assets decreased by \$5.9 million or 2% in 2019, following an increase of \$56.0 million or 27% in 2018. The 2019 decrease is mostly attributable to decreases in both Accounts Receivable and Materials and Supplies Inventory of \$8.4 million and \$12.2 million, respectively, offset by increases in General Operating Cash and Cash Equivalents of \$7.7 million and Restricted Investment Accounts of \$6.3 million. The 2018 increase is materially due to an increase in current General Operating account investments of \$71.1 million, offset by a decrease of \$20.9 million in Cash and Cash Equivalents.

Materials and Supplies Inventory included in Current Assets decreased by \$12.2 million or 22% in 2019 due to an ongoing effort to identify and surplus inventory items related to GREC 1. The Authority also implemented Vendor Managed Inventory (VMI) in 2019, reducing both carrying cost of inventory items, as well as reducing overhead costs involved with procurement and handling of these items. This is in contrast to 2018 wherein the Authority saw an increase in Materials and Supplies Inventory of \$14.6 million or 36%. This is due to significant shifts in the inventories on hand, triggered by the addition of GREC 3, which required additional spare parts not previously stocked.

Receivables for under recovered fuel costs increased by \$2.1 million in 2019 after they were reduced to zero in 2018, as they were recovered through the Power Cost Adjustment (PCA) throughout the year.

Net Utility Plant increased \$34.4 million or 3% in 2019 due to the construction of transmission and distribution assets, as previously mentioned, and discussed in further detail in "Capital Assets" herein. This is in contrast to 2018, as Net Utility Plant had a net decrease for the first time in many years as major construction projects were completed in prior years. This decrease of \$27.8 million or 2% consists of additions to assets in the amount of \$53.3 million, offset by \$7.8 million of retirements and annual depreciation expense of \$80.4 million. More detailed information about changes in Net Utility Plant is presented in Note 4 to Financial Statements, Utility Plant.

Noncurrent Investments, which includes noncurrent prepaid assets, increased \$8.4 million or 3% in 2019, after they decreased by \$15.0 million or 5% in 2018. The 2019 increase is related to increases in the debt service accounts, while the 2018 decrease resulted from the spending of the remaining Construction Funds on hand to complete the final milestone payments for the construction of GREC 3. Additional information about the Restricted Investments, included in Noncurrent Investments, is presented in Note 2 to Financial Statements, Deposits and Investments. Restricted Assets are discussed later in more detail in the Significant Assets and Debt Administration section.

Noncurrent Prepaid Assets increased \$919 thousand in 2019 as more inventory for future long term service agreement work for the Redbud generating facility was received. This follows a 2018 decrease of \$6.5 million, which was caused by the consumption of inventory also related to long term service agreement work for the Redbud generating facility.

Other noncurrent assets consist of non-utility property and long-term receivables. Other noncurrent assets increased by \$1.2 million or 69% following a similar increase of \$1.7 million in 2018.

Deferred Outflows of Resources decreased by \$3.9 million or 9% in 2019, following a \$5.9 million or 12% decrease in 2018. Decreases in both years are due to the amortization of loss on reacquired debt combined with amortizations of the deferred outflows related to the GASB 68 pension accounting.

Total Liabilities decreased \$48.4 million or 4% in 2019 after likewise decreasing in 2018 by \$13.3 million or 1%.

Current Liabilities decreased by \$4.7 million or 6% in 2019, while 2018 saw an increase of \$17.1 million or 27%. Accounts Payable and Accrued Liabilities decreased in 2019 by \$10.0 million or 24% due to the completion of most major construction projects prior to year-end. This decrease is offset by the 2019 increase in the current portion of Bonds Payable of \$11.3 million. The 2018 increase in Current Liabilities is mostly attributable to an increase of \$11.4 million in Bonds Payable offset by Accounts Payable and Accrued Liabilities, which decreased in 2018 by \$2.3 million or 5%. Unearned Revenue Related to Insurance Proceeds increased by \$1.5 million in 2018 then further increased by another \$661 thousand in 2019. The 2018 amount relates to the final work performed related to a GREC 2 fire in 2016, while the 2019 amount relates to the July 2019 GREC 2 mechanical outage discussed previously. To facilitate timely and efficient reimbursement of expenditures related to these two insured events, the insurance carrier advanced funds which were deposited in a restricted account by GRDA. This account has been the source to replenish cash following approval by the insurance company. The balance of the amount unearned by the Authority at the end of each year is presented as part of Current Liabilities.

Noncurrent Liabilities, which include the long-term obligations for revenue bonds outstanding, decreased by \$43.7 million or 4% in 2019, following a \$30.4 million or 3% decrease in 2018. Both the 2019 and 2018 decreases are attributable to payments of principal on outstanding debt. In 2019, Noncurrent Liabilities other than Bonds Payable increased by \$4.8 million or 17% after a \$6.9 million or 32% increase in 2018. An increase of \$5.1 million in the closure/post-closure liability accounts for the majority of the increase in 2019. This is offset by reductions in the liabilities related to pension and other postemployment benefits. Additional details about bonds outstanding are presented in Note 6 to Financial Statements, Bonds Payable, and details about pension and other postemployment benefit liabilities are presented in Note 7 to Financial Statements, Retirement Plans, Postretirement, and Other Employee Benefits.

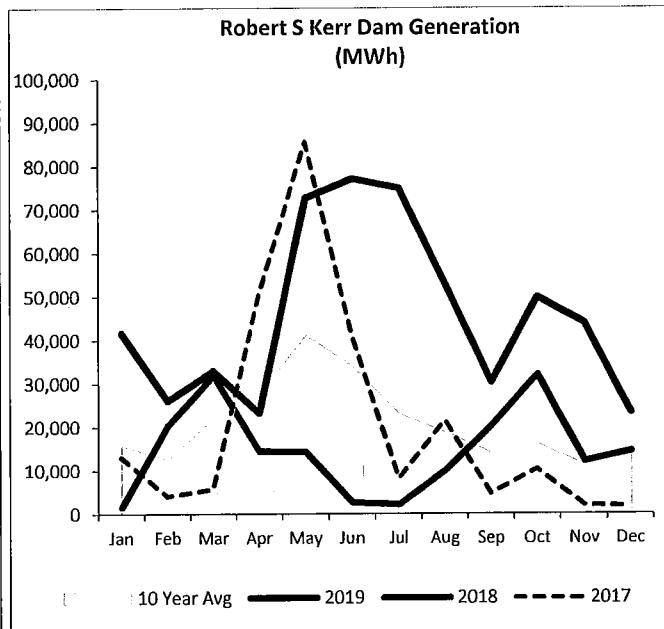
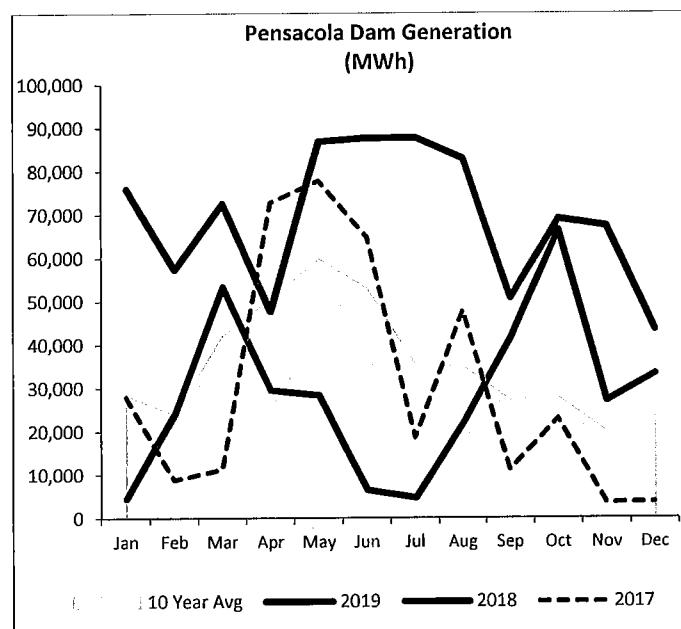
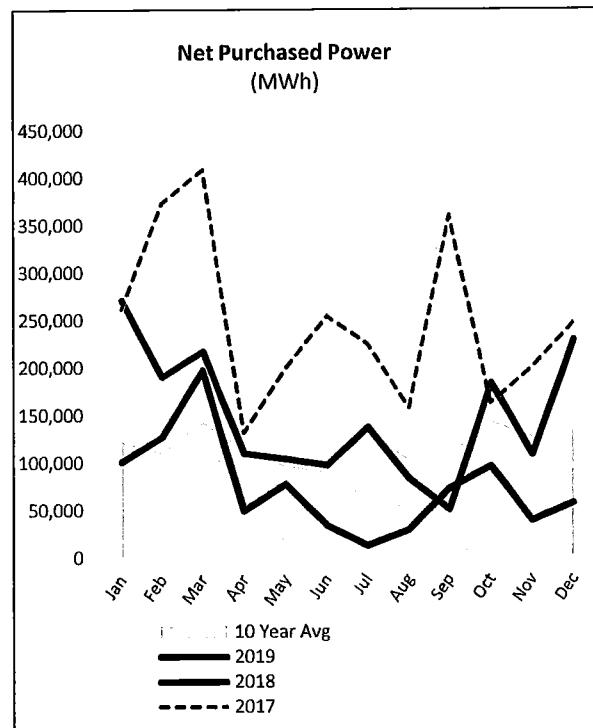
Deferred Inflows of Resources increased by \$28.7 million or 56% in 2019 following a similar increase of \$4.7 million or 10% in 2018. Both the 2019 and 2018 increases are attributable to increases in Deferred Inflows Related to Regulated Operations. These are discussed in further detail in Deferred Inflows of Resources and Deferred Outflows of Resources.

Unrestricted Net Position, which represents the part of net position used to finance day-to-day operations without constraints established by debt covenants, enabling legislation, or other legal agreements, increased by \$5.8 million or 2% in 2019, following a \$40.9 million or 13% increase in 2018.

OPERATING RESULTS

The Authority's results for 2019 were the strongest of the last few years. With the completion of the GREC 2 fire restoration and construction of GREC 3, GRDA was embracing new beginnings as it came into 2018. Heavy rainfalls throughout 2019 provided an opportunity for increased revenues with very little increased expenses. The Authority's participation in SPP's Integrated Marketplace provides both price stability through the availability of economical Purchased Power and a built-in hedge against resource availability, as GREC 2 was inoperable for the latter half of 2019.

The graph titled "Net Purchased Power (MWh)" depicts the Authority's hourly net purchases of energy from the Integrated Marketplace. As is evidenced by the comparisons of 2017, 2018, and 2019 versus the ten-year average in the light green shaded area, purchases of power beginning in April 2019 fell below the ten-year historical average as historical outflows from hydro generation resources eliminated much of the need to purchase energy from the marketplace. In 2018, purchased power represented a more seasonal pattern as power was purchased in peak seasons to supplement owned generation. See the graphs titled "Pensacola Dam Generation (MWh)" and "Robert S Kerr Dam Generation (MWh)" for hydro generation comparisons of 2017, 2018, and 2019 as compared to the ten-year historical average.



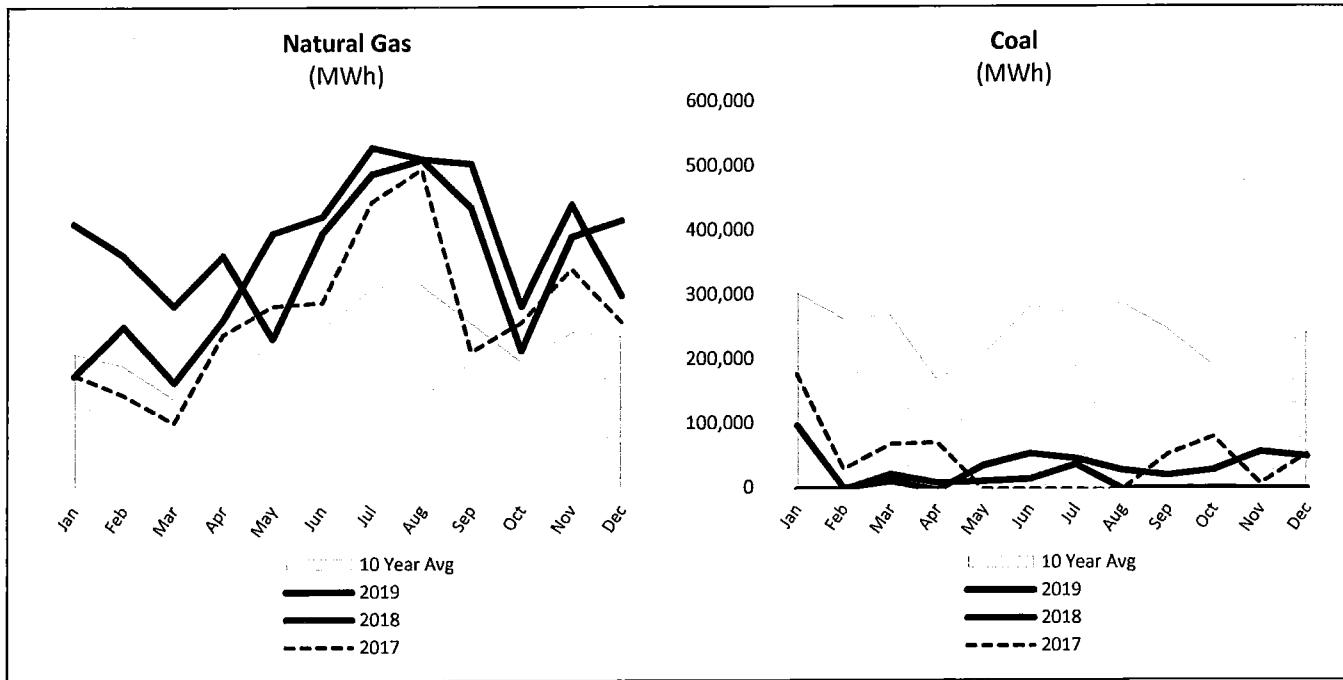
The Authority's resources have included wind through purchased power agreements since 2013. The most recent addition, Red Dirt Wind, became commercially operational January 1, 2018. The energy produced from these projects is recorded as

Purchased Power. The wind purchase agreements provide risk mitigation against possible increases in fuel costs in future years and help to expand the Authority's diversified energy portfolio.

Sales into the spot market represented just under 3% of Total Operating Revenues in 2019 and slightly less than 2% in 2018. The Authority does not rely on significant spot sales revenue to meet its payment obligations or debt coverage requirements.

As demonstrated by the graph titled "Coal (MWh)", the generation for coal has been substantially lower than the historical ten-year average as coal prices have remained uneconomical as compared to both natural gas and the overall available market energy through the end of 2019. This is in combination with the mechanical outage of GREC 2 in 2019 and the April 2017 discontinuation of GREC 1 as a coal-fired generating unit.

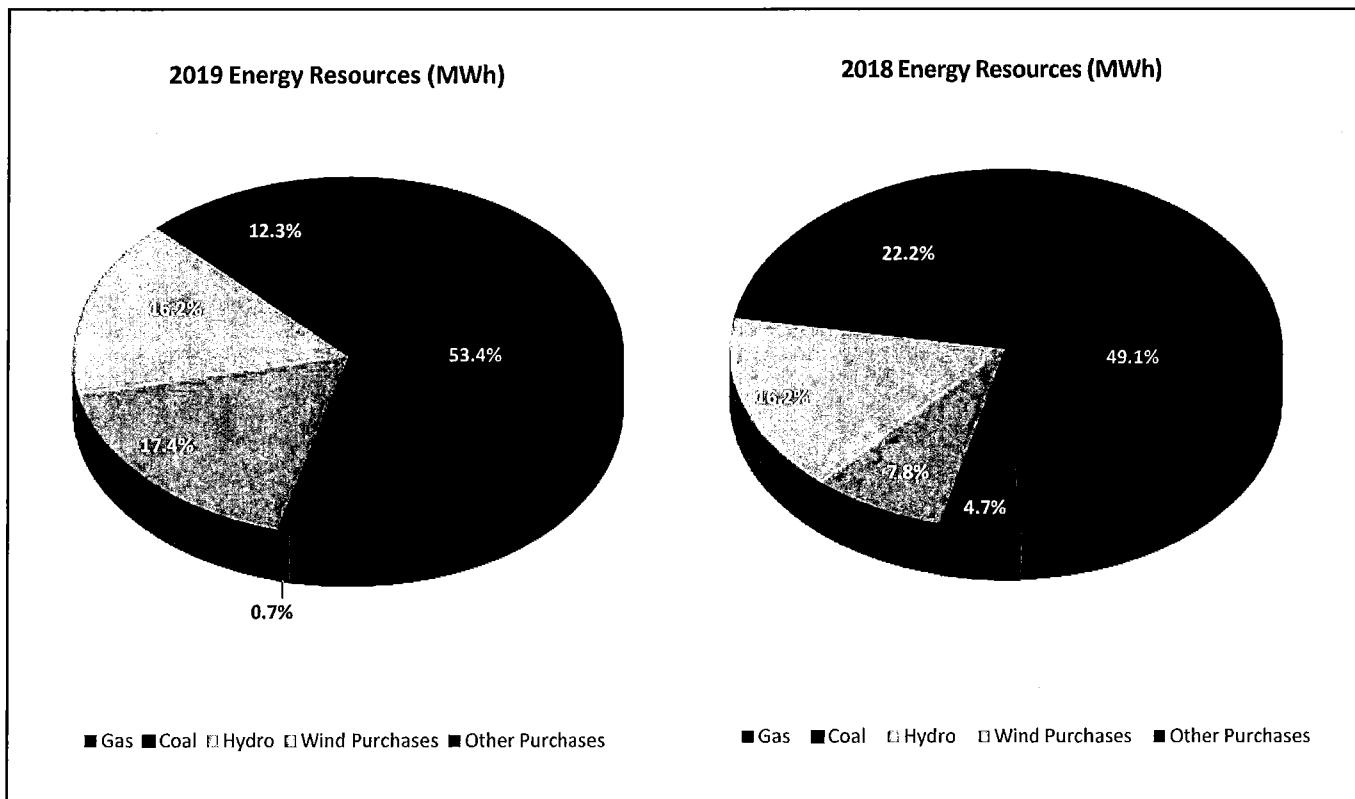
The graphs titled "Natural Gas (MWh)" and "Coal (MWh)" reflect the use of the Authority's thermal generation resources. The graph titled "Natural Gas (MWh)" indicates the competitiveness of GREC 3 and Redbud as they were called upon to provide energy in the SPP Integrated Marketplace during the summer months of 2019 and 2018.



Though its impact has remained immaterial to the financial results, the Authority has continued to expand and strengthen its Energy Hedging Program that manages market, counterparty, volume, budget, regulatory, model, and operations risks through Risk Management Policies. The Board of Directors of the Authority is responsible for an overall understanding of risks and the internal Risk Oversight Committee is responsible for primary operational risk oversight and the implementation of the Risk Management Policies. The Energy Hedging Program has three essential objectives: (1) to achieve a customer power cost to serve native load and off-system firm load at a cost that is materially close to the budgeted amount; (2) to reduce the Authority's exposure to volatile swings in energy and hedging costs and to limit the uncertainty related to market timing when purchasing fuel-related hedges by purchasing a portion of required hedges on a programmatic basis; and (3) to maintain a degree of flexibility allowing the Authority to benefit from a favorable energy market. As these transactions relate to natural gas, realized gains and losses as a result of these hedges are recognized as fuel expense. See Deferred Inflows of Resources and Deferred Outflows of Resources for further discussion.

The graphs titled “2019 Energy Resources (MWh)” and “2018 Energy Resources (MWh)” indicate the energy resources mix upon which GRDA relies to meet the customers’ load needs. The availability of adequate generation capacity, along with a reliable transmission system and firm customer contracts, ultimately drive the operating and financial results. The common trend between 2019 and 2018 graphs is the continuing decrease in the Authority’s coal generation and the increase in gas generation as GREC 3 was online for its first full year in 2018. Wind generating resources have remained steady from 2018 to 2019. The hydro units continue to play a vital role in both reliability and available capacity, but their part in the energy resources mix has increased from 2018 to 2019 as the Authority benefited from sustained heavy rainfalls throughout the majority of 2019.

The Authority has a generation portfolio that provides diversity and employs an experienced team in power marketing that uses those resources in conjunction with the hedging program to minimize risks and volatility for the Authority.



OPERATING INCOME

Operating Income		
	<u>2019</u>	<u>2018</u>
Total operating revenues	424,980,985	437,623,750
Total operating expenses	(354,201,503)	(371,270,656)
Operating Income	70,779,482	66,353,094

Operating Income increased \$4.4 million or 7% after also increasing by \$24.3 million or 58% in 2018. Operating

Revenues decreased \$12.6 million or 3% in 2019 due to lower PCA revenues resulting from lower natural gas prices and increased market revenues from plentiful hydro generation. Operating Revenues for 2018 increased \$1.1 million or less than 1% over 2017.

Other Operating Revenues include recovery of revenue requirements for transmission plant recovered through the SPP's administration of the transmission tariffs, as well as revenues associated with an Integrated Transmission Agreement. Other Operating Revenues decreased by \$11.0 million or 30% after a 2018 increase of \$23.3 million. Additionally, Non-operating Revenues decreased \$15.8 million in 2019, following a \$5.5 million decrease in 2018. Non-operating Revenues primarily includes Investment Income and Changes in the Fair Value of Investments, offset by the deferral of revenue associated with third party contributions to the construction of capital assets. Investment Income and Changes in the Fair Value of Investments increased for a combined \$16.0 million in 2019, following a \$4.8 million decrease in 2018. Favorable market environment is responsible for these increases.

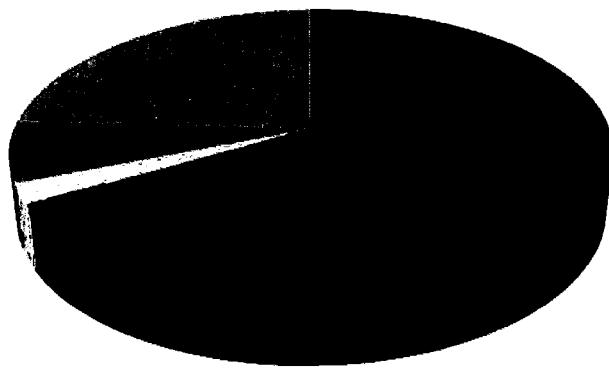
Award revenue - capital includes customer contributions, grant proceeds, and insurance revenues for capital asset additions, which were deferred by the Authority by following accounting for regulated operations in accordance with GASB Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements* (GASB 62), which is discussed in further detail in Deferred Inflows of Resources and Deferred Outflows of Resources.

Operating Expenses continue to decrease as Purchased Power expense continues to trend downward. Operating Expenses decreased by \$17.1 million or 5% in 2019 after they decreased by \$23.2 million or 6% in 2018. Purchased Power in 2019 decreased by \$23.9 million or 27%, offset by an increase in fuel expense of \$9.1 million or 10%. A similar trend existed in 2018 as Purchased Power decreased by \$49.6 million or 36%, offset by an increase in fuel expense of \$24.4 million or 35%. As GRDA generates more power from owned resources, purchases of power from the Integrated Marketplace continue to decline.

OPERATING REVENUES

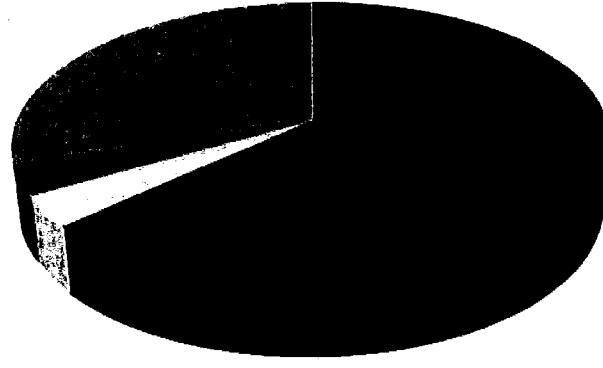
Operating Revenues decreased by \$12.6 million or 3% in 2019 after increasing slightly for 2018, by \$1.1 million or less than 1%. The largest contributor to Operating Revenues is Sales of Power, which has decreased the last two consecutive years. In 2019, Sales of Power decreased \$3.5 million or less than 1% following a 2018 decrease of \$22.8 million or 5%. While overall sales have declined over the last two years, GRDA's industrial load has experienced steady increases year over year due to growth in the MidAmerica Industrial Park (MAIP), increasing 8% in MWh sales in 2019 after increasing 20% in MWh sales in 2018. Off System Firm sales decreased by 20% in 2019 after decreasing 14% in 2018, accounting for the overall decrease in sales of power. These changes are illustrated in the graphs titled "Energy Usage by Class 2019" and "Energy Usage by Class 2018."

Energy Usage by Class 2019



- Industrial & Commercial
- Unit 2 - OMPA
- Off-System Firm

Energy Usage by Class 2018

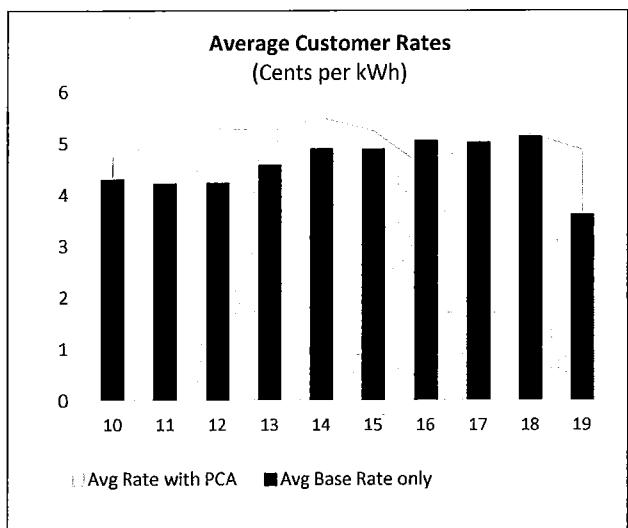


- Industrial & Commercial
- Unit 2 - OMPA
- Off-System Firm

Other Operating Revenues, as mentioned previously, include recovery of revenue requirements for transmission plant recovered through the SPP's administration of the transmission tariffs, as well as revenues associated with an Integrated Transmission Agreement. Other Operating Revenues decreased by \$11.0 million or 30% after a 2018 increase of \$23.3 million. This fluctuation was due to the receipt of an \$8.9 million settlement resulting from arbitration around the Integrated Transmission Agreement in 2018. Further contributors to the 2018 increase were additional revenues generated by the Integrated Transmission Agreement and revenues from annual revenue rights (ARR's) in the Integrated Marketplace.

The Authority is empowered to set rates as necessary to provide for recovery of operating expenses and debt service payments. When deemed necessary by the Board of Directors, rates can be raised after Board approval by providing at least 60 days' notice to the Authority's customers. By statute, the Authority is a self-regulated entity, and its rates do not come under the jurisdiction of the Oklahoma Corporation Commission. The rates charged by the Authority for the sale of electric power and energy are not currently regulated by FERC or any other state or federal authority; however, GRDA's transmission tariff is filed and approved by FERC as part of the SPP open access tariff.

Oklahoma law requires the Authority to maintain rates which are sufficient to produce adequate revenues to fulfill the obligations of the Authority. These obligations include payment of all maintenance and operation expenses, interest and principal of all bonds, sinking fund and/or reserve fund payments agreed to be made in respect of any such bonds, and any other obligations or agreements made with the holder of such bonds and/or with any person on behalf of such holder. The Authority agreed with its customers to not adopt or charge excess rates and to ensure rates will be applied to all customers served under the same rate schedules at the same service level in a reasonable and not unduly discriminatory manner.



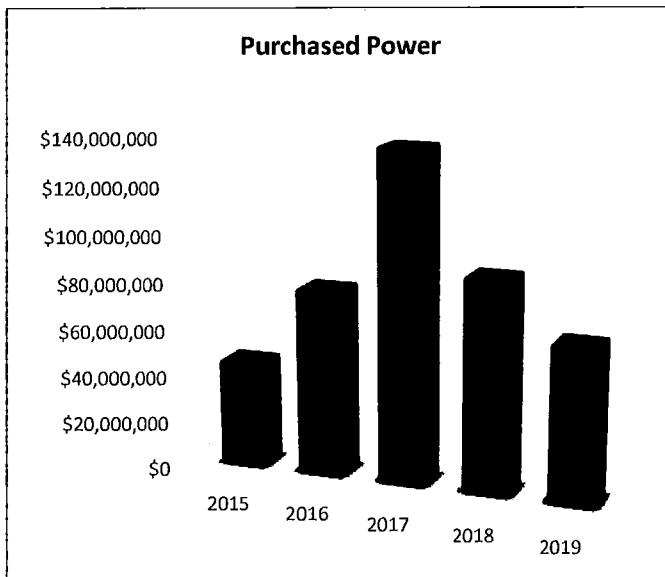
The Authority's rates have three main components: demand, energy, and PCA. The amount of the rate is dependent upon the level of service for which the customer has contracted: generation bus, transmission, primary distribution, or distribution.

The PCA is an adjustment mechanism that allows the Authority to recover variations between estimated and actual fuel and purchased power costs for contract sales to wholesale and retail customers. The Authority's 2018 energy rates included a base rate of 23 mills per kWh as the estimated power cost (fuel and purchased power). The difference of projections of power cost over a 12-month rolling period less the base rate are reflected in the customer rates as the PCA rate.

Effective April 1, 2019, the 23 mills per kWh of estimated power cost was restructured from the base rate into the PCA recovery calculation. The graph titled "Average Customer Rates (Cents per kWh)" reflects the removal of this 23 mills per kWh of

estimated power cost from the base rate. It also shows an overall rate reduction due to lower PCA costs in 2019 as compared to 2018.

All contract sales are subject to the PCA except for the GREC 2 output contract with Oklahoma Municipal Power Authority (OMPA), which is cost based, and any spot-market or short-term sales. The revenues also reflect an accrual of any over or under-collected fuel cost. Approximately \$2.1 million in fuel and purchased power costs were under-recovered on December 31, 2019, while \$6.6 million in fuel and purchased power costs were over-recovered at the end of 2018.



OPERATING EXPENSES

Operating Expenses for 2019 continued on a downward trend as they decreased \$17.1 million or 5%, following a 2018 decrease of \$23.2 million or 6 %. As previously mentioned, Purchased Power expense reduction is partially responsible for this decrease as it dropped by \$23.9 million or 27% in 2019, and, likewise, dropped in 2018 by \$49.6 million or 36%. See the graph titled “Purchased Power” for the trend in Purchased Power expenses over the last five years. After spiking in 2017 due to the loss of both GREC coal units, the Operating Expense mix returned more closely to historical norms in 2018, then continued to decrease in 2019 due to abundant availability of hydro generation. Fuel increased in consecutive years, increasing in 2019 by \$9.1 million or 10% following a 2018 increase of \$24.4 million or 35%. This is due to the Authority generating more power from owned resources and purchasing less from the Integrated Marketplace. Operations and Maintenance expenses decreased by \$2.7 million or 3% in 2019. This followed a \$2.2 million or 2% decrease in 2018. These decreases are due to the continued rollout and implementation of multiple operational efficiencies throughout the Authority’s generation, transmission and distribution operations. Administrative and General Expenses have increased in 2019 by \$5.5 million or 30% after they had decreased by \$4.2 million or 19% in 2018. These fluctuations are largely due to pension expense recognition required by GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, (GASB 68), which is discussed further in Deferred Inflows of Resources and Deferred Outflows of Resources. Historically, Administrative and General Expenses included the settlement of claims, insurance deductibles, employee insurance premiums, and post-retirement benefits. With the implementation of GASB 68, GRDA has experienced some variability of expenses in this area. The Statement requires current year contributions to be recorded as a reduction in the long-term pension liability rather than a current year expense and introduced other variables to recognition of current year expense. For 2018, the Authority also implemented GASB 75. Similar to the Statement related to pensions, this Statement establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources, and expense for defined benefit other post-employment benefits. This required the Authority to restate opening Net Position, reducing it by \$12.6 million.

Depreciation expense decreased by \$5.1 million or 6% following an increase of \$8.4 million or 12% in 2018. The 2018 increase is partly attributable to the early retirement of assets at the Redbud generating facility.

SIGNIFICANT ASSETS AND DEBT ADMINISTRATION

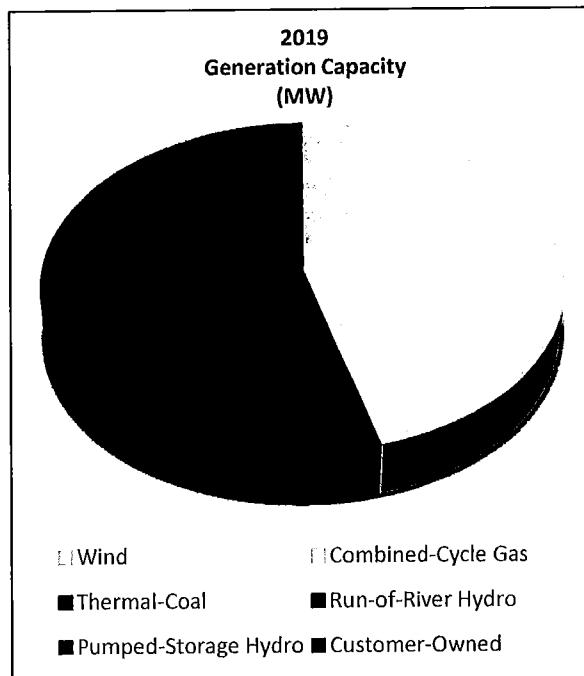
Capital Assets

Significant asset additions for both 2019 and 2018 were mostly related to construction of infrastructure to serve new and expanding customers and investment related to the relicensing of the Pensacola hydro project.

The Redbud combined-cycle natural gas unit long term service agreement’s generating hour milestones for significant capital investment were also triggered as planned major outages on all four generating units required investment of \$28.0 million in capital assets.

The Authority continues to reinvest in the transmission and distribution systems, as well as the communication system, upgrading and replacing components of lines, substations, and repeaters to ensure reliability in meeting our customers’ needs.

As shown in the Note 4 to Financial Statements, Utility Plant, the majority of Net Utility Plant consists of a diverse mixture of hydroelectric, coal, and natural gas generation resources supported by a transmission system for the delivery of power and energy. The pie chart labeled “2019 Generation Capacity (MW)” reflects GRDA’s generation capacity by fuel source.



Restricted Assets

The Authority's General Bond Resolution No. 5107 requires Debt Service Reserve Funds (DSRF) to be set aside and that the Debt Service Reserve account be equal to the "Maximum Aggregate Debt Service". Upon issuance of the Series 2017 Bonds, the Debt Service Reserve requirement was calculated to be \$86.0 million.

The Authority normally keeps an excess in restricted accounts to compensate for any unforeseen market value fluctuations of investments in the account. As of December 31, 2019, the requirement in the Debt Service Reserve account was \$93.0 million and included an excess deposit of \$7.0 million. As discussed further in Note 2 to Financial Statements, Deposits and Investments, any excess balance in the Debt Service Reserve account is reflected as a restricted asset because bond proceeds were used to initially fund the account and carry associated restrictions on how the funds can be used. Excess debt service reserve deposits have been used to make bond principal payments.

The restricted accounts for special purposes relate to wildlife mitigation pursuant to hydro licensing requirements. Each of the restrictions is discussed in further detail in Note 2 to Financial Statements, Deposits and Investments.

The Authority has conservative investment requirements which protect against investment losses, although the yields earned on eligible investments reflect the reduced risk. The priority of the investment policies is to protect the deposits rather than earn speculative income.

Deferred Inflows of Resources and Deferred Outflows of Resources

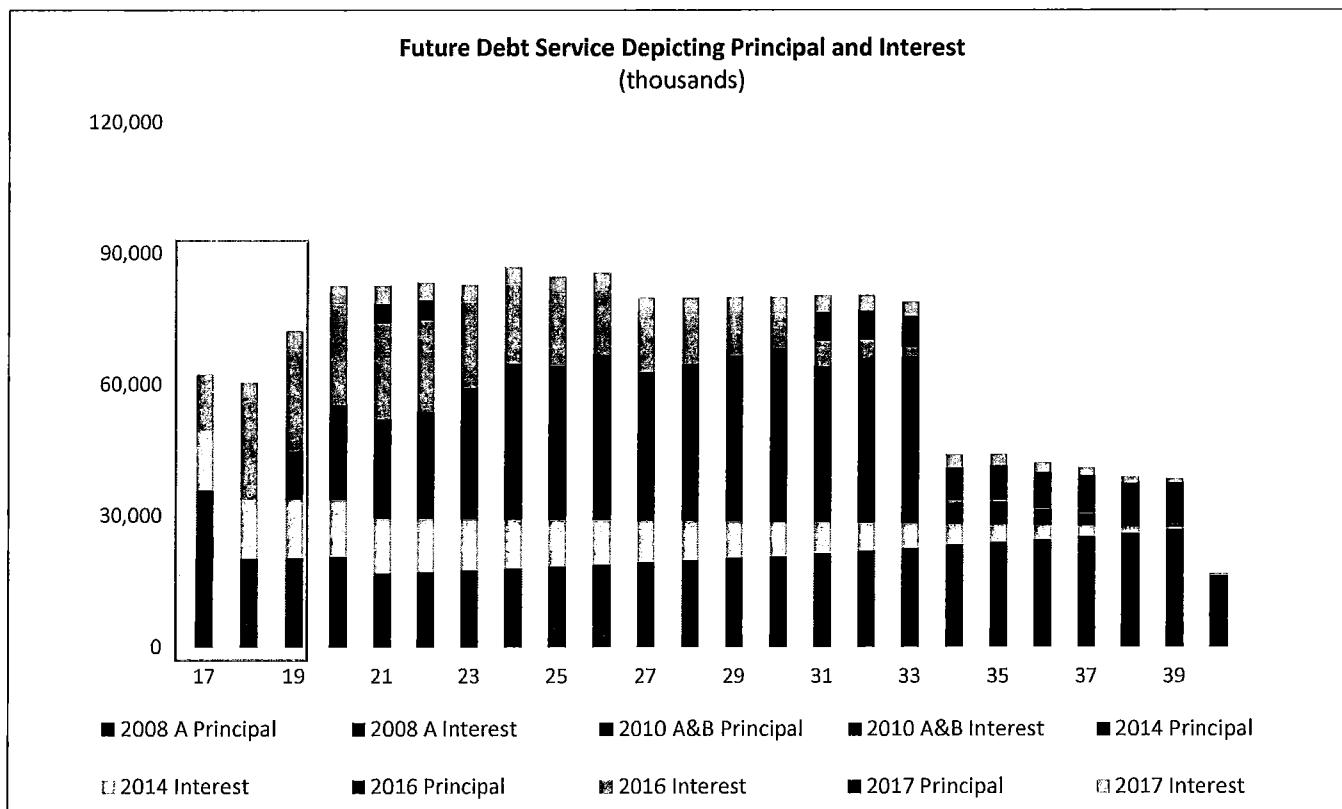
The Authority followed accounting for regulated operations in accordance with GASB 62, which requires approval from the Board of Directors, as they represent the regulatory body for the Authority. Board Resolution 5307 was approved to defer revenues related to capital cost insurance recoveries received and to recognize those revenues in the same periods as the assets funded by those insurance recoveries are depreciated. This resolution is intended to clarify and support the appropriate accounting treatment of the capital cost insurance recoveries and depreciation of assets for the GREC fire. The Authority's Board of Directors further expanded the use of regulated operations in 2017 by adopting Board Resolution 5325, which transferred the discretion to the CFO to allow the Authority to defer revenues related to third-party reimbursements for capital assets procured or constructed. These revenues, like the aforementioned insurance recoveries deferred, will be recognized in proportion to the depreciation of the assets for which the revenue was earned. See Note 5 to Financial Statements, Costs Recovered or to be Recovered from Future Revenues.

The Deferred Outflows Related to Loss on Reacquired Debt decreased by \$3.4 million in both 2019 and 2018 due entirely to amortization. These balances will be amortized over the life of the associated debt.

The Deferred Outflows of Resources related to pension plans totaled \$4.3 million and \$7.3 million for 2019 and 2018, respectively, while Deferred Inflow of Resources related to pension plans decreased by \$1.7 million in 2019, and remained virtually unchanged in 2018, totaling \$3.6 million. These amounts represent the Differences in Experience, Differences in Assumption, Investment Gain/Deficit, and Changes in Proportion from the actuarial studies performed on defined benefit plans. See Note 7 to Financial Statements, Retirement Plans, Postretirement, and Other Employee Benefits.

As noted previously, the Authority implemented GASB 75 in 2018. Similar to the Statement related to pensions, this Statement establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources, and expense for defined benefit other post-employment benefits. This implementation created Deferred Outflows of Resources in the amount of \$1.1 million but did not create Deferred Inflows of Resources for 2018. Deferred Inflows of Resources increased to \$830 thousand in 2019, while Deferred Outflows of Resources decreased by \$17 thousand. Though the Deferred Outflows of Resources and Deferred Inflows of Resources relate to changes of actuarial assumptions, the Authority contributions subsequent to the actuarial measurement date are also included in the Deferred Outflows of Resources.

As stated previously, the Authority expanded its Energy Hedging Program through which the Authority has entered into derivative transactions related to the purchase of natural gas. At the end of 2019, the Authority reported a Deferred Outflow of Resources of \$2.6 million, which represents an anticipated loss of the same amount to be recognized in future years. This is in contrast to the Authority's position in 2018, which ended with a Deferred Inflow of Resources of \$700 thousand.



Long-Term Debt

The Authority is not authorized to mortgage or pledge any assets for the repayment of debt. Instead, the bonds issued are revenue bonds, which pledge the future revenues of GRDA's entire electric system to repay bondholders.

The Authority held two 2014 bond proceed construction accounts in 2018. One is from taxable debt while the other is from tax-exempt proceeds. Disbursements for the construction projects are initially paid from revenue funds. Requests for reimbursements are then submitted to the trustee, and monies are transferred from the construction project accounts to revenue fund accounts. All construction funds were expended in 2018, and these accounts no longer have balances. The graph "Future Debt Service Depicting Principal and Interest (thousands)" provides an indication of how much principal and interest are due each year until all currently outstanding bonds mature in 2040. The graph distinguishes between the matured bonds and the currently outstanding issues.

As indicated in Note 6 to Financial Statements, Bonds Payable, GRDA makes monthly sinking fund payments to the bond trustee, which are reflected as Current Investments "Restricted for Bond Service." The bondholders are then paid annual principal payments on June 1 and semi-annual interest payments on December 1 and June 1 of each year.

In late 2019, both Fitch Ratings and Moody's Investor Service issued rating affirmations of A+, with a stable outlook and A1, with a stable outlook, respectively. These affirmations were largely due to the Authority's continuing financial health and increasing debt leverage. Fitch based its decision, in part, on GRDA's "continued strong financial performance and very low operating costs." Moody's noted GRDA's "diverse and competitively-priced resource mix" as a key reason for its rating.

Public Financial Management (PFM) represents the Authority as financial advisor to meet current and long-term operations and capital financing needs and render assistance with respect to debt transactions. PFM is acting as the Authority's Independent Municipal Advisor, as defined by the U.S. Securities and Exchange Commission in connection with all general capital markets activity.

CHANGE IN FINANCIAL POSITION

The Authority's financial position continues to improve year over year. The Authority's cash reserve levels, in conjunction with a formalized Cash Reserve Policy that was approved by the Board of Directors in 2018, has positioned the Authority to continue with its capital improvement plan while holding base rates steady. Debt service coverage has remained excellent, far exceeding the one-time's coverage required by debt covenants. The Authority's Board of Directors ensures that GRDA's success continues and plans are implemented efficiently and effectively and continue to challenge management to strive for excellence.

Wholesale customers provide financial security with long-term contracts. The Authority has been humbled by, and is motivated by, the active support of its customers and is actively working with this customer group to prepare for the onslaught of changes facing the utility industry. While the wholesale load is experiencing slight declines, long-term revenue projections are more reliable, as many of the all-requirements contracts with the municipal customers run two years longer than any outstanding debt.

The Authority continues to be very proud of Google's continued expansion of its facilities in Mayes County. The Authority is Google's local utility provider. In February 2018, Google announced an additional \$600 million investment in the MAIP. The Authority is positioned to support Google's growth in the community. In response to the growth of industry, MAIP has broken ground on a new development named "The District," which is a project planning for 100 new residential homes, a 100-unit apartment complex, and a shopping area to attract the qualified laborers to staff the surrounding, growing businesses.

The 2018 "Year of Efficiency" and 2019 "Year of Implementation" were marked by the identification and rollout of initiatives aimed at the reduction of expenses and the ability of the Authority to hold rates steady. Excellent debt service coverage also lends testimony to the financial strength of GRDA.

ECONOMIC OUTLOOK

GRDA has a positive economic outlook due to sound financial and operational fundamentals and solid, mutually-beneficial, long-term customer relationships, as well as new and expanding relationships. GRDA's rates remain competitive, as indicated in ten-year financial projections. Strong cash reserves are in place to fund capital reinvestment without need to issue additional debt, improving the debt-to-equity ratio for the Authority. The retail customers served by GRDA are diverse and service-oriented, with forecasted growth throughout the upcoming years.

Net Income for 2019 was the strongest it has been in the last several years, continuing an upward trend that began in 2017.

The Authority and its customers continue to work together to educate end users regarding the connection between efficiency, demand, and affordability. This will aid in managing end users' expectations of their electricity providers as the impact of the Integrated Marketplace and technology, such as distributed generation, introduce new and varying aspects to the utility industry.

The Authority protects the waters of the Grand River and the environments associated with it and uses Oklahoma's natural gas, water, and wind resources to generate electricity. The Authority meets customers' needs and environmental mandates with new resources and generation, like the combined-cycle natural gas unit. The diversity in GRDA's generation portfolio provides a hedge to risks such as fuel supply, Integrated Marketplace competition, and environmental legislation. The generation assets are backed by a robust transmission grid. The Authority has a favorable economic outlook because its electric system profile has low-debt costs, strong customer support, and coordinated resource planning.

MANAGEMENT'S DISCUSSION AND ANALYSIS

This report is intended to provide our customers, bondholders, citizens of the state of Oklahoma, and other interested parties with a general overview of GRDA's financial position, results of operations, and to demonstrate accountability for the revenues GRDA receives.

Questions about this report or requests for additional financial information should be directed to the Authority at: Grand River Dam Authority, PO Box 669, Chouteau, OK 74337.

GRAND RIVER DAM AUTHORITY
(A Component Unit of the State of Oklahoma)

STATEMENTS OF NET POSITION
AS OF DECEMBER 31, 2019 AND 2018

	2019	2018
ASSETS:		
Current assets:		
Casual and cash equivalents:		
General operating accounts	\$ 28,532,389	\$ 20,797,884
Restricted accounts	5,036,824	4,156,051
Investments:		
General operating accounts	92,274,589	93,057,233
Restricted accounts	25,085,194	18,816,955
Accounts receivable—net	33,530,818	41,929,970
Accrued interest receivable	1,834,235	1,559,789
Fuel stock	18,701,071	19,177,131
Materials and supplies	43,233,378	55,469,884
Under recovered fuel costs	2,080,723	-
Prepaid assets	4,250,800	5,490,518
Total current assets	<u>254,560,021</u>	<u>260,455,415</u>
Noncurrent assets:		
Investments:		
General operating accounts	203,561,997	198,797,378
Restricted accounts	112,729,941	109,992,603
Prepaid assets	919,461	-
Net utility plant:		
Nondepreciable—at original cost	69,391,957	63,888,622
Depreciable—at original cost, less depreciation	1,183,307,375	1,154,361,314
Other noncurrent assets	3,000,068	1,772,872
Total noncurrent assets	<u>1,572,910,799</u>	<u>1,528,812,789</u>
Total assets	<u>1,827,470,820</u>	<u>1,789,268,204</u>
DEFERRED OUTFLOWS OF RESOURCES:		
Related to pension plans	4,286,903	7,326,606
Related to post employment benefits	1,051,412	1,068,541
Related to loss on advanced refunding	31,079,603	34,523,355
Related to derivative hedges	2,595,165	-
Total deferred outflows of resources	<u>39,013,083</u>	<u>42,918,502</u>
LIABILITIES:		
Current liabilities:		
Accounts payable and accrued liabilities	32,255,337	42,236,659
Accrued interest payable	3,784,488	3,872,327
Bonds payable—current portion	37,505,000	26,205,000
Unearned revenue related to insurance proceeds	2,166,076	1,505,309
Over recovered fuel costs	-	6,587,794
Total current liabilities	<u>75,710,901</u>	<u>80,407,089</u>
Noncurrent liabilities:		
Bonds payable—net	1,001,295,522	1,049,736,511
Liabilities related to pension plans	5,463,835	6,712,892
Liabilities related to post employment benefits	16,980,723	17,668,568
Other noncurrent liabilities	10,686,436	3,948,744
Total noncurrent liabilities	<u>1,034,426,516</u>	<u>1,078,066,715</u>
Total liabilities	<u>1,110,137,417</u>	<u>1,158,473,804</u>
DEFERRED INFLOWS OF RESOURCES:		
Related to pension plans	1,905,145	3,574,189
Related to post employment benefits	829,895	-
Related to costs recovered or to be recovered	77,173,332	46,947,793
Related to derivative hedges	-	700,390
Total deferred inflows of resources	<u>79,908,372</u>	<u>51,222,372</u>
NET POSITION:		
Net investment in capital assets	281,454,483	239,876,589
Restricted for:		
Debt service	21,877,917	15,286,250
Other special purposes	2,186,412	2,201,996
Unrestricted	370,919,302	365,125,695
TOTAL NET POSITION	\$ 676,438,114	\$ 622,490,530

See notes to financial statements.

GRAND RIVER DAM AUTHORITY

(A Component Unit of the State of Oklahoma)

**STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018**

	2019	2018
OPERATING REVENUES:		
Sales of power	\$ 395,996,173	\$ 399,488,356
Other operating revenues	26,034,975	37,037,056
Regulatory asset revenues	<u>2,949,837</u>	<u>1,098,338</u>
Total operating revenues	<u>424,980,985</u>	<u>437,623,750</u>
OPERATING EXPENSES:		
Fuel	(103,946,966)	(94,802,749)
Depreciation	(75,266,780)	(80,383,786)
Purchased power—net	(64,864,171)	(88,779,253)
Operations	(62,042,306)	(61,009,966)
Maintenance	(24,447,446)	(28,162,855)
Administrative and general	<u>(23,633,834)</u>	<u>(18,132,047)</u>
Total operating expenses	<u>(354,201,503)</u>	<u>(371,270,656)</u>
OPERATING INCOME	70,779,482	66,353,094
NONOPERATING REVENUES (EXPENSES):		
Investment income	9,506,749	4,620,856
Net increase (decrease) in the fair value of investments	9,909,326	(1,222,703)
Award revenue—operating	(259,865)	253,218
Income (loss) - non-operating	(40,734)	(97,966)
Loss - non-utility operations	(4,160,775)	(877,453)
Interest expense	(49,296,921)	(50,110,812)
Costs recovered or to be recovered	(33,196,760)	(5,070,883)
Amortization of debt discount and financing costs	(92,894)	(92,894)
Amortization of bond premium	<u>11,028,883</u>	<u>11,206,324</u>
Total nonoperating expenses	<u>(56,602,991)</u>	<u>(41,392,313)</u>
CAPITAL CONTRIBUTIONS:		
Award revenue—capital	<u>39,771,093</u>	<u>5,170,213</u>
Total capital contributions	<u>39,771,093</u>	<u>5,170,213</u>
NET INCREASE IN NET POSITION	53,947,584	30,130,994
NET POSITION—Beginning of year, as previously reported	622,490,530	605,002,780
IMPLEMENTATION OF NEW ACCOUNTING STANDARD (see Note 7)	-	(12,643,244)
NET POSITION—Beginning of year, as restated	<u>622,490,530</u>	<u>592,359,536</u>
NET POSITION—End of year	<u>\$ 676,438,114</u>	<u>\$ 622,490,530</u>

See notes to financial statements.

GRAND RIVER DAM AUTHORITY
(A Component Unit of the State of Oklahoma)

STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018

	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES:		
Received from customers	\$ 434,350,302	\$ 438,587,099
Received from award revenues—operating	664,652	600,662
Payments to employees for services	(46,117,406)	(42,388,908)
Payments to suppliers for goods and services	<u>(206,858,275)</u>	<u>(239,667,107)</u>
Net cash provided by operating activities	<u>182,039,273</u>	<u>157,131,746</u>
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
Additions to utility plant	(112,543,055)	(53,270,297)
Payments for retirements of utility plant	(227,493)	(660,350)
Received from sales of retirements of utility plant	243,953	261,530
Received from award revenues—capital	2,023,810	618,183
Insurance proceeds received	5,700,000	-
Insurance proceeds spent	(3,533,924)	-
Repayment of principal	(26,205,000)	(14,760,000)
Interest paid	<u>(45,940,783)</u>	<u>(46,708,446)</u>
Net cash used in capital and related financing activities	<u>(180,482,492)</u>	<u>(114,519,380)</u>
CASH FLOWS FROM INVESTING ACTIVITIES:		
Interest received	10,943,709	10,268,724
Purchases of securities	(698,707,507)	(466,312,595)
Proceeds from sales and maturities of securities	<u>694,822,295</u>	<u>394,310,705</u>
Net cash provided by investing activities	<u>7,058,497</u>	<u>(61,733,166)</u>
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	<u>8,615,278</u>	<u>(19,120,800)</u>
CASH AND CASH EQUIVALENTS—Beginning of year	<u>24,953,935</u>	<u>44,074,735</u>
CASH AND CASH EQUIVALENTS—End of year	<u>\$ 33,569,213</u>	<u>\$ 24,953,935</u>
NONCASH ITEMS FROM CAPITAL AND RELATED ACTIVITIES:		
Noncash award revenues—capital	<u>\$ 8,854,736</u>	<u>\$ 5,170,213</u>
NONCASH ITEMS FROM INVESTING ACTIVITIES:		
Change in unrealized gain (loss) on investments	<u>\$ 9,909,326</u>	<u>\$ (1,222,703)</u>
Amortization of premiums and discounts	<u>\$ 2,355,019</u>	<u>\$ 304,858</u>
RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:		
Operating income	\$ 70,779,482	\$ 66,353,094
Noncash items included in net operating income:		
Income from nonutility operations	(561,105)	(1,837,553)
Depreciation	75,266,780	80,383,786
Changes in assets and liabilities:		
Receivables:		
Customers	4,887,397	(2,319,446)
Other	3,335,277	278,821
Fuel stock	476,060	3,111,060
Materials and supplies	12,236,506	(13,429,205)
Other	1,561,429	5,983,062
Deferred outflows related to pension plans	3,039,703	3,032,386
Deferred outflows related to post employment benefits	17,129	-
Deferred outflows related to derivative hedges	(2,595,165)	(1,068,541)
Accounts payable and accrued liabilities	(9,981,322)	539,198
Over (under) recovered fuel costs	(8,668,517)	(2,332,089)
Other noncurrent liabilities	3,559,618	19,513,952
Deferred inflows related to pension plans	(839,148)	(5,757,244)
Deferred inflows related to rate stabilization	(1,296,902)	(8,101)
Deferred inflows related to deferred revenues	31,522,441	3,988,176
Deferred inflows related to derivative hedges	<u>(700,390)</u>	<u>700,390</u>
NET CASH PROVIDED BY OPERATING ACTIVITIES	<u>\$ 182,039,273</u>	<u>\$ 157,131,746</u>

See notes to financial statements.

GRAND RIVER DAM AUTHORITY
(A Component Unit of the State of Oklahoma)

NOTES TO FINANCIAL STATEMENTS
AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of Business—The Grand River Dam Authority (the “Authority” or “GRDA”), a non-appropriated state agency was created by the State of Oklahoma in 1935 as a conservation and reclamation district. The Authority has the power to control, store, preserve, and distribute the waters of the Grand River and its tributaries for any useful purpose and to develop and generate water power, electric power, and electric energy within the boundaries of the Authority and to buy, sell, resell, interchange, and distribute electric power and energy. The Grand River lies entirely within Oklahoma, but its drainage basin also extends over the states of Arkansas, Kansas, and Missouri. As part of the Authority’s licensing agreements, the Authority also has lake area responsibilities. The costs of those activities are funded primarily through electricity sales to the Southwest Power Pool (SPP) Integrated Marketplace. The Authority’s financial statements are included in the state of Oklahoma Comprehensive Annual Financial Report as a discretely presented component unit.

Basis of Accounting—The Authority is licensed to operate under the Federal Power Act, which requires the use of the uniform system of accounts, prescribed for public utilities and licensees. The Authority is a cost of service organization and establishes its rates to provide revenues sufficient to pay all expenses necessary for the operation and maintenance of the system, all payments, transfers, and deposits related to outstanding debt, and all other charges or obligations imposed by law or contract.

Basis of Presentation—The Authority’s basic financial statements are reported using the economic resources measurement focus and the accrual basis of accounting. Under the accrual basis of accounting, revenues are recognized when earned and expenses are recorded when the liability is incurred or economic asset used. Revenues, expenses, gains, losses, assets, deferred outflows of resources, liabilities, and deferred inflows of resources resulting from exchange and exchange-like transactions are recognized when the exchange takes place.

The Authority’s basic financial statements conform to the provisions of standards issued by the Governmental Accounting Standards Board (GASB). GASB establishes standards for external financial reporting for all state and local governmental entities, which include Statements of Net Position, Statements of Revenues, Expenses, and Changes in Net Position, and Statements of Cash Flows. It requires the classification of net position into three components—net investment in capital assets, restricted, and unrestricted. These classifications are defined as follows:

Net Investment in Capital Assets—This component of net position consists of capital assets, net of accumulated depreciation and costs recovered or to be recovered from future revenues reduced by the outstanding balances of any bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets. If there are significant unspent related debt proceeds at year-end, the portion of the debt attributable to the unspent proceeds is not included in the calculation of net investment in capital assets. Rather, that portion of the debt is included in the same net position component as the unspent proceeds.

Restricted—This component of net position consists of funds subject to constraints placed on net position use through external constraints imposed by creditors (such as through debt covenants), contributors, or laws or regulations of other governments or constraints imposed by law through constitutional provisions or enabling legislation. When both restricted and unrestricted resources are available for use for the same purpose, it is the Authority’s policy to use unrestricted resources first, then restricted resources as they are needed.

Unrestricted Net Position—This component of net position consists of any remaining net position that does not meet the definition of “restricted” or “net investment in capital assets.”

Estimates—The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Cash and Cash Equivalents—Cash and cash equivalents include unrestricted cash in banks, unrestricted money market funds, and unrestricted certificates of deposit with original maturities of three months or less. Balances are presented on a net basis to the extent such balances are subject to the right of offset. Unrestricted cash and cash equivalents are shown as General Operating Accounts and restricted cash and cash equivalent are shown as Restricted Accounts on the Statements of Net Position.

Investments—Investments principally comprise U.S. government securities, U.S. government agencies, U.S. government-sponsored enterprises, money market funds, certificates of deposit and Certificates of Deposit Account Registry Service. The Authority reports investments at fair value, which is the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date. Unrestricted investments are shown as General Operating Accounts and restricted investments are shown as Restricted Accounts on the Statements of Net Position.

Fuel Stock—Fuel stock is valued using the average cost method, which includes the delivered commodity and other undistributed costs of coal handling, railcar and railroad track maintenance. The delivered commodity is expensed monthly based on fuel burned, and undistributed costs are expensed monthly independent of fuel burned.

Materials and Supplies—Materials and supplies are valued using the average cost and specific identification methods.

Under/Over Recovered Fuel Costs—The Authority's rate structure, as approved by the Board of Directors, provides for the Authority to make adjustments in revenue collections from municipal, industrial, cooperative and off-system firm customers to recover actual fuel costs incurred by the Authority. This adjustment, referred to as the Power Cost Adjustment (PCA), is calculated monthly based on a 12-month average of fuel costs. The cumulative difference between the actual fuel costs and the revenue collected by the PCA is reflected as either an asset ("under recovery") or liability ("over recovery") in the Authority's accompanying Statements of Net Position, as amounts will either be collected from or refunded to customers of the Authority in subsequent periods.

Joint Ownership—On October 1, 2008, the Authority purchased certain assets and assumed certain liabilities in the Redbud combined-cycle gas plant near Luther, Oklahoma. The Authority's undivided interest in the assets and liabilities of the facility is 36%, while Oklahoma Gas & Electric's (OG&E) interest is 51%, and Oklahoma Municipal Power Authority's (OMPA) interest is 13%.

OG&E operates the Redbud facility under an operating agreement with the Authority and OMPA and allocates certain costs and expenses attributable to Redbud to the Authority and to OMPA in accordance with their undivided ownership interests (36% and 13%, respectively). The Redbud facility has longterm service agreements with a large industrial manufacturer for the maintenance of the gas and steam turbines. These amounts have been included in the contractual commitments in Note 9 to Financial Statements, Commitments and Contingencies.

Utility Plant and Depreciation—The cost of utility plant includes direct costs, such as material, labor, and payments to contractors, as well as indirect costs, such as engineering, supervision, and administrative and general expenses. Generally, assets which have a cost of \$500 or more at the date of acquisition and have an expected useful life of more than one year, and are not consumable, are capitalized. The cost of maintenance and repairs to property is expensed. Consistent with the Redbud plant operator's treatment, certain costs of the long-term service agreement payments for the Redbud plant are capitalized. Gain or loss is recognized on retirements and dispositions.

Depreciation is computed on the straight-line basis at rates based upon the estimated useful lives of assets. Depreciation expense, calculated as a percentage of depreciable plant, averaged approximately 6% for each of the years ended December 31, 2019 and 2018.

The utility depreciable property classes range from 3 to 87 years. The depreciable lives for the Redbud plant generally align with the majority owner.

Costs Recovered or to be Recovered—Certain items included in operating costs are recovered by the Authority through rates set by the Board of Directors. The Authority, as a self-regulated utility, is subject to the requirements of GASB Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*. GASB Statement No. 62 provides that certain costs that would otherwise be charged to revenue and expense can be deferred as regulatory liabilities and assets, based on the expected recovery from customers in future rates. Recognition of these costs is deferred to the extent that such costs are later included in rates charged by the Authority in future years.

Management continuously monitors the future recoverability of regulatory items, and when, in management's judgment, any future recovery becomes impaired, the amount of the regulatory asset is reduced or written off, as appropriate. For additional information about the costs recovered or to be recovered, see Note 5 to Financial Statements, Costs Recovered or to be Recovered.

Bonds Payable—The Authority is operating under its Board's General Bond Resolution No. 5107 ("Resolution No. 5107"), which provides for the issuance of revenue bonds and defines eligible investment securities.

Unamortized Debt Discount or Premium—Debt discount or premium are amortized using the bonds outstanding method over the periods of the applicable issues.

Unamortized Gains and Losses on Advance Refunding of Long-Term Debt—Gains and losses realized on advance refunding of long-term debt are deferred and amortized over the shorter of the life of the new bonds or the related refunding issues using the bonds outstanding method.

Deferred Outflows—In addition to assets, the Statements of Net Position reports a separate section for the deferred outflows of resources. This separate financial statement element represents a consumption of net position that applies to a future period and so will not be recognized as an outflow of resources (expense) until then. The Authority has four items that qualify for reporting in this category. The deferred outflows of resources relate to deferrals required by GASB 68 and 71 related to pension obligations, deferrals required by GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*, related to other postemployment benefits (OPEB), deferred losses on reacquired debt, and derivative hedges. For additional information about the pension plans and OPEB, see Note 7 to Financial Statements, Retirement Plans, Postretirement, and Other Employee Benefits. For additional information about the loss on reacquired debt, see Note 6 to Financial Statements, Bonds Payable. Refer to Note 11 to Financial Statements, Risk Management, for additional information related to derivative hedges.

Deferred Inflows—In addition to liabilities, the Statements of Net Position reports a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position that applies to a future period and so will not be recognized as an inflow of resources (revenue) until that time. The Authority has four items that qualify for reporting in this category. The deferred inflows of resources relate to deferrals required by GASB 68 related to pension obligations, deferrals required by

GASB 75 related to other postemployment benefits (OPEB), regulated operations, which includes deferred revenues from third-party contributions to capital projects and contributions to a rate stabilization account, and derivative hedges. For additional information about the pension plans and OPEB, see Note 7 to Financial Statements, Retirement Plans, Postretirement, and Other Employee Benefits. For additional information about the derivative hedges, see Note 11 to Financial Statements, Risk Management. For additional information about regulated operations, see Note 5 to Financial Statements, Costs Recovered or to be Recovered.

Operating and Nonoperating Revenues and Expenses—Operating revenues include the sales of power. Other operating revenues consist primarily of transmission revenues, but also include sales of water and renewable energy certificates. Regulatory asset revenues are the recognition of deferred revenues. Operating expenses include costs to operate and maintain the Authority's generation and transmission assets, and also includes fuel, purchased power, depreciation, and administrative and general expenses. Nonoperating revenues include investment income, net increase in the fair value of investments, amortization of bond premiums, and income from nonutility operations, which includes lake permitting fees and scenic river operations fees. Nonoperating expenses include interest expense, costs recovered or to be recovered from future revenues, amortization of bond-related expenses, and expenses from nonutility operations, which include lake and scenic river operating expenses.

Purchased Power—Purchased power includes the cost of energy purchased for resale to contract customers. Included are the settlements for the hourly net exchange of electricity in the SPP Integrated Marketplace and bilateral purchases from counterparties, including energy purchased under wind purchase agreements and customer capacity purchase agreements.

Energy Hedging—GRDA has a formalized Risk Management Policy and Energy Hedging Program. Accordingly, GRDA evaluates transactions under GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments*. For additional information about the hedging program, see Note 11 to Financial Statements, Risk Management.

Capital Contributions—Cash and capital assets are contributed to the Authority from customers, municipalities, or external parties. The value of property contributed to the Authority is reported as award revenues on the accompanying Statements of Revenues, Expenses, and Changes in Net Position.

Income Taxes—The Authority is a governmental agency organized under the laws of the State of Oklahoma and is not subject to federal or Oklahoma state income taxes.

Comparative Data—Certain amounts presented in the prior year data may have been reclassified in order to be consistent with the current year's presentation.

Adoption of New Accounting Standards—During the year, the Authority adopted the following accounting standards:

GASB Statement No. 83, *Certain Asset Retirement Obligations*: This Statement addresses accounting and financial reporting for certain asset retirement obligations (AROs). An ARO is a legally enforceable liability associated with the retirement of a tangible capital asset. A government that has legal obligations to perform future asset retirement activities related to its tangible capital assets should recognize a liability based on the guidance in this Statement. The Statement is effective for financial statements for periods beginning after June 15, 2018, which makes it effective for the Authority for fiscal year 2019. This statement did not have an impact on the Authority's financial statements.

GASB Statement No. 84, *Fiduciary Activities*: The objective of this Statement is to improve guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. This Statement establishes criteria for identifying fiduciary activities of all state and local governments. The focus of the criteria generally is on (1) whether a government is controlling the assets of the fiduciary activity and (2) the beneficiaries with whom a fiduciary relationship exists. Separate criteria are included to identify fiduciary component units and postemployment benefit arrangements that are fiduciary activities. The Statement is effective for financial statements for periods beginning after June 15, 2018, which makes it effective

for the Authority for fiscal year 2019. This statement did not have an impact on the Authority's financial statements.

GASB Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*: The primary objective of this Statement is to improve the information that is disclosed in notes to government financial statements related to debt, including direct borrowings and direct placements. It also clarifies which liabilities governments should include when disclosing information related to debt. This Statement defines debt for purposes of disclosure in notes to financial statements as a liability that arises from a contractual obligation to pay cash (or other assets that may be used in lieu of cash) in one or more payments to settle an amount that is fixed at the date the contractual obligation is established. This Statement requires that additional essential information related to debt be disclosed in notes to financial statements, including unused lines of credit; assets pledged as collateral for the debt; and terms specified in debt agreements related to significant events of default with finance-related consequences, significant termination events with finance-related consequences, and significant subjective acceleration clauses. For notes to financial statements related to debt, this Statement also requires that existing and additional information be provided for direct borrowings and direct placements of debt separately from other debt. The requirements of this Statement are effective for reporting periods beginning after June 15, 2018, which makes it effective for the Authority for fiscal year 2019. The Authority implemented GASB Statement No. 88 for disclosures in the fiscal year 2019 financial statements. These disclosures have been included in Note 6 to Financial Statements, Bonds Payable.

GASB Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*: The objectives of this Statement are (1) to enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period and (2) to simplify accounting for interest cost incurred before the end of a construction period. This Statement establishes accounting requirements for interest cost incurred before the end of a construction period. Such interest cost includes all interest that previously was accounted for in accordance with the requirements of paragraphs 5–22 of Statement No. 62, Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements, which are superseded by this Statement. This Statement requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. As a result, interest cost incurred before the end of a construction period will not be included in the historical cost of a capital asset reported in a business-type activity or enterprise fund. This Statement also reiterates that in financial statements prepared using the current financial resources measurement focus, interest cost incurred before the end of a construction period should be recognized as an expenditure on a basis consistent with governmental fund accounting principles. The requirements of this Statement are effective for reporting periods beginning after December 15, 2019, which makes it effective for the Authority for fiscal year 2020. The Authority opted to implement this Standard for fiscal year 2019.

GASB Statement No. 90, *Majority Equity Interests (amendment of GASB Statements No. 14 and No. 61)*: The primary objectives of this Statement are to improve the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and to improve the relevance of financial statement information for certain component units. It defines a majority equity interest and specifies that a majority equity interest in a legally separate organization should be reported as an investment if a government's holding of the equity interest meets the definition of an investment. A majority equity interest that meets the definition of an investment should be measured using the equity method, unless it is held by a special-purpose government engaged only in fiduciary activities, a fiduciary fund, or an endowment (including permanent and term endowments) or permanent fund. Those governments and funds should measure the majority equity interest at fair value. For all other holdings of a majority equity interest in a legally separate organization, a government should report the legally separate organization as a component unit, and the government or fund that holds the equity interest should report an asset related to the majority equity interest using the equity method. This Statement establishes that ownership of a majority equity interest in a legally separate organization results in the government being financially accountable for the legally separate organization and, therefore, the government should report that organization as a component unit. This Statement also requires that a component unit in which a government has a 100 percent equity interest account for its assets, deferred outflows of resources, liabilities, and deferred inflows of resources at acquisition value at the date the government acquired a 100 percent equity interest in the component unit. Transactions presented in flows statements of the component unit in that circumstance should include only transactions that occurred subsequent to the acquisition. The requirements of this Statement are

effective for reporting periods beginning after December 15, 2018, which makes it effective for the Authority for fiscal year 2019. This statement did not have an impact on the Authority's financial statements.

Recently Issued Accounting Standards—The following accounting standards will be adopted as applicable in future periods: GASB Statement No. 87, *Leases*, GASB Statement No. 91, *Conduit Debt Obligations* and GASB Statement No. 92, *Omnibus 2020*. When they become effective, application of these standards may restate portions of these financial statements.

2. DEPOSITS AND INVESTMENTS

The Authority's Resolution No. 5107 provides for the issuance of revenue bonds and defines eligible investment securities as investments allowed pursuant to the Authority's investment policy. The Authority's Board Policy 5-2 defines the following categories of investments (1) bonds or other obligations, which are direct obligations of the United States of America, (2) bonds or other specifically named obligations, which are indirectly guaranteed by the United States of America, (3) direct and general obligations of any state which are rated in the two highest major categories of Moody's, Standard & Poor's (S&P), or Fitch, (4) certificates of deposit issued by a savings and loan association or a bank and trust company which are collateralized by the securities described in (1) and (2) or which are fully insured by the Federal Deposit Insurance Corporation (FDIC), (5) repurchase agreements with banks or government bond dealers which are secured by securities described in (1) and (2), (6) investment agreements with companies or banks whose senior debt obligations are rated no lower than the second highest category of Moody's, S&P, or Fitch, (7) short-term obligations of any state or political subdivision which are rated in the highest short-term category by Moody's or S&P, and (8) any cash swap or similar arrangement of the Bond Fund Trustee, the investments of which are limited to securities described in (1) and (2).

The Authority carries its investments at fair value. Fair value of a financial instrument is the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date. The Authority and trustees monitor collateral pledged to secure deposits in financial institutions for compliance with rules and regulations promulgated by the Oklahoma State Treasurer.

Interest-Rate Risk—Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Resolution No. 5107 requires that investments not mature later than such times as the funds shall be necessary to provide monies when needed for payments to be made from the Debt Service Account, and in the case of the Debt Service Reserve Account, unless otherwise provided in a Supplemental Resolution, not later than ten (10) years from the date of investment. The Authority's Board Policy 5-2 provides that general fund investments shall also not mature later than ten (10) years from the date of investment and requires specific diversification percentages by security type in order to reduce overall portfolio risk. The Authority attempts to hold the investments to maturity, which minimizes the exposure to rising interest rates.

As of December 31, 2019 and 2018, the Authority had the following investments (classified as either General Operating investments or Restricted investments on the Statements of Net Position) and corresponding maturities:

Investment Type	Fair Value	Investment Maturity (in Years)			
		Less than 1	1–5	6–10	
U.S. government securities					
U.S. Treasury Bills	\$ 25,509,993	\$ 25,509,993	\$ -	\$ -	
U.S. Treasury Notes	189,468,542	63,918,799	53,149,187	72,400,556	
U.S. government sponsored enterprises					
FFCB	56,878,560	18,471,657	17,579,729	20,827,174	
FHLB	15,690,865	8,013,560	6,686,345	990,960	
FHLMC	61,804,568	1,495,035	56,691,170	3,618,363	
FNMA	54,253,781	5,061,515	42,871,756	6,320,510	
GNMA	11,822,092	1,857,886	9,516,335	447,871	
Total	\$ 415,428,401	\$ 124,328,445	\$ 186,494,522	\$ 104,605,434	

Investment Type	Fair Value	Investment Maturity (in Years)			
		Less than 1	1–5	6–10	
U.S. government securities					
U.S. Treasury Bills	\$ 19,082,335	\$ 19,082,335	\$ -	\$ -	
U.S. Treasury Notes	181,646,803	69,390,316	77,996,418	34,260,069	
U.S. government sponsored enterprises					
FFCB	4,658,224	-	-	4,658,224	
FHLB	18,704,839	9,215,732	2,486,250	7,002,857	
FHLMC	106,601,211	27,555,204	73,826,208	5,219,799	
FNMA	64,853,923	11,236,841	42,417,573	11,199,509	
GNMA	11,586,777	-	11,150,615	436,162	
Total	\$ 407,134,112	\$ 136,480,428	\$ 207,877,064	\$ 62,776,620	

The above investment types exclude certificates of deposits.

Credit Risk—Credit risk is the risk that the insurer or other counterparty to an investment will not fulfill his obligation. Mortgage backed securities (MBS) are not rated because the agencies that issue such securities did not apply to any of the nationally recognized statistical rating organizations (NRSRO) such as Moody's Investors Service and S&P for ratings on their MBS. However, the agencies and the Government Sponsored Enterprises (GSE) carry “Aaa/AA+” ratings from Moody’s and S&P for their debentures, and the MBS which carry their label (e.g., Federal National Mortgage Association—“FNR”; Federal Home Loan Mortgage Corporation—“FHR”) are direct obligations of the agencies. With the exception of Federal National Mortgage Association (“Fannie Mae”) and the Federal Home Loan Mortgage Corporation (“Freddie Mac”), which are government-sponsored quasi-governmental agencies (which also received U.S. government backing during 2008), the agencies have the backing of the U.S. Government; therefore, the “Aaa/AA+/AAA” rating by Moody’s, Standard & Poor’s, and Fitch is implied. MBS issued by the Government National Mortgage Association, with the label GNR, carry the explicit full faith and credit of the U.S. Government. Securities issued by the Federal Farm Credit Bank (FFCB) and the Federal Home Loan Bank (FHLB) are rated “Aaa/AA+/AAA” by Moody’s, S&P, and Fitch credit rating agencies. Fannie Mae and Freddie Mac are rated “Aaa/AA+/AAA” by Moody’s, S&P, and Fitch credit rating agencies. The MBS are senior in the credit structure to the debentures for the FNMA and FHLMC. The certificates of deposit are held by various banks and are subject to the FDIC guarantees up to \$250,000. The Authority addresses credit risk of investments through the Authority’s Board Policy 5-2 which states that investments must be backed by the U.S. government, collateralized, fully insured by the FDIC, or be rated no lower than the second highest category of Moody’s “Aa”, S&P “AA”, or Fitch “AA”.

As of December 31, 2019 and 2018, the Authority's investments had the following ratings:

Investment Ratings	2019	2018
U.S. government securities	\$ 214,978,535	\$ 200,729,138
U.S. government sponsored enterprises	200,449,866	206,404,974

As of December 31, 2019 and 2018, the Authority had the following portfolio of investments with credit exposure by investment type as a percentage of total investments:

	2019	2018
U.S. government securities		
U.S. Treasury Bills	6.1 %	4.7 %
U.S. Treasury Notes	45.6	44.6
U.S. government sponsored enterprises		
FFCB	13.7	1.1
FHLB	3.8	4.6
FHLMC	14.9	26.2
FNMA	13.1	16.0
GNMA	2.8	2.8

Custodial Credit Risk—Custodial credit risk is the risk that, in the event of the failure of the counterparty, the Authority will not be able to recover the value of its investment for collateral securities that are in the possession of an outside party. All money to be held by the Authority under Resolution No. 5107 is required to be deposited in one or more depositories in the name of the Authority. All money deposited under the provisions of Resolution No. 5107 with the Bond Fund Trustee and the Construction Fund Trustee is required to be held in trust and applied only in accordance with the provisions of Resolution No. 5107; money held by the Authority and deposited in any depository is required to be held and secured in the manner provided by Oklahoma law.

Restricted noncurrent investment funds in the bond service reserve account, and certain funds in the construction account are included in Investments in Noncurrent assets on the Statements of Net Position. Restricted current investment funds in the bond service account and certain deposits in the construction account are included in Investments in Current assets on the Statements of Net Position. Restricted investments (noncurrent and current) are not available for general operations.

Unrestricted cash deposits, certificates of deposits and money market funds are fully collateralized or covered by FDIC.

Fair Value Measurements—According to GASB Statement No. 72, *Fair Value Measurement and Application*, the Authority is required to disclose the valuation technique and level of inputs for all investments. The Authority's investments fall into input Level 1 and Level 2.

Level 1 inputs are quoted (unadjusted) prices in active markets for identical assets or liabilities that the government can access at the measurement date. Observable markets include exchange markets, dealer markets, brokered markets and principal-to-principal markets.

Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. These inputs are derived from or corroborated by observable market data through correlation or by other means, e.g., “market-corroborated” inputs. Level 2 inputs include:

- Quoted prices for similar assets or liabilities in active markets
- Quoted prices for identical or similar assets or liabilities in inactive markets
- Inputs other than quoted prices that are observable for the asset or liability
- Market-corroborated inputs

Level 3 inputs are unobservable inputs for the asset or liability; they should be used only when relevant Level 1 and Level 2 inputs are unavailable. Governments may use their own data to develop unobservable inputs if there is no information available without undue cost and effort. The Authority has no investments that fall into Level 3.

Money Market Funds and Certificates of Deposit are not subject to classification.

The valuation methods for each investment listed in the following fair value of investments table include interactive data from Government/Agency Sector (GV/AGENCY) and Collateralized Mortgage Obligation Sector) pricing sources.

	2019			
	Fair Value			
	Level 1	Level 2	Level 3	Total
U.S. government securities	\$ 234,992,535	\$ -	\$ -	\$ 234,992,535
U.S. government sponsored enterprises	66,984,996	113,450,870	-	180,435,866
Derivative instruments	-	2,595,165	-	2,595,165

	2018			
	Fair Value			
	Level 1	Level 2	Level 3	Total
U.S. government securities	\$ 200,729,138	\$ -	\$ -	\$ 200,729,138
U.S. government sponsored enterprises	118,312,159	88,092,815	-	206,404,974
Derivative instruments	-	700,390	-	700,390

Carrying Values—Cash and cash equivalents and current and noncurrent investments at December 31, 2019 and 2018, follows:

	2019					
	General Operations	Board Designated	Rate Stabilization (Restricted)	Bond Service (Restricted)	Bond Reserve (Restricted)	Other Special Purposes (Restricted)
Current:						
Cash deposits—net	\$ 1,679,303	\$ -	\$ -	\$ -	\$ -	\$ 2,159,412
Money market funds—cash and investments	26,853,086	-	-	577,211	2,166,076	134,125
U.S. government securities and sponsored enterprises	80,053,325	-	-	25,085,194	-	-
Certificates of Deposit, Account Registry Service	10,328,466	-	-	-	-	105,138,519
Certificates of deposits—maturity < 12 months	<u>1,892,798</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>10,328,466</u>
Total current	<u>120,806,978</u>	<u>-</u>	<u>-</u>	<u>25,623,405</u>	<u>2,166,076</u>	<u>2,293,537</u>
Noncurrent:						
U.S. government securities and sponsored enterprises	163,563,997	39,998,000	19,703,098	-	87,024,786	310,289,881
Money market funds	-	-	-	-	6,002,057	6,002,057
Total noncurrent	<u>163,563,997</u>	<u>39,998,000</u>	<u>19,703,098</u>	<u>-</u>	<u>93,026,843</u>	<u>316,291,938</u>
Total cash and investments	<u>\$ 284,310,975</u>	<u>\$ 39,998,000</u>	<u>\$ 19,703,098</u>	<u>\$ 25,623,405</u>	<u>\$ 2,166,076</u>	<u>\$ 2,293,537</u>
						<u>\$ 467,220,934</u>

	2018							
	General Operations	Board Designated	Rate (Restricted)	Bond Service (Restricted)	Construction (Restricted)	Bond Service Reserve (Restricted)	Other Special Purposes (Restricted)	Total
Current:								
Cash deposits—net	\$ 1,978,222	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,173,538	\$ 4,151,760
Money market funds—cash and investments	18,819,562	-	-	341,622	1,505,309	-	135,583	20,802,176
U.S. government securities and sponsored enterprises	91,211,389	-	-	18,816,955	-	-	-	110,028,844
Certificates of deposits—maturity < 12 months	1,845,343	-	-	-	-	-	-	1,845,343
Total current	113,855,116	-	-	19,158,577	1,505,309	-	2,309,121	136,828,123
Noncurrent:								
U.S. government securities and sponsored enterprises	149,151,131	39,615,000	21,000,000	-	-	87,339,137	-	297,105,268
Money market funds	-	-	-	-	-	1,653,466	-	1,653,466
Certificates of Deposit Account Registry Service	<u>10,031,247</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>10,031,247</u>
Total noncurrent	159,182,378	39,615,000	21,000,000	-	-	88,992,603	-	308,789,981
Total cash and investments	\$ 273,037,494	\$ 39,615,000	\$ 21,000,000	\$ 19,158,577	\$ 1,505,309	\$ 88,992,603	\$ 2,309,121	\$ 445,618,104

The restricted balances are the minimum amounts required to be maintained.

Additional information relating to cash and investment restrictions follows:

Rate Stabilization—As of December 31, 2016, the Authority established and deposited \$21.0 million into the Rate Stabilization Account in the accompanying Statements of Net Position. The 2019 reduction of \$1.3 million is the result of a Board-approved \$0.00055 per kWh credit to wholesale full requirements customers' invoices for a period of April 1, 2019, through December 31, 2019. Customer contracts contain requirements for the establishment and funding of a Rate Stabilization Account. Resolution No. 5107 and Board Resolution No. 5358 contain further guidelines for the establishment and maintenance and allocation of the fund. This amount was funded from operating revenues and will be used at the discretion of the Authority's Board of Directors to reduce or defer future rate increases.

Bond Service—On December 31, the bond service fund in the accompanying Statements of Net Position reflects the restricted amount sufficient to pay seven months of principal and one month of interest due the following June 1.

Construction—On December 31, the construction fund in the accompanying Statements of Net Position reflects insurance proceeds received in a trust fund for the settlement related to the 2019 GREC 2 Insurance Claim.

Bond Service Reserve—The restricted amount in the accompanying Statements of Net Position reflects the aggregate debt service for one year for all bonds outstanding per Resolution No. 5107.

Restricted for Other Special Purposes—Due to agreements with FERC, the Authority has restricted money for two purposes. The first restriction is for the Fish and Wildlife Mitigation Fund, established in June 2003 as required by FERC. The Authority funded an initial deposit of \$260,000 in 2003, and was required to make \$100,000 annual contributions (adjusted for inflation) each year the Pensacola Dam license is in effect. In December 2015, the Authority funded the balance of \$1.45 million, which represented the estimated annual contributions through the year 2022. Generally, the purpose of this fund is to support projects to protect and enhance fish and wildlife resources at the direction of various groups external to the Authority. Expenditures of approximately \$42,509 and \$39,472 were made from the fund in 2019 and 2018, respectively. The second restriction is for the Nature Conservancy Fund, established in May 2008 as required by FERC. The Authority funded an initial deposit of \$27,000 in 2008. The Authority is required to replenish the fund to \$27,000 on the first working day in January of each year. Generally, the purpose of this fund is to maintain bat caves protection on Grand Lake. No expenditures were made from the fund in either 2019 or 2018. The Authority also has restricted money for riparian leases under the Oklahoma Conservation Commission and Grand River Dam Authority Cooperative Agreement, GRDA either acquired or secured and paid for deeds of conservation easements. Enrollee's that wish to terminate and/or are removed due to breech of agreement from the Riparian Protection Easement Program, are required to pay back a pro-rated amount of the remaining years of the lump-sum payment received to the Authority as outlined in the agreement, which created a liability of \$107,125 as of December 31, 2019 and 2018, with the obligation to use the funds to secure additional easements within the Illinois River Watershed.

In addition to these restricted funds, two special funds (designated by the Authority's Board of Directors in December 2004) are unrestricted:

The Reserve and Contingency Fund I and II—These designated, though unrestricted, funds were established in December 2004 as Board-designated funds for future use, if needed, for extraordinary maintenance, operational, and environmental expenses and for expenses related to unforeseen risk, including, but not limited to, unscheduled outages, unexpected purchased power expense, and other extraordinary expense not covered by insurance proceeds. These Board-designated funds had a balance of \$40.0 million and \$39.6 million as of December 31, 2019 and 2018, respectively.

Line of Credit—In 2015, the Authority established an unsecured line of credit with Bank of Oklahoma to meet the requirements for participating in the SPP Integrated Marketplace. In December 31, 2019 and 2018 the line of credit is \$8.0 million both years, and expires on May 31, 2020, with an auto-renewal clause.

Realized Gains and Realized Losses—For purposes of computing gross realized gains and gross realized losses, cost is determined by specific identification. The calculation of realized gains is independent of the calculation of the net increase in the fair value of investments. Realized gains and losses on any investments that had been held for more than the current year may have been recognized as an increase or decrease in the fair value of investments reported in prior years.

Gross realized gains and gross realized losses on sales of investment securities for the years ended December 31, 2019 and 2018, were as follows:

	2019	2018
Gross realized gains	\$ 406,233	\$ 1,182,583
Gross realized losses	(2,687,465)	(1,563,277)

Gross realized gains and losses are included in Investment income in the accompanying Statements of Revenues, Expenses, and Changes in Net Position.

3. RECEIVABLES

Current accounts receivable is comprised at December 31, 2019 and 2018, of the following amounts:

	2019	2018
Customers	\$ 29,831,924	\$ 34,807,775
Less allowance for doubtful accounts	(100,000)	(100,000)
Other	<u>3,798,894</u>	<u>7,734,582</u>
Total	<u>\$ 33,530,818</u>	<u>\$ 42,442,357</u>

At December 31, 2019, the Authority's Other current accounts receivable, from the table above, includes FEMA recoveries related to a 2017 flooding event, reimbursable amounts from a private grant related to a capital project, reimbursable amounts related to mutual aid events, rebates, reimbursable work for other entities, and lake-related billings.

At December 31, 2019 and 2018, the Authority has noncurrent receivables included in Other noncurrent assets of \$252,202 and \$512,387, respectively.

4. UTILITY PLANT

A summary of changes in utility plant for the years ended December 31, 2019 and 2018, follows:

	2019			
	Balance December 31, 2018	Additions/ Transfers	Retirements	Balance December 31, 2019
Capital assets—nondepreciable:				
Land	\$ 38,239,227	\$ 355,801	\$ (93,606)	\$ 38,501,422
Construction work in progress	<u>25,649,395</u>	<u>5,241,140</u>	<u>-</u>	<u>30,890,535</u>
 Total capital assets—nondepreciable	 <u>63,888,622</u>	 <u>5,596,941</u>	 <u>(93,606)</u>	 <u>69,391,957</u>
 Capital assets—depreciable:				
GREC 1 coal-fired plant	374,817,868	(39,937,453)	(314,025)	334,566,390
GREC 2 coal-fired plant	483,398,036	44,779,683	(564,501)	527,613,218
GREC 3 combined-cycle gas plant	456,766,573	568,046	-	457,334,619
Redbud combined-cycle gas plant	361,729,004	28,580,708	(5,994,213)	384,315,499
Hydraulic production plants	183,742,549	2,537,505	(294,972)	185,985,082
Transmission system	394,021,628	61,090,404	(3,582,270)	451,529,762
Other properties and production plant	<u>133,075,296</u>	<u>9,059,542</u>	<u>(4,898,415)</u>	<u>137,236,423</u>
	<u>2,387,550,954</u>	<u>106,678,435</u>	<u>(15,648,396)</u>	<u>2,478,580,993</u>
 Less accumulated depreciation:				
GREC 1 coal-fired plant	(320,076,951)	3,362,954	448,456	(316,265,541)
GREC 2 coal-fired plant	(403,140,745)	(23,417,665)	598,026	(425,960,384)
GREC 3 combined-cycle gas plant	(22,476,755)	(13,103,429)	-	(35,580,184)
Redbud combined-cycle plant	(184,593,196)	(20,687,066)	5,668,383	(199,611,879)
Hydraulic production plants	(40,433,073)	(2,758,209)	210,269	(42,981,013)
Transmission system	(176,197,524)	(9,057,550)	2,318,821	(182,936,253)
Other properties and production plant	<u>(86,271,396)</u>	<u>(9,605,815)</u>	<u>3,938,847</u>	<u>(91,938,364)</u>
	<u>(1,233,189,640)</u>	<u>(75,266,780)</u>	<u>13,182,802</u>	<u>(1,295,273,618)</u>
 Total capital assets—depreciable	 <u>1,154,361,314</u>	 <u>31,411,655</u>	 <u>(2,465,594)</u>	 <u>1,183,307,375</u>
 Net utility plant	 <u>\$ 1,218,249,936</u>	 <u>\$ 37,008,596</u>	 <u>\$ (2,559,200)</u>	 <u>\$ 1,252,699,332</u>

	2018			
	Balance December 31, 2017	Additions/ Transfers	Retirements	Balance December 31, 2018
Capital assets—nondepreciable:				
Land	\$ 37,660,499	\$ 578,728	\$ -	\$ 38,239,227
Construction work in progress	<u>17,350,950</u>	<u>8,298,445</u>	<u>-</u>	<u>25,649,395</u>
Total capital assets—nondepreciable	55,011,449	8,877,173	-	63,888,622
Capital assets—depreciable:				
GREC 1 coal-fired plant	366,504,055	9,291,494	(977,681)	374,817,868
GREC 2 coal-fired plant	489,714,816	(5,615,580)	(701,200)	483,398,036
GREC 3 combined-cycle gas plant	442,787,735	13,978,838	-	456,766,573
Redbud combined-cycle gas plant	366,319,550	4,864,518	(9,455,064)	361,729,004
Hydraulic production plants	171,147,116	12,626,944	(31,511)	183,742,549
Transmission system	384,978,880	14,421,180	(5,378,432)	394,021,628
Other properties and production plant	<u>142,419,321</u>	<u>(5,178,031)</u>	<u>(4,165,994)</u>	<u>133,075,296</u>
	2,363,871,473	44,389,363	(20,709,882)	2,387,550,954
Less accumulated depreciation:				
GREC 1 coal-fired plant	(318,783,546)	(2,290,169)	996,764	(320,076,951)
GREC 2 coal-fired plant	(385,931,813)	(17,591,369)	382,437	(403,140,745)
GREC 3 combined-cycle gas plant	(9,397,534)	(13,079,221)	-	(22,476,755)
Redbud combined-cycle plant	(170,427,357)	(18,414,044)	4,248,205	(184,593,196)
Hydraulic production plants	(37,108,653)	(3,352,798)	28,378	(40,433,073)
Transmission system	(171,027,944)	(8,404,034)	3,234,454	(176,197,524)
Other properties and production plant	<u>(80,164,596)</u>	<u>(10,161,602)</u>	<u>4,054,802</u>	<u>(86,271,396)</u>
	(1,172,841,443)	(73,293,237)	12,945,040	(1,233,189,640)
Total capital assets—depreciable	1,191,030,030	(28,903,874)	(7,764,842)	1,154,361,314
Net utility plant	\$ 1,246,041,479	\$ (20,026,701)	\$ (7,764,842)	\$ 1,218,249,936

The change in construction work in progress during 2019 and 2018 is presented on a net basis to avoid a duplication of additions and retirements in the preceding tables. The change in construction work in progress includes capitalized interest of approximately \$0 and \$152,000 for 2019 and 2018, respectively, which also increases investment income. The change in capitalized interest in 2019 is due to the Authority's early adoption of GASB Statement No. 89. The Authority had depreciation and amortization expense of \$75,266,780 and \$80,383,786 for 2019 and 2018, respectively.

The Authority had construction contractual commitments at December 31, 2019, of approximately \$36,300,000 for equipment and construction contracts. Major projects include the construction of transmission lines and substations for approximately \$14,575,000; upgrades of the natural gas combined-cycle plant, GREC 3, for approximately \$5,928,000; Pensacola Relicensing for approximately \$5,372,000; refurbishment of the Pensacola flood gates for approximately \$2,830,000; and upgrades of the Salina Pump Storage plant for approximately \$2,135,000.

On the evening of July 1, 2016, a lightning strike precipitated a fire at the GREC, which resulted in the impairment of assets within GREC Unit 2 (GREC 2). The turbine-generator and auxiliary systems were extensively damaged and required significant restoration before the assets were able to return to service. GREC 2 successfully returned to operation September 14, 2018. In 2019, the final reimbursement of \$1,505,309 was processed and the receivable was cleared.

On July 29, 2019, GREC 2 experienced a mechanical failure and subsequent shutdown, which resulted in damages to the low pressure (LP) section of the turbine. Assets damaged by the mechanical failure were not refurbished or replaced during the 2016 fire event. GREC 2 is expected to return to service in the second quarter of 2020.

The Authority entered into a lease vehicle program in 2016, initially leasing 14 passenger vehicles with a term of 48 months. The leased equipment is amortized on a straight-line basis over the shorter of the useful life of the related assets or the lease term. The gross amount of assets acquired under capital leases for 2018 is \$371,890. Total accumulated amortization related to the leased vehicles was \$229,459 at December 31, 2018. The balance of capital leases payable at December 31, 2018, was \$142,431 and recorded as a portion of accounts payable and accrued liabilities. Total accumulated amortization related to the leased vehicles was \$322,432 at December 31, 2019. The balance of capital leases payable at December 31, 2019, was \$49,458 and recorded as a portion of accounts payable and accrued liabilities. The Authority currently has no plans to expand the program beyond 2021. The interest rate related to the lease obligation is variable based on the current interest rate on delivery date. The interest portion of the capital lease minimum payments were \$14,668 and \$14,668 in 2019 and 2018, respectively.

The following is a schedule detailing the minimum lease payments under capital leases:

	Minimum Lease Payments
2020	\$ 43,813
2021	<u>5,645</u>
Total	\$ 49,458

In 2017, the Authority entered into a Riparian Conservation Easement program partnered with the Oklahoma Conservation Commission. The goal of this program is to increase the amount of long term protected riparian area by securing 30-year minimum easement agreements with landowners within the Illinois River Watershed. Each easement is paid to the landowner in a lump sum payment and subject to reimbursement to the Authority from the Conservation Commission. The Authority had 22 easements in place, 16 of which were assumed in the Oklahoma Scenic Rivers Commission acquisition, for a gross amount of \$1,018,911 at December 31, 2018. The easements are amortized on a straight-line basis over the shorter of the useful life of the related asset or the lease term. Total accumulated amortization related to the easements was \$229,520 at December 31, 2018, and was offset by a corresponding recognition of revenue from the reimbursement from the Conservation Commission. During 2019 the Authority added 14 additional easements with no full or partial terminations. The Authority currently has 36 easements in place, 16 of which were assumed in the Oklahoma Scenic Rivers Commission acquisition, for a gross amount of \$1,593,863 at December 31, 2019. Total accumulated amortization related to the easements is \$271,448 at December 31, 2019, and is offset by a corresponding recognition of revenue from the reimbursement from the Conservation Commission.

5. COSTS RECOVERED OR TO BE RECOVERED

In 2017, the Authority determined that it should defer the capital asset portion of the revenue proceeds from insurance recoveries resulting from the July 2016 GREC fire restoration as per GASB Statement No. 62. Deferral of revenue in accordance with this Statement requires Board Resolution. Board Resolution No. 5307 pertaining to this matter was passed and adopted by the Board of Directors on March 8, 2017.

Board Resolution 5325 was then passed and adopted by the Board of Directors on December 13, 2017. This Board Resolution further grants the Chief Financial Officer the discretion to record certain revenues as regulated assets in regards to revenues related to all third-party reimbursement for capital assets procured or constructed and recognize those revenues proportionately as said assets are depreciated.

The deferred inflow of resources consists of recognized revenues associated with all third party reimbursement on capital assets, including insurance proceeds and capital contributions, as approved by the Chief Financial Officer. This amount is a portion of deferred inflows related to regulated operations on the Statements of Net Position. A roll forward of costs recovered or to be recovered from future revenues follows:

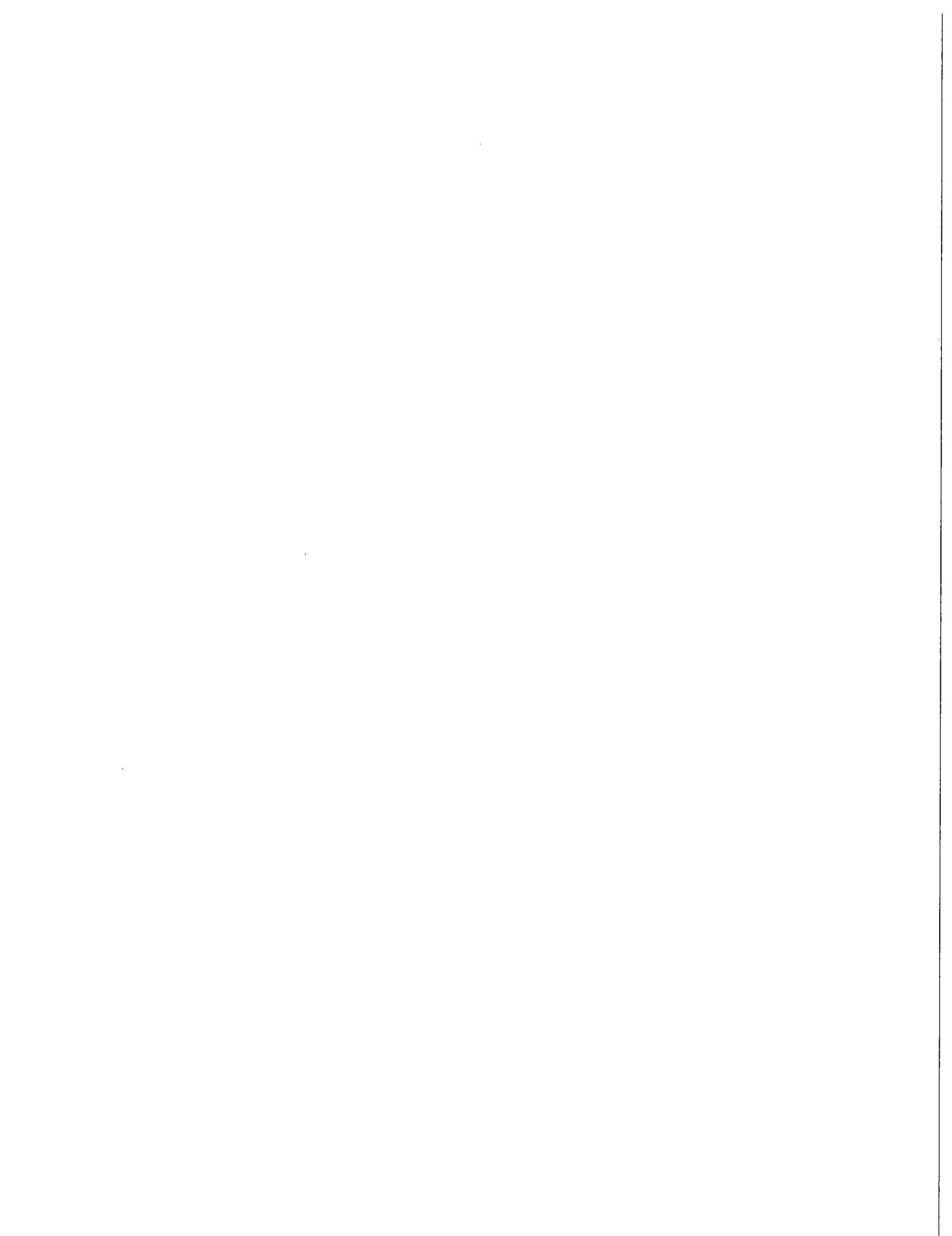
	Balance 12/31/2018	Increase	Decrease	Balance 12/31/2019
Third Party Reimbursement (Capital Assets)	\$ 25,947,793	\$ 33,196,760	\$ 1,674,319	\$ 57,470,234
Rate Stabilization Fund	21,000,000	-	1,296,902	19,703,098
Totals	\$ 46,947,793	\$ 33,196,760	\$ 2,971,221	\$ 77,173,332

	Balance 12/31/2017	Increase	Decrease	Balance 12/31/2018
Third Party Reimbursement (Capital Assets)	\$ 21,959,617	\$ 5,090,997	\$ 1,102,821	\$ 25,947,793
Rate Stabilization Fund	21,000,000	-	-	21,000,000
Totals	\$ 42,959,617	\$ 5,090,997	\$ 1,102,821	\$ 46,947,793

6. BONDS PAYABLE

A summary of changes in bonds payable for the years ended December 31, 2019 and 2018, follows:

	2019		
	December 31, 2018	Bonds Issued	Retirements
			December 31, 2019
Revenue Bonds, 2010 Series A & B:			
3% to 5.25% Series 2010A—maturing in 2015 through 2040	\$ 8,035,000	\$ -	\$ (3,940,000) \$ 4,095,000
3.71% to 7.155% Series 2010B (fully taxable)—maturing 2015 through 2040	<u>71,730,000</u>	<u>-</u>	<u>(1,510,000)</u> <u>70,220,000</u>
Total Series 2010 A & B	<u>79,765,000</u>	<u>-</u>	<u>(5,450,000)</u> <u>74,315,000</u>
Revenue Bonds, 2014 Series A, B & C:			
3% to 5% Series 2014A—maturing in 2018 through 2039	218,555,000	-	(7,205,000) 211,350,000
1.804% to 3.961% Series 2014B (fully taxable)—maturing 2018 through 2039	<u>82,390,000</u>	<u>-</u>	<u>(2,540,000)</u> <u>79,850,000</u>
Total Series 2014 A, B & C	<u>300,945,000</u>	<u>-</u>	<u>(9,745,000)</u> <u>291,200,000</u>
Revenue Bonds, 2016 Series A & B:			
3% to 5% Series 2016A—maturing in 2019 through 2039	475,330,000	-	(11,010,000) 464,320,000
1.828% to 3.503% Series 2016B (fully taxable)—maturing 2020 through 2033	<u>21,075,000</u>	<u>-</u>	<u>-</u> <u>21,075,000</u>
Total Series 2016 A & B	<u>496,405,000</u>	<u>-</u>	<u>(11,010,000)</u> <u>485,395,000</u>
Revenue Bonds, 2017 Series:			
3% to 5% Series 2017—maturing in 2021 through 2040	<u>90,455,000</u>	<u>-</u>	<u>-</u> <u>90,455,000</u>
Total bonds payable	<u>\$ 967,570,000</u>	<u>\$ -</u>	<u>\$ (26,205,000)</u> <u>\$ 941,365,000</u>
Less current portion	<u>(26,205,000)</u>	<u>-</u>	<u>-</u> <u>(37,505,000)</u>
Long-term portion	941,365,000		903,860,000
Add (deduct):			
Unamortized debt premium	108,503,111	-	(11,028,883) 97,474,228
Unamortized debt discount	<u>(131,600)</u>	<u>-</u>	<u>92,894</u> <u>(38,706)</u>
Long-term bonds payable	<u>\$ 1,049,736,511</u>	<u>\$ -</u>	<u>\$ (10,935,989)</u> <u>\$ 1,001,295,522</u>



	2018		
	December 31, 2017	Bonds Issued	Retirements
			December 31, 2018
Revenue Bonds, 2010 Series A & B:			
3% to 5.25% Series 2010A—maturing in 2015 through 2040	\$ 11,825,000	\$ -	\$ (3,790,000) \$ 8,035,000
3.71% to 7.155% Series 2010B (fully taxable)—maturing 2015 through 2040	<u>73,165,000</u>	<u>-</u>	<u>(1,435,000)</u> <u>71,730,000</u>
Total Series 2010 A & B	<u>84,990,000</u>	<u>-</u>	<u>(5,225,000)</u> <u>79,765,000</u>
Revenue Bonds, 2014 Series A, B & C:			
3% to 5% Series 2014A—maturing in 2018 through 2039	225,635,000	-	(7,080,000) 218,555,000
1.804% to 3.961% Series 2014B (fully taxable)—maturing 2018 through 2039	<u>84,845,000</u>	<u>-</u>	<u>(2,455,000)</u> <u>82,390,000</u>
Total Series 2014 A, B & C	<u>310,480,000</u>	<u>-</u>	<u>(9,535,000)</u> <u>300,945,000</u>
Revenue Bonds, 2016 Series A & B:			
3% to 5% Series 2016A—maturing in 2019 through 2039	475,330,000	-	- 475,330,000
1.828% to 3.503% Series 2016B (fully taxable)—maturing 2020 through 2033	<u>21,075,000</u>	<u>-</u>	<u>-</u> <u>21,075,000</u>
Total Series 2016 A & B	<u>496,405,000</u>	<u>-</u>	<u>-</u> <u>496,405,000</u>
Revenue Bonds, 2017 Series:			
3% to 5% Series 2017—maturing in 2021 through 2040	<u>90,455,000</u>	<u>-</u>	<u>-</u> <u>90,455,000</u>
Total bonds payable	<u>\$ 982,330,000</u>	<u>\$ -</u>	<u>\$ (14,760,000)</u> <u>\$ 967,570,000</u>
Less current portion	<u>(14,760,000)</u>	<u>-</u>	<u>-</u> <u>(26,205,000)</u>
Long-term portion	967,570,000		941,365,000
Add (deduct):			
Unamortized debt premium	119,709,435	-	(11,206,324) 108,503,111
Unamortized debt discount	<u>(224,494)</u>	<u>-</u>	<u>92,894</u> <u>(131,600)</u>
Long-term bonds payable	<u>\$ 1,087,054,941</u>	<u>\$ -</u>	<u>\$ (11,113,430)</u> <u>\$ 1,049,736,511</u>

Oklahoma state statutes have authorized the Authority to issue revenue bonds from time to time with the aggregate outstanding indebtedness not to exceed \$1,410,000,000.

Defeased bonds of \$139,745,000 are outstanding at December 31, 2019, and consisted of a portion of the Series 2010A Bonds.

The scheduled maturities of bonds payable at December 31, 2019, are as follows and reflect the scheduled payments to be remitted by the trustee to the bondholders:

Year Ended December 31	Due to Bond Holders			Calendar Year Bond Payments
	Annual Principal	Semiannual Interest		
2020	\$ 37,505,000	\$ 22,706,933		
		21,841,374	\$	82,053,307
2021	39,240,000	21,841,374		
		20,965,270		82,046,644
2022	41,675,000	20,965,270		
		20,046,383		82,686,653
2023	43,080,000	20,046,383		
		19,004,104		82,130,487
2024	49,225,000	19,004,104		
		17,851,468		86,080,572
2025-2029	258,275,000	147,588,068		405,863,068
2030-2034	280,110,000	79,502,576		359,612,576
2035-2039	176,155,000	27,007,579		203,162,579
2040	16,100,000	455,524		16,555,524
	<u>\$ 941,365,000</u>	<u>\$ 458,826,410</u>		<u>\$ 1,400,191,410</u>

To secure the bonds, the Authority has pledged all revenues of the Authority. Resolution No. 5107 and supplemental bond resolutions specify multiple covenants made by the Authority to the Bond Fund Trustee and bondholders. Among the more significant requirements, the Authority has covenanted to charge adequate rates, operate and maintain the facilities, and make any necessary repairs, renewals, replacements and improvements. System properties are not to be encumbered or sold or disposed of and additional parity bonds are not to be issued unless certain conditions are met. As of December 31, 2019, the Authority was in compliance with bond covenants.

In general, federal tax laws require the Authority to rebate to the US Treasury any profit from investments that yield a higher rate than the tax-exempt revenue bond proceeds. The Authority has no liability for arbitrage rebate at December 31, 2019 and 2018, respectively.

All of the Authority's outstanding bonds fall under Resolution No. 5107 which contains a provision that if one or more Events of Default shall happen then either the Bond Trustee or the Holders may declare the principal of all Bonds then Outstanding, and the interest accrued thereon, to be due and payable immediately.

7. RETIREMENT PLANS, POSTRETIREMENT, AND OTHER EMPLOYEE BENEFITS

The Authority participated in five retirement plans during 2019 and 2018. The plans currently available to the Authority personnel include three defined benefit plans and two defined contribution plans. The defined benefit plans include the Oklahoma Public Employees Retirement System (OPERS) plan, the Oklahoma Law Enforcement Retirement System (OLERS) plan, and the GRDA postemployment Healthcare Plan. The defined contribution plans include the Oklahoma State Employees Deferred Compensation Plan (the "State Plan") and the OPERS

Pathfinder plan. A summary of significant data for each of the retirement plans and discussion of postemployment and other employee benefits follows:

The Authority is a participant in two multiple employer defined benefit pension plans, the Oklahoma Public Employees Retirement Plan (the “OPERS Plan”) and the Oklahoma Law Enforcement Retirement Plan (the “OLERS Plan”). The table below shows both pensions as reported in the basic financial statements.

For the year ended December 31, 2019:

	OPERS	OLERS	Total
Deferred outflows of resources	\$ 3,343,621	\$ 943,282	\$ 4,286,903
Deferred inflows of resources	1,818,794	86,351	1,905,145
Pension liability (asset)	3,166,970	2,296,870	5,463,840
Pension expense recognized	5,671,722	984,596	6,656,318

For the year ended December 31, 2018:

	OPERS	OLERS	Total
Deferred outflows of resources	\$ 6,618,443	\$ 708,163	\$ 7,326,606
Deferred inflows of resources	3,461,331	112,858	3,574,189
Pension liability (asset)	5,138,160	1,574,732	6,712,892
Pension expense recognized	3,574,944	1,269,280	4,844,224

The Authority’s proportionate share of plan assets for OPERS as of December 31, 2019, is \$228,108,750, while proportionate share of plan liabilities is \$231,275,720. The Authority’s proportionate share of plan assets for OPERS as of December 31, 2018, were \$228,579,581, while proportionate share of plan liabilities were \$233,342,207.

The Authority’s proportionate share of plan assets for OLERS as of December 31, 2019, is \$16,077,235, while proportionate share of plan liabilities is \$18,374,106. The Authority’s proportionate share of plan assets for OLERS as of December 31, 2018, were \$14,680,898, while proportionate share of plan liabilities were \$16,255,630.

Oklahoma Public Employees Defined Benefit Retirement Plan

General Information about the Pension Plan

Plan Description. The Authority contributes to the OPERS Plan, a cost-sharing multiple-employer public employee defined benefit retirement plan administered by the OPERS, a component unit of the State of Oklahoma (the “State”). The OPERS Plan provides retirement, disability and death benefits to its members and beneficiaries, primarily state, county, and local agency employees. The benefits provided are established by and may be amended by the legislature of the State. Title 74 of the Oklahoma Statutes, Sections 901 through 943, assigns the authority for management and operation of the OPERS Plan to the OPERS Board of Trustees.

In 2014, the Oklahoma Legislature enacted legislation effective November 1, 2015, requiring a defined contribution system be established by the OPERS for most state employees first employed by a participating State employer on or after November 1, 2015, and ceasing the acceptance of any new participants to the defined benefit retirement plan.

OPERS issues a publicly available financial report that includes financial statements and required supplementary information for OPERS. That annual report may be obtained online at www.opers.ok.gov, by writing to OPERS, PO Box 53007, Oklahoma City, OK 73152-3007, or by calling 1-800-733-9008.

Vesting. OPERS requires eight years of credited service (including six full years of full-time equivalent employment) to be eligible to vest.

Benefits Provided. Employees who became a member of OPERS before November 1, 2011, can begin receiving full, unreduced retirement benefits at the age of 62 with six full years of full-time equivalent employment; or when the sum of the member's age and years of service equals 80 when membership began before July 1, 1992; or when the sum of the member's age and years of service equals 90 when membership began on or after July 1, 1992.

Employees who became a member of OPERS on or after November 1, 2011, can begin receiving full, unreduced retirement benefits at the age of 65 with six full years of full-time equivalent employment; or when the member is at least 60 years of age and the sum of the member's age and years of service equals 90.

Employees may retire at age 60 (55 when membership began before November 1, 2011) and receive reduced benefits with at least 10 years of participating service. Members who choose early retirement will receive a permanent actuarial reduction in benefit based on the age at retirement.

The benefit on or after normal retirement, payable monthly for life, is 2% of final average compensation, multiplied by years of credited service. For members who have elected the Step-Up Option, a 2.5% multiplier is applied to the "stepped-up" full years.

Contributions. OPERS members and the Authority are required to contribute to the OPERS Plan at a rate set by statute. Contribution rates are established and may be amended by the State. Each member participates based on gross salary earned (excluding overtime). As state employees, the Authority employees contribute 3.5% on salary. The Authority contributed 16.5%, on all salary for the Plan's fiscal years-ended June 30, 2019 and 2018.

OPERS members have the option to elect to increase the benefit computation factor for all future service from 2.0% to 2.5%. The election is irrevocable, binding for all future employment under OPERS, and applies only to full years of service. Those who make the election pay the standard contribution rate plus an additional contribution rate of 2.91% which is actuarially determined. The election is available for all state, county, and local government employees, except for elected officials and hazardous duty members.

During the reporting period for 2019 and 2018, the OPERS recognized \$6,243,328 and \$6,485,378, respectively, in contributions from the Authority.

Contribution rates as of December 31, 2019 and 2018, are as follows:

Employee Category	Employee	Employer
General	3.50 %	16.50 %
Elected Officials	3.50	16.50

OPERS Hazardous Duty Employees. On July 1, 2016, SB 1388 became effective, which required the Authority's public safety officers to participate in OPERS as Hazardous Duty Employees. This group of employees contributes 8% of allowable compensation as defined in 74 O.S. § 902(9) for a maximum of 20 years of hazardous duty participating service, while the Authority contributes 16.5%, on allowable compensation. After the employee has contributed at the higher rate for 20 years, the employee will contribute at the nonhazardous duty rate. Employees vest when they have eight years of credited service (including six full years of full-time-equivalent employment). Because all Authority employees will have become members of the plan after November 1, 2011, the employee can begin receiving full, unreduced retirement benefits when he or she is at least age 65 with six full years of full-time-equivalent employment or is at least 60 years of age and the sum of age and years of service equals 90.

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pension, and pension expense, information about the fiduciary net position of the Plan and additions to/deductions from the Plan's fiduciary net position have been determined on the same basis as they are reported by the Plan. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms, investments are reported at fair value.

At December 31, 2019, the Authority reported a liability of \$3,166,965 for its cumulative proportionate share of the net pension liability. The net pension liability was measured as of June 30, 2019, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of July 1, 2019. The Authority's proportion of the net pension liability was based on the Authority's share of contributions to the pension plan relative to the contributions of all participating employers. At June 30, 2019, the Authority's proportion was 2.3778%, which is a 2.6% decrease from the prior year. For the year ended December 31, 2019, the Authority recognized pension expense of \$5,671,722.

At June 30, 2018, the Authority's proportion, which included the proportion previously designated for Oklahoma Scenic Rivers Commission, was 2.4418%. For the year ended December 31, 2018, the Authority reported a liability of \$5,138,160 and recognized pension expense of \$3,574,944.

As of December 31, 2019, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	OPERS Plan 2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 19,250	\$ 926,814
Changes in assumptions	170,682	-
Net differences between projected and actual earnings on pension plan investments	-	775,472
Employer contributions subsequent to the measurement date	2,935,300	-
Change in proportion	218,389	116,508
Total	<u>\$ 3,343,621</u>	<u>\$ 1,818,794</u>

As of December 31, 2018, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	OPERS Plan 2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ -	\$ 2,682,260
Changes in assumptions	2,169,106	-
Net differences between projected and actual earnings on pension plan investments	-	779,071
Employer contributions subsequent to the measurement date	3,167,997	-
Change in proportion	<u>1,281,340</u>	<u>-</u>
Total	<u><u>\$ 6,618,443</u></u>	<u><u>\$ 3,461,331</u></u>

The amounts reported as deferred outflows related to employer contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the subsequent year. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pension will be recognized in pension expense as follows:

Year Ended December 31	OPERS Plan
	Net Pension Expense
2020	\$ 416,012
2021	(2,205,402)
2022	(98,039)
2023	476,956
	<u><u>\$ (1,410,473)</u></u>

Actuarial Assumptions. The total pension liability in the July 1, 2019, actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

	2019	2018
Actuarial valuation date:	July 1, 2019	July 1, 2018
Measurement date of net pension liability:	June 30, 2019	June 30, 2018
Actuarial cost method:	Entry age	Entry age
Asset valuation method for contributions:	Five-year moving average of expected and actual market values	Five-year moving average of expected and actual market values
Asset valuation method for assets under GASB 68:	Fair value of assets	Fair value of assets
Long-term expected rate of return:	7%	7%
Discount rate:	7%	7%
Salary increases:		
Inflation:	2.75%	2.75%
Seniority/merit:	3.5% to 9.5% per year including inflation	3.5% to 9.5% per year including inflation
Mortality:	RP-2014 Blue Collar Active Mortality Table	RP-2014 Blue Collar Active Mortality Table

Actuarial assumptions are based upon the most recent experience study, which covered the three year period ending June 30, 2016. The experience study report is dated April 13, 2017.

Long-Term Expected Return on Plan Assets. The long-term expected rate of return on pension plan investments was determined using a lognormal distribution analysis in which best estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimates of geometric real rates of return for each major asset class used in the June 30, 2016 experience study, are summarized in the following table:

Asset Class	Long-Term Real Rate of Return	Target Allocation
U.S. Large Cap Equity	3.8 %	38.0 %
U.S. Small Cap Equity	4.9	6.0
Non-US Equity	9.2	24.0
U.S. Fixed Income	1.4	<u>32.0</u>
Total		<u>100.0 %</u>

Single Discount Rate. The discount rate used to measure the total pension liability is 7% for 2019 and 2018. The projection of cash flows used to determine the discount rate assumed that contributions from plan members and the

employees will be made at the current contribution rate as set out in state statute. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability. The discount rate determined does not use a municipal bond rate.

Sensitivity of the Authority's Proportionate Share of the Net Pension Liability (Asset) to Changes in the Discount Rate. The following presents the Authority's proportionate share of the net pension liability (asset) calculated using the discount rate of 7%, as well as what the Authority's proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6%) or 1-percentage-point higher (8%) than the current rate:

	2019		
	1% Decrease to Discount Rate (6%)	Current Discount Rate (7%)	1% Increase To Discount Rate (8%)
Proportionate share of the net pension liability (asset)	\$ 28,634,528	\$ 3,166,970	\$ (18,424,618)
	2018		
	1% Decrease to Discount Rate (6.25%)	Current Discount Rate (7.25%)	1% Increase To Discount Rate (8.25%)
Proportionate share of the net pension liability (asset)	\$ 30,558,162	\$ 5,138,160	\$ (17,097,640)

Pension Plan Fiduciary Net Position. Detailed information about the pension plan's fiduciary net position is available in separately issued financial statements available at www.opers.ok.gov.

Payables to the Pension Plan

At December 31, 2019 and 2018, the Authority has outstanding payables to OPERS of \$593,105 and \$672,034, respectively, related to December 2019 and 2018 employer, employee, and voluntary contributions, which are payable in the following month. These amounts are included in accounts payable on the Statements of Net Position.

Oklahoma Law Enforcement Retirement Plan

General Information about the Pension Plan

Plan Description. Legislation passed during 2003 mandated that any lake patrolmen and dispatchers hired on or after July 1, 2003, shall participate as members of the OLERS Plan, a cost-sharing multiple-employer public employee-defined benefit retirement plan administered by the Oklahoma Law Enforcement Retirement System (OLERS), a component unit of the State. The OLERS Plan provides retirement, disability, and death benefits to its members and beneficiaries, primarily state employees providing law enforcement. The benefits provided are established and may be amended by the legislature of the State. Three of the Authority's patrolmen elected to transfer from the OPERS Plan to the OLERS Plan under Oklahoma Statutes, Title 47, Section 2-315, which provided that Authority lake patrolmen and dispatchers as of June 30, 2003, could make an irrevocable written election by January 1, 2004, to either pay the difference between the amount transferred between the plans or receive eligible prorated service credit as defined in statute. Oklahoma Statutes, Title 47, Sections 2-300, *et seq.*, established the Oklahoma Law Enforcement Retirement Board to administer this retirement system.

SB 1388, as codified in Oklahoma Statutes, Title 47, Sections 902, et seq., placed all GRDA public safety officers hired after July 1, 2016, under the OPERS plan as hazardous duty employees.

The System issues a publicly available annual financial report that includes financial and required supplementary information for OLERS. That annual report may be obtained online at www.plers.state.ok.us, by writing to OLERS, 421 NW 13th St, Suite 100, Oklahoma City, OK 73103 or by calling 1-877-213-0856.

Vesting. OLERS requires ten years of credited service to be eligible to vest.

Benefits Provided. Employees can begin receiving full, unreduced retirement benefits after twenty years of service or at the age of 62 with ten full years of full-time equivalent employment.

The benefit on or after normal retirement is 2.5% of the greater of final average salary or the salary paid to active employees as described under "salary considered" multiplied by the years and completed months of credited service. There is no maximum service.

Contributions. System members and the Authority are required to contribute to the OLERS Plan at a rate set by statute. These contributions are established and may be amended by the legislature of the State. Each member participates based on gross salary earned (excluding overtime). The Authority's patrolmen and dispatchers participating in the OLERS Plan contributed 8.0%, and the Authority contributed 10% of total base salary through October 2012. Beginning November 2012, the Authority contribution rates increased to 11% of total base salary. Additional funds are also provided by the State of Oklahoma as summarized in the table below. Non-employer contributions are recorded as non-operating revenue in the Statements of Revenues, Expenses, and Changes in Net Position.

During the reporting period for 2019 and 2018, the OLERS recognized \$142,911 and \$134,432 in contributions from the Authority, respectively.

Contribution rates as of December 31, 2019 and 2018, are as follows:

Category	Contribution Rate
State	License Agency Fees equal to 1.2% of Driver's License Taxes, plus 5% of Insurance Premium Tax
Agency	10% of actual base salary until October 31, 2012, and 11% of actual base salary as of November 1, 2012
Member	8% of paid salary. Accumulated contributions after tax up to December 31, 1989, and before-tax after December 31, 1989

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pension, and pension expense, information about the fiduciary net position of the Plan and additions to/deductions from the Plan's fiduciary net position have been determined on the same basis as they are reported by the Plan. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms, investments are reported at fair value.

At December 31, 2019, the Authority reported a liability of \$2,296,870 for its proportionate share of the net pension liability. The net pension liability was measured as of June 30, 2019, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of July 1, 2019. The Authority's proportion of the net pension liability was based on the Authority's share of contributions to the pension plan relative to the contributions of all participating employers. At June 30, 2019, the Authority's proportion was 1.5814% which is a 7.57% increase from the prior year. For the year ended December 31, 2019, the Authority recognized pension expense of \$984,596.

At June 30, 2018, the Authority's proportion was 1.4701%. For the year ended December 31, 2018, the Authority reported a liability of \$1,574,732 and recognized pension expense of \$1,269,280.

At December 31, 2019, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	OLERS Plan 2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 298,593	\$ 77,374
Changes in assumptions	7,902	-
Net differences between projected and actual earnings on pension plan investments	338,321	-
Employer contributions subsequent to the measurement date	71,499	-
Change in proportion	226,968	8,977
Total	<u>\$ 943,283</u>	<u>\$ 86,351</u>

At December 31, 2018, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	OLERS Plan 2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 260,375	\$ 111,759
Changes in assumptions	10,320	-
Net differences between projected and actual earnings on pension plan investments	108,040	-
Employer contributions subsequent to the measurement date	70,500	-
Change in proportion	<u>258,928</u>	<u>1,099</u>
Total	<u>\$ 708,163</u>	<u>\$ 112,858</u>

The amounts reported as deferred outflows related to employer contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the subsequent year. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pension will be recognized in pension expense as follows:

	OLERS Plan
	Net Pension Expenses
Year Ended December 31	
2020	\$ 427,354
2021	8,414
2022	136,536
2023	177,753
2024	<u>35,376</u>
	<u>\$ 785,433</u>

Actuarial Assumptions. The total pension liability in the July 1, 2019, actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

	2019	2018
Actuarial valuation date:	July 1, 2019	July 1, 2018
Measurement date of net pension liability:	June 30, 2019	June 30, 2018
Actuarial cost method:	Entry age	Entry age
Asset valuation method for contributions:	Five-year moving average of expected and actual market values	Five-year moving average of expected and actual market values
Asset valuation method for assets under GASB 68:	Fair value of assets	Fair value of assets
Long-term expected rate of return:	7.5%	7.5%
Discount rate:	7.5%	7.5%
Salary increases:		
Inflation:	2.75%	2.75%
Seniority/merit:	3.5% – 9.75%, including inflation	3.5% – 9.75%, including inflation
Mortality:	RP-2014 Blue Collar Healthy Employees with Generational Projection using Scale MP-2016	RP-2014 Blue Collar Healthy Employees with Generational Projection using Scale MP-2016

Actuarial assumptions used in the July 1, 2019, valuation are based upon an experience study conducted using experience from the five-year period ending June 30, 2016.

Long-Term Expected Return on Plan Assets. The long-term expected rate of return on pension plan investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation) were developed for each major class. These ranges were combined to produce the long-term expected rate of return by weighing the expected future real rates of return by the target asset allocation percentages and adding expected inflation.

The assumption is intended to be a long-term assumption (30 to 50 years) and is not expected to change absent a significant change in the asset allocation, a change in the inflation assumption, or a fundamental change in the market that alters expected returns in future years.

The target asset allocation and best estimates of arithmetic real rates of return for each major asset class, as provided by the System's investment consultant, are summarized in the following table:

Asset Class	Long-Term Expected Real Rate of Return	Target Allocation
Large Cap Equity	9.96 %	20 %
Small Cap Equity	11.17	10
Long/Short Equity	8.30	10
International	10.89	10
Emerging Market	12.13	5
Private Equity	13.64	5
Fixed Income	17.61	30
Real Assets	20.57	<u>10</u>
Total		<u>100 %</u>

Single Discount Rate. A single discount rate of 7.5% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 7.5% for both the June 30, 2019 and June 30, 2018 measurement dates. A municipal bond rate was not used in determining the discount rate.

The projection of cash flows used to determine the discount rate assumed that plan contributions from members, state agencies, insurance premium taxes, and other state sources would be made at the current contribution rates set out in state statute.

Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the Authority's Proportionate Share of the Net Pension Liability (Asset) to Changes in the Discount Rate. The following presents the Authority's proportionate share of the net pension liability (asset) calculated using the discount rate of 7.5%, as well as what the Authority's proportionate share of the net pension liability (asset) would be if it were calculated using a discount rate that is 1-percentage-point lower (6.5%) or 1-percentage-point higher (8.5%) than the current rate:

	2019		
	1% Decrease to Discount Rate (6.5%)	Current Discount Rate (7.5%)	1% Increase To Discount Rate (8.5%)
Proportionate share of the net pension liability (asset)	\$ <u>4,546,308</u>	\$ <u>2,296,870</u>	\$ <u>450,794</u>
2018			
	1% Decrease to Discount Rate (6.5%)	Current Discount Rate (7.5%)	1% Increase To Discount Rate (8.5%)
Proportionate share of the net pension liability (asset)	\$ <u>3,599,261</u>	\$ <u>1,574,732</u>	\$ <u>(85,607)</u>

Pension Plan Fiduciary Net Position. Detailed information about the pension plan's fiduciary net position is available in separately issued financial statements available at www.olers.state.ok.us.

Payables to the Pension Plan

At December 31, 2019 and 2018, the Authority has outstanding payables to OLERS of \$21,057 and \$20,855, respectively, related to December 2019 and 2018, employer, employee, and voluntary contributions, which are payable in the following month. These amounts are included in accounts payable on the Statements of Net Position.

Oklahoma Public Employees Retirement Defined Contribution Plan

In 2014, the Oklahoma Legislature enacted legislation in HB 2630 requiring a Defined Contribution System be established by the OPERS for most state employees first employed by a participating State employer on or after November 1, 2015. This bill is codified in Oklahoma Statutes as Title 74, Section 935.1, *et seq.* Employees of the Authority who first became employees on or after November 1, 2015, and have no prior participation in OPERS must participate in the mandatory Defined Contribution Plan created in accordance with Internal Revenue Code Section 401(a) and 457(b) and Title 590, Chapter 40 of the Oklahoma Administrative Code. The Defined Contribution Plan is known as Pathfinder. Pathfinder and its related Trust(s) are intended to meet the requirements of the Internal Revenue Code. Pathfinder is administered by the OPERS.

Contribution rates are established by Oklahoma Statute and may be amended by the Oklahoma Legislature. For 2015, the initial period of implementation, employees must make mandatory employee contributions of 4.5% of pretax salary to the 401(a) plan and may make additional voluntary contributions to the 457(b) plan, subject to the maximum deferral limit allowed under the Internal Revenue Code. Employees are vested 100% for all employee contributions. The Authority must make mandatory contributions of 6% of the employee's pretax salary and 7% if the employee elects to participate in the 457(b) plan. Employees become vested for the employer contributions based on an established vesting schedule. The amount of the Authority's contributions for Pathfinder for the year ended December 31, 2019 and 2018, was approximately \$407,569 and \$262,349, respectively.

Additionally, in order to reduce the liabilities of the defined contribution plan, the Authority is required to contribute the difference between the established 16.5% defined benefit employer contribution rate and the amount required to match the participating employees' contribution in the defined contribution plan. The amount contributed by the Authority for the year ended December 31, 2019 and 2018, to meet this requirement is \$581,604 and \$372,710, respectively. The Authority had outstanding payables to OPERS for the defined benefit plan for the year ended December 31, 2019 and 2018, of \$75,475 and \$46,612, respectively, which were payable in the following month.

Oklahoma State Employees Deferred Compensation Plan

Plan Description. Employees of the Authority may also participate in the Oklahoma State Employees Deferred Compensation Plan (the “State Plan”), a voluntary deferred compensation plan administered by OPERS. The State Plan is a defined contribution plan available to all Authority employees, which permits participants to defer receipt of a portion of their salary until future years as authorized by Section 457 of the Internal Revenue Code and in accordance with the provisions of Oklahoma Statutes, Title 74, Sections 1701, *et seq.* The State Plan is established by and may be amended by the Legislature of the State. Oklahoma Statutes assign the authority for management and operation of the State Plan to the Board of Trustees of the OPERS. The minimum amount allowable to be deferred under the State Plan is \$25 per month. Under state law, each employee is eligible to receive a \$25 monthly matching contribution from the Authority to be deposited in a 401(a) retirement account. Employee contributions to the Plan totaled \$1,007,516 and \$1,120,013 for the years ended December 31, 2019 and 2018, respectively. The Authority paid matching contributions and administrative fees of \$138,919 and \$141,943 for the years ended December 31, 2019 and 2018, respectively.

GRDA Postemployment Healthcare Plan

Plan Guidance. The Authority implemented GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions* effective January 1, 2018. The total OPEB liability was not restated due to the measurement date used for the calculation of the balances and the timing of information received by the plan. The cumulative effect of the change in accounting principle is shown in 2018 on the Statements of Revenues, Expenses, and Changes in Net Position.

The implementation of this statement resulted in the restatement of the 2018 opening net position as follows:

Reconciliation to the Change in Net Position:

Beginning OPEB Liability, December 31, 2017	\$ 16,760,009
Less: GASB 45 prior year Liability	3,267,430
Less: PY Deferred Outflow for Contributions	<u>849,335</u>
2018 Opening Net Position restatement amount	<u>\$ 12,643,244</u>

Plan Description. GRDA Postemployment Healthcare Plan is a single-employer defined benefit healthcare plan administered by the Authority. GRDA Postemployment Healthcare Plan provides medical and dental insurance benefits to eligible retirees. Beginning in 2003, Oklahoma Statutes, Title 82, Section 864.1 authorized the Authority to subsidize up to \$60 per month of eligible employee-only health insurance premiums for each Authority retiree. Legislation passed in 2005 removed the \$60 limitation. At the December 2005 Board meeting, the Authority's directors authorized the Authority to increase the subsidy to a defined benefit allowance of \$105 per month for eligible retirees, effective January 1, 2006. At the November 2007 Board meeting, the Authority's directors authorized the Authority to increase the subsidy to \$200 per month for eligible retirees, effective January 1, 2008. This stipend is provided for life to employees hired prior to November 1, 2015. No assets are accumulated in a trust that meets the criteria in paragraph 4 of GASB Statement No. 75. The Plan does not issue a stand-alone financial report.

Benefits Provided. The OPEB plan provides for employee and dependent healthcare coverage from the date of retirement to age 65, provided the participant was covered by the plan before retiring. The participant can elect to enroll in spousal coverage. Surviving spouses may continue in the plan until age 65. Spouses do not receive the \$200 per month subsidy.

Employees Covered by the Plan: The following table details the Authority's number of employees covered by the benefit terms:

Participant Data	December 31, 2019	December 31, 2018
Active participants:		
Employees hired prior to 11/01/2015 and eligible for \$200 subsidy	460	460
Employees hired 11/01/2015 or later and not eligible for \$200 subsidy	63	63
Total active participants	<u>523</u>	<u>523</u>
Inactive participants entitled to but not yet receiving benefits	0	0
Inactive participants receiving benefits:		
Retirees	258	258
Covered Spouses (below age 65)	<u>26</u>	<u>26</u>
Total inactive participants receiving benefits	<u>284</u>	<u>284</u>
Total Participants	<u><u>807</u></u>	<u><u>807</u></u>

Funding Policy. The contributions of plan members and the Authority are established and may be amended by the Board of Directors within the limits of Oklahoma statutes. The contribution is based on estimated pay-as-you-go financing requirements. For the years ended December 31, 2019 and 2018, the Authority contributed \$655,970 and \$626,363, respectively, to the plan which consisted entirely of current premiums and included no additional contribution to prefund benefits.

Actuarial Methods and Assumption. Projections of benefits for financial reporting purposes are based on the benefits provided under the terms of the substantive plan (the plan as understood by the employer and the plan members) at the time of each valuation and the historical pattern of sharing the benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations. The total OPEB liability in the January 1, 2019 actuarial valuation was determined using the following assumptions:

	2019	2018
Actuarial valuation date	January 1, 2019	January 1, 2018
Inflation	2.10%	2.10%
Discount rate (from the Bond Buyer GO-20 Index)	4.10%	3.44%
Salary increases	Variable from 9.50% to 3.50% based on age and service group	Variable from 9.50% to 3.50% based on age and service group
Healthcare cost trend rates	2018-2019 at 6.70% decreasing .3% each year to 2021 then decrease by .2% to 2024 to an ultimate rate of 4.6% for 2025 and beyond	2018-2019 at 7.00% decreasing .3% each year to 2021 then decrease by .2% to 2024 to an ultimate rate of 4.6% for 2025 and beyond
Actuarial cost method	Entry Age Normal	Entry Age Normal
Mortality	Pub-2010 Public Retirement Plans General Mortality Table weighted by Headcount projected by MP-2018 as of January 1, 2019	RP-2006 combined healthy mortality table with a fully generational projection using Scale MP-2018

Changes in the Total OPEB Liability. Changes of assumptions and other inputs reflect a change in discount rate from 3.44% in 2018 to 4.10% in 2019. Changes in the Total OPEB Liability for the year ended December 31, 2019:

Changes in the Total OPEB Liability	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
Balance at December 31, 2018	\$ 17,668,568	\$ -	\$ 17,668,568
Changes for the Year			
Service Cost	548,426	-	548,426
Interest on Total OPEB Liability	611,515	-	611,515
Changes in benefits	-	-	-
Difference between expected and actual experience	66,460	-	66,460
Changes in assumptions	(1,025,961)	-	(1,025,961)
Employer Contributions		888,285	(888,285)
Contributions - Special Funding Situations		-	-
Employee Contributions		-	-
Net investment income	(888,285)	(888,285)	-
Benefit payments, including employee refunds	-	-	-
Administrative expense (negative number)	-	-	-
Net changes	(687,845)	-	(687,845)
Balance at December 31, 2019	<u>\$ 16,980,723</u>	<u>\$ -</u>	<u>\$ 16,980,723</u>

For the year ended December 31, 2018:

Changes in the Total OPEB Liability	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
Balance at December 31, 2017	\$ 16,760,009	\$ -	\$ 16,760,009
Changes for the Year			
Service Cost	575,830	-	575,830
Interest on Total OPEB Liability	639,391	-	639,391
Changes in benefits	-	-	-
Difference between expected and actual experience	-	-	-
Changes in assumptions	542,673	-	542,673
Employer Contributions		849,335	(849,335)
Contributions - Special Funding Situations		-	-
Employee Contributions		-	-
Net investment income		-	-
Benefit payments, including employee refunds	(849,335)	(849,335)	-
Administrative expense (negative number)	-	-	-
Net changes	<u>908,559</u>	<u>-</u>	<u>908,559</u>
Balance at December 31, 2018	<u>\$ 17,668,568</u>	<u>\$ -</u>	<u>\$ 17,668,568</u>

Sensitivity of the Total OPEB liability to changes in the discount rate. The following presents the Authority's total OPEB liability calculated using the 2019 discount rate of 4.10%, as well as what the Authority's total OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (3.10%) or 1-percentage-point higher (5.10%) than the current rate:

	2019		
	1% Decrease to Discount Rate (3.10%)	Current Discount Rate (4.10%)	1% Increase To Discount Rate (5.10%)
Total OPEB liability	\$ <u>18,587,515</u>	\$ <u>16,980,723</u>	\$ <u>15,585,778</u>

The following presents the Authority's total OPEB liability calculated using the 2018 discount rate of 3.44%, as well as what the Authority's total OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (2.44%) or 1-percentage-point higher (4.44%) than the current rate:

	2018		
	1% Decrease to Discount Rate (2.44%)	Current Discount Rate (3.44%)	1% Increase To Discount Rate (4.44%)
Total OPEB liability	\$ <u>19,432,778</u>	\$ <u>17,668,568</u>	\$ <u>16,144,567</u>

Sensitivity of the Total OPEB liability to changes in the healthcare cost trend rate. The following presents the Authority's total OPEB liability calculated using the 2019 healthcare cost trend rate of 6.70%, as well as what the Authority's total OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (5.70% decreasing to 3.60%) or 1-percentage-point higher (7.70% decreasing to 5.60%) than the current rate:

	2019		
	1% Decrease to Healthcare Cost Trend Rate (5.7% decreasing to 3.6%)	Current Healthcare Cost Trend Rate (6.7% decreasing to 4.6%)	1% Increase to Healthcare Cost Trend Rate (7.7% decreasing to 5.6%)
Total OPEB liability	\$ 16,493,590	\$ 16,980,723	\$ 17,544,838

The following presents the Authority's total OPEB liability calculated using the 2018 healthcare cost trend rate of 7.00%, as well as what the Authority's total OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00% decreasing to 3.60%) or 1-percentage-point higher (8.00% decreasing to 5.60%) than the current rate:

	2018		
	1% Decrease to Healthcare Cost Trend Rate (6% decreasing to 3.6%)	Current Healthcare Cost Trend Rate (7% decreasing to 4.6%)	1% Increase to Healthcare Cost Trend Rate (8% decreasing to 5.6%)
Total OPEB liability	\$ 17,195,782	\$ 17,668,568	\$ 18,216,014

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources related to OPEB. For the year ended December 31, 2019 the Authority recognized OPEB expense of \$1,077,071. For the year ended December 31, 2018 the Authority recognized OPEB expense of \$1,315,716. The following table indicates the components of the recognized OPEB expense:

Components of OPEB Expense	2019	2018
Service Cost	\$ 548,426	\$ 575,830
Interest on Total OPEB Liability - over measurement period	611,515	639,391
Benefit Changes (if any)	-	-
Recognition of Experience Changes	12,701	-
Recognition of Assumption Changes	(95,571)	100,495
Employee Contributions	-	-
Projected earnings on pension plan investments	-	-
Differences between projected and actual earnings on plan investments	-	-
Administrative Expense (entered as a positive number)	-	-
Other changes	-	-
Total OPEB Expense recognized	\$ 1,077,071	\$ 1,315,716

As of December 31, 2019, the Authority reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	OPEB Plan--2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Summary of deferred outflows and inflows		
Differences between projected and actual experiences	\$ 53,759	\$ -
Changes of actuarial assumptions	341,683	829,895
Net Differences between projected and actual investment earnings on pension plan investment	-	-
Employer contributions - subsequent to measurement date	<u>655,970</u>	<u>-</u>
Total	<u>\$ 1,051,412</u>	<u>\$ 829,895</u>

As of December 31, 2018, the Authority reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	OPEB Plan--2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Summary of deferred outflows and inflows		
Differences between projected and actual experiences	\$ -	\$ -
Changes of actuarial assumptions	442,178	-
Net Differences between projected and actual investment earnings on pension plan investment	-	-
Employer contributions - subsequent to measurement date	<u>626,363</u>	<u>-</u>
Total	<u>\$ 1,068,541</u>	<u>\$ -</u>

Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

OPEB Plan--2019	
Year ended December 31	Net OPEB Expense
2020	\$ (82,870)
2021	(82,870)
2022	(82,870)
2023	(143,167)
2024	<u>(42,676)</u>
	 <u>\$ (434,453)</u>

8. OTHER RELATED-PARTY TRANSACTIONS

The primary organizations considered related parties are those municipal, industrial, electric cooperative and other governmental organizations or lake area organizations that have representatives serving on the Authority's Board of Directors. The primary transactions in the ordinary course of business with these related parties include sales of electrical power and transmission and memberships in related trade associations or organizations, or tourism and economic development activities associated with the management of the lakes, including commercial and private dock permit fees.

OG&E operates the Redbud facility under an operating agreement with the Authority and OMPA and allocates certain costs and expenses attributable to Redbud to the Authority and OMPA in accordance with their undivided ownership interests—see further discussion of Redbud facility in “Joint Ownership” in Note 1 to Financial Statements, Summary of Significant Accounting Policies.

9. COMMITMENTS AND CONTINGENCIES

In the normal course of business, the Authority makes and receives commitments for purchases of coal, natural gas, wind power, and long-term service agreements. In addition, in the normal course of business, the Authority enters into agreements, which commit the Authority to provide varying amounts of electric power to its customers. Management of the Authority does not believe the honoring of these commitments will have any material adverse effect on the Authority.

The Authority had contractual commitments as of December 31, 2019, for long-term service agreements at the Redbud facility for the maintenance of the gas and steam turbines of approximately \$49.1 million through the year 2028. The Authority had contractual commitments as of December 31, 2019, for natural gas transportation to the Redbud facility of approximately \$15.3 million through March 31, 2024.

The Authority had contractual commitments as of December 31, 2019, for long-term service agreements at the GREC 3 facility for the maintenance of the gas and steam turbines of approximately \$58.8 million through the year 2030. The Authority had contractual commitments as of December 31, 2019, for natural gas at the GREC 3 facility of approximately \$1.0 million through the year 2020 as well as for transportation of natural gas to the GREC 3 facility of approximately \$138.8 million through the year 2046.

The Authority had contractual commitments as of December 31, 2019, for long-term wind power purchase agreements of approximately \$687.1 million through the year 2037 and for customer generation capacity agreements of approximately \$276.3 million through the year 2042.

The Authority was a plaintiff and counterclaim defendant in a lawsuit in Mayes County, Oklahoma, against Peabody Energy concerning disputes over the force majeure and liquidated damages provisions of two coal purchase contracts. The lawsuit was settled in 2019.

10. LANDFILL CLOSURE AND POSTCLOSURE COSTS

The Authority maintains a coal combustion residuals (CCR) landfill in Chouteau, Oklahoma. The Authority accounts for this CCR landfill in accordance with GASB Statement No. 18, *Accounting for Municipal Solid Waste Landfill Closure and Postclosure Care Costs*. State and federal regulations will require the Authority to place a final cover on the CCR site when it discontinues depositing of CCR and to perform certain maintenance and monitoring functions at the site for thirty years after closure. Although closure and postclosure costs will only be paid near or after the date of discontinuance of use of the landfill, GASB Statement No. 18 requires proprietary funds to report a portion of these costs as an operating expense in each period based on landfill capacity and utilization.

This CCR landfill has a total capacity of 5,131,024 cubic yards, of which 4,561,725 cubic yards have been used through December 31, 2019. The remaining useful life at December 31, 2019 was approximately 18 years.

The amount recorded as a liability for the closure and postclosure costs, included in Other Noncurrent Liabilities at December 31, 2019 and 2018, was \$7,141,741 and \$2,089,923, respectively. These amounts are based on 89% landfill utilization as of December 31, 2019 and 2018. The Authority will recognize the remaining estimated cost of closure and postclosure care, of approximately \$695,894, as the remaining estimated capacity is filled. Amounts are estimated using what it would cost to perform all closure and postclosure care in 2019. Actual costs are subject to change resulting from inflation or deflation, changes in technology, or changes in applicable laws or regulations.

The Oklahoma Department of Environmental Quality (ODEQ) has certain closure and postclosure care financial assurance requirements. Each year, an auditor performs procedures to ensure that the Authority meets these requirements.

11. RISK MANAGEMENT

Resolution No. 5107 requires the Authority to, in each case where it is obtainable at a reasonable rate and on reasonable terms, insure its facilities, maintain liability insurance, and bond certain officers and employees. In general, all insurance coverage, including property (all risk coverage, including earthquake and flood), equipment, aircraft, employment practices liability, directors and officers liability, excess liability (including an endorsement for certified "acts of terrorism" as defined in the Federal Terrorism Risk Insurance Act), is purchased from private insurance carriers through the State of Oklahoma Risk Management Department (State Risk Management) of the Office of Management and Enterprise Services. State Risk Management contracts with a third-party insurance broker for brokerage services and advice. The Authority also participates in the State of Oklahoma's Consolidated Workers' Compensation Program, a self-insured program operated by States Risk Management. A private insurance carrier provides excess insurance coverage for the Consolidated Workers' Compensation Program and a private company provides claims administration services. Settled claims have not exceeded commercial insurance coverage in any of the past three years.

Concentration of revenues from a single external customer increases credit and market concentration risks. The Authority had one customer that accounted for 17% of total operating revenues in 2019 and two customers that accounted for a combined 29% of total operating revenues in 2018.

In addition, the Authority is subject to generation supply and market price risks, which are continually evaluated as to level of risk and how to best mitigate exposure to loss. In compliance with GASB Statement No. 53, the annual changes in the fair value of effective hedging derivative instruments are required to be deferred (reported as deferred outflows of resources and deferred inflows of resources) on the Statements of Net Position. Deferral of changes in fair value generally lasts until the transaction involving the hedged item ends.

The Authority continued its hedging program for natural gas futures in 2019, a core business commodity input, in an effort to mitigate gas cost risk by reducing cost volatility and improving cost effectiveness. Gains and losses related to such activity are deferred and recognized as fuel expense incurred in the production cycle.

As of December 31, 2019 and 2018, the Authority had the following fair value balances and notional amounts of derivative instruments and the changes in fair value of such derivative instruments:

Business-Type Activities	Changes in Fair Value	Fair Value at December 31, 2019		Notional Amount (MMBTU's)
		Classification	Amount	
Cash flow hedges:				
Commodity forward (swap)	\$ (3,295,555)	Derivative instruments	\$ (2,595,165)	10,275,000
Fair Value at December 31, 2018				
Business-Type Activities	Changes in Fair Value	Fair Value at December 31, 2018		Notional Amount (MMBTU's)
		Classification	Amount	
Cash flow hedges:				
Commodity forward (swap)	\$ 1,239,588	Derivative instruments	\$ 700,390	10,962,500

The aggregate fair value of hedging derivative instruments in a net liability positions at December 31, 2019, is \$2,595,165. This represents the maximum expense that would be recognized as of the reporting date if all counterparties perform as contracted.

All of the Authority's derivative instruments are held with a single counterparty, which has a credit rating of "A/A".

The following table displays the objective and terms of the Authority's hedging derivative instruments, along with the credit rating of the associated counterparty.

Item	Type	Objective	Notional Amount (MMBTUs)	Effective Date	Maturity Date	Terms	Counterparty Credit Rating
A	Commodity forward contract (swap)	Hedge of changes in cash flows due to market price fluctuations related to expected purchase of natural gas	1,830,000	12/27/19	11/25/20	Pay \$2.800/MMBTU; scheduled monthly settlements based on 5,000 MMBTUs/day and Henry Hub pricing point at settlement date	"A/A"
B	Commodity forward contract (swap)	Hedge of changes in cash flows due to market price fluctuations related to expected purchase of natural gas	915,000	12/27/19	11/25/20	Pay \$2.718/MMBTU; scheduled monthly settlements based on 2,500 MMBTUs/day and Henry Hub pricing point at settlement date	"A/A"
C	Commodity forward contract (swap)	Hedge of changes in cash flows due to market price fluctuations related to expected purchase of natural gas	915,000	12/27/19	11/25/20	Pay \$2.620/MMBTU; scheduled monthly settlements based on 2,500 MMBTUs/day and Henry Hub pricing point at settlement date	"A/A"

Item	Type	Objective	Notional Amount (MMBTUs)	Effective Date	Maturity Date	Terms	Counterparty Credit Rating
D	Commodity forward contract (swap)	Hedge of changes in cash flows due to market price fluctuations related to expected purchase of natural gas	1,825,000	12/29/20	11/26/21	Pay \$2.625/MMBTU; scheduled monthly settlements based on 5,000 MMBTUs/day and Henry Hub pricing point at settlement date	"A/A"
E	Commodity forward contract (swap)	Hedge of changes in cash flows due to market price fluctuations related to expected purchase of natural gas	915,000	12/27/19	11/25/20	Pay \$2.680/MMBTU; scheduled monthly settlements based on 2,500 MMBTUs/day and Henry Hub pricing point at settlement date	"A/A"
F	Commodity forward contract (swap)	Hedge of changes in cash flows due to market price fluctuations related to expected purchase of natural gas	912,500	12/29/20	11/26/21	Pay \$2.625/MMBTU; scheduled monthly settlements based on 2,500 MMBTUs/day and Henry Hub pricing point at settlement date	"A/A"
G	Commodity forward contract (swap)	Hedge of changes in cash flows due to market price fluctuations related to expected purchase of natural gas	915,000	12/27/19	11/25/20	Pay \$2.450/MMBTU; scheduled monthly settlements based on 2,500 MMBTUs/day and Henry Hub pricing point at settlement date	"A/A"
H	Commodity forward contract (swap)	Hedge of changes in cash flows due to market price fluctuations related to expected purchase of natural gas	1,830,000	12/27/19	11/25/20	Pay \$2.375/MMBTU; scheduled monthly settlements based on 5,000 MMBTUs/day and Henry Hub pricing point at settlement date	"A/A"
I	Commodity forward contract (swap)	Hedge of changes in cash flows due to market price fluctuations related to expected purchase of natural gas	915,000	12/27/19	11/25/20	Pay \$2.270/MMBTU; scheduled monthly settlements based on 2,500 MMBTUs/day and Henry Hub pricing point at settlement date	"A/A"

Contracts are accounted for in accordance with GASB Statement No. 53, which addresses recognition, measurement, and disclosure related to derivative instruments with reporting required in the Statements of Net Position or recognized on the Statements of Revenues, Expenses, and Changes in Net Position depending on effectiveness. Contracts are evaluated to determine whether they meet the definition of derivative instruments and, if so, whether they effectively hedge the expected change in cash flow associated with natural gas prices. Effectiveness testing is performed at the end of each month using the consistent critical terms method and, as of December 31, 2019, the tests concluded that all of the Authority's derivative instruments are effective. If the derivative instrument(s) passes effectiveness testing, the change in fair value of the instrument(s) is deferred in the Statements of Net Position. If deemed to be ineffective, the change in fair value of the instrument(s) is immediately recognized in the Statements of Revenues, Expenses, and Changes in Net Position.

Credit Risk: Credit risk is the risk of loss due to a counterparty defaulting on its obligations. GRDA's derivative contracts and physical bi-lateral transactions expose GRDA to custodial credit risk. In the event of default or nonperformance by bi-lateral counterparties and brokers, New York Mercantile Exchange (NYMEX) or

Intercontinental Exchange (ICE), GRDA's operations could be materially affected. However, GRDA does not expect the exchanges to fail in meeting their obligations given their high credit ratings and the credit requirements upheld by NYMEX, of which these brokerage firms are members.

Termination Risk: Termination risk is the risk that a derivative or physical bi-lateral trade will terminate prior to its scheduled maturity due to a contractual event. One aspect of termination risk is GRDA would lose the hedging benefit of a derivative or bi-lateral trade that becomes subject to a termination event. Another aspect of termination risk is that, if, at the time of termination, the mark to market value of the derivative was a liability to GRDA, it would be required to pay the market value of the derivative to the counterparty. GRDA addresses this risk through the use of the International Swaps and Derivatives Association (ISDA) agreements and individual contracts have language to address termination risk. Termination risk is associated with all of GRDA's derivatives up to the fair value amounts.

Basis Risk: Basis risk in the financial markets arises when an underlying position and the product used as a hedge are based on different quality or trade at different locations. GRDA is exposed to basis risk because GRDA's assets and customer obligations do not always match locations. For GRDA's natural gas requirements, the NYMEX is the exchange futures contract used which trades at Henry Hub Louisiana while operationally GRDA purchases are based on the Enable Gas (EIOT) or the OneOk (OGT) index. This exposes GRDA to the basis risk between NYMEX and EIOT or OGT indices. GRDA is hedging the Henry Hub portion of the gas price only, not the basis for the individual pipeline(s)—EIOT/OGT.

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**REQUIRED SUPPLEMENTARY INFORMATION
(UNAUDITED)**

GRAND RIVER DAM AUTHORITY
(A Component Unit of the State of Oklahoma)

SCHEDULE OF PROPORTIONATE SHARE OF THE NET PENSION LIABILITY (UNAUDITED)
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT PLAN

Fiscal Year Ending	Proportion of the Net Pension Liability	Proportionate Share of the Net Pension Liability	Covered Payroll	Proportionate Share of the Net Pension Liability as a Percentage of Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
December 31, 2019	2.3778 %	\$ 3,166,970	\$ 35,942,188	8.81 %	98.63 %
December 31, 2018	2.4118	5,138,160	37,965,024	13.53	97.96
December 31, 2017	2.3117	12,498,665	38,404,273	32.54	94.28
December 31, 2016	2.2462	21,890,211	38,995,445	56.14	89.48
December 31, 2015	2.1715	7,810,649	37,304,843	20.94	96.00

SCHEDULE OF EMPLOYER CONTRIBUTIONS (UNAUDITED)
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT PLAN

Fiscal Year Ending	Contributions in Relation to the				Contributions as a Percentage of Covered Payroll
	Contractually Required Contributions	Contractually Required Contribution	Contribution Deficiency (Excess)	Covered Payroll	
December 31, 2019	\$ 6,258,254	\$ 6,243,328	14,926	\$ 35,239,125	17.72 %
December 31, 2018	6,309,340	6,485,378	(176,038)	37,001,348	0.18
December 31, 2017	6,218,254	6,516,168	(297,914)	38,300,232	17.01
December 31, 2016	6,641,675	6,615,357	26,318	38,811,001	17.05
December 31, 2015	6,333,952	6,343,582	(9,630)	38,557,227	16.45

The amounts determined for each fiscal year were determined as of June 30 in the calendar year.

The Authority is required to present the last ten fiscal years of data; however, until a full ten-year trend of data is compiled, GASB Statement No. 68 allows the presentation for those years for which information is available.

Changes in Benefit Terms. There were no changes of benefit terms for any participating employer in the Plan.

Changes in Assumptions are as follows:

	2019	2018	2017	2016	2015
Long-term expected rate of return	7.00 %	7.00 %	7.25 %	7.25 %	7.50 %
Discount rate	7.00	7.00	7.25	7.25	7.50
Price inflation	2.75	2.75	2.75	3.00	3.00
Real wage growth	0.75	0.75	0.75	1.00	1.00

There were no other changes in assumptions.

GRAND RIVER DAM AUTHORITY
(A Component Unit of the State of Oklahoma)

SCHEDULE OF PROPORTIONATE SHARE OF THE NET PENSION LIABILITY (UNAUDITED)
OKLAHOMA LAW ENFORCEMENT RETIREMENT PLAN

Fiscal Year Ending	Proportion of the Net Pension Liability	Proportionate Share of the Net Pension Liability	Covered Payroll	Proportionate Share of the Net Pension Liability as a Percentage of Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
December 31, 2019	1.5814 %	\$ 2,296,870	\$ 1,298,190	176.93 %	87.50 %
December 31, 2018	1.4701	1,574,732	1,222,118	128.85	90.31
December 31, 2017	1.4556	1,891,434	1,225,700	154.31	87.85
December 31, 2016	1.3370	1,631,598	1,234,942	132.12	81.88
December 31, 2015	0.8627	894,807	736,838	121.44	89.62

SCHEDULE OF EMPLOYER CONTRIBUTIONS (UNAUDITED)
OKLAHOMA LAW ENFORCEMENT RETIREMENT PLAN

Fiscal Year Ending	Contractually Required Contributions	Contributions in Relation to the Contractually Required Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
December 31, 2019	\$ 141,092	\$ 142,911	(1,819)	\$ 1,308,269	10.92%
December 31, 2018	133,523	134,432	(909)	1,268,728	10.60
December 31, 2017	134,827	134,826	1	1,209,093	11.15
December 31, 2016	136,630	136,630	-	1,241,483	11.01
December 31, 2015	81,430	81,430	-	1,098,422	7.41

The amounts determined for each fiscal year were determined as of June 30 in the calendar year.

The Authority is required to present the last ten fiscal years of data; however, until a full ten-year trend of data is compiled, GASB Statement No. 68 allows the presentation for those years for which information is available.

Changes in Benefit Terms. There were no changes of benefit terms for any participating employer in the Plan.

Changes in Assumptions are as follows:

	2019	2018	2017	2016	2015
Price inflation	2.75	2.75 %	2.75 %	3.00 %	3.00 %

There were no other changes in assumptions.

GRAND RIVER DAM AUTHORITY
(A Component Unit of the State of Oklahoma)

SCHEDULE OF CHANGES IN TOTAL OPEB LIABILITY AND RELATED RATIOS (UNAUDITED)
OTHER POSTEMPLOYMENT BENEFITS PLAN

	2019	2018
Beginning Balance	\$ 17,668,568	\$ 16,760,009
Service Cost	548,426	575,830
Interest on Total OPEB Liability	611,515	639,391
Changes in benefits	-	-
Difference between expected and actual experience	66,460	-
Changes in assumptions	(1,025,961)	542,673
Employer Contributions	-	-
Contributions - Special Funding Situations	-	-
Employee Contributions	-	-
Net investment income	-	-
Benefit payments, including employee refunds	(888,285)	(849,335)
Administrative expense (negative number)	-	-
Net changes	(687,845)	908,559
Ending Balance	<u>\$ 16,980,723</u>	<u>\$ 17,668,568</u>

Schedule of Changes in the Total OPEB Liability and related Ratios

Covered-employee payroll	\$ 35,239,125	\$ 37,001,348
Total OPEB Liability as a percentage of covered-employee payroll	48.19%	47.75%

The Authority is required to present the last ten fiscal years of data; however, until a full ten-year trend of data is compiled, GASB Statement No. 75 allows the presentation for those years for which information is available.

Changes in Benefit Terms. There were no changes of benefit terms in the Plan.

Changes in Assumptions: Two assumption changes were made for this valuation. The discount rate on the Bond Buyer GO 20-Bond Municipal Bond Index as of the newest Measurement date of January 1, 2019 is 4.10%. The January 1, 2018 discount rate was 3.44%. The mortality table was also updated to a new public sector mortality table (Pub 2010) using the MP-2018 projection scale.

**REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND
OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED
IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS**

Independent Auditors' Report

To the Board of Directors
Grand River Dam Authority
Tulsa, Oklahoma

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the financial statements of Grand River Dam Authority as of and for the year ended December 31, 2019, and have issued our report thereon dated March 27, 2020.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered Grand River Dam Authority's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of Grand River Dam Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of Grand River Dam Authority's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal controls such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the financial statements of Grand River Dam Authority are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

We noted certain matters that we reported to management of the Grand River Dam Authority in a separate letter dated March 27, 2020.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Baker Tilly Virchawwala, LLP

Madison, Wisconsin
March 27, 2020

2020 Worksheet for Calculating Closure and Post-closure Cost Estimates

All site data necessary to calculate estimates of closure and post-closure costs can be gathered by completing Table E.1. Data from Table E.1 should be inserted into Tables E.2 and F.1 to complete calculations.

Table E.1 Site Data

Facility Name: Grand River Dam Authority

Permit Number: 3549012

Description	Quantity	Units
Total Permitted Area	67	acres
Active Portion		
Composite Lined	-	acres
Soil Lined	47	acres
Area of Largest Cell/Phase Requiring Final Cap		
Composite Lined	-	acres
Soil Lined	47	acres
Perimeter Fencing	-	linear feet
Groundwater Monitoring Wells	93	VLF
Methane Gas Probes	NA	VLF
Terraces	NA	linear feet
Letdown channels	NA	linear feet
Perimeter drainage ditches	NA	linear feet
Average Daily Flow	0.74	tons/day
Landfill Disposal Cost	-	\$/ton

VLF = Vertical linear feet. The sum of the depths of all monitoring wells.

Table H.2 Closure Cost Estimate

Facility Name: Grand River Dam Authority

Permit Number: 3549012

Task/Service	Quantity	Units	Multiplier ^a	Unit Cost ^b	Subtotal
1 Preliminary Site Work					
1.1 Conduct Site Evaluation	1	Lump sum	1	\$3,744.68	\$3,744.68
1.2 Dispose Final Wastes					
Average Daily Flow	0.74	tons/day			
Disposal Cost	0.74	tons/day	5 (5 days waste)	NA	NA

1.3	Remove Temporary Building(s)	1	lump sum	1	\$3,433.89	NA
1.4	Remove Equipment	1	lump sum	1	\$2,803.05	\$2,803.05
1.5	Repair/Replace Perimeter Fencing		linear feet	0.25	\$3.68	NA
1.6	Clean Leachate Line(s)	1	lump sum	1	\$1,696.07	NA
2	Monitoring Equipment					
2.1	Rework/Replace Monitoring Well(s)	93	VLF	0.25	\$78.74	\$1,830.71
2.2	Plug Abandoned Monitoring Well(s)	93	VLF	0.25	\$31.52	\$732.84
2.3	Rework/Replace Methane Probe(s)		VLF	0.25	\$68.01	NA
2.4	Plug Abandoned Methane Probe(s)		VLF	0.25	\$24.85	NA
2.5	Rework/Replace Remediation and/or Gas Control Equipment	1	lump sum	0.05	NA	NA
3	Construction					
3.1	Complete Site Grading to include on- and off-site borrow areas	67	acres	1	\$1,484.67	\$99,472.89
3.2	Construct Final Cap					
	Compacted On-site Clay Cap or	151,653	cubic yards	1	\$5.34	\$809,827.02
	Compacted Off-site Clay Cap or	-	cubic yards	1	\$8.67	NA
	Install Geosynthetic Clay Liner Cap	-	square feet	1	\$0.56	NA
3.3	Construct Landfill Gas Venting Layer					

	Place Sand or		acres	1	\$39,698.53	NA
	Install Net and Geotextile		square feet	1	\$0.39	NA
3.4	Install Passive Landfill Gas Vents		acres	1	\$951.03	NA
3.5	Install Flexible Membrane		square feet	1	\$0.43	NA
3.6	Drainage Layer					
	Place Sand or		acres	1	\$39,698.53	NA
	Install Net and Geonet		square feet	1	\$0.39	NA
3.7	Place On-site Topsoil	75,827	cubic yards	1	\$2.29	\$173,643.83
	Place Off-site Topsoil	-	cubic yards	1	\$18.35	NA
3.8	Establish vegetative cover, including on- and off-site borrow areas	67	acres	1	\$1,058.09	\$70,892.03
4	Drainage/erosion control					
4.1	Construct Terraces		linear feet	1	\$9.61	NA
4.2	Construct Letdown Channels		linear feet	1	\$105.11	NA
4.3	Clean Perimeter Drainage Ditches		linear feet	0.50	\$7.32	NA
5	Tasks Not Identified					
5.1	Close Temporary Piezometers	335	VLF	1	\$24.85	\$8,324.75
6	Subtotal					\$1,171,271.80
7	Administrative Services	1	lump sum	0.10	\$1,171,271.80	\$117,127.18
8	Technical and Professional Services	1	lump sum	0.12	\$1,171,271.80	\$140,552.62
9	Closure Contingency	1	lump sum	0.10	\$1,171,271.80	\$117,127.18
10	Total Final Closure					\$1,546,078.78

- a. Multipliers are determined from the *Solid Waste Financial Assurance Program Report*, December 22, 2000.
- b. Unit costs include a 1.75% inflationary adjustment for 2020. Task 3.8 unit cost will increase updated per 2015 5-year evaluation (OAC 252:515-27-4). Task 3.8 unit cost will increase \$132.26 each year through the 2020 update.
- c. New facilities: Insert the value for "W" in OAC 252:517-17-8(2). Existing facilities: Insert reported annual tonnage for the previous year, divided by 312 operating days per year (52 weeks per year x 6 operating days per week).
- d. Insert number of tons/day from above.
- e. Insert landfill disposal cost per ton of waste (\$/ton).
- f. Input capital cost for gas control/remediation equipment, if installed at the site.
- g. Input subtotal from line 6.
- h. Add rows 6 through 9.

Table I.1 Post-closure Cost Estimate**Facility Name: Grand River Dam Authority****Permit Number: 3549012**

Task/Service		Quantity	Units	Multiplier ^a	Unit Cost ^b	Subtotal
1	Site maintenance					
1.1	Site Inspections	4	per year	30	\$681.20	\$81,744.00
1.2	General Maintenance	1	per year	30	\$2,042.28	\$61,268.40
1.3	Remediation and/or Gas Control Equipment	1	lump sum	0.3 ^c	NA	NA
2	Monitoring equipment					
2.1	Rework/Replace Monitoring Well(s)	93	VLF	0.25	\$78.74	\$1,830.71
2.2	Plug Abandoned Monitoring Well(s)	93	VLF	0.25	\$31.52	\$732.84
2.3	Final Plugging of Monitoring Wells	93	VLF	1	\$31.52	\$2,931.36
2.4	Rework/Replace Methane Probe(s)		VLF	0.25	\$68.01	NA
2.5	Plug Abandoned Probe(s)		VLF	0.25	\$24.85	NA
2.6	Final Plugging of Methane Probes		VLF	1	\$24.85	NA
2.7	Final Plugging of Piezometer(s)		VLF	1	\$24.85	NA
3	Sampling and analysis					
3.1	Groundwater Monitoring Wells	5	wells	60	\$822.52	\$246,756.00
3.2	Methane Gas Probes		probes	60	\$47.66	NA
3.3	Surface Water Monitoring Points		points	60	\$88.52	NA

3.4	Leachate		sample	60	\$142.64	NA
4	Final cover maintenance					
4.1	Mow and Fertilize Vegetative Cover	47	acres	30 yrs	\$225.35	\$317,743.50
4.2	Repair Erosion, Settlement, and Subsidence for On-site Soils	47	acres	60 yrs	\$3.27	\$9,221.40
	Repair Erosion, Settlement, and Subsidence for Off-site Soils		acres	30 yrs	\$19.54	NA
4.3	Reseed Vegetative Cover	47	acres	0.20	\$1,058.09	\$9,946.05
5	Leachate management					
A	Clean Leachate Line(s)	1	per year	30 (30 yrs)	\$1,746.78	NA
B	Maintain Leachate Collection System and Equipment	1	per year	30 (30 yrs)	\$2,713.69	NA
C	Collect, Treat, Transport, and Dispose of Leachate		gal/yr	30	\$0.35	NA
6	Tasks not identified					-
7	Subtotal					\$732,174.26
8	Administrative Services	1	lump sum	0.06	\$732,174.26	\$43,930.46
9	Technical and Professional Services	1	lump sum	0.07	\$732,174.26	\$51,252.20
10	Post-closure Contingency	1	lump sum	0.10	\$732,174.26	\$73,217.43
11	Total Post-closure					\$900,574.35

- a. Multipliers are determined from the *Solid Waste Financial Assurance Program Report*, December 22, 2000.
- b. Unit costs include a 1.75% inflationary adjustment for 2020. Task 4.3 unit cost will increase \$132.26 each year through the 2020 update.
- c. 5% of equipment capital cost, maintenance performed once per 5 yrs for 30 years ($6 \times 0.05 = 0.30$)
- d. Input capital cost for gas control/remediation equipment, if installed at the site.
- e. If the approved groundwater monitoring plan requires monitoring for alternative constituents, unit costs shall be calculated in accordance with OAC 252:517-17-52(b) or (c).

- f. Input subtotal from line 7.
- g. Add lines 7 through 10.