



Electric System of the Virgin Islands Water and Power Authority

Management's Discussion and Analysis,
Financial Statements (with Independent
Auditor's Report Thereon), Required
Supplementary Information, and
Supplementary Schedule (Unaudited)
Years Ended June 30, 2019 and 2018

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Independent Auditor's Report

To the Governing Board
Virgin Islands Water and Power Authority

Report on the Financial Statements

We have audited the accompanying financial statements of the Electric System (the Electric System) of the Virgin Islands Water and Power Authority (the Authority), a major fund of the Authority, as of and for the years ended June 30, 2019 and 2018, and the related notes to the financial statements, which collectively comprise the Electric System's basic financial statements as listed in the table of contents. The Authority is a component unit of the Government of the U.S. Virgin Islands.

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.

Auditor's 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 of 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 auditor's 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 relevant to the entity'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 entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of the 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 qualified audit opinion.

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Basis for Qualified Opinion

The Electric System has classified a portion of its outstanding bonds and notes as long-term liabilities in the accompanying statements of net position. In our opinion, these obligations should be classified as current liabilities to conform with accounting principles generally accepted in the United States of America because at June 30, 2019 and 2018, the Electric System is in default on certain covenants pertaining to its bond resolutions and the lenders may demand repayment of these obligations. If the financial statements were corrected for that departure from accounting principles generally accepted in the United States of America, total current liabilities would be increased by \$255,276,478 and \$251,482,140, total noncurrent liabilities would be decreased by \$255,276,478 and \$251,482,140, and working capital would be decreased by \$255,276,478 and \$251,482,140, as of June 30, 2019 and 2018, respectively.

Qualified Opinion

In our opinion, except for the effects of classifying a portion of its outstanding bonds and notes as long-term liabilities, as discussed in the Basis for Qualified Opinion paragraph, the financial statements referred to in the first paragraph present fairly, in all material respects, the financial position of the Electric System of the Virgin Islands Water and Power Authority, as of June 30, 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.

Emphasis of Matters

As discussed in Note 1 to the financial statements, these financial statements present only the Electric System and do not purport to, and do not present fairly the financial position of the Authority, as of June 30, 2019 and 2018, the respective changes in its financial position, or, where applicable, its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

The accompanying financial statements have been prepared assuming the Electric System will continue as a going concern. As discussed in Note 13 to the financial statements, the Electric System is in an uncertain financial position and has reported an unrestricted net deficit and has suffered losses from operations that raise substantial doubt about its ability to continue as a going concern. Management's evaluation of the events and conditions and management's plans regarding those matters are also described in Note 13. These financial statements do not include any adjustments that might result from the outcome of this uncertainty. Our opinion is not modified with respect to this matter.



Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that management's discussion and analysis, schedule of changes in OPEB liability and related ratios, schedule of the Electric System's OPEB contributions, schedule of the Electric System's share of the net pension liability, and schedule of the Electric System's pension contributions on pages 6 through 13 and 57 through 60 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 Electric System's 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 Information - Supplementary Schedule

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Electric System's basic financial statements. The five-year comparative summary of operations is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated June 30, 2021, on our consideration of the 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 Authority's 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 Authority's internal control over financial reporting and compliance.

BDO USA, LLP

June 30, 2021

Management's Discussion and Analysis

Electric System of the Virgin Islands Water and Power Authority

Management's Discussion and Analysis

The Virgin Islands Water and Power Authority (the Authority) owns, operates, and maintains an electric generation and distribution system (the Electric System) and a water production and distribution system (the Water System), which are separately financed and require separate accounting and reporting. Each of these Systems is accounted for as a separate enterprise. As management of the Authority, we offer readers of the Electric System financial statements this discussion and analysis of the financial activities of the Electric System for the years ended June 30, 2019 and 2018, with selected comparative information for the year ended June 30, 2017. We encourage readers to consider the information presented here in conjunction with the financial statements that follow this section.

The Electric System's service territory includes the islands of St. Thomas, St. Croix, St. John, and Water Island. The electric generating facilities for St. Thomas, St. John, and Water Island are interconnected, while the St. Croix generating facilities serve on a stand-alone basis. The Authority is the only electric utility that operates in the Virgin Islands. There are, however, a few commercial entities that produce electricity for their own use.

The Authority provides electric service to more than 37,000 customers (as of June 30, 2019). The Authority also provides water service to approximately 13,000 customers (as of June 30, 2019). The Electric System's rates are under the jurisdiction of the Virgin Islands Public Services Commission (PSC or the Commission), unlike many other municipal systems. These rates are intended to provide revenues to recover operating and maintenance expenses, funds for debt service coverage requirements, and funds for working capital and capital expenses. The Authority does not use rate base or rate of return principles for setting rates.

Financial Highlights - 2019

- Net position increased by \$268.9 million from a \$47.9 million deficit as a result of fiscal year 2019 operations.
- Current assets increased from \$135.3 million to \$154.3 million. This was primarily due to an increase in grants receivable of \$43.2 million, prepayments of \$3.0 million plus unbilled revenues which grew by \$8.8 million, offset by decreases in fuel oil and materials and supplies inventories of \$6.9 million and decreases in derivatives investments of \$12.6 million.
- Other non-current assets increased by \$7.4 million, due primarily to a combination of an increase in fuel costs recoverable of \$18.1 million, and offset by a decrease in Due from Water System of \$4.9 million and non-current Virgin Islands Government receivables of \$5.8 million.
- Capital assets increased from \$928.6 million in 2018 to \$1,254 million in 2019. This was primarily due to an increase of \$77.1 million in utility plan in service, non-depreciable assets of \$275.7 million offset by \$27.0 million in depreciation. The increase is mainly attributed to reconstruction efforts post Hurricanes Irma and Maria in September 2017. Additional information on capital assets can be found in Note 6.
- Total deferred outflows of resources decreased from \$58.1 million in 2018 to \$34.7 million in 2019.

Electric System of the Virgin Islands Water and Power Authority

Management's Discussion and Analysis

- The fuel costs recoverable balance increased by \$18.1 million to \$28.7 million in 2019 as the Levelized Energy Adjustment Clause (LEAC) permitted by the PSC allows the Authority to recover a significant amount of its cost of fuel during the year.
- Total liabilities have increased by \$44.3 million to \$1.26 billion in 2019 mainly due to increases in payables and accrued liabilities of \$68.8 million, increase of \$6.9 million in due to other governments, and current installments of capital lease obligations of \$1.5 million, tempered by decreases in long term borrowing of \$6.8 million and pension related liabilities of \$29.3 million.
- During 2019, total operating revenues were \$241.5 million compared to \$133.7 million in 2018. The increase is mainly due recovery in demand post hurricanes Irma and Maria which devastated the Territory's economy in 2018. All revenue categories improved sharply. Understandably, bad debts climbed to \$3.0 million from \$2.8 million in 2018.
- Operating expenses, excluding depreciation, amortization, disposals and fuel expense were \$117.9 million for the year ended June 30, 2019; a decrease of \$19.5 million compared to the year ended June 30, 2018. The decrease was primarily due to decreases in distribution expenses of \$15.1 million as well as a \$8.7 million decrease in administrative expenses.
- Capital grants and contributions received by the Electric System were \$349.2 million in fiscal year 2019 compared to \$414.2 million in fiscal year 2018. Those represent grant funding from the Federal Emergency Management Agency for debris removal and reconstruction of the distribution grid.

Financial Highlights - 2018

- Net position increased by \$160.9 million from a \$208.7 million deficit as a result of fiscal year 2018 operations.
- Current assets increased from \$86.0 million to \$135.0 million. This was primarily due to an increase in grants receivable of \$34.2 million, an increase in investment derivative instruments of \$9.6 million, an increase in fuel oil inventory of \$0.6 million, an increase in customer and Virgin Islands Government receivables of \$6.6 million, an increase in materials and supplies inventories of \$5.1 million and an increase in prepayments of \$4.0 million, and offset by decreases in the alternative energy research assets of \$15.6 million and unbilled revenues of \$1.5 million.
- Noncurrent assets decreased by \$20.3 million, due primarily to a combination of a decrease in restricted cash of \$9.3 million and a decrease in fuel costs recoverable of \$9.2 million, and offset by an increase in non-current Virgin Islands Government receivables of \$2.4 million.
- Capital assets increased from \$494.5 million in 2017 to \$928.6 million in 2018. This was primarily due to an increase of \$561.4 million in construction work in progress and utility plant offset by \$119.9 million in depreciation and impairment. The increase is mainly attributed to reconstruction efforts post Hurricanes Irma and Maria in September 2017. Additional information on capital assets can be found in Note 6.

Electric System of the Virgin Islands Water and Power Authority

Management's Discussion and Analysis

- Total deferred outflows of resources decreased from \$82.0 million in 2017 to \$58.1 million in 2018.
- The fuel costs recoverable balance decreased by \$9.2 million to \$10.6 million in 2018 as the Levelized Energy Adjustment Clause (LEAC) permitted by the PSC allows the Authority to recover a significant amount of its cost of fuel during the year. Limited sales did not allow for the recovery of most of the fuel costs through the LEAC surcharges embedded in customer bills.
- Other liabilities have increased by \$257.6 million to \$821.8 million in 2018 mainly due to increase in payables and accrued liabilities from debris removal and reconstruction efforts post Hurricanes Irma and Maria. Many of these projects were federally funded.
- During 2018, total operating revenues were \$133.7 million compared to \$244.2 million in 2017. The decrease is mainly due to a dramatic fall in demand post Hurricanes Irma and Maria which devastated the Authority's distribution infrastructure. All revenue categories declined sharply. Understandably, bad debts climbed to \$2.8 million from \$918 thousand in 2017.
- Operating expenses, excluding depreciation, amortization, and fuel expense were \$137.9 million for the year ended June 30, 2018; an increase of \$34.8 million compared to the year ended June 30, 2017. The increase was primarily due to an increase in distribution expenses of \$32.6 million due to hurricane related expenses and minor decreases in other categories.
- Capital grants and contributions received by the Electric System were \$414.2 million in fiscal year 2018 compared to \$4.9 million in fiscal year 2017. Those represent grant funding from the Federal Emergency Management Agency for debris removal and reconstruction of the distribution grid.

Overview of the Financial Statements

Statement of Net Position

This statement includes all of the Electric System's assets and deferred outflows of resources, and liabilities and deferred inflows of resources, and provides information about the nature and amount of investments in resources (assets) and the obligations to Electric System's creditors (liabilities). It also provides the basis for evaluating the capital structure of the Electric System and assessing the liquidity and financial flexibility of the Electric System.

Statement of Revenues, Expenses, and Changes in Net Position

All of the current year's revenues and expenses are accounted for in this statement. This statement measures the success of the Electric System's operations over the past two years and can be used to determine whether the Electric System has successfully recovered all its costs through its user fees and other charges, and maintained profitability and creditworthiness.

Electric System of the Virgin Islands Water and Power Authority

Management's Discussion and Analysis

Statement of Cash Flows

The primary purpose of this statement is to provide information about the Electric System's cash receipts and cash payments during the reporting period. This statement reports cash receipts, cash payments, and net changes in cash resulting from operating, investing, and financing activities and provides answers to such questions as "Where did cash come from?," "What was cash used for?," and "What was the change in cash balances during the reporting period?"

Notes to the Financial Statements

The notes provide additional information that is essential to fully understanding the data provided in the financial statements. The notes to the financial statements can be found on pages 19 - 56 of this report.

Financial Analysis of the Authority's Electric System

One of the most important questions asked about the Electric System's finances is: "Is the Electric System better off or worse off as a result of the fiscal year's activities?" The statements of net position and the statements of revenues, expenses, and changes in net position report information about the activities of the Electric System in a way that will help answer this question.

These two statements report the net position of the Electric System and the changes in them. You can think of the Electric System's net position - the difference between assets and liabilities - as one way to measure financial health or financial position. Over time, increases or decreases in the Electric System's net position are one indicator of whether its financial health is improving or deteriorating. However, you will need to consider other nonfinancial factors, such as changes in economic conditions, customer growth, and new or changed legislation and regulation, to gauge overall changes in financial health.

Electric System of the Virgin Islands Water and Power Authority

Management's Discussion and Analysis

The table below provides a comparative review of key statement of net position captions.

<i>As of June 30,</i>	2019	2018	2017
Current assets	\$ 154,277,033	\$ 135,324,806	\$ 85,953,784
Restricted assets	66,180,960	63,966,058	75,120,427
Other non-current assets	40,386,499	32,916,135	42,048,379
Net capital assets	1,254,179,344	928,578,920	494,507,547
Deferred outflows of resources	34,708,999	58,059,338	82,045,494
Total assets and deferred outflows of resources	\$ 1,549,732,835	\$ 1,218,845,257	\$ 779,675,631
Long-term debt	\$ 384,156,473	\$ 390,939,499	\$ 398,880,733
Other liabilities	872,859,817	821,816,509	564,212,189
Total liabilities	1,257,016,290	1,212,756,008	963,092,922
Deferred inflows of resources	71,641,692	53,949,735	25,321,831
Net investment in capital assets	958,802,158	610,287,543	186,761,363
Restricted	25,387,338	22,718,048	28,005,104
Unrestricted	(763,114,643)	(680,866,077)	(423,505,589)
Total net position	221,074,853	(47,860,486)	(208,739,122)
Total liabilities, deferred inflows of resources, and net position	\$ 1,549,732,835	\$ 1,218,845,257	\$ 779,675,631

At June 30, 2019, the Electric System had total assets and deferred outflows of resources of \$1,550 million of which \$1,254 million or 81% represents net capital assets. Grant funds and bond financing have been largely instrumental in acquiring these assets, with \$436.0 million in long-term debt and lines of credit balances outstanding at June 30, 2019. Correspondingly, grants income reached \$349.2 million in 2019.

A significant change to the Electric System's financial statements related to the implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, which resulted in the restatement of beginning net position to record beginning net OPEB liability and beginning deferred outflows. At June 30, 2019 and 2018, the Electric system had a net OPEB liability of \$48.1 million and \$46.3 million respectively, which is included in other liabilities.

Electric System of the Virgin Islands Water and Power Authority

Management's Discussion and Analysis

Changes in net position can be seen by reviewing the following condensed statements of revenues, expenses, and changes in net position.

<i>Years ended June 30,</i>	2019	2018	2017
Base revenues	\$ 107,333,458	\$ 72,954,786	\$ 92,747,396
Fuel escalator revenues	117,455,074	50,719,027	129,667,740
Investment earnings	563,445	362,602	99,479
Payment in lieu of taxes	379,592	266,224	430,946
Other income	16,364,101	9,716,010	21,384,395
Total revenues	242,095,670	134,018,649	244,329,956
Fuel	123,112,452	96,391,349	142,627,941
Operating expenses, excluding fuel, depreciation, amortization, and payment in lieu of taxes	117,861,786	137,360,543	102,525,228
Payment in lieu of taxes	500,000	500,000	500,000
Allowance for funds used during construction	-	-	(102,310)
Interest expense	39,422,819	41,001,044	28,053,069
Depreciation and amortization	30,383,682	20,091,353	16,176,649
Total expenses	311,280,739	295,344,289	289,780,577
Loss before capital grants and contributions and other items	(69,185,069)	(161,325,640)	(45,450,621)
Insurance recoveries (impairment loss) on capital assets	1,499,960	(99,778,613)	-
Investment derivative instruments (loss) gain	(12,574,470)	9,623,887	(5,558,810)
Capital grants and contributions	349,194,918	414,194,064	4,872,796
Increase (decrease) in net position	268,935,339	162,713,698	(46,136,635)
Net position, beginning of year	(47,860,486)	(210,574,184)*	(162,602,487)
Net position, end of year	\$ 221,074,853	\$ (47,860,486)	\$ (208,739,122)

*As restated for implementation of GASB Statement No. 75; see Note 1.

The Electric System's net position increased by \$268.9 million during the fiscal year ended June 30, 2019. Key elements of the increase are as follows:

- Total operating revenues increased by \$107.9 million as all revenue components reflected a sharp increase in sales as the economy continued to rebound from the fiscal year 2018 hurricanes devastation.
- Total operating expenses increased by \$17.5 million primarily due to an increase of \$26.7 million in fuel costs and depreciation of \$10.3 million and mostly tempered by a combined \$23.8 million decline in administrative and distribution expenses.
- Total non-operating expenses increased by \$20.4 million primarily due to an unfavorable swing in our investment derivative instruments of \$22.2 million offset by \$1.6 million decrease in interest expense.

Electric System of the Virgin Islands Water and Power Authority

Management's Discussion and Analysis

The Electric System's net position increased by \$162.7 million during the fiscal year ended June 30, 2018. Key elements of the increase are as follows:

- Total operating revenues decreased by \$110.6 million as all revenue components reflected a sharp decline in sales post September 2017 hurricanes that devastated the islands.
- Total operating expenses increased by \$34.8 million primarily due to an increase of \$31.2 million in maintenance expenses from clean up and debris removal costs.
- Total non-operating expenses decreased by \$2.4 million primarily due to a gain on investment derivative instruments of \$15.2 million, tempered by a \$12.9 million increase in interest expenses.

Capital Asset and Debt Administration

Capital Assets

The Electric System's capital assets as of June 30, 2019, amounted to \$1,254 million (net of accumulated depreciation and property-related gains). These capital assets include land, generation, transmission and distribution systems, buildings and fixed equipment, furniture, fixtures, and equipment, and construction in progress. The table below provides the detail of capital assets, net of accumulated depreciation and property-related gains.

<i>June 30,</i>	2019	2018	2017
Land	\$ 4,654,206	\$ 4,654,206	\$ 4,654,206
Utility plant in service	671,069,075	617,914,597	248,711,974
Buildings and fixed equipment	136,622,055	154,295,900	159,522,845
Furniture, fixtures, and equipment	8,945,334	8,470,084	19,489,404
Construction in progress	427,188,674	137,544,133	51,907,747
Idle assets	5,700,000	5,700,000	10,221,371
Net utility plant	\$ 1,254,179,344	\$ 928,578,920	\$ 494,507,547

The continued substantial growth in capital assets relates to the reconstruction in the aftermath of the Hurricanes Irma and Maria in September 2017. This is an ongoing FEMA-funded project. Also, the Authority's fiscal year 2020 capital budget anticipated investing \$642.3 million in capital projects. Additional information on capital assets can be found in Note 6.

Long-Term Debt

The Authority has no taxing power and its obligations are not debts of the Government of the United States Virgin Islands or of the United States of America. However, the Government of the United States Virgin Islands has agreed to guarantee the payments of the principal and interest on the notes pursuant to the terms of the Guaranty Agreement by and between the Government, the Authority, and FirstBank, which was authorized by the Legislature of the United States Virgin Islands Act No. 7028 (Section 7), 27th Legislature of the United States Virgin Islands.

Electric System of the Virgin Islands Water and Power Authority

Management's Discussion and Analysis

At June 30, 2019, the Electric System had total long-term debt outstanding (including current installments) of \$405.9 million, a net decrease of \$5.1 million from the prior year. The table below provides the detail of long-term debt.

<i>June 30,</i>	2019	2018	2017
Revenue bonds	\$ 190,750,000	\$ 203,570,000	\$ 215,650,000
Bond anticipation notes	66,225,000	48,725,000	33,960,000
RUS note	12,007,140	12,671,717	13,000,000
Capital lease obligation	136,985,797	146,123,455	153,954,445
Total	405,967,937	411,090,172	416,564,445
Plus unamortized bond premium	2,556,554	2,471,563	2,555,560
Total	\$ 408,524,491	\$ 413,561,735	\$ 419,120,005

The Authority's ability to incur long-term indebtedness is capped by Virgin Islands statute at \$750.0 million for the Electric and Water Systems combined. As of June 30, 2019, combined long-term debt amounts to approximately \$483.5 million. Additional information on long-term debt can be found in Note 8.

Coronavirus COVID-19 Pandemic

In December 2019, a novel strain of coronavirus, known as COVID-19, was reported which quickly spread around the globe, including the United States and its Territories. In March 2020, the Governor of the U.S. Virgin Islands declared a state of emergency due to COVID-19. The extent of the impact of COVID-19 on the operational and financial performance of the Authority will depend on certain developments, including the duration and spread of the outbreak and impact on customers, employees, and vendors, all of which are uncertain and cannot be predicted.

Requests for Information

This financial report is designed to provide a general overview of the Electric System's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Chief Financial Officer, Virgin Islands Water and Power Authority, P.O. Box 1450, St. Thomas, USVI 00804.

Financial Statements

Electric System of the Virgin Islands Water and Power Authority

Statements of Net Position

<i>June 30,</i>	2019	2018
Assets		
Current assets:		
Cash and cash equivalents	\$ 9,568,248	\$ 12,229,100
Accounts receivable:		
Customers and other, net	9,361,292	17,069,064
Virgin Islands Government	8,077,112	14,371,953
Virgin Islands Government, fuel tax receivable	1,902,128	1,727,463
Grants receivable	79,843,428	36,671,275
Unbilled revenues	16,268,416	7,508,804
Inventories:		
Fuel oil	5,494,110	6,098,916
Materials and supplies	9,956,923	16,249,622
Prepayments and other current assets	12,489,592	9,508,355
Investment derivative instruments	1,315,784	13,890,254
Total current assets	154,277,033	135,324,806
Restricted assets:		
Cash and cash equivalents	21,484,963	20,966,032
Investments	35,544,389	34,904,228
Due from unrestricted assets	9,151,608	8,095,798
Total restricted assets	66,180,960	63,966,058
Other non-current assets:		
Virgin Islands Government accounts receivable	11,213,894	16,978,508
Fuel costs recoverable	28,750,922	10,629,258
Due from Water System	421,683	5,308,369
Total other noncurrent assets	40,386,499	32,916,135
Capital assets:		
Utility plant in service	1,102,109,194	1,035,769,630
Less accumulated depreciation	(285,472,730)	(255,089,049)
Net utility plant in service	816,636,464	780,680,581
Non-depreciable assets	437,542,880	147,898,339
Net capital assets	1,254,179,344	928,578,920
Deferred Outflows of Resources		
OPEB outflows	457,866	423,689
Pension related outflows	34,251,133	57,635,649
Total deferred outflows of resources	34,708,999	58,059,338
Total assets and deferred outflows of resources	\$ 1,549,732,835	\$ 1,218,845,257

Continued on next page.

Electric System of the Virgin Islands Water and Power Authority

Statements of Net Position (continued)

June 30,	2019	2018
Liabilities, Deferred Inflows of Resources, and Net Position		
Current liabilities:		
Accounts payable and accrued liabilities	\$ 415,135,184	\$ 346,357,102
Customer deposits	27,856,004	28,175,271
Due to Federal Emergency Management Agency	4,142,493	4,142,493
Due to other Governments	6,948,431	-
Lines of credit	27,322,158	27,322,158
Current installments on capital lease obligation	10,662,356	9,137,659
Total current liabilities	492,066,626	415,134,683
Liabilities payable from restricted assets:		
Current installments on long-term debt	13,705,662	13,484,577
Accrued interest payable	9,821,622	7,731,002
Insurance surcharge reserve	8,700,259	8,700,259
Due to restricted assets	9,151,608	8,095,798
Total liabilities payable from restricted assets	41,379,151	38,011,636
Long-term debt:		
Revenue bonds, excluding current installments	177,890,000	190,750,000
Bond anticipation notes, excluding current installments	66,225,000	48,725,000
Rural Utilities Service note	11,161,478	12,007,140
Unamortized bond premiums	2,556,554	2,471,563
Capital lease obligation	126,323,441	136,985,796
Total long-term debt	384,156,473	390,939,499
Long-term liabilities:		
Net pension liability	216,281,277	247,390,587
Net OPEB liability	48,132,763	46,279,603
Interfund advance from Water System	75,000,000	75,000,000
Total long-term liabilities	339,414,040	368,670,190
Total liabilities	1,257,016,290	1,212,756,008
Deferred inflows of resources:		
OPEB inflows	6,150,044	7,259,925
Pension related inflows	65,491,648	46,689,810
Total deferred inflows of resources	71,641,692	53,949,735
Net position:		
Net investment in capital assets	958,802,158	610,287,543
Restricted	25,387,338	22,718,048
Unrestricted (deficit)	(763,114,643)	(680,866,077)
Total net position	221,074,853	(47,860,486)
Total liabilities, deferred inflows of resources, and net position	\$ 1,549,732,835	\$ 1,218,845,257

See accompanying notes to financial statements.

Electric System of the Virgin Islands Water and Power Authority

Statements of Revenues, Expenses, and Changes in Net Position

Years ended June 30,	2019	2018
Operating Revenues		
Electricity sales to customers	\$ 82,781,826	\$ 55,632,509
Electricity sales to Virgin Islands Government	24,551,632	17,322,277
Fuel escalator revenues	117,455,074	50,719,027
Maintenance surcharge	13,757,920	9,639,023
Payment in lieu of taxes surcharge	379,592	266,224
Leased generation surcharge	1,997,398	-
Line loss surcharge	1,215,116	852,246
Other operating revenues	2,375,388	1,987,232
Bad debt expense	(2,981,721)	(2,762,491)
Total operating revenues	241,532,225	133,656,047
Operating and Production Expenses		
Production:		
Fuel	123,112,452	96,391,349
Operations and maintenance	39,997,736	38,002,589
Total production expenses	163,110,188	134,393,938
Distribution	25,500,642	40,596,937
Customer service	5,218,746	2,894,096
Administrative and general	47,144,662	55,866,921
Payment in lieu of taxes	500,000	500,000
Depreciation and amortization	30,383,682	20,091,353
Total operating and production expenses	271,857,920	254,343,245
Operating loss	(30,325,695)	(120,687,198)
Nonoperating Revenues (Expenses)		
Investment derivative instruments gain (loss)	(12,574,470)	9,623,887
Interest expense	(39,422,819)	(41,001,044)
Investment earnings	563,445	362,602
Total nonoperating expenses	(51,433,844)	(31,014,555)
Change in net position, before capital grants and contributions and special item	(81,759,539)	(151,701,753)
Capital grants and contributions	349,194,918	414,194,064
Insurance recoveries (impairment loss) on capital assets	1,499,960	(99,778,613)
Increase in net position	268,935,339	162,713,698
Net position, beginning of year, as previously reported	(47,860,486)	(208,739,122)
Change in accounting principle (see Note 1)	-	(1,835,062)
Net position, beginning of year, as restated	(47,860,486)	(210,574,184)
Net position, end of year	\$ 221,074,853	\$ (47,860,486)

See accompanying notes to financial statements.

Electric System of the Virgin Islands Water and Power Authority

Statements of Cash Flows

Years ended June 30,	2019	2018
Cash Flows from Operating Activities		
Receipts from customers	\$ 252,539,840	\$ 126,229,535
Payments to suppliers	(338,426,145)	(133,024,270)
Payments to employees	(24,892,682)	(26,336,561)
Net cash used in operating activities	(110,778,987)	(33,131,296)
Cash Flows from Noncapital Financing Activities		
Interest paid on lines of credit	(1,576,918)	(1,095,587)
Net cash used in noncapital financing activities	(1,576,918)	(1,095,587)
Cash Flows from Capital and Related Financing Activities		
Proceeds from long-term debt	17,500,001	14,765,000
Interfund advance from Water System	-	75,000,000
Principal paid on long-term debt	(13,484,577)	(12,408,282)
Interest paid on long-term debt	(13,566,118)	(13,518,883)
Interest paid on customer deposits/other	(41,831)	(29,908)
Acquisition and construction of capital assets	(187,464,835)	(412,939,366)
Proceeds from insurance recovery	1,499,960	-
Capital grants and contributions received	305,848,100	378,197,265
Net cash provided by capital and related financing activities	110,290,700	29,065,826
Cash Flows from Investing Activities		
Interest received	563,445	362,602
Purchases, sales, and maturities of investments, net	(640,161)	2,535,669
Net cash (used in) provided by investing activities	(76,716)	2,898,271
Net change in cash and cash equivalents	(2,141,921)	(2,262,786)
Cash and cash equivalents, beginning of year	33,195,132	35,457,918
Cash and cash equivalents, end of year	\$ 31,053,211	\$ 33,195,132

Continued on next page.

Electric System of the Virgin Islands Water and Power Authority

Statements of Cash Flows (continued)

Years ended June 30,	2019	2018
Cash and Cash Equivalents		
Unrestricted	\$ 9,568,248	\$ 12,229,100
Restricted	21,484,963	20,966,032
	\$ 31,053,211	\$ 33,195,132
Reconciliation of Operating Loss to Net Cash Used in Operating Activities		
Operating loss	\$ (30,325,695)	\$ (120,687,198)
Adjustments to reconcile operating loss to net cash used in operating activities:		
Depreciation and amortization	30,383,682	20,091,353
Changes in operating assets and liabilities:		
Accounts receivable, net	11,007,615	(5,033,042)
Inventories	6,897,505	(5,704,623)
Prepayments and other current assets	(2,981,237)	(3,976,954)
Due from/to Water System	4,886,686	2,358,510
Fuel costs recoverable	(18,121,664)	9,179,970
Accounts payable and accrued liabilities	(130,941,189)	50,455,887
Due to other Governments	6,948,431	-
Customer deposits	(319,267)	(416,530)
Net pension liability	(31,109,310)	(27,403,773)
Net OPEB liability	1,853,160	(4,608,956)
Deferred outflows of resources	23,350,339	23,986,156
Deferred inflows of resources	17,691,957	28,627,904
Net cash used in operating activities	\$ (110,778,987)	\$ (33,131,296)
Noncash Capital and Related Financing Activities		
Acquisition of capital assets in accounts payables and accrued liabilities	\$ 168,519,271	\$ 125,441,808

See accompanying notes to financial statements.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

1. Reporting Entity and Summary of Significant Accounting Policies

Reporting Entity

The Virgin Islands Water and Power Authority (the Authority) is an instrumentality created by the government of the United States Virgin Islands (the Government) in 1964. The Authority was created to operate an electric generation and distribution system (the Electric System) and a water production and distribution system (the Water System) in the United States Virgin Islands. The Authority is governed by a nine-member board, three of whom are appointed by the Governor of the Virgin Islands from his Cabinet, and six of whom are nominated by the Governor of the Virgin Islands and confirmed by the Virgin Islands Legislature. As such, the Government has determined that the Authority is a component unit. The Water and Electric Systems are separately financed and each system's indebtedness is repayable from its net revenues. The Authority is required by its bond resolutions to maintain separate accounting for each system. Each system is a major fund of the Authority for financial reporting purposes.

The Electric System of the Authority accounts for all activities associated with the generation and distribution of electricity to customers. The accompanying financial statements include only the financial activities of the Electric System major fund and are not intended to present fairly the financial position and changes in net position of the Authority.

Measurement Focus and Basis of Accounting

The Authority complies with all applicable pronouncements of the Governmental Accounting Standards Board (GASB). The operations of the Authority are presented as an enterprise fund and as such, the financial statements are reported using the economic measurement focus and the accrual basis of accounting. Under this basis, revenues are recognized in the period earned and expenses are recognized in the period incurred regardless of the timing of related cash flows. Grants and similar items are recognized as revenue as soon as all eligibility requirements imposed by the provider have been met.

In accordance with the Electric System Revenue Bond Resolution (Bond Resolution), rates are designed to cover debt service, capital expenditures, and other operating expense requirements, excluding depreciation and other noncash expense items. This method of rate setting results in costs being included in the determination of rates in different periods rather than when these costs are recognized for financial statement purposes.

Rates and Regulations

The Authority is regulated by the Virgin Islands Public Services Commission (PSC or the Commission). The Commission has the authority to approve, modify, or deny any proposed rate changes made by the Authority.

The Authority is further subject to the provisions of GASB Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*, which address accounting rules for regulated operations. This standard allows regulated entities such as the Authority to record certain assets or liabilities as a result of the regulated ratemaking process.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

Regulatory assets generally represent incurred costs that have been capitalized because such costs are probable of future recovery in customer rates and for the Electric System, these include fuel costs recoverable.

Regulatory liabilities generally represent obligations to make refunds to customers for previous collections for costs that are not likely to be incurred or items that will be credited to customers in future periods and for the Electric System, these include the insurance surcharge reserve. At June 30, 2019 and 2018, the Electric System had \$28.8 million and \$10.6 million, respectively of regulatory assets and \$8.7 million of regulatory liabilities in both years.

In order for a rate-regulated entity to continue to apply the provisions of GASB Statement No. 62, it must meet the following three criteria: (1) the enterprise's rates for regulated services provided to customers must be established by an independent 3rd party regulator or its own governing board empowered by a statute to establish rates that bind customers, (2) the regulated rates must be designed to recover the specific enterprise's costs of providing the regulated services, and (3) in the view of the demand for the regulated services and level of competition, it is reasonable to assume that rates, set at levels that will recover the enterprise's costs, can be charged and collected from customers.

Management believes that the Authority currently meets the criteria for continued application of GASB Statement No. 62, but will continue to evaluate significant changes in the regulatory and competitive environment to assess the ability to continue to apply GASB Statement No. 62. If the Authority no longer applied GASB Statement No. 62 due to competition, regulatory changes, inadequate rates, or other reasons, the Authority would make certain adjustments that would include the write-off of all or a portion of its regulatory assets and liabilities, the evaluation of utility plant, contracts, and commitments, and the recognition, if necessary, of any losses to reflect market conditions.

Cash and Cash Equivalents

For purposes of reporting cash flows, cash and cash equivalents include cash on hand, bank demand accounts, money market accounts, certificates of deposit, and overnight repurchase agreements. The Authority considers all investments with an original maturity of three months or less to be cash equivalents.

Inventories

Fuel oil, materials, and supplies inventories are stated at cost using the weighted-average unit cost method, which approximates the first-in, first-out method. Obsolete and unusable inventory is reduced to estimated salvage value. The cost of fuel oil used for electric generation is charged to expense as consumed.

Investments

Investments are reported at fair value in the accompanying Statements of Net Position. All changes in the fair value of investments are recognized as gains or losses in the Statements of Revenues, Expenses, and Changes in Net Position.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

Prepayments and Other Current Assets

Prepayments and other current assets consist primarily of amounts paid by the Authority for services not yet provided by vendors, which primarily relate to property and liability insurance.

Inter-System Transactions

As of June 30, 2019 and 2018, the Electric System had a receivable due from the Water System in the amount of \$0.4 million and \$5.3 million, respectively, as a result of transfer of cash to pay for fuel costs incurred and other allocated operating, maintenance, and administrative expenses. As of June 30, 2019 and 2018, the Electric System also had an interfund advance payable to the Water System amounting to \$75.0 million as a result of an intersystem loan transaction. These intersystem balances are noninterest-bearing and have no set repayment date. The Electric System has classified these balances as noncurrent because it did not expect to collect or pay such amounts within 12 months of the respective fiscal year-ends.

Capital Assets

Capital assets are recorded at cost, which includes material, payroll-related costs, overhead, and an allowance for borrowed funds used during construction. Capital expenditures of \$1,000 or more are capitalized. Maintenance and repairs are charged to operating expense as incurred. The cost of depreciable plant retired is eliminated from the utility plant accounts, and such costs, plus cost of removal less salvage, are charged to accumulated depreciation.

Depreciation of capital assets is computed using the straight-line method over estimated service lives ranging from 5 to 40 years. Depreciation expense was equivalent to 2.8% and 2.5% of average depreciable property for the years ended June 30, 2019 and 2018, respectively.

In accordance with accounting principles generally accepted in the United States of America, management reviews the estimated useful lives of capital assets on a periodic basis. The results of an engineering condition assessment and depreciation rate review indicated the lives of certain utility plant assets were longer than the estimated useful lives used for depreciation purposes in the Electric System's financial statements. As a result, effective July 1, 2013, estimates of the useful lives were changed to better reflect the estimated periods during which these assets will remain in service.

The Authority also reviews the carrying value of its capital assets to determine if circumstances exist indicating impairment. If facts or circumstances support the possibility of impairment, management follows the guidance in GASB Statement No. 42, *Accounting and Financial Reporting for Impairment of Capital Assets and for Insurance Recoveries*. If impairment is indicated, an adjustment is made to the carrying value of the capital assets. Also see Notes 2 and 6.

Deferred Outflows of Resources

Deferred outflows of resources represent a consumption of net position that applies to a future period(s) and will not be recognized as an outflow of resources (expense) until that time. Deferred outflows of resources for the Electric System consist of unrecognized items not yet charged to pension expense and OPEB expense and contributions from the employer after the measurement date but before the end of the employer's reporting period, as may be applicable.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

Compensated Absences

The Authority accrues for compensated absences in accordance with accounting principles generally accepted in the United States of America. The Authority allows vesting of permanent employee annual leave, which is governed by the period of employment. Vested annual leave in excess of 480 hours is transferred to the Employees' Retirement System of the Government of the Virgin Islands (GERS) for retirement service credit.

Customer Deposits

All nongovernmental customers pay a deposit upon application for service. The deposit varies based on the class of customer and is not refundable until the customer account is terminated. The deposits previously accrued interest at 4.75% annually. On September 20, 2016, the legislature signed Act 7931 into law, which reduced the interest earned on customer deposits compounded annually from 4.75% to a rate equal to the average prevailing interest rate paid by local banks on saving accounts. This will assist in lowering the financial obligation of the Authority.

Net Pension Liability

For purposes of measuring the net pension liability, deferred outflows and inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the pension plans, as well as additions to and deductions from the pension plan fiduciary net position have been determined on the same basis as they are reported in the financial statements of GERS. Employer contributions are recognized when due and the employer has a legal requirement to provide the contributions. Also see Note 9.

Net Other Postemployment Benefits (OPEB) Liability

The Authority provides certain postemployment health care benefits to retired employees under a single employer health insurance plan (OPEB plan). The Authority has an established trust for its OPEB obligations (OPEB Trust) that is held by an independent custodian. The OPEB Trust issues a stand-alone financial report.

The Authority's net OPEB liability was measured as of June 30, 2018 and June 30, 2017, respectively, using an actuarial valuation date of June 30, 2017. For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, OPEB expenses, information about the fiduciary net position of the OPEB Trust, and additions to/deductions from the OPEB Trust's fiduciary net position have been determined on the same basis as they are reported by the Authority's OPEB plan as of the same measurement date. For this purpose, the Authority's OPEB plan recognizes benefit payments when due and payable in accordance with the benefit terms.

Bond Issuance and Refunding

Bonds and notes premiums and discounts are deferred and amortized over the life of the debt using the effective interest method and are reported net of the applicable bond premium or discount.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

When issuing new debt for refunding purposes, the difference between the reacquisition price of the new debt and the net carrying amount of the refunded debt is recognized as either a deferred outflow of resources or deferred inflow of resources and amortized using the straight-line method as a component of interest expense over the remaining life of the old debt or the life of the new debt, whichever is shorter.

Deferred Inflows of Resources

Deferred inflows of resources represent an acquisition of net position that applies to a future period(s) and will not be recognized as an inflow of resources (revenue) until that time. Deferred inflows of resources for the Electric System consist of the unamortized portion of the net differences between projected and actual earnings on pension plan and OPEB plan investments, changes in assumptions, and other differences between expected and actual experience.

Net Position

Net position represents the difference between assets, deferred outflows of resources, liabilities, and deferred inflows of resources. Net investment in capital assets consists of capital assets, net of accumulated depreciation, reduced by the outstanding balances of any borrowings used for the acquisition or construction of those assets. Net position is reported as restricted when there are limitations imposed on its use, either through legislation or external restrictions imposed by creditors, grantors, laws, or regulations. Unrestricted net position consists of assets which do not meet the definition of the two preceding categories.

Revenue Recognition

Revenues are recorded as service is provided to customers. The Electric System accrues the nonfuel portion of base revenues for services rendered but unbilled. The cost of fuel for the Electric System is passed directly through to its customers. Every six months, the Commission establishes a Levelized Energy Adjustment Clause (LEAC) rate that is designed to true-up the fuel costs recovered through the Electric System's base rates.

If the amount recovered through rates exceeds actual fuel costs, the Electric System records fuel costs refundable as a regulatory liability, plus interest at 8.75%, for amounts to be refunded through future rate adjustments over the following six-month period. If the amount recovered through rates is less than the actual fuel costs, the Electric System records fuel costs recoverable as a regulatory asset, without interest, for amounts to be collected through future rates, generally over the following six-month period.

The Electric System distinguishes operating revenues and expenses from non-operating items. Operating revenues and expenses generally result from providing services and producing and delivering electricity in connection with the Electric System's principal ongoing operations. The principal operating revenues for the Electric System are charges to customers for sales and services. Operating expenses for the Electric System include the cost of sales and services, administrative expenses, and depreciation on utility plant. All revenues and expenses not meeting this definition are reported as non-operating revenues and expenses.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

Capital Grants and Contributions

The United States Government and the Virgin Islands Government appropriate and make available to the Authority grant funds for the construction and improvement of electric generation and distribution facilities. The assets and revenues arising from government grants are recorded when the Authority meets the eligibility requirements. If resources are received in advance of satisfying certain eligibility requirements, the recognition of revenues is deferred.

The Authority also receives capital contributions from customers (nongovernment) for construction and improvement of the facilities. The Authority maintains ownership and operation of the facilities. Beginning in 2015, the Electric System received funds from the Virgin Islands Water and Power Authority Generating and Infrastructure Fund, based on fuel taxes collected by the Virgin Islands Government. The proceeds are kept in a restricted Fuel Tax Fund for use in certain capital improvements. Also see Note 5.

For the years ended June 30, 2019 and 2018, the Electric System recognized capital grants and contributions of \$343.9 million and \$409.5 million, respectively, from the United States Government and \$5.3 million and \$4.7 million, respectively from the Virgin Islands Government.

Cost Allocation

The Water and Electric Systems share administrative and operating personnel. Payroll and a substantial portion of other operating expenses are initially incurred by the Electric System and are subsequently allocated to the Water System based on labor costs and hours. The operating costs allocated to the Water System for the years ended June 30, 2019 and 2018, amounted to \$5.5 million and \$6.5 million, respectively.

Expenses incurred for common or integrated facilities are allocated between the systems using an engineering study that is based on monthly production statistics and the Water System's power consumption. The production costs allocated to the Water System for the years ended June 30, 2019 and 2018, amounted to \$2.6 million and \$2.5 million, respectively.

Commitments and Contingencies

The Authority accrues liabilities for loss contingencies, including deductibles for insurance claims and environmental remediation costs, arising from claims, assessments, litigation, fines and penalties, and other sources when it is probable that a liability has been incurred and the amount of the claim, assessment, and/or remediation can be reasonably estimated.

Use of Estimates in the Preparation of Financial Statements

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, deferred outflows of resources, liabilities, deferred inflows of resources, 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.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

Adoption of Accounting Pronouncements

In June 2015, GASB issued Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. This Statement improves accounting and financial reporting by state and local governments for postemployment benefits other than pensions. It also improves information provided by state and local governmental employers about financial support for OPEB that is provided by other entities. The requirements of this Statement were effective for the Authority's financial statements for the year ended June 30, 2018. The Authority has evaluated this Statement and restated the financial statements to reflect the beginning OPEB liability, deferred outflows and inflows of resources, and the recognition of OPEB expense and contributions made between the start of the measurement period and the Authority's prior fiscal year. Also see Note 10.

The following details the restatement to the net position as of July 1, 2017, as a result of the adoption of GASB Statement No. 75.

Net position (deficit), July 1	\$ (208,739,122)
Adoption of GASB Statement No. 75	(1,835,062)
<hr/>	
Net position (deficit), July 1, as restated	\$ (210,574,184)

Following are statements issued by GASB that are effective in future years. In light of the COVID-19 pandemic, on May 8, 2020, the GASB issued Statement No. 95, *Postponement of the Effective Dates of Certain Authoritative Guidance*, to provide relief to governments. This Statement, which was effective upon issuance, postpones the effective dates of certain provisions in these upcoming pronouncements for one year, except for GASB Statement No. 87 which is postponed for eighteen months.

GASB Statement No.		Adoption Effective in Fiscal Year (as Revised)
83	Certain Asset Retirement Obligations	2020
84	Fiduciary Activities	2021
87	Leases	2022
88	Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements	2020
89	Accounting for Interest Cost Incurred Before the End of a Construction Period	2022
90	Majority Equity Interests - An Amendment of GASB Statements No. 14 and No. 61	2021
91	Conduct Debt Obligations	2023
92	Omnibus 2020	2022
93	Replacement of Interbank Offered Rates	2022

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

GASB Statement No.		Adoption Effective in Fiscal Year (as Revised)
94	Public-Private and Public-Public Partnerships and Availability Payment Arrangements	2023
96	Subscription-Based Information Technology Agreements	2023
97	Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans - an amendment of GASB Statements No. 14 and No. 84, and a supersession of GASB Statement No. 32	2022

Certain provisions of GASB Statement No. 92 are excluded from GASB Statement No. 95. Additionally, GASB Statement No. 95 excludes provisions in GASB Statement No. 93 related to lease modifications and excludes GASB Statement No. 94 since the GASB considered the pandemic in determining effective dates. Earlier application of the standards is permitted to the extent specified in each pronouncement as originally issued. The Authority is currently evaluating the impact of these statements.

2. Natural Disasters - Hurricanes Irma and Maria

On September 6 and 19, 2017, the United States Virgin Islands were struck by two Category 5 hurricanes. The extent and severity of the storms was unprecedented and resulted in catastrophic damage to the Territory, as a whole.

The Territory-wide catastrophic damage to the transmission and distribution system rendered 90% of the system destroyed. At the Randolph Harley Power Plant (RHPP) on St. Thomas, all generation was lost during both storms and as a result, the entire district (St. Thomas, St. John, Water Island, and Hassel Island) was without power throughout both storms and in the initial aftermath. The RHPP regained the ability to generate power approximately 7 days after Hurricane Maria. On St. Croix, while the Richmond Plant did not lose generation during the storms, three generating units sustained minor damages. The solar facility on St. Thomas sustained major damage and is currently inoperable while the solar facility on St. Croix sustained moderate damage and resumed operations in February 2018. The Authority had purchased commercial insurance to cover its risk of loss from destruction of assets. The commercial insurance policies carry a \$5.0 million deductible per event. The transmission and distribution system which sustained the most damage is not covered under this policy. To date, the Authority has not filed a claim as the estimated damage to insurable assets is less than the \$5.0 million deductible. Also see Note 6.

On or about September 7 and 20, 2017, the President of the United States declared the United States Virgin Islands a disaster area and eligible for Federal Emergency Management Agency (FEMA) recovery assistance. As such, to further aid with storm related losses caused by the hurricanes, reimbursement of expenditures will be secured through Federal assistance and other contributions. See Note 15.

Additionally, starting in December 2017, the Authority began working with FEMA to request mitigation funding to permanently strengthen the Authority's electrical distribution system.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

Funding under the Hazard Mitigation Grant Program was initially being implemented on a 75/25 cost-share basis of the approved costs; however, on May 18, 2018, the President of the United States approved the cost-share formula in the United States Virgin Islands to 90/10. Furthermore, in order to fund its working capital needs in the aftermath of the hurricanes, the Authority obtained \$75.0 million under the Community Disaster Loan program administered by FEMA.

This loan is secured as a first lien of the Water System's revenues. The proceeds of these loans were used to provide working capital mostly for fuel invoices, payroll, and other critical operating expenses. While the loan is reflected under the Water System, the payment of principal and interest is subject to an intercompany agreement whereby 17% will be allocated to the Water System and 83% to the Electric System. During year ended June 30, 2019, the Authority, under the Electric System, obtained an additional loan of \$17.5 million to provide additional working capital for fuel invoices, payroll, and other critical operating expenses.

3. Deposits and Investments

In accordance with its policies and the Revenue Bond Resolution, the Authority is authorized, with certain restrictions, to invest in open accounts, time deposits, certificates of deposit, repurchase agreements, obligations of the United States government, and obligations of any state within the United States, mutual funds, and corporate commercial paper.

At June 30, 2019 and 2018, the Electric System had approximately \$35.5 million and \$34.9 million in investments which were invested in a U.S. Governmental Agency Fund with a AAAM rating and a maturity of less than a year. The Electric System held certificate of deposits of approximately \$1.4 million as of June 30, 2019 and 2018, respectively, with a maturity date of less than a year. Cash deposits were \$29.6 million and \$31.8 million as of June 30, 2019 and 2018, respectively.

Interest Rate Risks - As a means of limiting its exposure to fair value losses from rising interest rates, the Authority has an investment practice for operating funds which is structured to provide sufficient liquidity to pay obligations as they come due and (1) limits 80% of investments to not more than one-year maturities and (2) requires that the portfolio have no more than 20% in securities maturing in or having an average life of more than ten years. Bond proceeds and reserve funds are managed in accordance with bond covenants and funding needs which could result in maturities longer than ten years.

Credit Risks and Concentration of Credit Risks - As of June 30, 2019, the Electric System's exposure to credit risk is evaluated by the ratio of investments including deposits and investments in U.S. government securities, certificates of deposit, and cash deposits. The Authority places no limit on the amount the Electric System may invest in any one permitted investment type.

As of June 30, 2019, 53.4% of the Electric System's cash and investments are in U.S. Governmental Agency Funds, 2.1% are invested in certificates of deposit, and 44.5% are in cash deposits. As of June 30, 2018, 51.3% of the Electric System's cash and investments were in U.S. Governmental Agency Funds, 2.0% are invested in certificates of deposit, and 46.7% are in cash deposits.

At June 30, 2019, 100% of the Electric System's investments were held in the name of Bank of New York Mellon, as Trustee for the Authority.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

Custodial Risks - Custodial credit risk is the risk that in the event of bank failure, the Authority's deposit may not be returned. The Authority does not have a custodial risk policy. The Authority maintains its deposits at several financial institutions, which, at times may exceed federally insured limits. Generally, the Federal Deposit Insurance Corporation insures depositor funds up to \$250,000. The Authority places both Water and Electric System cash and cash equivalents with some of the same high credit quality financial institutions that are federally insured. Therefore, in the event of a loss, federal insurance recoveries would have to be allocated among the two systems.

As such, the potential amounts held in excess of the FDIC limits for the Electric System were \$27.8 million at June 30, 2019. The Authority has not experienced any losses in such accounts and believes it is not exposed to any significant credit risk on its cash and cash equivalents.

Fair Value Measurements

The Authority categorizes the fair market measurements of its investments and derivative instruments within the fair value hierarchy established which further provides the framework for measuring fair value by establishing a three-level fair value hierarchy that describes inputs that are used to measure assets and liabilities as follows:

- Level 1: Inputs are quoted prices (unadjusted) for identical assets or liabilities in active markets that an organization can access at the measurement date.
- Level 2: Inputs are other than quoted prices included within Level 1 that are observable for an asset or liability, that are either directly or indirectly observable.
- Level 3: Inputs are significant unobservable units.

The fair value hierarchy gives the highest priority to Level 1 and the lowest priority to Level 3 inputs. If a price for an identical asset is not observable, an organization may evaluate fair market value using another valuation technique that maximizes the use of relevant observable inputs and minimizes the use of unobservable inputs. If the fair value of an asset is measured using inputs from more than one level of the fair market value hierarchy, the measurement is considered to be based on the lowest level input that is significant to the entire measurement.

The following section describes the valuation technique methodologies the Authority is utilizing to measure assets at fair value:

- Level 1: Investments classified within Level 1 are valued based on quotes obtained from active public exchanges or reported on the national market, and are stated at the last reported sales price on the day of valuation. Fair value of exchange-traded contracts is based upon exchange settlement prices.
- Level 2: Investments classified within Level 2 are valued by pricing vendors using outside data. In determining the fair value of the investments, the pricing vendors use a market approach and pricing spreads based on the credit risk of the issuer, maturity, current yield, and other terms and conditions of each security. Ineffective derivative instruments have been classified in Level 2 of the fair value hierarchy and are valued using valuations provided by a third party valuation service provider. Also see Note 11.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

Following is the three-level fair value hierarchy as of June 30, 2019:

	Level 1	Level 2	Level 3
Derivative instruments	\$ -	\$ 1,315,784	\$ -

Following is the three-level fair value hierarchy as of June 30, 2018:

	Level 1	Level 2	Level 3
Derivative instruments	\$ -	\$ 13,890,254	\$ -

The Authority has investments in U.S. Governmental Agency Funds measured at net asset value of \$35.5 million and \$34.9 million, as of June 30, 2019 and 2018, respectively and these allow for daily transactions with no unfunded commitments or redemption restrictions.

4. Accounts Receivable

Accounts receivable, current and non-current, at June 30, 2019 and 2018, consists of the following:

	2019	2018
Customers	\$ 27,342,337	\$ 31,879,919
Other	878,036	1,264,406
Less allowance for doubtful accounts	(18,859,081)	(16,075,262)
Customers and other, net	9,361,292	17,069,063
Virgin Islands Government	19,291,006	31,350,462
Virgin Islands Government, fuel tax receivable	1,902,128	1,727,463
Grants	79,843,428	36,671,275
Unbilled revenues	16,268,416	7,508,804
Accounts receivable, net	\$ 126,666,270	\$ 94,327,067

Management of the Authority has been working with the Government and its various instrumentalities in an attempt to obtain payment on outstanding receivable balances and to increase the percentage of remittances on current billings for services.

The Authority has made certain arrangements with specific governmental agencies concerning the collection of past due accounts receivable. As of June 30, 2019 and 2018, the Authority has classified Government accounts receivable of \$11.2 million and \$16.9 million, respectively, as noncurrent because these balances are expected to take longer than one year from the statement of net position dates to be paid by the various government agencies.

5. Restricted Assets

The Electric System Revenue Bond Resolution, as amended, and certain Commission regulatory orders establish the following funds and accounts, which are restricted as to their usage:

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

Construction Fund - Amounts in the Construction Fund represent unspent bond proceeds, which will be used to pay the cost of construction of plant and equipment used in the generation and distribution of electricity. The Construction Fund is held by the Authority.

Debt Service Fund - The Authority is required to make monthly deposits into the Debt Service Fund to accumulate the required debt service amounts payable to bondholders prior to the next respective interest and/or principal payment date. The Debt Service Fund is held by the bond trustee who makes the required payments on behalf of the Authority.

Debt Service Reserve Fund - The Authority is required to maintain a balance in the Debt Service Reserve Fund equal to the maximum annualized debt service requirement remaining on any outstanding revenue bonds. The Debt Service Reserve Fund is held by the bond trustee and was fully funded at June 30, 2019.

Cost of Issuance Fund - Amounts in the fund are used to pay for legal fees, underwriters' discounts, and other costs of issuing bonds. The Cost of Issuance Fund is held by the bond trustee who makes the required payments on behalf of the Authority.

Self-Insurance Reserve Fund - Amounts in the Self-Insurance Reserve Fund are used to cover any unexpected and uninsured losses caused by hurricanes or, upon prior petition to the Commission and approval, to fund bona fide hazard mitigation programs. The Self-Insurance Fund is held by the Authority.

The Commission authorized the Authority to borrow from the Self-Insurance Reserve Fund to augment its fuel and transmission and distribution inventory. As of June 30, 2019 and 2018, the Authority has not repaid any of the amounts borrowed. The unpaid balance of \$9.1 million and \$8.1 million respectively, is reflected as Due from Unrestricted Assets on the accompanying Statements of Net Position.

Fuel Tax Fund - Amounts in the fund are used for funding new energy and power generating units and/or heat recovery steam generators and assisting with the issuance of bonds. The Fuel Tax Fund is held by the Authority.

OPEB Fund - Amounts in the fund are used to cover the cost of other post-employment benefits. The OPEB Fund is held by the Authority. During 2017, funds were transferred from the OPEB Fund into a trust which will be used to pay the benefits. Also see Note 10.

Demand Side Management Fund - Amounts in the fund are used to pay for the costs of a demand side management study. The Demand Side Management Fund is held by the Authority.

Line Loss Fund - Amounts maintained in the Line Loss Fund are to be utilized for projects that address losses on the Electric System. The Line Loss Fund is held by the Authority.

HRSB 6B Escrow - Funds are reserved for the use of modification and repairs of turbine unit #21. The HRSB 6B Escrow is held by the Authority.

Series 2017 BAN Escrow - Funds are reserved for payment of principal and interest due on the maturity date of the Series 2017 Bond Anticipation Notes which are secured by a first priority pledge of all collections of Fuel tax revenues.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

Electric System revenues and all funds established by the Bond Resolution are pledged for payment of bond principal and interest. The trustee funds consist primarily of cash equivalents and investments in U.S. government securities stated at fair value. Other funds specified by the Bond Resolution and the Commission are primarily in cash and cash equivalents.

It is the Authority's policy to first apply restricted resources when an expense is incurred for purposes for which both restricted and unrestricted assets are available.

Restricted assets at June 30, 2019 and 2018, consist of the following:

	2019	2018
Construction Fund	\$ 1,962,489	\$ 13,543,419
Debt Service Fund	23,882,227	18,593,826
Debt Service Reserve Fund	19,559,683	17,613,757
Cost of Issuance Fund	554	354,753
Self-Insurance Reserve Fund	586,480	37,183
Fuel Tax Fund	10	10
OPEB Fund	610	608
Demand Side Management Fund	257,345	256,768
Line Loss Fund	192,569	-
Due from Unrestricted Assets	9,151,608	8,095,798
HRSB 6B Escrow	200,000	200,000
Series 2017 BAN Escrow	10,387,385	5,269,936
	\$ 66,180,960	\$ 63,966,058

6. Capital Assets

Capital assets activity for the year ended June 30, 2019, was as follows:

Description	Beginning Balance	Additions	Transfers	Impairment, Disposals, and Other	Ending Balance
Non-depreciable assets:					
Land and land right	\$ 4,654,206	\$ -	\$ -	\$ -	\$ 4,654,206
Construction in progress	137,544,133	348,244,033	(58,599,492)	-	427,188,674
Idle assets	5,700,000	-	-	-	5,700,000
Total non-depreciable assets	147,898,339	348,244,033	(58,599,492)	-	437,542,880
Depreciable assets:					
Utility plant	1,035,769,630	7,740,073	58,599,492	-	1,102,109,195
Accumulated depreciation and amortization	(255,089,049)	(30,383,682)	-	-	(285,472,731)
Total depreciable assets, net	780,680,581	(22,643,609)	58,599,492	-	816,636,464
Capital assets, net	\$ 928,578,920	\$ 325,600,424	\$ -	\$ -	\$ 1,254,179,344

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

Capital assets activity for the year ended June 30, 2018, was as follows:

Description	Beginning Balance	Additions	Transfers	Impairment, Disposals, and Other	Ending Balance
Non-depreciable assets:					
Land and land right	\$ 4,654,206	\$ -	\$ -	\$ -	\$ 4,654,206
Construction in progress	51,907,747	527,742,369	(434,658,814)	(7,447,169)	137,544,133
Idle assets	10,221,371	-	-	(4,521,371)	5,700,000
Total non-depreciable assets	66,783,324	527,742,369	(434,658,814)	(11,968,540)	147,898,339
Depreciable assets:					
Utility plant	800,372,483	33,646,140	434,658,814	(232,907,807)	1,035,769,630
Accumulated depreciation and amortization	(372,648,260)	(20,091,353)	-	137,650,564	(255,089,049)
Total depreciable assets, net	427,724,223	13,554,787	434,658,814	(95,257,243)	780,680,581
Capital assets, net	\$ 494,507,547	\$ 541,297,156	\$ -	\$ (107,225,783)	\$ 928,578,920

As indicated earlier, the Authority was impacted by Hurricanes Irma and Maria and the entire transmission and distribution grid and certain assets sustained physical damage, were destroyed, and other assets required considerable effort to restore their service utility. The Authority evaluated its capital assets in accordance with GASB Statement No. 42 and realized a loss from impairment of \$99.8 million in 2018. There were no such amounts recorded for the year ended June 30, 2019.

The electric grid is being rebuilt with the assistance of federal funds from FEMA. Actual repairs to damaged capital assets are expected to far exceed the calculated impairment losses. The impairment loss is reported as a special item in the accompanying Statements of Revenues, Expenses, and Changes in the Net Position.

7. Lines of Credit

At June 30, 2019, the Authority has available bank lines of credit for \$13.0 million for capital projects and \$20.0 million for working capital purposes. Interest on amounts borrowed is payable quarterly at a variable interest rate of prime plus 1%, London Interbank Offered Rate (LIBOR) plus 1.5% or 1.5% above the interest rate on three-year United States Government treasury notes.

The Authority has the option to select the variable interest rate to utilize for any borrowings on these notes. At both June 30, 2019 and 2018, there was \$27.3 million outstanding under the lines of credit. The lines were extended to have a maturity of July 2021.

Furthermore, there are certain financial reporting covenants that the Authority must comply with. The agreements require the Authority to deliver audited financial statements within 180 days after the end of its fiscal year. The banks have granted the Authority a waiver from this requirement for the year ended June 30, 2019.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

8. Long-Term Liabilities

Long-term debt consists of the following at June 30:

	2019	2018
2003 Electric System Revenue Bonds, interest payable semiannually on January 1 and July 1 at various rates ranging from 4.00% to 5.00%; maturing in 2028	\$ 39,560,000	\$ 42,615,000
2007A Electric System Subordinated Revenue Bonds, interest payable semiannually on January 1 and July 1 at various rates ranging from 4.50% to 5.00%; maturing in 2031	57,585,000	57,585,000
2010 Electric System Revenue and Refunding Bonds, interest payable semiannually on January 1 and July 1 at various rates ranging from 4.00% to 6.85%; maturing in 2035	44,300,000	50,255,000
2012 Electric System Revenue Refunding and Subordinated Revenue Bonds, interest payable semiannually on January 1 and July 1 at 4.00% to 6.06%; maturing in 2025	49,305,000	53,115,000
2016A Subordinated Bond Anticipation Notes, interest payable semiannually on January 1 and July 1 at 5.50%; maturing in 2019	-	33,960,000
2017A Senior Bond Anticipation Notes, interest payable semiannually on January 1 and July 1 at 10.00%; maturing in 2020	14,765,000	14,765,000
2018B Senior Bond Anticipation Notes, interest payable semiannually on January 1 and July 1 at 7.00%; maturing in 2020	33,960,000	-
2018C Senior Bond Anticipation Notes, interest payable semiannually on January 1 and July 1 at 2.38% - 2.90%; maturing in 2033	17,500,000	-
Rural Utilities Service Note, interest payable quarterly on each March 31, June 30, September 30, and December 31 at 1.62%; maturing in 2035	12,007,140	12,671,717
Unamortized premium	2,556,554	2,471,563
Capital lease obligation	136,985,797	146,123,455
Total long-term debt	408,524,491	413,561,735
Less current installments	(24,368,018)	(22,622,236)
Long-term debt, excluding current installments	\$ 384,156,473	\$ 390,939,499

Revenue Bonds

In June 2003, the Authority issued \$69.9 million in Electric System Revenue Bonds, Series 2003. The proceeds from the bonds were used to finance capital improvements, repay \$18.0 million of then outstanding lines of credit, cover underwriters' costs, and establish a debt service fund.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

The Series 2003 Bonds maturing on or after July 1, 2013, shall be subject to redemption prior to their stated maturity date, at the option of the Authority, on or after July 1, 2013, as a whole or in part at any time, at a redemption price equal to the principal amount thereof plus accrued interest thereon to the date fixed for redemption.

In June 2007, the Authority issued \$57.6 million in 2007A Electric System Subordinated Revenue Bonds. The proceeds of the Series 2007A Bonds were used to (1) finance costs of certain capital improvements, (2) refinance certain costs of capital improvements funded through draws on a Line of Credit and reinstallation of \$10.0 million to the line of credit allocable to the Electric System, (3) make certain required deposits to the subordinated Debt Service Reserve Fund, and (4) pay certain costs of issuance of the Series 2007A Bonds.

In March 2010, the Authority issued \$85.3 million in bonds made up as, \$39.1 million in 2010A Electric System Revenue Refunding Bonds, \$8.9 million in 2010B Electric System Revenue Bonds, and \$37.3 million in 2010C Electric System Revenue Bonds. The proceeds of the Series 2010A Bonds were used to (1) refund a portion of the Authority's Electric System Revenue Refunding Bonds, Series 1998 and (2) pay certain costs of issuance of the Series 2010A Bonds. The proceeds of the Series 2010B Bonds were used to finance certain capital expenditures temporarily funded through draws on a line of credit (\$9.0 million) and to make certain deposits into the Debt Service Revenue Fund sufficient to satisfy the Debt Service Reserve Fund requirement. The proceeds of the Series 2010C Bonds were used to fund a portion of the costs of certain capital improvements to the Electric System and to make certain deposits into the Debt Service Revenue Fund sufficient to satisfy the Debt Service Revenue Fund Requirement. The proceeds of the three series were also used to pay certain costs of issuance of the 2010A, 2010B, and 2010C Bonds.

In May 2012, the Authority issued \$69.1 million in bonds made up as, \$17.4 million in 2012A Electric System Revenue Refunding Bonds, \$19.7 million in 2012B Electric System Subordinated Revenue Bonds, and \$32.0 million in 2012C Electric System Subordinated Revenue Bonds. The proceeds of the Series 2012A Bonds were used to (1) refund the Authority's Electric System Revenue Refunding Bonds, Series 1998 and (2) pay certain costs of issuance of the Series 2012A Bonds. The proceeds of the Series 2012B Bonds were used to (1) refinance a portion of the Authority's Electric System Term Loan, (2) make a deposit into the Subordinated Debt Service Reserve Fund sufficient to satisfy the Series 2012B Subordinated Debt Service Reserve Fund Requirement, and (3) pay certain costs of issuance of the Series 2012B Bonds. The proceeds of the Series 2012C Bonds were used to (1) refinance all or a portion of the Electric System Working Capital Lines of Credit and Overdraft Credit Facility, (2) make a deposit into the Series 2012C Subordinated Debt Service Reserve Fund sufficient to satisfy the Subordinated Debt Service Reserve Fund Requirement, and (3) pay certain costs of issuance of the Series 2012C Bonds.

Bond Anticipation Notes (BAN)

In November 2016, the Authority closed on financing for \$33.9 million to fund the Streetlight conversion project (Series 2016A BAN). The funding provides for (1) acquisition, assembly, and installation of the light-emitting diode (LED) and solar panels, (2) engineering and project management, and (3) integration with the Authority's Tantalus "smart meter" network or automated metering infrastructure (AMI). The Authority issued the BANs to fund the project since long term rates have trended higher with the recent rating agency downgrades. The rate on the BANs was 5.50%, maturing November 15, 2018.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

In August 2017, the Authority closed on financing for an additional \$14.8 million as part of the authorized \$85.0 million BANs (Series 2017A BAN) to fund startup costs for the acquisition and construction of six high efficiency power generating units with a certain vendor. The funding provides for (1) the design, engineering, procurement, construction, startup, and testing of the new power generating units (2) the financing of two centralized control rooms and operational centers on the islands of St. Thomas and St. Croix, (3) financing of capitalized interest, and (4) payment of costs of issuance. The rate on the BANs was 10%, maturing July 1, 2020.

On November 14, 2018, the Authority's Board authorized the refinancing of the Series 2016A Subordinated BANs with its Series 2018B Senior BANs in the principal amount of \$33.9 million. The Authority is working with the Rural Utilities Service program for long-term funding, which would most likely provide the lowest cost of long-term capital, otherwise the Authority would issue long-term bonds or "roll" or re-issue another short-term note to keep rates low until a long-term financing option is viable. The Streetlight conversion project is approximately 60.3% percent completed and all lights and solar panels were expected to be installed by August 2020. Also see Note 15.

On November 28, 2018 the Authority's Board authorized the issuance of Bond Anticipation Notes in a principal amount not to exceed \$30.0 million, the Series 2018C Bond Anticipation Notes. The 2018C BANs are being issued to evidence the debt in respect of a Community Disaster Loan made by the United States of America, acting through FEMA. The form of the Series 2018C BANs allows for multiple draws by the Authority. For the year-ended, June 30, 2019, the Authority through the Electric System, drew down \$17.5 million to provide additional working capital for fuel invoices, payroll, and other critical operating expenses. The rate on the BANs was 2.38% - 2.90%, maturing July 1, 2033.

Rural Utilities Services (RUS) Note

In November 2015, the Authority obtained a term loan with the RUS in the principal amount of \$13.0 million. The proceeds of the loan were used to finance the acquisition and installation of an automated metering system and other costs related thereto.

Capital Lease Obligation

The Authority financed certain infrastructure services necessary to import, unload, receive, transfer, store, vaporize, measure, and deliver Liquefied Petroleum Gas (LPG) to each fuel header system at certain of its plants, as well as certain other infrastructure assets through the use of a lease. The project was designed to reduce the Authority's fuel costs by 30% and therefore, intended to allow for significant savings to the Authority's rate payers. The project was substantially completed during fiscal year 2017 and at the end of the lease term, title to all of the assets, constituting the new infrastructure, will be transferred to the Authority.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

The following is a schedule of future minimum payments under this lease obligation, along with the present value of the related net minimum payments:

<i>Year Ending June 30,</i>	Principal	Interest	Total
2020	\$ 10,662,356	\$ 20,537,644	\$ 31,200,000
2021	12,441,463	18,758,537	31,200,000
2022	14,517,429	16,682,571	31,200,000
2023	16,939,787	14,260,213	31,200,000
2024	19,766,337	11,433,663	31,200,000
2025-2028	62,658,425	12,941,575	75,600,000
Total	\$ 136,985,797	\$ 94,614,203	\$ 231,600,000

The assets acquired through the capital lease obligation at June 30, 2019 and 2018 are as follows:

Description	2019	2018
Utility plant in service	\$ 151,533,478	\$ 151,533,478
Construction in progress	4,383,261	4,383,261
Idle assets	4,083,261	4,083,261
Total	160,000,000	160,000,000
Less accumulated amortization	22,254,969	13,853,200
Capital lease assets, net	\$ 137,745,031	\$ 146,146,800

Long-term Changes and Maturities

The following is a schedule of changes in long-term debt and related accounts for the year ended June 30, 2019:

Description	Beginning Balance	Increases	Decreases	Ending Balance	Due Within One Year
Revenue bonds	\$ 203,570,000	\$ -	\$ (12,820,000)	\$ 190,750,000	\$ 12,860,000
Bond Anticipation Note	48,725,000	51,460,000	(33,960,000)	66,225,000	-
RUS Note	12,671,718	-	(664,578)	12,007,140	845,662
Unamortized Premium	2,471,562	84,992	-	2,556,554	-
Capital lease obligation	146,123,455	-	(9,137,658)	136,985,797	10,662,356
Total long-term debt	\$ 413,561,735	\$ 51,544,992	\$ (56,582,236)	\$ 408,524,491	\$ 24,368,018

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

The following is a schedule of changes in long-term debt and related accounts for the year ended June 30, 2018:

Description	Beginning Balance	Increases	Decreases	Ending Balance	Due Within One Year
Revenue bonds	\$ 215,650,000	\$ -	\$ (12,080,000)	\$ 203,570,000	\$ 12,820,000
Bond Anticipation Note	33,960,000	14,765,000	-	48,725,000	-
RUS Note	13,000,000	-	(328,282)	12,671,718	664,577
Unamortized Premium	2,555,560	223,602	(307,600)	2,471,562	-
Capital lease obligation	153,954,445	-	(7,830,990)	146,123,455	9,137,659
Total long-term debt	\$ 419,120,005	\$ 14,988,602	\$ (20,546,872)	\$ 413,561,735	\$ 22,622,236

Future debt service requirements to maturity as of June 30, 2019, on the revenue bonds, bond anticipation notes and RUS note are as follows:

Year Ending June 30,	Principal	Interest	Total
2020	\$ 13,705,662	\$ 14,307,247	\$ 28,012,909
2021	62,878,863	11,843,985	74,722,848
2022	14,801,124	10,175,084	24,976,208
2023	16,454,589	9,096,145	25,550,734
2024	17,086,413	8,064,931	25,151,344
2025-2029	78,177,305	27,451,082	105,628,387
2030-2034	57,768,216	9,654,816	67,423,032
2035-2039	8,109,968	797,617	8,907,585
Total	\$ 268,982,140	\$ 91,390,907	\$ 360,373,046

Covenants

Under the terms of the Bond Resolution relating to the Electric System Revenue and Refunding Bonds, payment of the principal and interest is secured by an irrevocable lien on the Authority's net revenues (exclusive of any funds which may be established pursuant to the Bond Resolution for certain other specified purposes), including the investments and income, if any, thereof. Under the General Resolution, the Authority is required to maintain a Debt Service coverage ratio of at least equal to 1.25 times the principal and interest on all Outstanding Senior Bonds for the current and each future fiscal year (the Senior Coverage).

Under the Electric System Subordinated Revenue Bond Resolution, adopted by the Authority on May 17, 2007, as amended and supplemented (the Subordinated Bond Resolution), the Authority must satisfy the Debt Service coverage ratio of the General Resolution for the Senior Bonds, must maintain a Subordinated Debt Service coverage ratio at least equal to 1.15 times the principal of and interest on all Outstanding Bonds (the Senior and Subordinate Coverage) and all Outstanding Subordinated Bonds for the current and each future fiscal year, and must maintain at least 1.0 times the Maximum Aggregate Debt Service for each such fiscal year (total debt coverage).

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

The Authority's net electric revenues for the years 2019 and 2018, yielded the following coverage ratios:

	Requirement	2019	2018
Senior Coverage	125%	140%	-448%
Senior and Subordinate Coverage	115%	100%	-288%
Total Debt Coverage	100%	40%	-123%

For the year ended June 30, 2019, the Authority's Debt Service Coverage ratio was 0.40 for total Debt Coverage. Section 606(2) of the Resolution provided that if the Authority fails to achieve such 1.00 coverage in a particular year, the Authority must "take whatever steps it can to produce the amount of net electric revenues required in the following fiscal year ..." Section 701 (3) of the Resolution relates to covenant defaults and makes them an event of default if such covenant default continues for 60 days after notice unless the Authority is proceeding with diligence to cure such default.

The Authority has notified the Trustees regarding the non-compliance with the covenants as required under the bond resolutions. The Authority is taking all necessary actions to comply with its rate covenant under the bond resolutions inclusive of filing a revised base rate to increase the rates combined with the implementation of the Authority's Transformation Plan to allow the Authority to collect increased revenues. Since the 2017 hurricanes, the Authority continues working diligently to cure each instance of default and anticipates that all such defaults will be cured as the Authority's long-term Fiscal Recovery Plan, which incorporates the Authority's Transformation Plan, is implemented. The Authority's revised base rate and LEAC petitions were approved on January 9, 2020. However, the Authority cannot yet determine how long it will take to generate Electric Revenues in amounts necessary to comply with the provisions of the bond resolutions. As of June 30, 2021, the Authority has made all required debt service payments to date, and all required bond reserves are adequately funded. Also see Note 13.

The Electric System Revenue Bonds are subject to mandatory redemption if (1) any significant part of the Electric System shall be damaged, destroyed, taken, or condemned or (2) any for-profit, nongovernmental investor shall acquire an ownership interest in some or all of the assets of the Authority.

9. Pension Plan

Following is a description of the pension plan and accounting for pension expense, liabilities, and deferred outflows/inflows of resources. As required, the Authority follows the provisions of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions - an amendment of GASB Statement No. 27*, as amended by GASB Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date - an amendment of GASB Statement No. 68* and GASB Statement No. 82, *Pension Issues - an amendment of GASB Statements No. 67, No. 68, and No. 73*.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

Plan Description and Benefits

Full time employees of the Authority are members of Government Employees' Retirement System of the U.S. Virgin Islands (GERS), a cost sharing, multiple-employer, defined benefit pension plan (the plan) established as of October 1, 1959 Title 3, Chapter 27 of the V.I. Code to provide retirement, death, and disability benefits. Benefits may be extended to beneficiaries of plan members.

The plan covers all employees of the Authority except employees compensated on a contract fee basis, casual, per diem or provisional and part time employees who work less than twenty (20) hours per week. Persons over the age of fifty-five (55) may opt out of the plan by providing formal notification to the plan. Vesting of benefits occurs after ten (10) years of service. Benefits may be extended to beneficiaries of plan members.

There are two tiers within the plan:

Tier I: Employees hired prior to September 30, 2005

Tier II: Employees hired on or after October 1, 2005

Regular Tier I employees who have completed thirty (30) years of credited service or have attained age sixty (60) with at least ten (10) years of credited service are eligible for a full-service retirement annuity. Regular Tier II employees who have attained age sixty-five (65) with at least ten (10) years of service are eligible for a full-service retirement annuity. Members who are considered "safety employees" as defined in the Code are eligible for full-service retirement benefits under Tier I when they have earned at least twenty (20) years of government service or have reached the age of fifty-five (55) with at least ten (10) years of credited service.

Under Tier II, safety employees are eligible for full retirement when they have earned at least twenty-five (25) years of government service and have reached age fifty-eight (58) or have reached age (60) with at least ten (10) years of service.

The monthly annuity benefit payment is determined by applying a stipulated benefit ratio to the member's average compensation. Average compensation for regular and safety Tier I members is determined by averaging the five highest years of credited service within the last ten years of service, subject to the maximum salary limitations in effect during such service. Average compensation for regular and safety Tier II members is based on career average salary, subject to the maximum salary limitations in effect during the service. The maximum annual salary that can be used in this computation is \$65,000.

In 1995, the Early Retirement Incentive Training and Promotion Act was amended by the Legislature to allow a member with a combined aggregate number of years of service and age of at least seventy-five (75) years to retire without a reduction in their annuity. Early retirement benefits provided under the Act vary depending upon age of retirement, type of employment, and credited years of service.

GERS is a separate and independent agency that is included for financial reporting purposes as a blended pension trust fund of the Government. GERS issues a publicly available financial report that includes financial statements and required supplementary information. That report may be obtained by writing to the Government Employees' Retirement System of the U.S. Virgin Islands, 3438 Kronprindsens Gade, St. Thomas, Virgin Islands 00802.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

Funding and Contribution Policy

Contributions to GERS are established by the Board of Trustees of GERS. The Government's required employer contribution for Tier I and Tier II members effective January 1, 2015, was 20.50% of the member's annual salary. On January 1, 2020, the employer contribution for Tier I and Tier II members was increased to 23.5%.

Employee contribution rates (as a percentage of payroll) for fiscal years 2019 and 2018 were as follows:

	<u>Tier 1</u>	<u>Tier 2</u>
Regular Employees	11.0%	11.5%
Public Safety Employees	13.0%	13.625%

Prior to June 29, 2000, member contributions were refundable without interest upon withdrawal from employment before retirement. Effective July 1, 2009, GERS' Board of Trustees approved an effective annual interest rate on refunded contributions of 2.00% per annum.

Both the plan and the Authority have a September fiscal year end. GASB Statement No. 68 requires that the reported results must pertain to liability and asset information within certain defined time frames. For this report, the following time frames are used:

	<u>2019</u>	<u>2018</u>
Valuation Date	October 1, 2018	October 1, 2017
Measurement Date	September 30, 2018	September 30, 2017
Measurement Period	October 1, 2017 - September 30, 2018	October 1, 2016 - September 30, 2017

The Authority is considered an employer of the plan with a proportionate share of 6.2448% and 6.8044% as of the measurement dates at September 30, 2018 and 2017, respectively. The Authority's percentage was estimated by management based on the average of each employer's contributions during the period October 1, 2013 through September 30, 2018. Management has determined an allocation percentage to apply to the Electric System and Water System based on those systems' employment burdens to the Authority as a whole (approximately 83% and 17%, respectively).

The Authority's proportionate share of employer contributions recognized by GERS was \$5.1 million for each of the plan's fiscal years ended September 30, 2018 and 2017, respectively. The Electric System's allocated share of employer contributions for the same periods was \$4.2 million, respectively.

Pension Liabilities, Expense, and Deferred Outflows/Inflows of Resources

As of June 30, 2019 and 2018, the Authority's proportionate share of the net pension liability of the plan was \$260.6 million and \$298.1 million, respectively, and the allocation to the Electric System was \$216.3 million and \$247.4 million, respectively.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

The net pension liability of the plan is measured as of September 30, 2018 and 2017, and the total pension liability for the plan used to calculate the net pension liability was determined by an actuarial valuation as of October 1, 2018 and 2017, respectively. For the year ended June 30, 2019 and 2018, the Authority recognized pension expense of \$13.6 million and \$22.1 million, respectively, inclusive of amortization of deferred outflows of pension related items. Of those amounts, \$11.3 million and \$18.3 million was allocated to the Electric System's pension expense, respectively.

Following is a schedule of deferred outflows of resources and deferred inflows of resources allocated to the Electric System in the computation of net pension liability for the year ended June 30, 2019:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Changes in assumptions	\$ 25,424,981	\$ 26,934,270
Net difference between projected and actual earnings on pension plan investments	408,450	-
Difference between expected and actual experience	5,021,465	-
Changes in proportionate share	-	38,557,378
Contributions made subsequent to measurement date	3,396,237	-
	\$ 34,251,133	\$ 65,491,648

Following is a schedule of deferred outflows of resources and deferred inflows of resources allocated to the Electric System in the computation of net pension liability for the year ended June 30, 2018:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Changes in assumptions	\$ 40,802,363	\$ 17,507,245
Net difference between projected and actual earnings on pension plan investments	1,403,506	-
Difference between expected and actual experience	7,484,778	-
Changes in proportionate share	5,133,861	29,182,565
Contributions made subsequent to measurement date	2,811,141	-
	\$ 57,635,649	\$ 46,689,810

Amounts reported as deferred outflows and inflows, exclusive of contributions made after the measurement date, will be recognized in pension expense as follows:

Year ending June 30,

2020	\$ (60,373,086)
2021	(53,516,549)
2022	9,228,490
2023	8,489,590
2024	41,777,044
Thereafter	19,757,759
	\$ (34,636,752)

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

Actuarial Assumptions

A summary of the actuarial assumptions and methods used to calculate the total pension liability as of the measurement dates at September 30, 2018 and 2017 is provided below, including any assumptions that differ from those used in the corresponding October 1, 2017 and 2016 actuarial valuations.

Refer to the October 1, 2018 and 2017 actuarial valuation reports for a complete description of all other assumptions, which can be found on GERS' website.

<i>September 30,</i>	2018	2017
Inflation Rate	2.50%	2.50%
Salary Increases	3.25% including inflation	3.25% including inflation
Actuarial Cost Method	Entry age normal	Entry age normal
Expected Rate of Return	7.00%	7.00%
Municipal Bond Yield	4.18%	3.64%
Discount Rate	4.25%	3.74%
Mortality Table	RP-2014 Blue Collar	RP-2014 Blue Collar

The demographic assumptions for the 2018 actuarial valuation are based on the results of an actuarial experience study for the period October 1, 2011 through September 30, 2015.

Investment Rate of Return

The long-term expected rates of return of 7.00% for the years ended 2018 and 2017, respectively, on plan investments was determined using a building-block method 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. Best estimates of arithmetic real rates of return for each major asset class included in the plan's target asset allocation, as of the measurement date at September 30, 2018, are summarized below:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic equity	29%	6.16%
International equity	12%	6.71%
Fixed income	27%	1.71%
Cash	2%	0.91%
Alternative	30%	5.50%

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

Best estimates of arithmetic real rates of return for each major asset class included in the plan's target asset allocation, as of the measurement date at September 30, 2017, are summarized below:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic equity	29%	6.21%
International equity	12%	7.21%
Fixed income	27%	1.56%
Cash	2%	0.91%
Alternative	30%	5.50%

Discount Rate

The discount rate used to measure the total pension liability was 4.25% as of the measurement date at September 30, 2018, and 3.74% as of the measurement date at September 30, 2017. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate, including the future increases in the employee contribution rates legislated. Based on those assumptions, the plan's fiduciary net position was not projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on plan investments of 7.00% was applied to all periods of projected benefit payments that are covered by projected assets. For periods where projected future benefit payments are not covered by projected assets, the yield on a 20-year AA Municipal Bond Index was applied, which was 4.18% and 3.64% as of the measurement date at September 30, 2018 and 2017, respectively.

Sensitivity of Proportionate Share of the Net Pension Liability to Changes in the Discount Rate

The following presents the Electric System's allocation of the Authority's proportionate share of the net pension liability (NPL) for the plan, calculated using the discount rate, as well as what the Electric System's allocation of the Authority's proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1% lower or 1% higher than the current rate for the year ended June 30, 2019:

1.0% Decrease - Share of NPL @ 3.25%	Share of NPL @ 4.25%	1.0% Increase - Share of NPL @ 5.25%
\$ 248,782,654	\$ 216,281,277	\$ 189,276,723

The following presents the Electric System's allocation of the Authority's proportionate share of the net pension liability (NPL) for the plan, calculated using the discount rate, as well as what the Electric System's allocation of the Authority's proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1% lower or 1% higher than the current rate for the year ended June 30, 2018:

1.0% Decrease - Share of NPL @ 2.74%	Share of NPL @ 3.74%	1.0% Increase - Share of NPL @ 4.74%
\$ 287,002,657	\$ 247,390,587	\$ 214,703,270

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

Detailed information about the pension plan's fiduciary net position is available in the separately issued GERS financial report.

10. Other Post-Employment Benefits (OPEB) Plan

Plan Description and Benefits

The Authority provides certain post-employment health care benefits to retirees under a health insurance plan. These benefits are extended at the discretion of the Authority, which reserves the right to change or terminate benefits and to change premium contributions required from retirees in the future as circumstances change. All employees who are eligible for service retirement with the GERS (see Note 9) qualify for the Authority's post-employment health care benefits. An OPEB trust, the Virgin Islands Water and Power Authority Voluntary Employees' Beneficiary Association Trust, was established during the measurement period ended on June 30, 2017.

The post-employment benefits include continued access to coverage for the retiree and dependents in the medical, prescription, and dental plan sponsored by the Authority. At June 30, 2019 and 2018, the following current and former employees were covered by the benefit terms:

Active employees	513
Inactive employees or beneficiaries	407
Total participants	920

Net OPEB Liability

The Authority employs an actuary to assist in estimating the OPEB liability for the Authority as a whole and then allocates that liability and related cost systematically to the Water and Electric Systems. The total OPEB liability for the Authority's years ended June 30, 2019 and June 30, 2018 were measured as of June 30, 2018 and June 30, 2017, respectively, using an actuarial valuation date of June 30, 2017. The following table shows the components of the Authority's changes in the total OPEB liability, the plan fiduciary net position, and the net OPEB liability during the measurement period ended June 30, 2018.

	Increase (Decrease)		
	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
Beginning balances	\$ 49,802,222	\$ 3,552,619	\$ 46,279,603
Changes for the year:			
Service cost	1,746,399	-	1,746,399
Interest	2,028,911	-	2,028,911
Changes to assumptions	-	-	-
Contributions - employer	-	403,687	(403,687)
Contributions - other	-	1,248,019	(1,248,018)
Net investment income	-	270,444	(270,444)
Benefit payments	(403,687)	(403,687)	-
Distributions - other	(1,248,019)	(1,248,019)	-
Net changes	2,1123,604	325,836	2,232,723
Ending balances	\$ 51,925,826	\$ 4,569,955	\$ 48,132,763

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

The following table shows the components of the Authority's changes in the total OPEB liability, the plan fiduciary net position, and the net OPEB liability during the measurement period ended June 30, 2017.

	Increase (Decrease)		
	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
Beginning balances, as restated	\$ 55,921,571	\$ -	\$ 55,921,571
Changes for the year:			
Service cost	2,229,604	-	2,229,604
Interest	1,674,610	-	1,674,610
Changes to assumptions	(8,420,556)	-	(8,420,556)
Contributions - employer	-	5,033,012	(5,033,012)
Net investment income	-	92,615	(92,615)
Benefit payments	-	(1,603,008)	1,603,008
Distributions - other	(1,603,008)	-	(1,603,008)
Net changes	(6,119,349)	3,552,619	(9,641,968)
Ending balances	\$ 49,802,222	\$ 3,552,619	\$ 46,279,603

Actuarial Assumptions

The total OPEB liability in the June 30, 2017 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Actuarial Cost Method:	Entry Age Normal
Inflation:	2.50%
Salary Increases:	3.25%, including inflation
Investment rate of return:	4.00%
Healthcare cost trend rates:	Based on the Getzen Model, with trend starting at 0.00% in FY 2018 to reflect actual premiums, 6.75% in FY 2019, and gradually decreasing to an ultimate trend rate of 4.51%. The ultimate trend value includes a 0.27% load for excise tax.
Mortality:	For pre-retirement mortality and post-retirement healthy mortality, 110% of the RP-2014 Blue Collar Employee Mortality Table with generational projection from 2015 using Scale MP-2015. For post-retirement disabled lives, 125% of the RP-2014 Disabled Annuitant Mortality Table with generational projection from 2015 using Scale MP-2015.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

Discount Rate

GASB Statement No. 75 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the total OPEB liability (TOL). This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses, and investment returns are projected into the future. The projected plan fiduciary net position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. For years when assets are projected to be on hand to meet benefit payments, the assumed net long-term rate of return is used as the discount rate. For years when assets are not projected to be sufficient to meet benefit payments, the use of a specific municipal yield is used as the discount rate, as described in the following paragraph.

The Single Discount Rate (SDR) is equivalent to applying the following two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects (1) the long-term expected rate of return on OPEB plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating (which is published by Fidelity) as of the measurement date (to the extent that the projected plan fiduciary net position based on the long-term expected rate of return is insufficient to pay benefits).

For the purpose of this measurement, the expected rate of return on OPEB plan investments is 4.00% as of June 30, 2017; the municipal bond rate is 3.56% as of June 30, 2017. The Authority does not have a formal funding policy. However, the Authority has a track record of paying benefits out of its general revenue in addition to depositing ad hoc amounts into the OPEB trust. It was assumed that the Authority would continue this practice. Based on the current pattern, the OPEB plan's fiduciary net position together with the future contributions are expected to be available to finance all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

Sensitivity of the Net OPEB Liability to Changes in the Discount Rate

The following presents the Electric System's allocation of the Authority's net OPEB liability (NOL) to changes in the Single Discount Rate, calculated using a Single Discount Rate of 4.00%, as well as what the Electric System's allocation of the Authority's net OPEB liability would be if it were calculated using a Single Discount Rate that is 1% lower or 1% higher than the current rate for the year ended June 30, 2019:

1.0% Decrease - Share of NOL @ 3.00%	Share of NOL @ 4.00%	1.0% Increase - Share of NOL @ 5.00%
\$ 56,201,801	\$ 48,132,763	\$ 41,575,015

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

The following presents the Electric System's allocation of the Authority's net OPEB liability (NOL) to changes in the Single Discount Rate, calculated using a Single Discount Rate of 4.00%, as well as what the Electric System's allocation of the Authority's net OPEB liability would be if it were calculated using a Single Discount Rate that is 1% lower or 1% higher than the current rate for the year ended June 30, 2018:

1.0% Decrease - Share of NOL @ 3.00%	Share of NOL @ 4.00%	1.0% Increase - Share of NOL @ 5.00%
\$ 54,072,544	\$ 46,279,603	\$ 40,019,854

Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rates

Regarding the sensitivity of the net OPEB liability to changes in the healthcare cost trend rates, the following presents the Electric System's allocation of the Authority's net OPEB liability, calculated using the same trend rates as employed in the most recent funding valuation as well as what the Electric System's allocation of the Authority's net OPEB liability would be if it were calculated using a sequence of rates that are 1% lower or 1% higher than the current rate for the year ended June 30, 2019:

1.00% Decrease	Current healthcare cost Trend Rate Assumption Baseline	1.00% Increase
\$ 41,527,607	\$ 48,132,763	\$ 57,884,782

The following presents the Electric System's allocation of the Authority's net OPEB liability, calculated using the same trend rates as employed in the most recent funding valuation as well as what the Electric System's allocation of the Authority's net OPEB liability would be if it were calculated using a sequence of rates that are 1% lower or 1% higher than the current rate for the year ended June 30, 2018:

1.00% Decrease	Current healthcare cost Trend Rate Assumption Baseline	1.00% Increase
\$ 39,282,419	\$ 46,279,603	\$ 55,182,201

OPEB Plan Fiduciary Net Position

Detailed information about the OPEB plan fiduciary net position is available in the separately issued Trust financial report.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

OPEB Expense and Deferred Outflows/Inflows of Resources Related to OPEB

For the year ended June 30, 2019, the Authority recognized OPEB expense of \$2.9 million of which \$2.4 million was allocated to the Electric System. Following is a schedule of deferred outflows of resources and deferred inflows of resources allocated to the Electric System in the computation of net OPEB liability for the year ended June 30, 2019:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Changes in assumptions	\$ -	\$ 6,014,684
Net difference between projected and actual earnings on pension plan investments	-	135,360
Contributions made subsequent to measurement date	457,866	-
	\$ 457,866	\$ 6,150,044

For the year ended June 30, 2018, the Authority recognized OPEB expense of \$3.2 million of which \$2.7 million was allocated to the Electric System. Following is a schedule of deferred outflows of resources and deferred inflows of resources allocated to the Electric System in the computation of net OPEB liability for the year ended June 30, 2018:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Changes in assumptions	\$ -	\$ 7,217,620
Net difference between projected and actual earnings on OPEB plan investments	-	42,305
Contributions made subsequent to measurement date	423,689	-
	\$ 423,689	\$ 7,259,925

Amounts reported as deferred outflows and inflows, exclusive of contributions made after the measurement date, will be recognized in OPEB expense as follows:

Year ending June 30,

2020	\$ (1,239,421)
2021	(1,239,421)
2022	(1,239,419)
2023	(1,228,846)
2024	(1,202,937)
	\$ (6,150,044)

Payable to the OPEB Plan

At June 30, 2019 and 2018, the Electric System reported a payable of \$457,866, and \$423,689 for the outstanding amount of contributions to the Plan required for the year ended June 30, 2018 and 2017, respectively.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

11. Derivative Instruments

Background

Beginning in 2015, the Authority began using derivative instruments, namely swaps, to hedge its commodity price risk associated with short-term and long-term changes in fuel prices. Derivative instruments are used by the Authority in its normal course of business to attempt to manage the impact to its customers of market price fluctuations for the purchase of propane. The Authority does not use derivative instruments for trading or speculative purposes.

These contracts are evaluated pursuant to GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments*, to determine whether they meet the definition of derivative instruments, and whether they effectively hedge the expected cash flows associated with commodity price risk exposures. The fair values of the Authority's derivatives are reported on the accompanying Statements of Net Position as derivative instruments.

The Authority applies hedge accounting for derivative instruments that are deemed effective under GASB Statement No. 53. Under hedge accounting, changes in the fair value of such hedging derivative instruments is a component of deferred inflows or deferred outflows on the accompanying Statements of Net Position until the contract is settled or hedge accounting is terminated.

Derivative instruments that do not meet the definition of a hedging derivative instrument are economic hedges, intended to mitigate exposure to fluctuations in commodity prices and are referred to as investment derivative instruments. Changes in the fair value of investment derivative instruments are recognized as gains or losses in nonoperating revenues/expenses. All settlement payments or receipts for hedging and investment derivative instruments are recorded as fuel expense for commodity derivatives in the accompanying Statements of Revenues, Expenses, and Changes in Net Position in the period settled.

Hedging

The Authority uses derivative instruments to partially hedge its commodity price risk associated with fossil fuel, namely propane, which it will purchase to generate electricity under fuel purchase agreements.

The hedges seek to turn certain purchase volumes of fuel under contracts based on variable 'spot' prices into effective fixed prices with the intention to safeguard ratepayers from drastic changes in fuel costs required to be recovered in rates. The Authority has no intention to take delivery of fuel with derivative instrument contracts.

The derivative agreements require monthly payments to be paid or received based on the difference between the spot market price and the contract strike price on notional volumes. None of the Authority's derivatives require a cash payment at inception.

The fair value estimates reflected on the accompanying Statements of Net Position are based on pertinent information available to management. The fair value estimates for the Authority's derivative instruments represent the present value of the differences of the fixed prices in the related instruments less the OPIS Propane Mont Belvieu (Non-TET) forward price curve, multiplied by the corresponding monthly volume using the LIBOR forward interest rate curve as a discount rate.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

The fair value balances of derivative instruments outstanding at June 30, 2019 and 2018, are as follows (losses and liabilities in parentheses):

<i>June 30,</i>	2019	2018
Fair Value	\$ 1,315,784	\$ 13,890,254
Change in Fair Value	\$ (12,574,470)	\$ 9,623,887

The following are the key terms of the Authority's derivative instruments as of June 30, 2019:

Instrument	Effective Dates	Notional Amount (in Gallons)	Strike Prices	Fair Value
Mont Belvieu Swap - Propane Receive Fixed	Jan 2019 - Dec 2019	15,456,000	\$ 0.60 - 0.77	\$ (1,116,011)
Mont Belvieu Asian Put Option (Floor)	Oct 2019 - Dec 2019	15,456,000	\$ 0.70	\$ 2,432,685
Mont Belvieu Asian Call Option (Cap)	Oct 2019 - Dec 2019	15,456,000	\$ 0.83 - 0.87	\$ (890)

The following are the key terms of the Authority's derivative instruments as of June 30, 2018:

Instrument	Effective Dates	Notional Amount (in Gallons)	Strike Prices	Fair Value
Mont Belvieu Swap - Propane Receive Fixed	Jan 2018 - Dec 2019	61,572,000	\$ 0.35 - 0.86	\$ 16,954,447
Mont Belvieu Asian Put Option (Floor)	Oct 2018 - Dec 2019	61,572,000	\$ 0.70 - 0.80	\$ 1,240,868
Mont Belvieu Asian Call Option (Cap)	Oct 2018 - Dec 2019	61,572,000	\$ 0.83 - 0.91	\$ (4,305,061)

Risks

Basis Risk - The OPIS-based commodity hedging transactions are subject to locational basis risk. The Authority's derivative instruments are based on pricing at the Mont Belvieu, Texas delivery point; however, the Authority may purchase propane at local Territory delivery points.

Credit Risk - The Authority intends to hold all derivative instruments to maturity. The Authority is exposed to market price risk in the event of nonperformance by any of its counterparties; however, the Authority does not anticipate nonperformance.

The counterparties to these contracts are affiliates of major financial institutions or commodity companies with credit ratings of at least A with one of the major rating agencies.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

The following are the key counterparty terms of the Authority's derivative instruments as of June 30, 2019:

Counterparty	Counter Party Credit Ratings	Fair Market Value of Derivative Instrument Asset / (Liability)
Shell Trading Risk Management, LLC (Royal Dutch Shell)	Jan 2018 - Dec 2019	\$ 1,315,784

The following are the key counterparty terms of the Authority's derivative instruments as of June 30, 2018:

Counterparty	Counter Party Credit Ratings	Fair Market Value of Derivative Instrument Asset / (Liability)
Shell Trading Risk Management, LLC (Royal Dutch Shell)	Jan 2018 - Dec 2019	\$ 13,890,254

Termination Risk - Termination risk is the risk that a derivative could be terminated by a counterparty prior to its scheduled maturity due to a contractual event with the Authority owing a termination payment and no longer meeting the objective of the hedge. As long as the Authority fulfills its obligations under the contracts and does not default under the agreements, the counterparties do not have the right to terminate these agreements. The Authority believes that termination risk is low because the counterparties may terminate the agreements only upon the occurrence of specific events such as payment defaults or bankruptcy.

If, at the time of termination, the mark-to-market of the derivative is a liability of the Authority, the Authority could be required to pay that amount to the counterparty. Termination risk associated with all of the Authority's derivatives is limited to the fair value.

12. Commitments and Contingencies

Litigation

The Authority is involved in various claims and legal actions arising in the ordinary course of business. In the opinion of management, the ultimate disposition of these matters will not have a material adverse effect on the Electric System's financial position, changes in net position, or liquidity. Additionally, Title 30, Section 111(a) of the Virgin Islands Code exempts the Authority's Electric System property from lien, levy, and sale as the result of any judgment against the Authority, except by bondholders.

Grant Funds

In connection with Federal and state government grant programs, the Authority is obligated to administer and spend the grant monies in accordance with regulatory restrictions and is subject to audit by the grantor agencies. In cases of non-compliance, the agencies involved may require the Authority to refund program monies. Management believes these non-compliance instances, if any, should not materially affect the Authority's financial position. Also see note 15.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

Insurance Program

The Electric System is exposed to various risks of loss related to damage and destruction of assets, errors and omissions, injuries to employees, and natural disasters. The Authority mitigates this risk of loss by purchasing commercial insurance, including general liability, excess liability, workers' compensation, property, and employee health, life, and accident.

The Authority's commercial insurance policies cover catastrophic exposures as well as those risks required to be insured by law or contract. It is the policy of the Authority to retain a significant portion of certain losses related primarily to physical loss to property, business interruption resulting from such loss, and comprehensive general and vehicle liability. There were no reductions in coverage from the prior year, and the amounts of settlements have not included insurance coverage for each of the past three years. Also see Notes 2 and 6.

Purchase Power Agreements

The Authority has signed purchase power agreements with several companies to integrate a combined 18-megawatt of solar electricity into the Authority's electrical grid system. The agreements expire between 2022 and 2027. The Authority will not own the solar assets, but will be able to purchase solar generated electricity at contracted rates.

Construction Contracts

During the normal course of business, the Authority contracts with various construction companies to help the Authority maintain, replace, and expand its utility plant. These construction costs are expected to be paid for using proceeds from government grants, contributions from developers, and cash from operations.

Operating Leases

A temporary 22-megawatt mobile power plant was leased for \$14.6 million for 18 months from April 2012 through October 2013. In November 2013, management and the vendor extended the original lease agreement for an additional twelve months through November 2014 for \$7.8 million. The lease term was extended for an additional twenty-four months through November 2016. The lease has since been reevaluated and extended for 2 to 6-month short term periods through November 1, 2018 and was further extended through December 31, 2020. Total lease payments for 2019 and 2018 were \$11.4 million and \$10.8 million, respectively.

During the normal course of business, the Authority leases additional and various property and equipment to support Electric System operations. The leases are generally short term in nature and lease payments are not significant to the overall operations of the Electric System.

Hurricane Hugo

At both June 30, 2019 and 2018, the Electric System has recorded a liability of \$4.1 million for amounts owed to the Federal Emergency Management Agency (FEMA) for overpayments related to certain questioned costs. Currently, FEMA and its sub-recipient, the Government of the Virgin Islands, do not have a mechanism in place for recovering the overpayment of disaster-related funds. In addition, FEMA has not made a formal request for repayment of these funds. In management's opinion, the resolution of this matter will not have a material adverse effect on the Authority's changes in financial position or cash flows.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

Hurricane Omar

In October 2008, the U.S. Virgin Islands were impacted by Hurricane Omar. The majority of the damage was inflicted to the electric distribution system on the island of St. Croix with minimal damage on St. Thomas, St. John, and Water Island. The Authority expended \$2.7 million for storm cleanup and system restoration as of June 2010.

The Territory was declared a federal disaster after the hurricane and was eligible for reimbursement of 75% of what was expended according to the category of the damage. Both at June 30, 2019 and 2018, the Electric System has recorded a grant receivable from FEMA amounting to approximately \$1.0 million.

Hurricane Earl

On August 30, 2010, the U.S. Virgin Islands were impacted by Hurricane Earl. The damage was inflicted on the electric distribution system on all the islands. The Authority has expended over \$2.0 million for storm clean-up and restoration, which was completed the end of October 2010. The Territory was declared a Federal disaster area after the Hurricane and was eligible for reimbursement of 75% - 80% of what was expended according to the category of the damage. Both at June 30, 2019 and 2018, the Electric System has recorded a grant receivable from FEMA amounting to approximately \$1.3 million.

13. Management's Plan

Fiscal year 2018 had a catastrophic impact on the Authority's financial position as a result of the two category 5 hurricanes that destroyed the Territory wreaking catastrophic damage to the Territory's residential and business infrastructure. Prior to the damage caused by the September 2017 hurricanes, the Electric System had been working towards recovery from a precarious financial position based largely on insufficient rates and corresponding costs recovery, lower sales revenues, substantial public sector receivables, operating losses, significant outstanding debt, and constant projected budget deficits, all resulting in a general lack of liquidity. Those matters have been made worse subsequently by the hurricanes. Accordingly, the Authority secured a Community Disaster Loan to offset the massive revenue loss sustained.

The Authority is taking all necessary actions now that the revised base rate and LEAC petitions were approved on January 9, 2020. However, the Authority cannot yet determine how long it will take to generate Electric Revenues in amounts necessary to comply with the provisions of Section 617 of the Senior Resolution to pay all lawful claims for labor, materials, and supplies.

The Authority continues to work to update its Fiscal Recovery Plan that within a seven to ten year timeframe will assist the Authority in its endeavors to pay all lawful claims for labor, materials, and supplies in a timely manner. The Authority's Management continues to focus on implementing short-term revenue enhancement and expenditure reduction measures aimed at reducing or eliminating projected operational deficits while working to refinance certain existing debt to more favorable terms.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

The Authority's Fiscal Recovery Plan incorporates the Authority's Transformation Plan that maximizes the utilization of available disaster-related funding and other federal funding programs to transform the utility into a more reliable and resilient electric system and identifies financial policies and targets to make the Authority a more sustainable organization.

Despite the impact of the COVID-19 Pandemic, the 10-month suspension of the Authority's Disconnection Policy and the recent management changes, the Authority continues to make much needed improvements to its Advanced Meter Infrastructure (AMI) and customer billing to more consistently issue 30-day bills within 5 days of the meter reading date, reduce the issuance of estimated bills to less than 8% Territory-wide and is working to implement the provisions of the Rate Payer's Bill of Rights.

The Authority also continues its efforts to further reduce un-billed revenue and work with customers to reduce accounts receivables to accelerate and increase collections. The immediate and primary goals of the Authority's AMI Recovery Plan are (a) to improve meter to cash processes, (b) to improve billing process efficiency and accuracy, and (c) to restore meter read rate. The indicated goals set a path to enacting a work plan that will restore and improve AMI functionality and substantially increase collections. The collection of previously unbilled revenue, the maximization of disaster recovery funding, the petitioning the Public Services Commission for allowable rate recovery and the refinancing of existing debt will assist the Authority to come into compliance with Section 617 of the Senior Resolution and allow the Authority over time to pay its obligations and maintain electrical and water service to all customers with more efficiency and less cost.

14. Regulatory Matters

In April 1998, the Governor signed into law Virgin Islands Act No. 6224, which provides that the Authority, as well as certain other instrumentalities of the Government, make a payment to the Government in lieu of taxes equal to 10% of net revenues or \$500,000, whichever is greater.

The term "net revenues" is not defined in the legislation. Subject to further clarification from the Legislature, the Authority has interpreted net revenues as net income calculated in accordance with accounting principles generally accepted in the United States of America. For both of the years ended June 30, 2019 and 2018, the Electric System incurred \$500,000 in expenses related to this tax.

15. Subsequent Events

Federal Assistance - Hurricanes Irma and Maria

FEMA's Public Assistance Grant Program (PA) provides federal support to include assistance for debris removal, life-saving emergency protective measures, and the repair, replacement, or restoration of disaster-damaged facilities. As of February 2021, the Authority has been approved for approximately \$540.8 million in grant funding for emergency restoration work. Additionally, as of February 2021, FEMA has approved approximately \$642.3 million in grant funding for permanent and hazard mitigation projects.

In December 2020, the Authority through the Government of the Virgin Islands, received notice from FEMA of the results of audits related to the PA program awards. As a result, the Authority received a notice of potential debt in the amount of \$97.1 million.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

In response to the notice, in February 2021, the Authority exercised its option to appeal the notice and provided additional clarification and documentation. Management believes these non-compliance instances, if any, should not materially affect the Authority's financial position.

The U.S. Department of Housing & Urban Development (HUD), through its Community Development Block Grant-Disaster Recovery (CDBG-DR) program, has obligated \$95.9 million to the Authority for the Harley Expansion Project. The project will add 36MW of generation (plus battery storage) to the Randolph Harley Power Plant on St. Thomas. The Authority has also submitted applications to HUD seeking funding of \$38.3 million in local cost match funding.

In addition to incurring significant storm related expenses, recurring operating revenues of the Authority have been reduced. In the interim, the Authority has revised its fiscal years 2020 and 2021 budgets. In a further effort to close potential shortfalls and to serve returning citizens, the Authority continues to work closely with Federal agencies, to maximize its recovery from all available sources. While inflows of Federal and private funds continue to bolster the reconstruction activity, the eventual amount and timing for receipt of such funds cannot be predicted at this time.

Global Pandemic

In January 2020, the World Health Organization announced a global health emergency due to a new strain of coronavirus known as COVID-19. Subsequently, in March 2020, the Governor of the U.S. Virgin Islands declared a state of emergency. The state of emergency was approved by the President of the United States under the provisions of the Stafford Act and the National Emergencies Act. A federally approved state of emergency activates federal assistance to states in the form of financial, logistical, and technical assistance. The state of emergency also activates other emergency response protocols and systems to protect citizenry such as stay-at-home orders, travel restrictions, and social distancing requirements.

As the emergency measures are eased, management continues to actively monitor the evolving impact of the COVID-19 outbreak on its financial condition, including the duration of the closings, speed of recovery, and impact on demand. The Authority believes that it will have the necessary resources to fund essential services and make timely debt service payments.

Economic Relief Legislation

In March 2020, the President of the United States signed into law the "Coronavirus Aid, Relief, and Economic Security (CARES) Act." The CARES Act, among other things, appropriated funds for the Coronavirus Relief Fund to be used to make payments for specified uses to state, territorial, local, and tribal governments.

In May 2020, the Authority received \$15.5 million from the Government of the U.S. Virgin Islands in funding from the Coronavirus Relief Fund. The Authority implemented the Your Energy Stimulus (YES) program providing credits in the amount of \$250 to electric residential accounts and \$500 for electric business accounts during its May 2020 billing cycle.

In December 2020, "The Consolidated Appropriations (CA) Act" was passed. The CA Act, among other things, provided for an extension of time to spend any CARES Act funds until December 31, 2021, and provided funding for education, healthcare, broadband, and transportation. The Authority continues to examine the impact that the CARES and CA Acts may have on its operations.

Electric System of the Virgin Islands Water and Power Authority

Notes to Financial Statements

In March 2021, “The American Rescue Plan (ARP) Act of 2021” was signed into law. The ARP Act, among other things, appropriated funds for the Coronavirus Capital Projects Fund and for specified uses to state, territorial, local, and tribal governments. There is no assurance that the Authority will be eligible for these funds or will be able to obtain them. The Authority continues to examine the impact that the ARP Act may have on its operations.

Contracts and Agreements

In April 2020, the Authority amended its Memorandum of Agreement (MOA) with the Virgin Islands Next Generation Network (viNGN). As part of the original agreement, viNGN has an exclusive use of certain underground fiber and infrastructure owned by the Authority. Following Hurricanes Irma and Maria in 2017, as the Authority has obtained certain federal funding for the hardening of its infrastructure, the MOA was amended to provide viNGN a continued and exclusive right to use all future telecommunications fiber and spare underground or subsea conduit owned by the Authority.

Bond Anticipation Notes (BAN)

On July 1, 2020, the 2017A BANs with an outstanding par value of \$14.8 million were retired utilizing fuel taxes and debt service funds already on deposit with the Trustee.

In October 2020, the Authority and the beneficial owners of the Series 2018B Senior BANs entered into an agreement to re-issue new BANs, Series 2020A, and extend the maturity date to no later than July 1, 2022.

The 2018C BANs whose first payment was due on July 1, 2021 were further extended by FEMA with the first payment now deferred until January 1, 2024 and the final payment deferred until July 1, 2036.

Management’s Evaluation

Management has evaluated any events or transactions occurring after June 30, 2019, the statement of net position date, through June 30, 2021, the date the financial statements were available to be issued, and noted that there have been no additional events or transactions which would require adjustments to or disclosure in the Electric System’s financial statements for the year ended June 30, 2019.

**Required
Supplementary Information**

Electric System of the Virgin Islands Water and Power Authority

Schedule of Changes in OPEB Liability and Related Ratios

<i>Measurement year ended June 30,</i>	2018	2017
Total OPEB Liability:		
Service Cost	\$ 2,104,095	\$ 2,686,270
Interest on the Total OPEB Liability	2,444,471	2,017,603
Assumption Changes	-	(10,145,248)
Benefit Payments	(1,990,007)	(1,931,335)
Net Change in Total OPEB Liability	2,558,559	(7,372,710)
Total OPEB Liability - Beginning*	60,002,677	67,375,387
Total OPEB Liability - Ending (a)	\$ 62,561,236	\$ 60,002,677
Plan Fiduciary Net Position:		
Employer Contributions (Trust Deposits)	\$ 486,370	\$ 4,324,854
Employer Contributions (Benefits Paid Outside the Trust)	1,503,637	1,739,016
OPEB Plan Net Investment Income	325,836	111,584
Benefit Payments	(1,990,007)	(1,931,335)
Net Change in Plan Fiduciary Net Position	325,836	4,244,119
Plan Fiduciary Net Position - Beginning	4,244,119	-
Plan Fiduciary Net Position - Ending (b)	\$ 4,569,955	\$ 4,244,119
Net OPEB Liability (Asset) - Ending (a) - (b)	57,991,281	55,758,558
Plan Fiduciary Net Position as a percentage of Total OPEB Liability	7.30%	7.07%
Covered Payroll	\$ 31,157,523	\$ 30,176,778
Net OPEB Liability as a Percentage of Covered Payroll	186.12%	184.77%

This schedule is intended to show a 10-year trend for the Authority of which the Electric System's share would be 83% of the above. Additional years will be reported as they become available.

** An OPEB trust was established during the measurement period ended June 30, 2017. Consequently, the beginning total OPEB liability was calculated using a discount rate of 2.92% based on municipal bond rates prevailing on June 30, 2016.*

Electric System of the Virgin Islands Water and Power Authority

Schedule of Electric System's OPEB Contributions

<i>Fiscal Year</i>	2018	2017
Actuarially required contributions	\$ 4,106,205	\$ 6,988,824
Contributions in relation to the actuarially required contributions	1,651,706	5,033,012
Contribution deficiency (excess)	\$ 2,454,499	\$ 1,955,812
Covered payroll	\$ 25,860,744	\$ 25,046,726
Contributions as a percentage of covered payroll	6.39%	20.09%

This schedule is intended to show a 10-year trend. Additional years will be reported as they become available. Actuarially required contributions are calculated as of June 30 of the preceding year, which is 24 months prior to the end of the fiscal year in which contributions are made and reported.

Electric System of the Virgin Islands Water and Power Authority

Schedule of the Electric System's Share of the Net Pension Liability

<i>Fiscal Year</i>	2019	2018	2017	2016	2015
Electric System's proportion of the net pension liability	5.1830%	5.6480%	5.9390%	6.3710%	7.0146%
Electric System's proportionate share of the net pension liability	\$ 216,281,277	\$ 247,390,587	\$ 274,794,360	\$ 258,982,351	\$ 216,472,978
Electric System's covered payroll	\$ 22,652,510	\$ 21,225,988	\$ 24,262,587	\$ 23,551,148	\$ 24,813,590
Electric System's proportionate share of the net pension liability as a percentage of its covered payroll	955%	1166%	1133%	1100%	872%
Plan fiduciary net position as a percentage of the total pension liability	15.56%	16.18%	16.54%	19.58%	27.26%

This schedule is intended to show a 10-year trend. Additional years will be reported as they become available. The amounts presented for each fiscal year are as of the measurement date (September 30 of the previous year).

Electric System of the Virgin Islands Water and Power Authority

Schedule of the Electric System's Pension Contributions

<i>Fiscal Year</i>	2019	2018	2017	2016	2015
Actuarially required contributions	\$ 16,804,159	\$ 17,827,804	\$ 17,513,940	\$ 15,746,445	\$ 14,035,498
Contributions in relation to the actuarially required contributions	2,808,948	3,680,519	3,588,610	3,136,986	3,816,049
Contribution deficiency (excess)	\$ 13,995,211	\$ 14,147,285	\$ 13,925,330	\$ 12,609,459	\$ 10,219,449
Covered payroll	\$ 20,980,270	\$ 22,652,510	\$ 21,225,988	\$ 24,262,587	\$ 23,551,148
Contributions as a percentage of covered payroll	13.39%	16.25%	16.91%	12.93%	16.20%

This schedule is intended to show a 10-year trend. Additional years will be reported as they become available. The amounts presented for each fiscal year are as of the latest fiscal year.

Supplementary Schedule

Electric System of the Virgin Islands Water and Power Authority

Five-Year Comparative Summary of Operations (Unaudited)

Years ended June 30,	2019	2018	2017	2016	2015
Operating revenues:					
Electricity sales to customers	\$ 82,781,826	\$ 55,632,509	\$ 70,823,169	\$ 47,984,195	\$ 43,375,725
Electricity sales to Virgin Islands Government	24,551,632	17,322,277	21,924,227	14,281,634	13,863,086
Fuel escalator revenues	117,455,074	50,719,027	129,667,740	127,996,405	175,052,995
LEAC Revenue - RFM	-	-	-	7,803,370	12,602,237
OPEB surcharge	-	-	2,922,132	5,239,552	5,706,057
Maintenance surcharge	13,757,920	9,639,023	15,619,170	15,954,156	15,241,488
Payment in lieu of taxes	379,592	266,224	430,946	433,566	428,394
Lease generation surcharge	1,997,398	-	-	-	-
Line loss surcharge	1,215,116	852,246	1,379,712	1,388,032	1,372,130
Other operating revenues	2,375,388	1,987,232	2,381,069	3,167,926	3,145,643
Bad debt (expense) recovery	(2,981,721)	(2,762,491)	(917,688)	61,431	(477,931)
Total operating revenues	241,532,225	133,656,047	244,230,477	224,310,267	270,309,824
Operating and production expenses:					
Production:					
Fuel	123,112,452	96,391,349	142,627,941	125,688,066	172,209,703
Operations and maintenance	39,997,736	38,002,589	38,602,721	32,596,030	34,656,666
Total production expenses	163,110,188	134,393,938	181,230,662	158,284,096	206,866,369
Distribution	25,500,642	40,596,937	8,031,632	8,185,087	10,060,768
Customer service	5,218,746	2,894,096	4,567,186	5,274,266	5,996,523
Administrative and general	47,144,662	55,866,921	51,323,689	37,332,025	57,931,486
Payment in lieu of taxes	500,000	500,000	500,000	500,000	500,000
Depreciation and amortization	30,383,682	20,091,353	16,176,649	17,553,806	10,770,895
Total operating and production expenses	271,857,920	254,343,245	261,829,818	227,129,280	292,126,041
Operating loss	(30,325,695)	(120,687,198)	(17,599,341)	(2,819,013)	(21,816,217)
Nonoperating revenues (expenses):					
Loss on retirement of capital assets	-	-	-	(13,772,676)	-
Investment derivative instruments (loss) gain	(12,574,470)	9,623,887	(5,558,810)	9,825,177	-
Interest expense	(39,422,819)	(41,001,044)	(28,053,069)	(13,711,701)	(14,025,824)
Investment earnings	563,445	362,602	99,479	42,679	26,221
Allowance for funds used during construction	-	-	102,310	133,116	562,849
Total nonoperating expenses	(51,433,844)	(31,014,555)	(33,410,090)	(17,483,405)	(13,436,754)
Change in net position, before capital grants and contributions and special item	(81,759,539)	(151,701,753)	(51,009,431)	(20,302,418)	(35,252,971)
Capital grants and contributions	349,194,918	414,194,064	4,872,796	4,358,798	7,306,087
Insurance recoveries (Impairment loss) on capital assets	1,499,960	(99,778,613)	-	-	-
Increase (decrease) in net position	\$ 268,935,339	\$ 162,713,698	\$ (46,136,635)	\$ (15,943,620)	\$ (27,946,884)
Electricity sales:					
Residential	\$ 37,199,307	\$ 24,611,780	\$ 30,899,051	\$ 20,661,002	\$ 18,258,074
Commercial	20,415,183	14,795,721	17,125,514	11,897,278	10,804,383
Industrial	44,631,763	30,430,601	38,483,116	24,950,450	23,295,343
Street lighting	4,022,062	2,369,650	5,023,751	3,547,327	3,708,284
Fuel escalator	117,455,074	50,719,027	129,667,740	127,996,405	175,052,995
LEAC Revenue - RFM	-	-	-	7,803,370	12,602,237
Payment in lieu of taxes surcharge	379,592	266,224	430,946	433,566	428,394
OPEB Surcharge	-	-	2,922,132	5,239,552	5,706,057
Maintenance surcharge	13,757,920	9,639,023	15,619,170	15,954,156	15,241,488
Self-insurance surcharge	1,065,143	747,034	1,215,964	1,209,787	1,173,010
Lease generation surcharge	1,997,398	-	-	-	-
Line loss surcharge	1,215,116	852,246	1,379,712	1,388,032	1,372,130
Total	\$ 242,138,558	\$ 134,431,306	\$ 242,767,096	\$ 221,080,925	\$ 267,642,113
Kilowatt-hour sales (in thousands):					
Residential	197,912	142,834	228,987	224,268	211,753
Commercial	92,003	71,290	112,187	115,464	108,148
Industrial	224,611	171,500	260,910	281,609	283,558
Street lighting	8,537	4,566	17,450	17,350	17,422
Total	523,063	390,190	619,534	638,691	620,881
Number of customers at year-end	37,791	33,432	55,249	54,881	54,881