GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)

FINANCIAL STATEMENTS, ADDITIONAL INFORMATION AND INDEPENDENT AUDITORS' REPORT

YEARS ENDED SEPTEMBER 30, 2019 AND 2018

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INDEPENDENT AUDITORS' REPORT

Commissioners
Consolidated Commission on Utilities:

Report on Financial Statements

We have audited the accompanying financial statements of Guam Power Authority (GPA), a component unit of the Government of Guam, which comprise the statements of net position as of September 30, 2019 and 2018, and the related statements of revenues, expenses and changes in net position and of cash flows for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

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

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control 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 accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Guam Power Authority as of September 30, 2019 and 2018, and the changes in its net position and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of a Matter

As discussed in Note 13 to the financial statements, GPA determined that the COVID-19 may negatively impact its business, results of operations and net position. However, due to uncertainty surrounding the duration of the state of emergency, GPA is unable to reasonably estimate its ultimate financial impact. 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 the Management's Discussion and Analysis on pages 1 through 9 as well as the Schedule of Proportional Share of the Net Pension Liability on pages 56 through 58, the Schedule of Pension Contributions on page 59, the Schedule of Changes in the Proportional Share of the Total OPEB Liability and Related Ratios on page 60, the Schedule of Proportional Share of the Total OPEB Liability on page 61, and the Schedule of OPEB Contributions on page 62 be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the 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 financial statements, and other knowledge we obtained during our audit of the 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 Financial Information

Our audits were conducted for the purpose of forming an opinion on the financial statements as a whole. The Schedules of Sales of Electricity, Operating and Maintenance Expenses and Salaries and Wages on pages 63 through 66 are presented for purposes of additional analysis and are not a required part of the financial statements.

The Schedules of Sales of Electricity, Operating and Maintenance Expenses and Salaries and Wages are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the financial statements. Such information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Schedules of Sales of Electricity, Operating and Maintenance Expenses and Salaries and Wages are fairly stated, in all material respects, in relation to the financial statements as a whole.

Deloitte.

Other Matters, Continued

Other Financial Information, Continued

The Schedule of Employees by Department on page 67 has not been subjected to the auditing procedures applied in the audit of the 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 April 21, 2020 on our consideration of GPA'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 GPA'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 GPA's internal control over financial reporting and compliance.

Deloitte & Touche LLP

April 21, 2020

This Management's Discussion and Analysis should be read in conjunction with the Guam Power Authority's September 30, 2019 audited financial statements and accompanying notes.

OVERVIEW

The Guam Power Authority (GPA or the Authority) was created in 1968 as a public corporation and autonomous instrumentality of the Government of Guam. Since that time, the Authority has maintained and expanded the island wide power system on Guam. The Authority has 420 megawatts (MW) of generation capacity, 663 miles of transmission and distribution lines, 29 substations, $942 million in assets, and $403 million in annual revenues. GPA currently serves approximately 51,000 customers with the U.S. Navy being the largest representing about 16% of revenues.

In 2002, the Consolidated Commission on Utilities (CCU) was established as the board of directors for both the Guam Power Authority and the Guam Waterworks Authority. The CCU is made up of five elected members and is vested with the same powers exercised by the previous board of directors. In addition, it retains contracting authority, establishes policies and controls over the selection of the top management of the Authority. GPA also continued its existence as a public corporation.

The Authority is regulated by the Guam Public Utilities Commission (PUC) – a rate setting body made up of Commissioners appointed by the Governor of Guam. The PUC has established rules of operation that are similar to those of other jurisdictions within the United States. The PUC has broad regulatory authority over GPA including approval of any contracts that might have an impact on GPA's rates.

GPA'S STRATEGY

GPA is committed to providing outstanding energy solutions to our island community by focusing on capital discipline and operational excellence. Key components of GPA's strategy include:

- Achieve Superior Customer Service – GPA is continuously reaching for ways to better serve our customers through accountability, efficiency and reliability.

- Optimize Energy Production Cost – Focus on driving down cost and on improved productivity.

- Achieve Energy Diversification – GPA implemented an Integrated Resource Plan which includes renewable energy resources like solar and wind power generating 25 megawatts. An additional 120 megawatts of solar renewable generation have been contracted and approved by the CCU and the PUC.

- Become Financially Sound and Stable – Improve credit rating and debt service coverage.

Promote Energy Innovation

GPA has been operating the smart grid for the past couple of years. The smart grid includes the smart meters for all customers, substation automation, AMI technology and high broadband communication. The smart meters give customers greater control over their energy use and costs by allowing them to monitor their energy consumption online and determine which activities are contributing to the fluctuations in their bills.

In conjunction with the smart grid, GPA has been using the Customer Care and Billing system from Oracle, billing system which enables GPA to improve the billing process, customer service, and credit management. In addition, it enables GPA to integrate to online bill payment, mobile payment application for Android and Apple, and 24/7 pay-by-phone where account balance and payment posting are real time. Future integrations include prepaid power services, and e-billing.

Customers can visit MyEnergy online site which enables customers to see their current usage and past history allowing them to take actions to mitigate their consumption before being charged in their bill. Information also helps customers decide on which energy efficient appliances to purchase.

Lastly, GPA energy statement provides immediate information on energy usage, a historical consumption graphic, a "Tips" section on energy services, rebate program or reminder notices and much more that will enable the consumers to manage their energy usage.

New Generation

In 2016, GPA filed its updated integrated resource plan (IRP) to the CCU and PUC. The IRP included the plan to install 180MW of dual-fired combined-cycle generation units, retirement of Cabras 1 & 2 generators, expansion of renewable energy portfolio, and installation of an energy storage. The PUC approved GPA's generation plan in October 2016 and procurement was completed in 2019.

The new generation was awarded to Korea Electric Power Corporation as a build-operate-transfer contract and is planned to be commissioned by October 31, 2022. For GPA, combined-cycle generation has several benefits like better fuel efficiency, lower capital cost compared to installing emission control system to its existing generation plants, promotes fuel diversity and compliance with USEPA requirements.

United States Environmental Protection Agency

On February 6, 2020, the U.S. Department of Justice lodged a proposed Consent Decree with the United States District Court for the District of Guam in the lawsuit entitled *United States v. Guam Power Authority and Marianas Energy Company, LLC* and a public notice has been published in the Federal Register.

The United States filed its complaint under the Clean Air Act. The United States' complaint seeks injunctive relief and civil penalties for the alleged violations of the emission limits and performance testing requirements in the National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations that governs the operation of stationary reciprocating internal combustion engines and electric utility steam generating units at GPA's Cabras and Piti power plants. The Consent Decree requires GPA to perform injunctive relief and pay a $400,000 civil penalty.

FINANCIAL HIGHLIGHTS

The table below highlights the financial comparison from fiscal year 2017 through 2019. In 2018, the Authority adopted GASB Statement No.75, *Accounting and Financial Reporting for Post-Employment Benefits Other Than Pensions.* The implementation of this statement had material effect on the accompanying financial statements resulting in the restatement of the Authority's fiscal year 2017 to reflect the reporting of post-employment benefits other than pension liabilities, deferred inflows of resources and deferred outflows of resources for health insurance in accordance with the provisions of GASB Statement No. 75.

In 2017, the Authority adopted GASB Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not Within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68*, which aligns the reporting requirements for pension plans not covered in GASB Statements 67 and 68 with the reporting requirements in Statement 68.

Statements of Net Position (in $million)

	2019	2018	2017 (Restated)
Assets			
Current assets	$ 328.6	$ 338.6	$ 349.9
Non-current investments	25.2	10.6	12.5
Other non-current assets	31.4	52.4	61.2
Utility plant	489.2	493.8	494.8
	874.4	895.4	918.4
Deferred outflows of resources	67.1	58.7	53.7
	$ 941.5	$ 954.1	$ 972.1
Liabilities			
Current liabilities	$ 80.4	$ 91.9	$ 116.3
Non-current liabilities	811.5	860.5	880.0
	891.9	952.4	996.3
Deferred inflows of resources	52.8	20.0	4.5
Net position			
Net investment in capital assets	(20.5)	(11.9)	(29.1)
Restricted	23.3	19.8	15.2
Unrestricted	(6.0)	(26.2)	(14.8)
	(3.2)	(18.3)	(28.7)
	$ 941.5	$ 954.1	$ 972.1

The decrease in current assets in 2019 compared to 2018 is due to decrease in global fuel prices and lower fuel inventory, however; accounts receivable increased from $37.8 million in 2018 to $42.5 million in 2019.

The decrease in current assets in 2018 compared to 2017 is due to collection of the insurance claim from the insurance company for Cabras 3 & 4 fire in 2018 that was recorded as accounts receivable in 2017.

The decrease in current liabilities in 2019 compared to 2018 is due to decrease in fuel costs and completion of capital lease payment of MEC 8 & 9. The decrease in the current liabilities in 2018 compared to 2017 is due to completion of capital lease payment of TEMES CT 7 and payment of outstanding capital projects.

Financial results summary:

- 2019 has an income of $15.2 million compared to an income of $10.4 million in 2018.
- 2018 had an income of $10.4 million compared to an income of $38.5 million in 2017.

The table below details certain items from GPA's Statements of Revenue, Expenses and Changes in Net Position from 2017 through 2019.

	2019	2018	2017 (Restated)
(in '000)			
Sales of electricity, net	$ 399,318	$ 377,651	$ 331,275
Other	3,219	2,217	2,193
Total operating revenues	402,537	379,868	333,468
Production fuel	238,870	217,567	166,426
Operating and maintenance	87,615	86,953	96,081
Depreciation	36,999	37,184	44,292
Total operating expenses	363,484	341,704	306,799
Operating income	39,053	38,164	26,669
Interest income	5,003	3,260	1,722
Interest expense	(27,955)	(33,167)	(32,771)
Allowance for funds used during construction	-	1,686	3,676
Other expense, net	(934)	(1,472)	(845)
Extraordinary item	-	1,920	40,049
Income	**$ 15,167**	**$ 10,391**	**$ 38,500**

Operating Revenues

GPA operating revenue increased by $22.7 million or 6% in 2019 compared to 2018. This increase is due to the maintenance of a steady LEAC rate and recovery of unrecovered fuel costs.

GPA's operating revenues increased by $46.4 million or 13.9% in 2018 compared to 2017. The increase is due to increase in the LEAC rate over the course of the year due to increase in the global fuel prices.

Electric Sales Information

	2014	2015	2016	2017	2018	2019
Peak Demand (MW)	249	255	258	261	254	255
Total Electric Sales (MWh)	1,533,323	1,539,587	1,574,000	1,610,093	1,567,052	1,568,286
Sales Growth (%)	(0.2)	0.4	2.2	2.29	(2.7)	0.1
Total Customers	48,918	49,530	50,207	51,114	51,372	51,977

The energy sales remained flat in 2019 compared to 2018. Energy sales were challenged by increase in Net Energy Metering (NEM) and increase in popularity in Demand Side Management (DSM) sponsored and promoted by GPA. Flat energy sales are also seen in the industry.

The energy sales decreased by 2.7% in fiscal year 2018 compared to 2017. The decrease is due to conservation efforts by customers due to increase in LEAC rate and lower consumption due to weather during the year.

Operating and Maintenance

GPA's operating and maintenance expenses increased mainly due to GASB Statement No.75, *Accounting and Financial Reporting for Post-Employment Benefits Other Than Pensions,* in 2019 compared to 2018. GPA reduced its operating cost of generating plant, Piti 8 & 9, when its lease ended on January 2019 and the plant was transferred to GPA.

GPA's operating and maintenance expenses decreased in 2018 compared to 2017 mainly due to GASB 68, *Accounting and Financial Reporting for Pensions,* and cost saving measures done in prior years.

GPA headcount decreased to 454 in 2019 from 464 in 2018. The decrease is largely due to employee retirement. In 2019, GPA incurred $1.3 million of overtime assisting Saipan in recovering from Super Typhoon Yutu. The expenditures incurred to assist the recovery were reimbursed by Commonwealth Utilities Corporation.

GPA headcount decreased to 464 in 2018 from 475 in 2017. Overtime increase from $1.4 million in 2017 to $1.54 million in 2018. Increase in overtime was due to typhoon preparation and recovery.

Station use in 2019 of 66,890 mWh increased in comparison to 2018 station use of 62,716.
Station use in 2018 of 62,716 mWh decreased in comparison to 2017 station use of 65,895 mWh.

Transmission and distribution (T&D) line loss increased to 88,398 mWh in 2019 from 84,855 mWh in 2018. T&D line loss increased from 83,949 mWh in 2017 to 84,855 mWh in 2018.

Depreciation and Amortization

Depreciation and amortization expense for 2019 and 2018 remained the same.

GPA's depreciation and amortization expense decreased in 2018 compared to 2017. The decrease is due to GPA plant assets reaching its useful life.

Utility Cost Recovery Activities

Production Fuel

GPA's cost of electricity includes the costs of fuel used in its own generation facilities, and fuel supplied to other facilities under power purchase agreement, costs of fuel handling and the cost of power purchased from third parties.

In line with GPA IRP to increase its renewable resources, GPA procured a power purchase agreement for a utility scale solar farm of 25MW with NRG Energy, located in southern Guam and the system became available to the grid in August 2015. The project performed as expected and it is producing approximately 4,300 MWH of emission free energy each month.

In addition, GPA commissioned a 275kW wind project that became operational in March 2016. The $2 million wind project was funded by USDOI Grant and provided available experience and data on the potential of wind renewable projects.

GPA completed its bid process of acquiring additional 120 MW of utility scale solar farm under the Phase II renewal project. This project includes batteries to mitigate the sudden drop or increase in production due to electrical or atmospheric condition like rain. GPA signed the contract in 2018 and construction is anticipated to start in 2020.

For the Phase III renewable project where GPA will be utilizing 30-year lease of Navy property for 35MW solar PV, the bidding is underway as of the report date.

Interest Income, Interest Expense, and Other Income and Expenses

Interest income increased in 2019 compared to 2018 and in 2018 compared to 2017 due to better interest rates in the market.

Interest expense decreased in 2019 compared to 2018 due to GPA's lease with independent power producer, Marianas Energy Company, LLC (MEC), ended in January 2019.

Interest expense for 2018 compared 2017 increased due to refinancing of 2010 Revenue bond in fiscal year 2018.

Operating Activities

GPA's cash flows from operating activities primarily consist of receipts from customers less payments of operating expenses.

GPA's cash flows from operating activities from 2017 to 2019 are as follows:

(in millions)	2019	2018	2017
Cash received from customers	$ 398.5	$ 377.1	$ 326.1
Cash payments to suppliers	(278.3)	(287.9)	(233.0)
Cash payments to employees for services	(38.9)	(37.2)	(35.5)
Cash payments for retiree benefits	(4.2)	(4.3)	(4.3)
Net cash provided by operating activities	**$ 77.1**	**$ 47.7**	**$ 53.3**

Capital Activities

GPA's capital activities primarily consist of new construction and replacement of facilities necessary to deliver safe and reliable power to its customers.

The largest capital cost incurred in 2019 were the energy storage system (ESS) ($12M), transmission improvements ($2.5M), and distribution plant ($1.9M).

The largest capital cost incurred in 2018 were the land acquisition for the new power plant site ($11M), ESS ($9.2M), distribution plant ($5M), diesel and CT plants system improvements ($2.6M), SCADA ($1.2M) and general plant (5.4M).

Cash used in capital activities includes proceeds from bonds and from revenue funds. Please refer to Note 13 to the financial statements for details of GPA's capital activities.

Investing Activities

GPA's cash flows from investing activities from 2017 to 2019 are as follows (in millions):

	2019	2018	2017
Net cash provided by (used in) investing activities	$ 33.6	$ (15.0)	$ 17.4

Borrowing Activities

No new borrowing was done in 2017, 2018, and 2019. Refunding of 2010 Revenue bond was done in December 2017. Please refer to Note 7 to the financial statements for details of GPA's borrowing activities.

GPA's cash flows from capital and non-capital financing activities from 2017 to 2019 are as follows (in millions):

	2019	2018	2017
Net cash provided by non-capital financing activities	$ 0.2	$ 43.8	$ 34.0
Net cash used in capital and related financing activities	$ (76.7)	$ (91.1)	$ (94.5)

Increased non-capital financing activities in 2017 and 2018 is due to increase claims for Cabras 3 & 4.

Credit Ratings

GPA's credit rating relates to the Authority's cost of funds and liquidity. In particular, GPA's ability to access and engage in certain activities on a cost-effective basis is primarily dependent upon maintaining a strong credit rating.

GPA's long-term senior debt ratings are as follows:

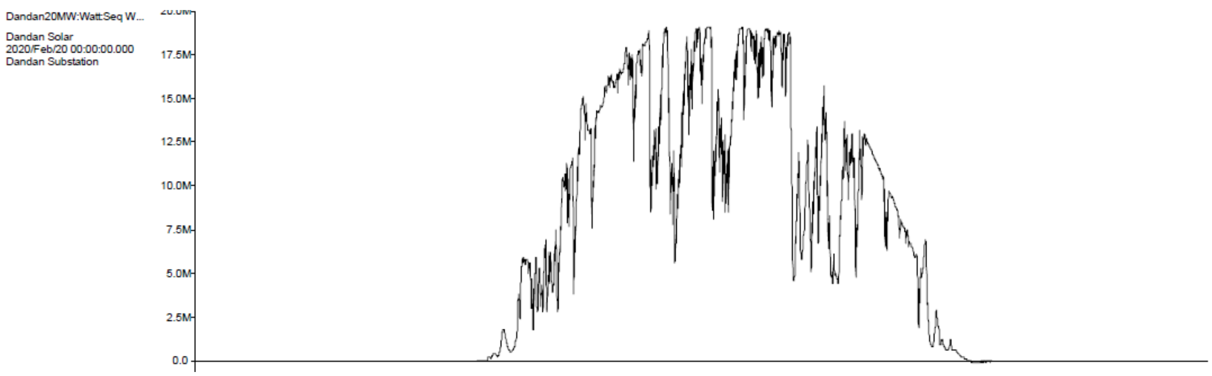
Long-Term Senior Debt	Rating	Long-Term Outlook
Standard & Poor's	BBB	Stable
Moody's Rating	Baa2	Stable
Fitch Rating	BBB	Stable

Future Capital Activities

GPA is committed to renewal energy and the reduction of greenhouse gas emissions. GPA invested in an industry scale solar farm of 25MW which became operational in 2015. GPA will be adding 120MW of solar PV as part of phase II renewable project and anticipates the system to be online by 2022. Phase III project is underway and is expected to add 35MW of renewable energy with energy storage system (ESS); shifting 100% of the energy to evening load.

The investment of solar farm and increase in net metering customers (NEM) has led to a grid that is becoming physically and operationally very different from historical patterns. The energy received from the solar farm in Dandan and net metering customers are "must take" contracts, meaning their energy goes into the grid whenever they can generate. The Power System Control Center must now monitor and respond to dramatic changes in system frequencies during certain times of the day. These fast changes are known as ramping events. Historically, the need for fast ramping was in response to load changes, but now is also due to generation output from non-GPA sources.

GPA is required to absorb all the power fluctuations emitted by the solar farm, and NEM. On any given day, the solar farm can fluctuate as much as 15MW in an hour. Below is a sample reading for a day on February 20, 2020.



To mitigate the sudden drop in power generation by solar PV, GPA procured energy storage solution (ESS) to cut the shortfall and inject power to the system to prevent an outage. The ESS system is being installed and going through the testing process. We anticipate the ESS to be online soon.

In 2016, CCU and PUC approved to proceed with the procurement of 180MW duel fire combined cycle combustion turbine. The project is planned to be operational in October 2022.

Future Borrowing

Despite the advancement of renewable energy generation and storage, the traditional power generation is still required. In 2016, GPA filed an integrated resource plan (IRP) to the CCU and the PUC for the construction of combined cycle combustion turbine plants. An approval was given by the CCU and the PUC to authorize GPA to proceed with the procurement up to 180MW. The plan for the procurement model was independent power purchase agreement (IPP) where the IPP finances the construction of the plant.

On November 5, 2019, GPA entered into an energy conversion agreement with Guam Ukudu Power, LLC for the new generation. The agreed capacity was 198 MW using Ultra LowSulfur Diesel and eventually moving to Liquid Natural Gas.

Contacting GPA's Financial Management

The Management Discussion and Analysis report is intended to provide information concerning known facts and conditions affecting GPA's operations. This financial report is designed to provide a general overview of GPA's finances and to demonstrate GPA's accountability for the funds it receives and expends.

Management's Discussion and Analysis for the years ended September 30, 2018 and 2017 is set forth in GPA's report on the audit of financial statements which is dated April 3, 2019. That Discussion and Analysis explains in more detail major factors impacting the 2018 and 2017 financial statements. A copy of that report can be obtained by contacting the CFO office at (671) 648-3066 or from GPA's website at the addresses noted below.

For additional information about this report, please contact Mr. John J.E. Kim, Chief Financial Officer, Guam Power Authority, P.O. Box 2977, Hagåtña, Guam 96932-2977 or visit the website at www.guampowerauthority.com.

GUAM POWER AUTHORITY
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Statements of Net Position
September 30, 2019 and 2018

ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	2019	2018
Current assets:		
Cash and cash equivalents - restricted	$ 131,651,733	$ 111,900,741
Cash and cash equivalents - unrestricted	73,121,838	37,805,471
Total cash and cash equivalents	204,773,571	149,706,212
Certificates of deposit - restricted	1,807,273	1,803,667
Certificates of deposit - unrestricted	-	999,964
Total certificates of deposit	1,807,273	2,803,631
Investments - restricted	18,587,762	28,426,513
Investments - unrestricted	4,996,550	38,026,695
Accounts receivable, net	42,550,451	37,851,906
Materials and supplies inventory, net	12,521,306	12,812,072
Fuel inventory	41,214,022	67,993,103
Prepaid expenses and other current assets	2,115,083	979,829
Total current assets	328,566,018	338,599,961
Utility plant, at cost:		
Depreciable utility plant, net of accumulated depreciation	439,338,315	453,695,490
Non-depreciable utility plant	49,897,975	40,091,847
Total utility plant	489,236,290	493,787,337
Other non-current assets:		
Cash and cash equivalents - restricted	29,168,116	49,970,719
Investments - restricted	25,233,865	10,562,833
Unamortized debt issuance costs	2,221,160	2,503,448
Total other non-current assets	56,623,141	63,037,000
Total assets	874,425,449	895,424,298
Deferred outflows of resources:		
Unamortized loss on debt refunding	24,733,104	27,093,636
Pension	12,264,214	8,932,987
Other post-employment benefits	19,869,789	13,798,017
Unrecovered fuel costs	9,943,732	8,370,542
Unamortized forward delivery contract costs	318,637	477,997
Total deferred outflows of resources	67,129,476	58,673,179
	$ 941,554,925	$ 954,097,477

See accompanying notes to financial statements.

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Statements of Net Position, Continued
September 30, 2019 and 2018

LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	2019	2018
Current liabilities:		
Current maturities of long-term debt	$ 16,130,000	$ 1,630,000
Current obligations under capital leases	8,582,729	13,613,066
Accounts payable:		
Operations	14,073,234	19,445,106
Fuel	14,007,589	28,979,364
Accrued payroll and employees' benefits	1,844,658	1,949,080
Current portion of employees' annual leave	2,153,583	2,101,168
Interest payable	14,733,265	14,745,285
Customer deposits	8,918,086	9,387,519
Total current liabilities	80,443,144	91,850,588
Regulatory liabilities:		
Provision for self-insurance	19,345,291	19,345,291
Total regulatory liabilities	19,345,291	19,345,291
Long-term debt, net of current maturities	584,892,990	604,881,434
Obligations under capital leases, net of current portion	2,226,222	10,808,951
DCRS sick leave liability	1,331,151	1,331,151
Net pension liability	81,801,102	76,554,735
Other post-employment benefits liability	120,278,683	145,955,861
Employees' annual leave, net of current portion	1,204,085	1,204,085
Customer advances for construction	394,539	385,293
Total liabilities	891,917,207	952,317,389
Deferred inflows of resources:		
Pension	2,371,109	3,532,642
Other post-employment benefits	49,240,169	14,804,043
Unearned forward delivery contract revenue	1,168,035	1,752,053
Total deferred inflows of resources	52,779,313	20,088,738
Commitments and contingencies		
Net position:		
Net investment in capital assets	(20,489,116)	(11,866,391)
Restricted	23,329,350	19,750,354
Unrestricted	(5,981,829)	(26,192,613)
Total net position	(3,141,595)	(18,308,650)
	$ 941,554,925	$ 954,097,477

See accompanying notes to financial statements.

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Statements of Revenues, Expenses and Changes in Net Position
Years Ended September 30, 2019 and 2018

	2019	2018
Revenues:		
Sales of electricity	$ 399,732,812	$ 378,328,874
Miscellaneous	3,219,000	2,217,201
	402,951,812	380,546,075
Bad debts expense	(415,138)	(677,870)
Net operating revenues	402,536,674	379,868,205
Operating and maintenance expenses:		
Production fuel	238,869,517	217,567,039
Other production	16,814,089	17,414,539
	255,683,606	234,981,578
Administrative and general	38,289,351	33,971,438
Depreciation and amortization	36,999,409	37,184,133
Energy conversion costs	13,966,501	17,552,373
Transmission and distribution	12,745,881	12,338,142
Customer accounting	5,799,397	5,676,402
Total operating and maintenance expenses	363,484,145	341,704,066
Operating income	39,052,529	38,164,139
Non-operating revenues (expense):		
Allowance for funds used during construction	-	1,686,380
Non-operating grants from the United States (U.S.) Government	1,385,472	1,438,655
Interest income	5,002,989	3,260,339
Interest expense	(27,954,514)	(33,167,246)
Other expense, net	(2,319,421)	(2,911,606)
Total non-operating revenues (expense), net	(23,885,474)	(29,693,478)
Income before extraordinary item	15,167,055	8,470,661
Extraordinary item - generator explosion and fire and related insurance recoveries, net	-	1,920,434
Change in net position	15,167,055	10,391,095
Net position at beginning of year	(18,308,650)	(28,699,745)
Net position at end of year	$ (3,141,595)	$ (18,308,650)

See accompanying notes to financial statements.

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)

Statements of Cash Flows
Years Ended September 30, 2019 and 2018

Increase (decrease) in cash and cash equivalents	2019	2018
Cash flows from operating activities:		
Cash received from customers	$ 398,547,876	$ 377,119,167
Cash payments to suppliers for goods and services	(278,283,819)	(287,912,187)
Cash payments to employees for services	(38,855,414)	(37,205,445)
Cash payments for retiree benefits	(4,258,389)	(4,315,060)
Net cash provided by operating activities	77,150,254	47,686,475
Cash flows from investing activities:		
Interest on investments and bank accounts	4,418,971	2,676,321
Decrease in certificates of deposit	996,358	14,494,777
Decrease (increase) in investments	28,197,864	(32,136,068)
Net cash provided by (used in) investing activities	33,613,193	(14,964,970)
Cash flows from non-capital financing activities:		
Proceeds from insurance claims	-	41,844,342
Receipts from the U.S. Government	215,538	2,061,297
Interest paid on deposits	(57,105)	(81,909)
Net cash provided by non-capital financing activities	158,433	43,823,730
Cash flows from capital and related financing activities:		
Principal paid on capital leases	(13,613,066)	(23,337,008)
Interest paid on capital leases	(898,821)	(2,890,359)
Principal paid on long-term debt	(1,630,000)	(1,780,000)
Interest paid on long-term debt	(28,066,875)	(27,090,906)
Proceeds from issuance of 2017 bonds	-	155,588
Additions to utility plant	(32,448,362)	(36,199,266)
Net cash used in capital and related financing activities	(76,657,124)	(91,141,951)
Net change in cash and cash equivalents	34,264,756	(14,596,716)
Cash and cash equivalents at beginning of year	199,676,931	214,273,647
Cash and cash equivalents at end of year	$ 233,941,687	$ 199,676,931

In 2018, non-cash capital and related financing activities follow:	
Proceeds from the issuance of 2017 bonds	$ 147,617,433
Carrying amount of 2010 bonds	(150,440,000)
Accrued interest	(1,999,800)
Unamortized discount	3,365,676
Unamortized debt issuance costs	1,456,691
	$ -

See accompanying notes to financial statements.

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)

Statements of Cash Flows, Continued
Years Ended September 30, 2019 and 2018

	2019	2018
Reconciliation of operating income to net cash provided by operating activities:		
Operating income	$ 39,052,529	$ 38,164,139
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation and amortization	36,999,409	37,184,133
Bad debts expense	415,138	677,870
Pension expense (recovery)	753,607	(6,810,868)
Other post-employment benefit costs	2,687,176	8,085,585
(Increase) decrease in assets:		
Accounts receivable	(3,943,749)	(3,376,312)
Materials and supplies inventory	290,766	(822,326)
Fuel inventory	26,779,081	(15,605,733)
Prepaid expenses	(1,135,254)	(350,243)
Increase (decrease) in liabilities:		
Accounts payable	(22,663,065)	(12,280,454)
Accrued repair costs	-	(3,407,796)
Customer deposits	(469,433)	(66,709)
Customer advances for construction	9,246	16,113
Unrecovered fuel costs	(1,573,190)	8,380,506
Accrued payroll and employees' benefits	(104,422)	402,220
Employees' annual and sick leave	52,415	(2,503,650)
Net cash provided by operating activities	$ 77,150,254	$ 47,686,475

See accompanying notes to financial statements.

(1) Organization and Summary of Significant Accounting Policies

Organization

Guam Power Authority (GPA) is a component unit of the Government of Guam (GovGuam). GPA provides electrical services on Guam to residential, commercial and GovGuam customers, and to the United States (U.S.) Navy under a Utility Services Contract (USC). GPA is governed by the Consolidated Commission on Utilities (CCU), an elected five-member board. GPA is subject to the regulations of the Public Utilities Commission of Guam (PUC) and has adopted the Uniform System of Accounts prescribed by the Federal Energy Regulatory Commission. Because of the rate-making process, certain differences arise in the application of accounting principles generally accepted in the United States of America between regulated and non-regulated businesses. Such differences mainly concern the time at which various items enter into the determination of net earnings in order to follow the principle of matching costs and revenues.

Basis of Accounting

The accounting policies of GPA conform to accounting principles generally accepted in the United States of America, as applicable to governmental entities, specifically proprietary funds. GPA utilizes the flow of economic resources measurement focus. The Governmental Accounting Standards Board (GASB) is the accepted standard-setting body for establishing governmental accounting and financial reporting principles.

Accounting Estimates

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

Taxes

As an instrumentality of GovGuam, GPA and all property acquired by or for GPA, and all revenues and income therefrom are exempt from taxation by GovGuam or by any political subdivision or public corporation thereof and from all taxes imposed under the authority of the Guam Legislature, or with respect to which the Guam Legislature is authorized to grant exemption.

Cash, Cash Equivalents and Investments

Cash and cash equivalents classified as current assets include cash on hand, cash in banks, money market accounts, certificates of deposit, and U.S. treasury bills with original maturities of three months or less in the interest and principal funds for debt repayment, the bond indenture funds, the bond reserve fund, the energy sense fund and the self-insurance fund.

Cash and cash equivalents restricted for the acquisition or construction of capital assets are classified as noncurrent assets.

(1) Organization and Summary of Significant Accounting Policies, Continued

Cash, Cash Equivalents and Investments, Continued

Investments in short-term, highly liquid debt instruments, including commercial paper, banker's acceptances, and U.S. Treasury and agency obligations are recorded at amortized cost. Investment in guaranteed investment certificate is measured at cost.

All other investments are recorded at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability (i.e., the exit price) in an orderly transaction between market participants at the date as of which the fair value of an asset or liability is determined.

The deposit and investment policies of GPA are governed by 5 GCA 21, *Investments and Deposits,* in conjunction with applicable bond indentures. Authorized investments include obligations issued or guaranteed by the U.S. government or agencies of the U.S. government; bonds, notes or other indebtedness rated in the highest rating by Moody's Investors Service (Moody's) or Standard & Poor's Corporation (S&P); obligations issued by the Federal National Mortgage Association or the Federal Home Loan Mortgage Corporation with remaining maturities of not more than three years; any bonds or other obligations of any state of the U.S. or any agency, instrumentality or local government unit of such state which are rated in the highest rating category of either Moody's or S&P; demand and time deposits in certificates of deposit or bankers acceptances with U.S. domestic banks which have a rating of their short term certificates of deposit of A-1 or better by S&P and P-1 by Moody's and mature no more than 360 days after purchase; commercial paper which has a rating in the highest classification by S&P and Moody's; and money market funds rated AAAm or better by S&P.

Allowance for Doubtful Receivables

The allowance for doubtful receivables is stated at an amount which management believes will be adequate to absorb possible losses on accounts receivable that may become uncollectible based on evaluations of the collectability of these accounts and prior collection experience. The allowance is established through a provision for bad debts charged to expense. Uncollectible accounts are written off against the allowance or are charged to expense in the period GPA deems the accounts to be uncollectible but with prior approval of the CCU.

Inventory Valuation

Materials and supplies inventories and fuel inventories are stated at cost (using the weighted average and the first-in, first-out method, respectively).

Allowance for inventory obsolescence is provided for inventory items with no movement for a period of five years and over and for parts and supplies for equipment no longer in use. Allowance for inventory obsolescence was $1,631,035 and $1,577,883 as of September 30, 2019 and 2018, respectively.

(1) Organization and Summary of Significant Accounting Policies, Continued

Utility Plant

Utility plant purchased or constructed is stated at cost. Cost includes an allowance on certain projects for funds used during construction of specific power generation plants based on the net cost of borrowed funds used for construction purposes. Donated utility is recorded at fair market value at the date of donation or at the donating entity's basis in the asset if donated by GovGuam or a GovGuam agency. Current policy is to capitalize utility plant with a cost of $1,000 or more.

Depreciation

Depreciation is computed under the straight-line method over the estimated useful lives of the respective assets.

Compensated Absences

Vesting annual leave is accrued and reported as an expense and a liability in the period earned. No liability is accrued for non-vesting sick leave benefits. Annual leave expected to be paid out within the next fiscal year is accrued and is included in current liabilities. The maximum accumulation of annual leave convertible to pay upon termination of employment is limited to 320 hours. Pursuant to Public Law 27-106, employees who have accumulated annual leave in excess of three hundred twenty (320) hours as of February 28, 2003, may carry over their excess and shall use the excess amount of leave prior to retirement or termination from service. Any unused leave over 320 hours shall be lost upon retirement.

Public Law 26-86 allows members of the Defined Contribution Retirement System (DCRS) to receive a lump sum payment of one-half of their accumulated sick leave upon retirement. A liability is accrued for estimated sick leave to be paid out to DCRS members upon retirement.

Pensions

Pensions are required to be recognized and disclosed using the accrual basis of accounting. GPA recognizes a net pension liability for the defined benefit pension plan in which it participates, which represents GPA's proportional share of excess total pension liability over the pension plan assets – actuarially calculated – of a single employer defined benefit plan, measured one year prior to fiscal year-end and rolled forward. The total pension liability also includes GPA's proportionate share of the liability for ad hoc cost-of-living adjustments (COLA) and supplemental annuity payments that are anticipated to be made to defined benefit plan members and for anticipated future COLA to DCRS members. Changes in the net pension liability are recorded as pension expense, or as deferred inflows of resources or deferred outflows of resources depending on the nature of the change, in the period incurred. Those changes in net pension liability that are recorded as deferred inflows of resources or deferred outflows of resources that arise from changes in actuarial assumptions or other inputs and differences between expected or actual experience are amortized over the weighted average remaining service life of all participants in the qualified pension plan and recorded as a component of pension expense beginning with the period in which they are incurred. Projected earnings on qualified pension plan investments are recognized as a component of pension expense. Differences between projected and actual investment earnings are reported as deferred inflows of resources or deferred outflows of resources and are amortized as a component of pension expense on a closed basis over a five-year period beginning with the period in which the difference occurred.

(1) Organization and Summary of Significant Accounting Policies, Continued

Other Post-Employment Benefits (OPEB)

OPEB is required to be recognized and disclosed using the accrual basis of accounting. OPEB offered to GPA retirees includes health and life insurance. GPA recognizes OPEB liability for the defined benefit OPEB plan in which it participates, which represents GPA's proportional share of total OPEB liability - actuarially calculated - of a single employer defined benefit plan, measured one year prior to fiscal year-end and rolled forward. An OPEB trust has not been established; thus, the OPEB plan does not presently report OPEB plan fiduciary net position. Instead, the OPEB plan is financed on a substantially "pay-as-you-go" basis.

Changes in the OPEB liability during the period are recorded as OPEB expense, or as deferred inflows of resources or deferred outflows of resources depending on the nature of the change, in the period incurred. Those changes in the OPEB liability that are recorded as deferred inflows of resources or deferred outflows of resources that arise from changes in actuarial assumptions or other inputs and differences between expected or actual experience are amortized over the weighted average remaining service life of all participants in the qualified OPEB plan and recorded as a component of OPEB expense beginning with the period in which they are incurred.

Forward Delivery Contract Costs and Revenues

The forward delivery contract costs and revenues arose as a result of the Bond Reserve Fund Forward Delivery Agreements entered into in September 2000. The unamortized forward delivery contract costs represent termination fees and closing costs while the unearned forward delivery contract revenues represent the gross proceeds. The costs and revenues are amortized on a straight line basis until 2034.

Unamortized Debt Issuance Costs

Unamortized debt issuance costs mainly include insurance costs related to the issuance of the Series 2012 and 2014 bonds. These costs are being amortized using the effective interest method over the life of the applicable debt.

Net Position

Net position represents the residual interest in GPA's assets and deferred outflows of resources after liabilities and deferred inflows of resources are deducted and consist of four sections:

Net investment in capital assets - include capital assets, restricted and unrestricted, net of accumulated depreciation, reduced by outstanding debt net of debt service reserve.

Restricted expendable - net position whose use is subject to externally imposed stipulations that can be fulfilled by actions of GPA pursuant to those stipulations or that expire with the passage of time.

Restricted nonexpendable - net position subject to externally imposed stipulations that require GPA to maintain them permanently.

(1) Organization and Summary of Significant Accounting Policies, Continued

Net Position, Continued

Unrestricted - net position that is not subject to externally imposed stipulations. Unrestricted net position may be designated for specific purposes by management or the CCU or may otherwise be limited by contractual agreements with outside parties.

All of GPA's restricted net position is expendable.

Sales of Electricity

Sales of electricity are recorded as billed to customers on a monthly cycle billing basis. At the end of each month, unbilled revenues are accrued for each cycle based on the unbilled actual usage at month end.

Operating and Non-Operating Revenue and Expenses

Operating revenues and expenses generally result directly from the operation and maintenance of systems to provide electrical services to the island of Guam. Non-operating revenues and expenses result from capital and financing activities, costs and related recoveries from natural disasters, and certain other non-recurring income and costs.

Deferred Outflows of Resources

Deferred outflows of resources represent consumption of net position that applies to a future period and will not be recognized as an outflow of resources (expense) until that future time.

Deferred Inflows of Resources

Deferred inflows of resources represent an acquisition of net position that applies to a future period and therefore will not be recognized as an inflow of resources (revenue) until that future time.

Levelized Energy Adjustment Clause

Fuel oil costs increase or decrease billings to customers based on increases or decreases in the price of fuel oil purchased by GPA. Under or over recoveries of fuel oil costs including the fair value of outstanding commodity swap agreements (if any) are recorded as unrecovered fuel cost or unearned fuel revenue, respectively, in the accompanying statements of net position, and are recovered or deducted in future billings to customers based on the Levelized Energy Adjustment Clause (LEAC) approved by the PUC in January of 1996. The LEAC results in the conversion of the monthly fuel charge to a levelized fuel charge, which is reviewed and adjusted by the PUC on a bi-annual basis. GPA is only permitted to recover its actual fuel and related costs. At September 30, 2019 and 2018, GPA has an under recovery of fuel costs of $9,943,732 and $8,370,542, respectively.

(1) Organization and Summary of Significant Accounting Policies, Continued

Derivative Instruments

GPA is exposed to market price fluctuations on its purchases of fuel oil. GPA uses derivatives such as commodity swaps to protect itself from increases in market prices. GPA records commodity swap agreements associated with its fuel oil hedging activities at fair value with gains and losses recognized in operations in the statement of revenues, expenses and changes in net position. The fair value of outstanding commodity swaps at year-end is included as a component of the LEAC and is recorded as part of unrecovered fuel cost or unearned fuel revenue in the accompanying statements of net position. GPA did not have outstanding commodity swap agreements at September 30, 2019 and 2018.

GPA's power purchase agreements are considered "normal purchases and normal sales" and accordingly, the operations and maintenance portions of GPA's energy conversion agreements are not recognized in the statements of net position. Operations and maintenance costs associated with the power purchase agreements are expensed as incurred with the independent power producers.

Allowance for Funds Used During Construction

The allowance for funds used during construction (AFUDC) is provided only for construction projects of more than $50,000, which require a minimum of 90 days to complete. AFUDC is computed using the interest expense on directly assignable borrowings to finance the projects less interest income on the related unused borrowings which have been invested. AFUDC is provided only during the period in which such projects are undergoing activities to prepare them for their intended use and is capitalized as part of the cost of the applicable projects. AFUDC of $1,686,380 was recognized during the year ended September 30, 2018. No AFUDC was recognized during the year ended September 30, 2019.

New Accounting Standards

During the year ended September 30, 2019, GPA implemented the following pronouncements:

- GASB Statement No. 83, *Certain Asset Retirement Obligations*, which addresses accounting and financial reporting for certain asset retirement obligations (AROs) associated with the retirement of a tangible capital asset.

- GASB Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*, which improves the information that is disclosed in notes to government financial statements related to debt, including direct borrowings and direct placements.

The implementation of these statements did not have a material effect on GPA's financial statements. However, implementation of GASB Statement No. 88 resulted in additional required disclosures surrounding debt. See note 7.

(1) Organization and Summary of Significant Accounting Policies, Continued

New Accounting Standards, Continued

In January 2017, GASB issued Statement No. 84, *Fiduciary Activities*, which establishes criteria for identifying fiduciary activities of all state and local governments. The provisions in Statement No. 84 are effective for fiscal years beginning after December 15, 2018. Management does not believe that the implementation of this statement will have a material effect on the financial statements.

In June 2017, GASB issued Statement No. 87, *Leases*, which establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. The provisions in Statement No. 87 are effective for fiscal years beginning after December 15, 2019. Management has yet to determine whether the implementation of this statement will have a material effect on the financial statements.

In June 2018, GASB issued Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*, which requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. The provisions in Statement No. 89 are effective for fiscal years beginning after December 15, 2019. Management does not believe that the implementation of this statement will have a material effect on the financial statements.

In August 2018, GASB issued Statement No. 90, *Majority Equity Interests - an Amendment of GASB Statements No. 14 and No. 61,* which improves the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and the relevance of financial statement information for certain component units. The provisions in Statement No. 90 are effective for fiscal years beginning after December 15, 2018. Management does not believe that the implementation of this statement will have a material effect on the financial statements.

In May 2019, GASB issued Statement No. 91, *Conduit Debt Obligations*, which clarifies the existing definition of a conduit debt obligation; establishing that a conduit debt obligation is not a liability of the issuer; establishing standards for accounting and financial reporting of additional commitments and voluntary commitments extended by issuers and arrangements associated with conduit debt obligations; and improving required note disclosures. The provisions in Statement No. 91 are effective for fiscal years beginning after December 15, 2020. Management does not believe that the implementation of this statement will have a material effect on the financial statements.

Reclassifications

Certain reclassifications have been made to the 2018 financial statements to correspond with the 2019 financial statement presentation.

(2) Cash, Cash Equivalents and Investments

The bond indenture agreements for the 2012, 2014 and 2017 series revenue bonds (note 7) require the establishment of special funds to be held and administered by trustees and by GPA. In addition, proceeds from borrowings to finance generation and transmission facility construction are maintained by GPA in construction accounts. Funds in these accounts are required by loan agreement or public law to be used for generation and transmission facility construction. Also, certain other funds are restricted by rate orders of the PUC.

(2) Cash, Cash Equivalents and Investments, Continued

At September 30, 2019 and 2018, cash and cash equivalents, certificates of deposit and investments held by trustees and by GPA in these funds and accounts were as follows:

	2019						
	Cash and Cash Equivalents and Certificates of Deposit				Investments		
	Held By Trustees	Held By GPA			Held By Trustees	Held By GPA	
	Bond Indenture Funds	PUC Restricted Funds	Unrestricted Funds	Cash Total	Bond Indenture Funds	Unrestricted Funds	Total
Construction funds	$ 29,168,116	$ -	$ -	$ 29,168,116	$ -	$ -	$ 29,168,116
Interest and principal funds	7,820,021	-	-	7,820,021	25,233,865	-	33,053,886
Working capital funds	25,685,220	-	-	25,685,220	4,845,762	-	30,530,982
Bond reserve fund	34,857,852	-	-	34,857,852	13,742,000	-	48,599,852
Self-insurance fund	-	19,383,963	-	19,383,963	-	-	19,383,963
Revenue funds	3,955,940	-	-	3,955,940	-	-	3,955,940
Energy sense fund	-	333,528	-	333,528	-	-	333,528
Operating funds	-	-	73,121,838	73,121,838	-	4,996,550	78,118,388
Surplus funds	41,422,482	-	-	41,422,482	-	-	41,422,482
	$ 142,909,631	$ 19,717,491	$ 73,121,838	$ 235,748,960	$ 43,821,627	$ 4,996,550	$ 284,567,137

	2018						
	Cash and Cash Equivalents and Certificates of Deposit				Investments		
	Held By Trustees	Held By GPA			Held By Trustees	Held By GPA	
	Bond Indenture Funds	PUC Restricted Funds	Unrestricted Funds	Cash Total	Bond Indenture Funds	Unrestricted Funds	Total
Construction funds	$ 49,970,719	$ -	$ -	$ 49,970,719	$ -	$ -	$ 49,970,719
Interest and principal funds	7,435,094	-	-	7,435,094	10,562,833	-	17,997,927
Working capital funds	15,828,832	-	-	15,828,832	14,684,513	-	30,513,345
Bond reserve fund	34,858,661	-	-	34,858,661	13,742,000	-	48,600,661
Self-insurance fund	-	19,258,353	-	19,258,353	-	-	19,258,353
Revenue funds	14,719,830	-	-	14,719,830	-	-	14,719,830
Energy sense fund	-	1,085,472	-	1,085,472	-	-	1,085,472
Operating funds	-	-	38,805,435	38,805,435	-	38,026,695	76,832,130
Surplus funds	20,518,166	-	-	20,518,166	-	-	20,518,166
	$ 143,331,302	$ 20,343,825	$ 38,805,435	$ 202,480,562	$ 38,989,346	$ 38,026,695	$ 279,496,603

The operating funds include the remaining insurance monies of $73,597,984 and $72,039,672 as of September 30, 2019 and 2018, respectively, recovered by GPA from the Cabras 3 and 4 explosion and fire insurance claims.

GASB Statement No. 40, *Deposit and Investment Risk Disclosures*, addresses common deposit and investment risks related to credit risk, concentration of credit risk, interest rate risk, and foreign currency risk. As an element of interest rate risk, disclosure is required of investments that have fair values that are highly sensitive to changes in interest rates. GASB Statement No. 40 also requires disclosure of formal policies related to deposit and investment risks.

(2) Cash, Cash Equivalents and Investments, Continued

A. Cash and Cash Equivalents, Continued

Custodial credit risk is the risk that in the event of a bank failure, GPA's deposits may not be returned to it. Such deposits are not covered by depository insurance and are either uncollateralized, or collateralized with securities held by the pledging financial institution or held by the pledging financial institution but not in the depositor-government's name. GPA does not have a deposit policy for custodial credit risk.

As of September 30, 2019 and 2018, the carrying amount of GPA's total cash and cash equivalents and certificates of deposit was $235,748,960 and $202,480,562, respectively, and the corresponding bank balances were $235,259,333 and $202,627,178, respectively. Of the bank balance amount as of September 30, 2019 and 2018, $92,323,132 and $59,251,773, respectively, was maintained in financial institutions subject to Federal Deposit Insurance Corporation (FDIC) insurance. As of September 30, 2019 and 2018, bank deposits in the amount of $1,027,698 and $933,751, respectively, were FDIC insured. GPA does not require collateralization of its cash deposits; therefore, deposit levels in excess of FDIC insurance coverage are uncollateralized. At September 30, 2019 and 2018, $91,785,060 and $58,171,406, respectively, of cash and cash equivalents and certificates of deposit were subject to custodial credit risk. GPA has not experienced any losses in such accounts and management believes it is not exposed to any significant credit risk on its deposits. Bank balances as of September 30, 2019 and 2018, also include $142,897,599 and $143,331,302, respectively, representing cash and cash equivalents and certificates of deposit held and administered by GPA's trustees in GPA's name in accordance with various trust agreements and bond indentures.

B. Investments

As of September 30, 2019, GPA's investments were as follows:

	Amount	Maturity	S&P or Moody's Rating
Current:			
Investments held by trustee – restricted:			
Bond Reserve Fund:			
Santander UK PL (commercial paper)	$ 13,742,000	Less than 1 year	P-1
Bond Fund:			
Federated Government Ultrashort Duration Fund (mutual fund)	4,845,762	Less than 1 year	Not rated
	18,587,762		
Investments held by GPA - unrestricted:			
Operating Fund:			
U.S. Treasury Note	4,996,550	Less than 1 year	Aaa
	$ 23,584,312		
Noncurrent:			
Investments held by trustee - restricted:			
Bond Fund:			
Bayerische Landesbank Guaranteed Investment Certificate (GIC)	$ 25,233,865	More than 10 years	Aa3

(2) Cash, Cash Equivalents and Investments, Continued

B. Investments, Continued

As of September 30, 2018, GPA's investments were as follows:

	Amount	Maturity	S&P or Moody's Rating
Current:			
Investments held by trustee – restricted:			
Bond Reserve Fund:			
BNP Paribas Fortis (commercial paper)	$ 13,742,000	Less than 1 year	P-1
Bond Fund:			
Federal Home Loan Banks	7,502,921	Less than 1 year	P-1
Federal National Mortgage Association	2,335,830	Less than 1 year	P-1
Federated Government Ultrashort Duration Fund (mutual fund)	4,845,762	Less than 1 year	Not rated
	28,426,513		
Investments held by GPA - unrestricted:			
Operating Fund:			
Federal Home Loan Banks	17,229,066	Less than 1 year	P-1
Federal Home Loan Mortgage Corporation	12,817,949	Less than 1 year	P-1
U.S. Treasury Note	7,979,680	Less than 1 year	Aaa
	38,026,695		
	$ 66,453,208		
Noncurrent:			
Investments held by trustee - restricted:			
Bond Fund:			
Bayerische Landesbank Guaranteed Investment Certificate (GIC)	$ 10,562,833	More than 10 years	Aa3

Custodial credit risk for investments is the risk that in the event of the failure of the counterparty to a transaction, GPA will not be able to recover the value of the investment or collateral securities that are in the possession of an outside party. GPA's investments are held and administered by trustees in accordance with various trust agreements and bond indentures.

Credit risk for investments is the risk that an issuer or other counterparty to an investment will not fulfill its obligations.

Concentration of credit risk for investments is the risk of loss attributed to the magnitude of an entity's investment in a single issuer. GASB Statement No. 40 requires disclosure by issuer and amount of investment in any one issuer that represents five percent (5%) or more of total investments. As of September 30, 2019 and 2018, each of GPA's investments exceeded 5% of total investments, except for the investment in Federal National Mortgage Association which represents 3% of total investments at September 30, 2018.

(2) Cash, Cash Equivalents and Investments, Continued

B. Investments, Continued

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of debt instruments. Maturities of investments in certain funds are limited to five years to limit interest rate risk. Maturities of investments in all funds may not be later than the dates that such moneys are expected to be required by the trustees.

Investments Measured at Fair Value

GPA categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs. As of September 30, 2019 and 2018, investments in Federated Government Ultrashort Duration Fund (mutual fund) are valued using Level 1 inputs.

(3) Receivables

Accounts receivable at September 30, 2019 and 2018, were summarized as follows:

	2019	2018
Customers:		
Private	$ 28,990,779	$ 30,164,613
Government	6,351,446	5,663,115
	35,342,225	35,827,728
U.S. Government - Navy (note 8)	6,997,846	3,340,899
U.S. Government - grants	2,407,879	1,237,944
Others	1,378,316	807,618
	46,126,266	41,214,189
Less allowance for doubtful receivables	(3,575,815)	(3,362,283)
	$ 42,550,451	$ 37,851,906

Unbilled accounts receivable included in the accounts receivable – private customers amounted to $8,605,878 and $8,490,893 at September 30, 2019 and 2018, respectively.

Substantially all of GPA's customer accounts receivable are from individuals, companies and government agencies based in Guam. Concentrations largely result from accounts receivable from GovGuam agencies and the U.S. Navy. Management assesses the risk of loss and provides for an allowance for doubtful accounts to compensate for known and estimated credit risks.

(4) Obligations Under Capital Leases

In September 1996, GPA entered into energy conversion agreements to purchase electricity produced by generating plants constructed and operated by two companies. The agreements were determined to be capital leases and the generating plants costs were recorded as production plant under capital lease. The agreements have twenty-year terms. In December 2017, one energy conversion agreement expired and the other one expired in January 2019. Ownership of the plants was transferred to GPA upon expiration.

In December 2015, GPA entered into a contract for temporary power services to provide 40 megawatts (MW) of generation. The contract was for one year effective January 2016 with an option to extend. In January 2017, GPA extended the contract for four years which includes payments for the acquisition of the underlying power plant. The contract was determined to be a capital lease and the generating plant cost was recorded as production plant under capital lease. Under the contract, GPA pays capacity and operation and maintenance costs and purchases fuel for the plants. The operations and maintenance payments are reflected as energy conversion costs under operation and maintenance expenses. The lease has an effective interest rate of 5.0%. Future capacity payments under the contract are as follows:

Year Ending September 30,	Principal	Interest	Total
2020	$ 8,582,729	$ 346,471	$ 8,929,200
2021	2,226,222	18,578	2,244,800
	$ 10,808,951	$ 365,049	$ 11,174,000

At September 30, 2019 and 2018, the costs of plant and plant improvements under capital lease were $32,466,516 and $163,085,831 and accumulated depreciation was $4,354,969 and $66,411,697, respectively, which are presented as part of depreciable utility plant in the accompanying statements of net position.

(5) Pensions

GPA is statutorily responsible for providing pension benefits for GPA employees through the GovGuam Retirement Fund (GGRF).

A. General Information About the Pension Plans

Plan Description: GGRF administers the GovGuam Defined Benefit (DB) Plan, a single-employer defined benefit pension plan, and the Defined Contribution Retirement System (DCRS) Plan. The DB Plan provides retirement, disability, and survivor benefits to plan members who enrolled in the plan prior to October 1, 1995. Article 1 of 4 GCA 8, Section 8105, requires that all employees of GovGuam, regardless of age or length of service, become members of the DB Plan prior to the operative date. Employees of public corporations of GovGuam, which include GPA, have the option of becoming members of the DB Plan prior to the operative date. All employees of GovGuam, including employees of GovGuam public corporations, whose employment commences on or after October 1, 1995, are required to participate in the DCRS Plan. Hence, the DB Plan became a closed group.

Members of the DB Plan who retired prior to October 1, 1995, or their survivors, are eligible to receive annual supplemental annuity payments. In addition, retirees under the DB Plan and DCRS Plans are eligible to receive an annual ad hoc cost of living allowance (COLA).

A single actuarial valuation is performed annually covering all plan members and the same contribution rate applies to each employer. GGRF issues a publicly available financial report that includes financial statements and required supplementary information for the DB Plan. That report may be obtained by writing to the Government of Guam Retirement Fund, 424 A Route 8, Maite, Guam 96910, or by visiting GGRF's website – www.ggrf.com.

Plan Membership: As of September 30, 2018 (the measurement date), plan membership consisted of the following:

DB members:	
Inactive employees or beneficiaries currently receiving benefits	7,273
Inactive employees entitled to but not yet receiving benefits	3,170
Active employees	5,188
	15,631
DCRS members:	
Active employees	5,921
	21,552

Benefits Provided: The DB Plan provides pension benefits to retired employees generally based on age and/or years of credited service and an average of the three highest annual salaries received by a member during years of credited service, or $6,000, whichever is greater. Members who joined the DB Plan prior to October 1, 1981 may retire with 10 years of service at age 60 (age 55 for uniformed personnel); or with 20 to 24 years of service regardless of age with a reduced benefit if the member is under age 60; or upon completion of 25 years of service at any age. Members who joined the DB Plan on or after October 1, 1981 and prior to August 22, 1984 may retire with 15 years of service at age 60 (age 55 for uniformed personnel); or with 25 to 29 years of service regardless of age with a reduced benefit if the member is under age 60; or upon completion of 30 years of service at any age.

(5) Pensions, Continued

A. General Information About the Pension Plans, Continued:

Members who joined the DB Plan after August 22, 1984 and prior to October 1, 1995 may retire with 15 years of service at age 65 (age 60 for uniformed personnel); or with 25 to 29 years of service regardless of age with a reduced benefit if the member is under age 65; or upon completion of 30 years of service at any age. Upon termination of employment before attaining at least 25 years of total service, a member is entitled to receive a refund of total contributions including interest. A member who terminates after completing at least 5 years of service has the option of leaving contributions in the GGRF and receiving a service retirement benefit upon attainment of the age of 60 years. In the event of disability during employment, members under the age of 65 with six or more years of credited service who are not entitled to receive disability payments from the United States Government are eligible to receive sixty-six and two-thirds of the average of their three highest annual salaries received during years of credited service. The DB Plan also provides death benefits.

Supplemental annuity benefit payments are provided to DB retirees in the amount of $4,238 per year, but not to exceed $40,000 per year when combined with their regular annual retirement annuity. Annual COLA payments are provided to DB and DCRS retirees in a lump sum amount of $2,000. Both supplemental annuity benefit payments and COLA payments are made at the discretion of the Guam Legislature, but are funded on a "pay-as-you-go" basis so there is no plan trust. It is anticipated that ad hoc COLA and supplemental annuity payments will continue to be made for future years at the same level currently being paid.

On September 20, 2016, the Guam Legislature enacted Public Law 33-186, which created two new government retirement plans; the DB 1.75 Plan and the Government of Guam Retirement Security Plan (GRSP). Commencing April 1, 2017 through September 30, 2018, eligible employees may elect, during the "election window", to participate in the DB 1.75 Plan or the GRSP with an effective date of January 1, 2018. Beginning January 1, 2018, all new employees shall be automatically enrolled in the GRSP. New employees have sixty (60) days from the date of hire to elect to participate in the DCRS.

The DB 1.75 Plan is open for participation by certain existing employees, new employees, and reemployed employees who would otherwise participate in the DC Plan or the new GRSP and who make election on a voluntary basis to participate in the DB 1.75 Plan by December 31, 2017. Employee contributions are made by mandatory pre-tax payroll deduction at the rate of 9.5% of the employee's base salary while employer contributions are actuarially determined. Members of the DB 1.75 Plan automatically participate in the GovGuam deferred compensation plan, pursuant to which employees are required to contribute 1% of base salary as a pre-tax mandatory contribution. Benefits are fully vested upon attaining 5 years of credited service.

Members of the DB 1.75 Plan may retire at age 62 with 5 years of credited service, or at age 60 with 5 years of credited service without survivor benefits, or at age 55 with 25 years of credited service but the retirement annuity shall be reduced ½ of 1% for each month that the age of the member is less than 62 years (6% per year). Credited service is earned for each year of actual employment by the GovGuam as an employee. Upon retirement, a retired member is entitled to a basic retirement annuity equal to an annual payment of 1.75% of average annual salary multiplied by years of credited service. Average annual salary means the average of annual base salary for the three years of service that produce the highest average.

(5) Pensions, Continued

A. General Information About the Pension Plans, Continued:

Contributions and Funding Policy: Contribution requirements of participating employers and active members to the DB Plan are determined in accordance with Guam law. Employer contributions are actuarially determined under the One-Year Lag Methodology. Under this methodology, the actuarial valuation date is used for calculating the employer contributions for the second following fiscal year. For example, the September 30, 2017 actuarial valuation was used for determining the year ended September 30, 2019 statutory contributions. Member contributions are required at 9.52% of base pay.

As a result of actuarial valuations performed as of September 30, 2017, 2016 and 2015, contribution rates required to fully fund the Retirement Fund liability, as required by Guam law, for the years ended September 30, 2019, 2018 and 2017, respectively, have been determined as follows:

	2019	2018	2017
Normal costs (% of DB Plan payroll)	13.54%	15.97%	16.27%
Employee contributions (DB Plan employees)	9.52%	9.55%	9.55%
Employer portion of normal costs (% of DB Plan payroll)	4.02%	6.42%	6.72%
Employer portion of normal costs (% of total payroll)	2.29%	1.60%	1.87%
Unfunded liability cost (% of total payroll)	21.29%	22.12%	21.60%
Government contribution as a % of total payroll	23.58%	23.72%	23.47%
Statutory contribution rates as a % of DB Plan payroll:			
Employer	26.56%	27.83%	27.41%
Employee	9.52%	9.55%	9.55%

GPA's contributions to the DB Plan for the years ended September 30, 2019, 2018 and 2017 were $5,147,076, $4,631,209 and $2,284,475, respectively, which were equal to the statutorily required contributions for the respective years then ended.

GPA's contributions to the supplemental annuity benefit payments and the COLA payments for the years ended September 30, 2019, 2018 and 2017 were $1,286,610, $1,295,324 and $1,319,634, respectively, which were equal to the statutorily required contributions for the respective years then ended.

Members of the DCRS plan, who have completed five years of government service, have a vested balance of 100% of both member and employer contributions plus any earnings thereon.

Contributions into the DCRS plan by members are based on an automatic deduction of 5% of the member's regular base pay, which increased to 6.2% effective January 1, 2018. The contribution is periodically deposited into an individual annuity account within the DCRS. Employees are afforded the opportunity to select from different annuity accounts available under the DCRS.

Statutory employer contributions for the DCRS plan for the year ended September 30, 2019 are determined using the same rates as the DB Plan. Of the amount contributed by the employer, only 5% of the member's regular pay is deposited into the DCRS, which increased to 6.2% effective January 1, 2018. The remaining amount is contributed towards the unfunded liability of the defined benefit plan.

(5) Pensions, Continued

A. General Information About the Pension Plans, Continued:

GPA's contributions to the DCRS Plan for the years ended September 30, 2019, 2018 and 2017 were $2,264,343, $3,035,381 and $5,280,871, respectively, which were equal to the required contributions for the respective years then ended. Of these amounts, $1,735,770, $2,416,600 and $4,173,926 were or will be contributed toward the unfunded liability of the DB Plan for the years ended September 30, 2019, 2018 and 2017, respectively.

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

Pension Liability: At September 30, 2019 and 2018, GPA reported a net pension liability for its proportionate share of the net pension liabilities measured as of September 30, 2018 and 2017, respectively, which is comprised of the following:

	2019	2018
Defined Benefit Plan	$ 64,825,399	$ 58,849,896
Ad Hoc COLA/supplemental annuity Plan for DB retirees	14,132,063	13,986,942
Ad Hoc COLA Plan for DCRS retirees	2,843,640	3,717,897
	$ 81,801,102	$ 76,554,735

GPA's proportion of the GovGuam net pension liabilities was based on GPA's expected plan contributions relative to the total expected contributions received by the respective pension plans for GovGuam and GovGuam's component units. At September 30, 2019 and 2018, GPA's proportionate shares of the GovGuam net pension liabilities were as follows:

	2019	2018
Defined Benefit Plan	5.50%	5.15%
Ad Hoc COLA/supplemental annuity Plan for DB retirees	4.88%	4.85%
Ad Hoc COLA Plan for DCRS retirees	5.76%	5.95%

Pension Expense: For the years ended September 30, 2019 and 2018, GPA recognized pension expense for its proportionate share of plan pension expense from the above pension plans as follows:

	2019	2018
Defined Benefit Plan	$ 8,622,820	$ (3,180,889)
Ad Hoc COLA/supplemental annuity Plan for DB retirees	1,545,402	4,217,361
Ad Hoc COLA Plan for DCRS retirees	(754,179)	294,082
	$ 9,414,043	$ 1,330,554

(5) Pensions, Continued

B. Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions, Continued:

Deferred Outflows and Inflows of Resources: At September 30, 2019 and 2018, GPA reported total deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	2019					
	Defined Benefit Plan		Ad Hoc COLA/ Supplemental Annuity Plan for DB Retirees		Ad Hoc COLA Plan for DCRS Retirees	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	$ 182,948	$ -	$ 209,085	$ -	$ 408,558	$ 25,986
Net difference between projected and actual earnings on pension plan investments	-	1,162,115	-	-	-	-
Changes of assumptions	-	-	-	469,054	338,676	379,538
Contributions subsequent to the measurement date	6,882,846	-	1,174,610	-	112,000	-
Changes in proportion and difference between GPA contributions and proportionate share of contributions	2,804,296	-	41,221	-	109,974	334,416
	$ 9,870,090	$ 1,162,115	$ 1,424,916	$ 469,054	$ 969,208	$ 739,940

	2018					
	Defined Benefit Plan		Ad Hoc COLA/ Supplemental Annuity Plan for DB Retirees		Ad Hoc COLA Plan for DCRS Retirees	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	$ -	$ -	$ -	$ -	$ 168,924	$ 28,880
Net difference between projected and actual earnings on pension plan investments	-	2,860,028	-	-	-	-
Changes of assumptions	-	-	-	-	375,495	247,266
Contributions subsequent to the measurement date	7,047,809	-	1,185,324	-	110,000	-
Changes in proportion and difference between GPA contributions and proportionate share of contributions	-	139,235	45,435	-	-	257,233
	$ 7,047,809	$ 2,999,263	$ 1,230,759	$ -	$ 654,419	$ 533,379

(5) Pensions, Continued

B. Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions, Continued:

Deferred outflows resulting from contributions subsequent to measurement date will be recognized as reduction of the net pension liability in the following year. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions at September 30, 2019 will be recognized in pension expense as follows:

Year Ending September 30	Defined Benefit Plan	Ad Hoc COLA/ Supplemental Annuity Plan for DB Retirees	Ad Hoc COLA Plan for DCRS Retirees
2020	$ 1,541,496	$ (104,164)	$ (1,821)
2021	417,847	(104,164)	(1,821)
2022	(438,305)	(10,420)	(1,821)
2023	304,091	-	(1,821)
2024	-	-	(1,821)
Thereafter	-	-	126,373
	$ 1,825,129	$ (218,748)	$ 117,268

Actuarial Assumptions: Actuarially determined contribution rates for the DB Plan are calculated as of September 30, two years prior to the end of the fiscal year in which contributions are reported. The methods and assumptions used to determine contribution rates are as follows:

Valuation Date:	September 30, 2017
Actuarial Cost Method:	Entry age normal
Amortization Method:	Level percentage of payroll, closed
Remaining Amortization Period:	May 1, 2033 (15.58 years remaining as of September 30, 2017)
Asset valuation method:	3-year smoothed market value (effective September 30, 2009)
Inflation:	2.75% per year
Total payroll growth:	2.75% per year
Salary increases:	4% to 7.5%
Retirement age:	50% probability of retirement upon first eligibility for unreduced retirement. Thereafter, the probability of retirement is 20% for each year until age 75, and increases to 100% at age 75.
Mortality:	RP-2000 healthy mortality table (males +3, females +2). Mortality for disabled lives is the RP 2000 disability mortality (males +6, females +4). Both tables are projected generationally from 2016 using 30% of Scale BB.

(5) Pensions, Continued

B. Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions, Continued:

The actuarial assumptions used in the September 30, 2017 valuation were based on the results of an actuarial experience study for the period October 1, 2011 to September 30, 2015.

The investment return rate assumption as of September 30, 2017 was 7%. The long-term expected rate of return on pension 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 the assumed rate of inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of the expected nominal return for each major asset class are summarized in the following table:

Asset Class	Target Allocation	Nominal Return
U.S. Equities (large cap)	29.0%	7.47%
U.S. Equities (small cap)	7.0%	8.73%
Non-U.S. Equities	16.5%	9.27%
Non-U.S. Equities (emerging markets)	2.0%	11.09%
U.S. Fixed Income (aggregate)	21.5%	4.67%
Risk parity	8.0%	6.50%
High yield bonds	8.0%	6.59%
Global Real Estate (REITs)	5.0%	8.60%
Master Limited Partnerships	3.0%	6.56%

Changes in Actuarial Assumptions: The following changes in actuarial assumptions occurred from the September 30, 2016 valuation to the September 30, 2017 valuation:

Remaining Amortization Period: The unfunded liability was being amortized over a closed period ending on May 1, 2031. This has been extended by 2 years to May 1, 2033 by Public Law 33-186.

Discount Rate: The discount rate used to measure the total pension liability for the DB Plan as of September 30, 2018 and 2017 was 7.0%, which is equal to the expected investment rate of return. The expected investment rate of return applies to benefit payments that are funded by plan assets (including future contributions), which includes all plan benefits except supplemental annuity payments to DB retirees and ad hoc COLA to both DB and DCRS retirees. The discount rate used to measure the total pension liability for the supplemental annuity and ad hoc COLA payments as of September 30, 2018 was 4.18% (3.64% as of September 30, 2017), which is equal to the rate of return of a high quality bond index.

Discount Rate Sensitivity Analysis: The following presents the sensitivity of the net pension liability to changes in the discount rate. The sensitivity analysis shows the impact to GPA's proportionate share of the net pension liability if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current discount rate:

(5) Pensions, Continued

B. Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions, Continued:

Defined Benefit Plan:

	1% Decrease in Discount Rate 6.0%	Current Discount Rate 7.0%	1% Increase in Discount Rate 8.0%
Net Pension Liability	$ 82,659,452	$ 64,825,399	$ 49,516,923

Ad Hoc COLA/Supplemental Annuity Plan for DB Retirees:

	1% Decrease in Discount Rate 3.18%	Current Discount Rate 4.18%	1% Increase in Discount Rate 5.18%
Net Pension Liability	$ 15,459,979	$ 14,132,063	$ 12,984,362

Ad Hoc COLA Plan for DCRS Retirees:

	1% Decrease in Discount Rate 3.18%	Current Discount Rate 4.18%	1% Increase in Discount Rate 5.18%
Net Pension Liability	$ 3,199,027	$ 2,843,640	$ 2,540,097

C. Payables to the Pension Plans:

As of September 30, 2019 and 2018, GPA recorded payables to GGRF of $391,703 and $442,425, respectively, representing statutorily required contributions unremitted as of the respective year-ends.

(6) Other Post-Employment Benefits (OPEB)

GPA participates in the retiree health care benefits program. GovGuam's Department of Administration is responsible for administering the GovGuam Group Health Insurance Program, which provides medical, dental, and life insurance benefits to retirees, spouses, children and survivors. Active employees and retirees who waive medical and dental coverage are considered eligible for the life insurance benefit only. The program covers retirees and is considered an other post-employment benefits plan.

A. General Information About the OPEB Plan

Plan Description: The other post-employment benefits plan is a single-employer defined benefit plan that provides healthcare benefits to eligible employees and retirees who are members of the GovGuam Retirement Fund. No assets are accumulated in a trust that meets the criteria in paragraph 4 of GASB Statement No. 75. The Governor's recommended budget and the annual General Appropriations Act enacted by the Guam Legislature provide for a premium level necessary for funding the program each year on a "pay-as-you-go" basis. Because the OPEB Plan consists solely of GovGuam's firm commitment to provide OPEB through the payment of premiums to insurance companies on behalf of its eligible retirees, no stand-alone financial report is either available or generated.

(6) Other Post-Employment Benefits (OPEB), Continued

A. General Information About the OPEB Plan, Continued:

Plan Membership: As of September 30, 2018 and 2017 (the respective measurement periods), OPEB plan membership consisted of the following as of September 30, 2018 and 2016 (the respective actuarial valuation dates):

	2018	2017
Inactive plan members or beneficiaries currently receiving benefits	7,930	7,342
Active plan members	10,136	10,282
Total members	18,066	17,624

Benefits Provided: The OPEB Plan provides post-employment medical, dental and life insurance benefits to GPA retirees, spouses, children and survivors, which are the same benefits as provided to active employees. Active employees and retirees who waive medical and dental coverage are considered eligible for the life insurance benefit only. GPA contributes a portion of the medical and dental premiums, based on a schedule of semi-monthly rates, and reimburses certain Medicare premiums to eligible retirees. Retirees are also required to pay a portion of the medical and dental insurance premiums. Three types of health plans are offered to eligible participants.

- Standard islandwide Preferred Provider Organization (PPO) Plan
- High Deductible (Health Savings Account - HSA) PPO Plan
- Retiree Supplement Plan (RSP)

The PPO and HSA Plans apply to both active employees and retirees and work with set deductible amounts whereas the RSP Plan is an added option for retirees only.

Contributions: No employer contributions are assumed to be made since an OPEB trust has not been established. Instead, the OPEB Plan is financed on a substantially "pay-as-you-go" basis whereby contributions to the plan are generally made at about the same time and in about the same amount as benefit payments and expenses becoming due.

For the years ended September 30, 2019, 2018 and 2017, GPA reimbursed GovGuam $2,820,691, $2,945,357 and $2,884,459, respectively, for its share of the costs of the above mentioned Plan, which were equal to the statutorily required contributions.

B. Total OPEB Liability

As of September 30, 2019 and 2018, GPA reported a total OPEB liability of $120,278,683 and $145,955,861, respectively, for its proportionate share of the GovGuam total OPEB liability measured as of September 30, 2018 and 2017. The following presents GPA's change in proportionate share since the prior measurement date:

Proportion at prior measurement date, September 30, 2017	6.00%
Proportion at measurement date, September 30, 2018	6.41%
Increase in proportion	0.41%

Actuarial Assumptions: The total OPEB liability for the OPEB Plan was determined by an actuarial valuation as of September 30, 2018 (the measurement date) using the following actuarial assumptions, applied to all periods included in the measurement:

(6) Other Post-Employment Benefits (OPEB), Continued

B. Total OPEB Liability, Continued:

Inflation:	2.75%.
Amortization method:	Level dollar amount over 30 years on an open amortization period for pay-as-you-go funding.
Salary increases:	7.5% per year for the first 5 years of service, 6% for 5-10 years, 5% for 11-15 years and 4.0% for service over 15 years. Previously, 7.5% per year for the first 5 years of service, 6% for 5-10 years, 5% for 11-15 years and 4.5% for service over 15 years.
Healthcare cost trend rates:	For 2018, Non-Medicare 13.5%; Medicare -25%; and Part B 5.33%. For the second year, 6.75% then reducing 0.25% annually to an ultimate rate of 4.25% for 2029 and later years. Previously, 8% for 2016, decreasing 0.25% per year to an ultimate rate of 4.5% for 2030 and later years. Health care trend assumptions begin at current levels and grade down over a period of years to a lower level equal to some real rate plus inflation. The principal components of health trend are medical inflation, deductible erosion, cost shifting, utilization, technology and catastrophic claims. The overall effect of these components are expected to decline year by year.
Dental trend rates:	3.8% in year one; 3.75% per year thereafter, based on a blend of historical retiree premium rate increases as well as observed U.S. national trends. Previously, 4% per year.
Participation rates:	Medical - 100% of eligible retired employees will elect to participate. Dental - 100% of eligible retirees will elect to participate. Life - 100% of eligible retirees will elect to participate. Current retirees will continue in the GovGuam plan as provided in the data, and upon attainment of age 65, will remain in that plan or enroll in a Retiree Supplemental Plan per Medicare Enrolment assumption below.
Medicare enrollment:	15% of current and future retirees are assumed to enroll in Medicare and will enroll in a Retiree Supplemental Plan upon attainment of age 65. All employees retired prior to September 30, 2008 are assumed ineligible for Medicare upon attainment of age 65 and therefore will not enroll in a Medicare Supplemental Plan.

(6) Other Post-Employment Benefits (OPEB), Continued

B. Total OPEB Liability, Continued:

Dependent status:	Male spouses are assumed to be three years older and female spouses are assumed to be three years younger than the retired employee. Medical – 100% of spouses of active employees covered under a GovGuam medical plan will elect to participate at the active employee's retirement. Dental – 100% of spouses of active employees covered under a GovGuam dental plan will elect to participate at the active employee's retirement. Life – 100% of spouses of active employees will elect to participate at the active employee's retirement. For current retired employees, the actual census information is used. Previously, 60% of employees are assumed to retire with a covered spouse.
Actuarial cost method:	Entry Age Normal. The costs of each employee's post-employment benefits are allocated as a level basis over the earnings of the employee between the employee's date of hire and the assumed exit ages.
Healthy retiree mortality rate:	RP-2000 Combined Healthy Mortality Table, set forward 3 years and 2 years for males and females, respectively, projected generationally using 30% of Scale BB. Previously, set forward 4 years and 1 year for males and females, respectively.
Disabled retiree mortality rates:	RP-2000 Disabled Mortality Table for males and females, set forward 6 years and 4 years for males and females, respectively, projected generationally using 30% of Scale BB.
Withdrawal rates:	15% for less than 1 year of service, decreasing 1% for each additional year of service up to 10 years, further decreasing 0.5% for each additional year of service up to 15 years, and 2% for service over 15 years.
Disability rates:	1974-78 SOA LTD Non-Jumbo, with rates reduced by 50% for males and 75% for females as follows: 0.05% for males aged 20-39 years (0.03% for females); 0.10% - .18% for males aged 40-49 years (0.05% - 0.09% for females); 0.32% - 0.53% for males aged 50-59 years (0.16% - 0.27% for females); and 0.76% for males aged 60-64 years (0.38% for females). Previously, 1974-78 SOA LTD Non-Jumbo, with rates reduced by 50% for males and females.

(6) Other Post-Employment Benefits (OPEB), Continued

B. Total OPEB Liability, Continued:

Retirement rates: 50% of employees are assumed to retire at first eligibility for unreduced benefits under the Government of Guam Retirement Fund, 20% per year thereafter until age 75, and 100% at age 75. Previously, 40% of employees are assumed to retire at earliest eligibility for unreduced benefits under the Government of Guam Retirement Fund, 15% per year thereafter until age 65, 20% per year thereafter until age 70 and 100% at age 70.

OPEB Plan Fiduciary Net Position: An OPEB trust has not been established thus the OPEB Plan does not presently report OPEB plan fiduciary net position.

Discount Rate: The discount rate used to measure the total OPEB liability was 4.18% as of September 30, 2018 (3.63% as of September 30, 2017). The projection of cash flows used to determine the discount rate assumed that contributions from GPA will be made in accordance with the plan's funding policy. Based on those assumptions, the OPEB plan's fiduciary net position was projected to be insufficient to make all projected benefit payments of current plan members. Therefore, the 4.18% municipal bond rate as of September 30, 2018 (3.63% as of September 30, 2017) was applied to all periods of projected benefit payments to determine the total OPEB liability.

C. Changes in the Total OPEB Liability

Changes in GPA’s proportionate share of the total OPEB liability for the years ended September 30, 2019 and 2018 are as follows:

	2019	2018
At October 1	$ 145,955,861	$ 154,134,007
Changes for the year:		
Service cost	3,637,954	4,181,160
Interest	5,383,112	4,805,542
Change in proportionate share	13,530,834	169,528
Differences between expected and actual experience	(33,509,074)	-
Change of assumptions	(12,122,578)	(14,997,174)
Benefit payments	(2,597,426)	(2,337,202)
Net change	(25,677,178)	(8,178,146)
At September 30	$ 120,278,683	$ 145,955,861

(6) Other Post-Employment Benefits (OPEB), Continued

C. Changes in the Total OPEB Liability, Continued

Discount Rate Sensitivity Analysis: The following schedule shows the impact on the OPEB liability if the discount rate used was 1% less than and 1% greater than the discount rate that was used (4.18%) in measuring the 2018 OPEB liability.

	1% Decrease in Discount Rate 3.18%	Current Discount Rate 4.18%	1% Increase in Discount Rate 5.18%
OPEB Liability	$ 141,847,131	$ 120,278,683	$ 102,953,114

Healthcare Cost Trend Rate Sensitivity Analysis: The following schedule presents the sensitivity of the total OPEB liability to changes in the healthcare cost trend rate. The sensitivity analysis shows the impact on the OPEB liability if the healthcare cost trend rate used was 1% less than and 1% greater than the current healthcare cost trend rate used in measuring the 2018 OPEB liability.

	1% Decrease	Healthcare Cost Trend Rates	1% Increase
OPEB Liability	$ 100,299,981	$ 120,278,683	$ 146,140,151

D. OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

For the years ended September 30, 2019 and 2018, GPA recognized OPEB expense of $5,507,866 and $11,030,943, respectively. At September 30, 2019 and 2018, GPA reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	2019		2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Changes of assumptions	$ 8,711,309	$ 19,961,956	$ 10,852,660	$ 12,507,272
Difference between expected and actual experience	-	27,493,082	-	-
Contributions subsequent to the measurement date	2,820,691	-	2,945,357	-
Changes in proportion and difference between GPA contributions and proportionate share of contributions	8,337,789	1,785,131	-	2,296,771
	$ 19,869,789	$ 49,240,169	$ 13,798,017	$ 14,804,043

(6) Other Post-Employment Benefits (OPEB), Continued

D. OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB, Continued:

Deferred outflows resulting from contributions subsequent to measurement date will be recognized as reduction of the OPEB liability in the following year. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB at September 30, 2019 will be recognized in OPEB expense as follows:

Year Ended September 30	
2020	$ (6,507,058)
2021	(6,507,058)
2022	(6,507,058)
2023	(9,067,681)
2024	(3,602,216)
	$ (32,191,071)

(7) Noncurrent Liabilities

A. Long-term Debt

Long-term debt at September 30, 2019 and 2018 is as follows:

	2019	2018
2017 Series Revenue Refunding Bonds, initial face value of $148,670,000, interest at varying rates from 4.0% to 5.0% per annum payable semi-annually in October and April, principal and mandatory sinking fund payments payable in varying annual installments commencing with a payment of $135,000 in October 2018, increasing to a final payment of $16,800,000 in October 2040.	$ 148,535,000	$ 148,670,000
2014 Series Senior Revenue Bonds, initial face value of $76,470,000, interest at varying rates from 4.0% to 5.0% per annum payable semi-annually in October and April, principal and mandatory sinking fund payments payable in varying annual installments commencing with a payment of $1,310,000 in October 2017, increasing to a final payment of $4,855,000 in October 2044.	73,785,000	75,160,000
2012 Series Senior Revenue Bonds, initial face value of $340,620,000, interest at varying rates from 2.98% to 5.0% per annum payable semi-annually in October and April, principal and mandatory sinking fund payments payable in varying annual installments commencing with a payment of $110,000 in October 2013, increasing to a maximum payment of $25,630,000 in October 2031, with a final payment of $24,485,000 in October 2034.	339,240,000	339,360,000

(7) Noncurrent Liabilities, Continued

A. Long-term Debt, Continued

	2019	2018
Total long-term debt	561,560,000	563,190,000
Less current maturities	(16,130,000)	(1,630,000)
	545,430,000	561,560,000
Add premium on bonds	39,462,990	43,321,434
Total bonds	$ 584,892,990	$ 604,881,434

Proceeds of the 2012 Series Revenue Bonds were used to refund GPA's 1993 and 1999 Senior Bonds, make a deposit to the Senior Bond Reserve Fund to increase the amount on deposit therein to the Bond Reserve Fund Requirement, and pay costs of issuance.

Proceeds of the 2014 Series Revenue Bonds were used to finance a variety of generation, transmission and distribution improvements and systems and information technology upgrades, make a deposit to the Senior Bond Reserve Fund, provide capitalized interest through September 30, 2017, and pay costs of issuance.

Proceeds of the 2017 Series Revenue Refunding Bonds were used to refund GPA's 2010 Series Senior Revenue Bonds and to pay costs of issuance. The 2010 Series Senior Revenue Bonds were used to finance capital projects, generally consisting of a new administration building and various generation, transmission and distribution facilities, make a deposit to the Bond Reserve Fund, provide capitalized interest, and pay costs of issuance.

All gross revenues have been pledged to repay the bonds principal and interest. For the years ended September 30, 2019 and 2018, the debt service for the series bonds was $28,084,161 and $30,532,400, respectively, or approximately 7% and 9%, respectively, of pledged gross revenues.

Premium associated with the bonds at September 30, 2019 and 2018 are being amortized on the effective interest method over the life of the applicable debt.

As of September 30, 2019, future maturities of long-term debt are as follows:

Year Ending September 30,	Principal	Interest	Total Debt Service
2020	$ 16,130,000	$ 27,624,528	$ 43,754,528
2021	20,515,000	26,708,625	47,223,625
2022	21,540,000	25,657,250	47,197,250
2023	22,705,000	24,551,125	47,256,125
2024	24,020,000	23,383,000	47,403,000
2025 through 2029	139,330,000	97,176,500	236,506,500
2030 through 2034	159,690,000	59,047,500	218,737,500
2035 through 2039	98,845,000	25,628,625	124,473,625
2040 through 2044	53,930,000	5,440,650	59,370,650
2045	4,855,000	115,975	4,970,975
	$ 561,560,000	$ 315,333,778	$ 876,893,778

(7) Noncurrent Liabilities, Continued

A. Long-term Debt, Continued

Debt Refunding

In October 2012, GPA refunded its 1993 and 1999 Series bonds through the issuance of the 2012 Series bonds. At the time of refunding, the 1993 and 1999 Series bonds had principal balances outstanding of $56,370,000 and $299,680,000, respectively. The proceeds for the refunding were transferred to an escrow agent who used the proceeds to purchase non-callable and non-prepayable obligations of the United States of America or held as cash and are to be held in an irrevocable trust to be used for the payment of the principal of and interest on the 1993 and 1999 Series bonds. The advance refunding met the requirements of an in-substance defeasance and the 1993 and 1999 bonds were removed from GPA's financial statements. The advance refunding resulted in a loss on defeasance totaling $17,283,801 representing the difference between the reacquisition price and the carrying amount of the 1993 and 1999 bonds. Although the advance refunding resulted in the recognition of an accounting loss, GPA in effect reduced its aggregate debt service payments by $16,506,398 over the next twenty years and obtained an economic gain (difference between the present values of the old debt and the new debt service payments) of $27,940,966.

In December 2017, GPA refunded its 2010 Series bonds through the issuance of the 2017 Series bonds. At the time of refunding, the 2010 Series bonds had a principal balance outstanding of $150,440,000. The proceeds for the refunding were transferred to an escrow agent who used the proceeds to purchase non-callable and non-prepayable obligations of the United States of America or held uninvested as cash and are to be held in an irrevocable trust to be used for the payment of the principal of and interest on the 2010 Series bonds. The advance refunding met the requirements of an in-substance defeasance and the 2010 bonds were removed from GPA's financial statements. The advance refunding resulted in a loss on defeasance totaling $18,390,430 representing the difference between the reacquisition price and the carrying amount of the 2010 bonds. Although the advance refunding resulted in the recognition of an accounting loss, GPA in effect reduced its aggregate debt service payments by $11,528,439 over the next twenty-two years and obtained an economic gain (difference between the present values of the old debt and the new debt service payments) of $7,773,490.

The loss on refunding of the bonds is being amortized using the effective interest method over the average remaining life of the old bonds which approximated the average life of the new bonds. The unamortized balance of the loss on refunding of the 1993 and 1999 Series bonds is $8,594,851 and $9,834,607 as of September 30, 2019 and 2018, respectively. The unamortized balance of the loss on refunding of the 2010 Series bonds is $16,138,253 and $17,259,029 as of September 30, 2019 and 2018, respectively.

At September 30, 2019 and 2018, bonds outstanding of $414,765,000 and $433,770,000, respectively, are considered defeased.

All of GPA’s outstanding bonds are public offerings sold through competitive sale. GPA has no direct borrowings.

(7) Noncurrent Liabilities, Continued

A. Long-term Debt, Continued

Changes in GPA's long-term debt for the years ended September 30, 2019 and 2018 are as follows:

	Outstanding October 1, 2018	Increases	Decreases	Outstanding September 30, 2019	Current
Long-term debt:					
2012 Series Senior bonds	$ 339,360,000	$ -	$ (120,000)	$ 339,240,000	$ 180,000
2014 Series Senior bonds	75,160,000	-	(1,375,000)	73,785,000	14,505,000
2017 Series Senior bonds	148,670,000	-	(135,000)	148,535,000	1,445,000
Unamortized premium on bonds	43,321,434	-	(3,858,444)	39,462,990	-
	$ 606,511,434	$ -	$ (5,488,444)	$ 601,022,990	$ 16,130,000

	Outstanding October 1, 2017	Increases	Decreases	Outstanding September 30, 2018	Current
Long-term debt:					
2010 Series Senior bonds	$ 150,440,000	$ -	$ (150,440,000)	$ -	$ -
2012 Series Senior bonds	339,830,000	-	(470,000)	339,360,000	120,000
2014 Series Senior bonds	76,470,000	-	(1,310,000)	75,160,000	1,375,000
2017 Series Senior bonds	-	148,670,000	-	148,670,000	135,000
Unamortized premium on bonds	29,002,672	17,876,459	(3,557,697)	43,321,434	-
Unamortized discount on bonds	(3,393,810)	-	3,393,810	-	-
	$ 592,348,862	$ 166,546,459	$ (152,383,887)	$ 606,511,434	$ 1,630,000

Bond Covenants

The Indenture, dated December 1, 1992, as subsequently amended and supplemented by Supplemental Indentures, sets forth the establishment of accounts, the application of revenues, and certain other covenants to ensure payment of debt service. Management believes GPA was in compliance with all bond covenants as of and for the years ended September 30, 2019 and 2018. The primary requirements of the Indenture are summarized below:

Rate Covenant - GPA has covenanted to at all times to establish, fix, prescribe and collect rates and charges for the sale or use of electric energy produced, transmitted, distributed or furnished from the system so as to yield, with respect to the then immediately following twelve months, net revenues equal to at least 1.30 times of the annual debt service. Net revenues are defined as all revenues received during the period less maintenance and operation expenses incurred during such period.

Revenue Fund – The Indenture requires GPA to deposit all revenues upon receipt in the revenue fund. Amounts in the revenue fund are to be used to pay budgeted maintenance and operation expenses and transfer the remaining moneys to different fund accounts.

Working Capital Requirement – Working capital refers to the amount of cash GPA maintains at any given time to pay for its operations. GPA must maintain a balance in such account equal to one-twelfth of the budgeted maintenance and operation expenses for the then current fiscal year.

(7) Noncurrent Liabilities, Continued

A. Long-term Debt, Continued

Bond Covenants, Continued

Bond Fund - the Indenture created the Bond Fund solely for the purposes of: (1) paying interest on the Senior Bonds when due and payable; (2) paying principal of the Serial Senior Bonds when due and payable; and (3) purchasing and redeeming or paying at maturity the Term Senior Bonds.

Bond Reserve Fund - the Indenture created a Bond Reserve Fund available for the purpose of paying debt service on Bonds in the event of a deficiency in the Bond Fund. GPA is required to maintain an amount within the Bond Reserve Fund equal to the maximum annual debt service for the then current or future fiscal year on all outstanding bonds.

Events of default with finance related consequences - the Indenture specifies a number of Events of Default and related remedies. In the event that the amount in any Fund or Account is insufficient for the purposes for which such Fund or Account was established, the Trustee shall transfer such amount as is necessary to satisfy such deficiency. If an event of default continues, the Trustee is entitled, and if requested to do so by the Bondholders, to declare the principal and accrued interest to be due and payable immediately upon notice in writing to GPA.

Acceleration - the remedies granted to the Trustee and the Bondholders under the Indenture do not include any right to accelerate the payment of the outstanding bonds. The Trustee is authorized to take certain actions upon the occurrence of an event of default, including proceedings to enforce the rights of Bondholders as outlined in the Indenture.

Forward Delivery Contract

On September 28, 2000, GPA entered into Bond Reserve Fund Forward Delivery Agreements (the agreements) with Lehman Brothers and Bank of America. In connection with the agreements, GPA received cash of $13.5 million in October 2000, representing the present value of interest income on certain invested bond proceeds. Based on the terms of the agreements, gross proceeds totaled $17,521,029 while GPA incurred termination fees and closing costs totaling $3,530,000 and $1,250,000 respectively. The $13.5 million in net proceeds included $759,500 of interest income earned as of the closing dates of the agreements.

The gross proceeds, termination fees and closing costs have been deferred and amortized on a straight line basis over the average remaining life of the 1993 and 1999 bonds. The gross proceeds, net of amortization, are reflected as unearned forward delivery contract revenue in the accompanying statements of net position. The termination fees and closing costs are reflected as unamortized forward delivery contract costs in the accompanying statements of net position. The amortization of forward delivery contract revenues and costs is reflected as components of interest income and interest expense, respectively, in the accompanying statements of revenues, expenses and changes in net position.

(7) Noncurrent Liabilities, Continued

A. Long-term Debt, Continued

Forward Delivery Contract, Continued

The following summarizes the unearned revenues and unamortized costs on the forward delivery contract at September 30, 2019 and 2018:

	2019	2018
Unearned forward delivery contract revenues	$ 8,760,514	$ 8,760,514
Accumulated amortization	(7,592,478)	(7,008,461)
	$ 1,168,036	$ 1,752,053
Unamortized forward delivery contract costs	$ 2,390,265	$ 2,390,265
Accumulated amortization	(2,071,628)	(1,912,268)
	$ 318,637	$ 477,997

B. Other Long-term Liabilities

Changes in other long-term liabilities in fiscal year 2019 and 2018 were as follows:

	Outstanding October 1, 2018	Increases	Decreases	Outstanding September 30, 2019	Current
Others:					
Obligations under capital leases	$ 24,422,017	$ -	$ (13,613,066)	$ 10,808,951	$ 8,582,729
DCRS sick leave liability	1,331,151	-	-	1,331,151	-
Employees' annual leave	3,305,253	2,347,911	(2,295,496)	3,357,668	2,153,583
Net pension liability	76,554,735	13,589,500	(8,343,133)	81,801,102	-
OPEB liability	145,955,861	12,014,925	(37,692,103)	120,278,683	-
Customer advances for construction	385,293	9,246	-	394,539	-
	$ 251,954,310	$ 27,961,582	$ (61,943,798)	$ 217,972,094	$ 10,736,312

	Outstanding October 1, 2017	Increases	Decreases	Outstanding September 30, 2018	Current
Others:					
Obligations under capital leases	$ 47,759,025	$ -	$ (23,337,008)	$ 24,422,017	$ 13,613,066
DCRS sick leave liability	4,008,397	-	(2,677,246)	1,331,151	-
Employees' annual leave	3,131,657	2,678,897	(2,505,301)	3,305,253	2,101,168
Net pension liability	85,875,217	-	(9,320,482)	76,554,735	-
OPEB liability	154,134,007	11,030,942	(19,209,088)	145,955,861	-
Customer advances for construction	369,180	16,113	-	385,293	-
	$ 295,277,483	$ 13,725,952	$ (57,049,125)	$ 251,954,310	$ 15,714,234

(8) Agreements with the U.S. Navy

On September 15, 1996, a lease agreement was entered into between GPA and the U.S. Navy (Navy) to transfer to GPA the operations, maintenance, and custody of certain Navy-owned electrical transmission and distribution lines, electric power generation facilities, related structures and equipment, together with the associated land interest. The facilities are leased to GPA at no cost for a period of 50 years.

(8) Agreements with the U.S. Navy, Continued

On August 1, 2012, GPA and the Navy entered into a Utility Services Contract (USC) for a period of ten years, unless terminated early at the option of the Navy, with no option for extension. Key features of the USC include transfer of certain Navy facilities to GPA at no charge, calculation of power rates charged to the Navy in accordance with the methodology approved by the PUC, GPA's continued use of the Navy's assets and associated real estate assets at no charge, compensation by GPA to the Navy for energy supplied to GPA's customers from Navy dedicated facilities, weekly fuel payments by the Navy, supply of water to Guam Waterworks Authority (GWA) by the Navy for power generation facilities, maintenance of a minimum contract demand with no maximum demand provision, and payment within fifteen days of electric billing by the Navy, subject to late payment charges. During the years ended September 30, 2019 and 2018, GPA billed the Navy $65,706,812 and $59,119,199, respectively, for sales of electricity under the USC. Receivables from the Navy were $6,997,846 and $3,340,899 at September 30, 2019 and 2018, respectively.

On August 31, 2015, GPA and the Navy entered into a Basic Ordering Agreement (BOA) which enumerates task items that are to be contracted to identify, develop and/or implement work on Navy facilities and utility systems. The tasks are generally related to energy services including renewable energy and energy efficiency. The period during which the orders may be placed against the BOA may not exceed five years. As of September 30, 2019, no work has commenced on this BOA.

On September 12, 2016, GPA and the Navy entered into a lease agreement to lease a portion of the land controlled by the Navy to construct and operate a renewable energy plant. The lease will not be effective until GPA secures the renewable energy contract. No lease payment is due or accruing until then.

(9) Commitments and Contingencies

Fuel Purchase Contracts

In November 2019, GPA entered into diesel fuel supply contracts with IP&E Guam, Inc. and Mobil Oil Guam, Inc. The agreements are for two years beginning January 2020 with an option to extend for three years, renewable annually.

Performance Management Contracts

GPA entered into a Performance Management Contract (PMC) for the operation and maintenance of the Cabras 1 and 2 generators, which became effective on October 1, 2010. The PMC is for a period of five years with an option to extend for another five-year term. The fees are subject to certain incentives and penalties, as agreed by both parties. The extension was exercised and the PMC expires on September 30, 2020.

GPA entered into a PMC for the Dededo, Macheche and Yigo combustion turbine power plants for a period of five years commencing on March 1, 2016 with options to extend for one additional three-year term and one additional two-year term. The fees are subject to certain incentives and penalties, as agreed by both parties.

(9) Commitments and Contingencies, Continued

Performance Management Contracts, Continued

At September 30, 2019, the minimum future fixed management fees are as follows:

Year Ending September 30,	Amount
2020	$ 2,515,840
2021	293,203
	$ 2,809,043

Fuel Bulk Storage Facility Contract

In September 2017, GPA entered into an agreement for the management and operations of its fuel bulk storage facility. The agreement is for two years ending September 30, 2019 with an option to extend the contract for three additional one-year terms. The initial extension has been exercised and the agreement expires on September 30, 2020. At September 30, 2019, the minimum future management fees for the year ending September 30, 2020 are $859,329.

Operating Leases

GPA entered into a sublease agreement for vehicle, equipment, and material storage and for a power substation beginning November 1, 2002 with annual rental of $61,261 through October 31, 2012, which was extended for ten years.

GPA entered into a lease agreement for fuel storage tanks effective September 1, 2013. The contract includes fixed annual fees escalating 4% every year until August 31, 2022.

GPA entered into a commercial space lease beginning July 1, 2010, with monthly rentals of $4,495 through June 30, 2015, which was extended for five years.

At September 30, 2019, future minimum lease payments for operating leases are as follows:

Year Ending September 30,	Amount
2020	$ 1,895,598
2021	1,926,902
2022	1,833,929
2023	5,105
	$ 5,661,534

Rent expense under the aforementioned agreements totaled $1,840,086 and $1,773,744 during the years ended September 30, 2019 and 2018, respectively.

(9) Commitments and Contingencies, Continued

Renewable Energy Contracts

GPA entered into two renewable energy purchase agreements to purchase 20 MW and 5.65 MW of solar renewable energy. The commercial operation date of the two solar plants was October 30, 2015. The agreements include escalating contract prices per MW hour until 2041 and 90% minimum production which is the minimum requirement per contract year that is to be met to avoid production shortfall penalties. The total minimum renewable energy purchase commitment is 1.1 million MW hours.

At September 30, 2019, the minimum future renewable energy purchases are as follows:

Year Ending September 30,	Amount
2020	$ 9,162,071
2021	9,171,682
2022	9,200,983
2023	9,196,204
2024	9,163,847
2025 through 2029	46,181,812
2030 through 2034	46,165,812
2035 through 2039	46,818,591
2040 through 2041	10,182,621
	$ 195,243,623

In August 2018, GPA executed three renewable energy purchase agreements to purchase a total of 120 MW of solar renewable energy. The commercial operation dates of the solar plants are not yet established.

Energy Conversion Agreement

In January 2019, ownership of a power plant under an energy conversion agreement was transferred to GPA (see note 4). GPA entered into an agreement with the same company to continue to manage and operate the power plant for a period of five years. The operation and maintenance fees are calculated based on factors stated in the agreement and paid on monthly basis. Total operation and maintenance fees paid during the year ended September 30, 2019 approximated $5.9 million. GPA also pays a monthly recapitalization fee of $305,265 consisting of payments for capital and performance improvement projects, operations and maintenance fees, 4% cost of money and 10% contingency. The total recapitalization fee paid during the year ended September 30, 2019 was $2,442,120. Of the total amount paid, $1,444,179 was for capital projects which were recorded in utility plant assets. The remaining amount was unspent and is included in prepaid expenses and other current assets in the accompanying statements of net position as of September 30, 2019.

At September 30, 2019, the recapitalization fees are as follows:

2020	$ 3,663,180
2021	3,663,180
2022	3,663,180
2023	3,663,180
2024	1,221,060
	$ 15,873,780

(9) Commitments and Contingencies, Continued

Capital Commitments

As of September 30, 2019, GPA has various on-going construction contracts with a total contract price of $47 million, of which $21 million is recorded in construction work in progress.

Letters of Credit

As of September 30, 2019, GPA has a $35 million uncollateralized revolving documentary letter of credit for purchases of fuel. There was no outstanding commitment under the standby letter of credit at September 30, 2019.

As of September 30, 2019, GPA has a $1.8 million standby letter of credit, collateralized by a certificate of deposit of the same amount, to guarantee any payments due under the temporary power services contract. There was no outstanding commitment under the standby letter of credit at September 30, 2019.

Self-Insurance

GPA self-insures its transmission and distribution (T&D) plant, because no insurance is available at reasonable rates.

As the result of a PUC Order, GPA adds an insurance charge of $0.00290 per kWh for civilian ratepayers and from $0.00035 per kWh to $0.00070 per kWh for the Navy until a self-insurance fund balance of $20 million is achieved. Insurance charge proceeds are transferred to the restricted self-insurance fund to be used to cover losses that would normally be covered by insurance. GPA is not prohibited from petitioning PUC for approval to use the self-insurance fund for additional purposes to the extent that such losses are not covered by insurance.

In 2015, GPA reached the $20 million self-insurance cap and the insurance surcharge was discontinued. The insurance surcharge will be reactivated after the fund balance falls to less than $18 million.

The self-insurance fund, included in restricted cash and cash equivalents held by GPA, was $19,383,963 and $19,258,353 at September 30, 2019 and 2018, respectively.

Litigation

GPA has several asserted and unasserted claims outstanding as of September 30, 2019. It is not possible for the management of GPA to estimate the ultimate resolution of these matters and therefore, no provision for any liability that may result from these claims has been made in the accompanying financial statements.

(9) Commitments and Contingencies, Continued

U.S. Environmental Protection Agency

On May 24, 1986, the administrator of the U.S. Environmental Protection Agency (EPA) granted a continuing exemption to GPA under the provisions of Section 325(b) of the Clean Air Act, as amended. The terms of the exemption require monitoring by EPA, certain commitments by GPA regarding fuel stocks, and reporting and delineation of grounds for revocation of the exemption.

In February 2011, EPA, under the Clean Air Act, established new rules under National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engine Maximum Achievable Control Technology (RICE MACT). These rules require stack emissions control and continuous monitoring system equipment to be installed on all GPA peaking and baseload diesel generators including its Cabras 3 and 4 and MEC 8 and 9 slow speed diesel units. Compliance under the diesel MACT was due May 3, 2013. Non-compliance under the diesel MACT could result in penalty fees of $37,500 per unit per day. GPA applied for and received a one-year extension for complying with the rules with respect to its small diesel peaking units. The required stack emission equipment was installed within the extension period. The Cabras 3 and 4 power plants are no longer subject to compliance due to an explosion and fire in August 2015 (see note 10).

EPA also established rules for Electric Generating Unit Maximum Achievable Control Technology (EGU MACT) which applies to Cabras 1 and 2 and Tanguisson steam boiler units. Compliance under the EGU MACT was due in April 2015. Non-compliance could result in penalty fees of $37,500 per unit per day. GPA obtained PUC approval to early terminate the associated energy conversion agreement of the Tanguisson unit. By deactivating the Tanguisson unit, GPA did not incur compliance costs for this unit.

As to compliance with the other units subjected to RICE MACT and EGU MACT, GPA and EPA entered into a consent decree allowing time for GPA to comply with the regulations and allowing potential fines and penalties for non-compliance to be used for compliance with regulations. In early February 2020, EPA and GPA signed the consent decree. Some of the terms required by the consent decree follow:

a. permanently retire Cabras 1 and 2 units by October 31, 2022
b. bring the MEC 8 and 9 units into compliance by switching from residual fuel oil to ultra-low sulfur diesel oil and installing oxidation catalysts by December 31, 2021
c. construct a new power plant that will comply with the requirements of Clean Air Act to be activated by October 1, 2022
d. pay a sum of $400,000 as a civil penalty

The consent decree requires monetary penalties for not accomplishing the various objectives by the required dates.

The US District Court approved the consent decree on April 20, 2020 and this approval shall constitute the final judgement to GPA. Works are ongoing to meet the compliance requirements of the consent decree. GPA has also accrued the $400,000 civil penalty in the accompanying financial statements as of September 30, 2019. GPA believes that it has no other liability as a result of this noncompliance.

(9) Commitments and Contingencies, Continued

Hazardous Waste Assessment

Guam Public Law 20-110 requires certain entities to remit payments to a hazardous substance expense fund. There are questions as to the enforceability of the law; accordingly, no provision has been made in the accompanying financial statements for payments to be made under this law. GPA is covered by its self-insurance and worker's compensation insurance in case of accidents due to hazardous substances.

Autonomous Agency Collections Fund

On March 31, 2011, GPA received an invoice from the Government of Guam Department of Administration (GovGuam DOA) of $12,250,000 representing an annual assessment of $875,000 for each of the fiscal years 1998 to 2011 pursuant to 5 GCA Chapter 22 Section 22421, *Transfer of Autonomous Agency Revenues To Autonomous Agency Collections Fund*. In September 2013, GPA received another invoice for $875,000 from the Chamorro Land Trust Commission referring to the same annual assessment aforementioned. There were no invoices received for the years ended September 30, 2019 and 2018. GPA obtained approval from the CCU to offer GovGuam DOA a settlement amount of $2.6 million. However, such settlement offer is conditional on the approval by the PUC of a surcharge to recover the assessment from ratepayers. The PUC has not approved the surcharge as of September 30, 2019 and therefore, no liability or other impact has been recognized in the accompanying financial statements.

Merit System

In 1991, Public Law 21-59 was enacted to establish a bonus system for employees of GovGuam, autonomous and semi-autonomous agencies, public corporations and other public instrumentalities of GovGuam who earn a superior performance grade. The bonus is calculated at 3.5% of the employee's base salary beginning 1991 but was suspended by law for the years 1996, 2002, 2003 and 2004. Between 1991 and 2008, GPA did not calculate or pay any bonuses. In 2010, the Guam Legislature authorized GPA to implement a Pay for Performance program, similar to the GovGuam unified pay systems for certified, technical and professional positions, covering the evaluation period of 2009. As of September 30, 2019 and 2018, the CCU determined that there was no liability for employees covered in the new pay system. Therefore, no liability has been recognized in the accompanying financial statements.

Integrated Resource Plan

In 2012, GPA developed its Integrated Resource Plan (IRP). The objectives of the IRP are primarily to identify the timing, size, technology of future power generating units, and to address issues such as fuel diversification and the renewable energy portfolio standards. Specifically, the IRP recommendations include the replacement of older generation equipment with combined cycle combustion turbine generators which can utilize either Liquefied Natural Gas (LNG) or Ultra-Low Sulfur (ULS) diesel fuel; adding 40-45 MW of generation from renewable energy sources; and diversification of its fuel source to LNG and ULS diesel fuel.

(9) Commitments and Contingencies, Continued

Integrated Resource Plan, Continued

In August 2015, GPA lost 78 MW of base load capacity and experienced insufficient generation reserve after the explosion and fire at the Cabras 4 Power Plant. The PUC ordered GPA to update the IRP in consideration of this event. The results of the updated IRP indicated that GPA should procure up to 180 MW of combined cycle units. In October 2016, the PUC authorized GPA to proceed with procurement and in October 2019, the PUC approved the energy conversion agreement for a 198 MW power plant build, own/operate and transfer contract. The PUC Order, however, does not include the authorization or approval for any use of LNG as a fuel source for the new plant.

Asset Retirement Obligation

GPA has power plants that were identified to be retired in the future. Upon retirement, GPA may incur costs to dismantle and clean-up the power plants. As of September 30, 2019, GPA has no legal or contractual obligation to perform these actions when they retire their assets; therefore, no provision for this potential cost has been recorded in the accompanying financial statements.

(10) Explosion and Fire at Cabras Power Plant

On August 31, 2015, GPA suffered an explosion and fire at its Cabras 3 and 4 generator building. GPA commissioned an investigation and evaluation of the loss of Cabras 4 generator. In 2016, it was determined that Cabras 4 was a total loss. It was later determined that repair of the Cabras 3 generator was economically infeasible. As a result, both the Cabras 3 and 4 generators and related facilities and equipment were written down to zero value at September 30, 2016.

In February 2018, GPA entered into a final insurance settlement of $126 million. GPA applied the insurance recoveries against actual damage incurred and repair costs, and presented these as an extraordinary item in the accompanying financial statements.

The extraordinary gain recognized in 2018 is computed as follows:

Insurance recoveries	$ 125,884,342
Impairment of Cabras 3 and 4	(52,873,884)
Temporary power services	(14,334,094)
Repair and other costs	(22,190,069)
Administrative charges	(4,904,209)
Clean-up costs	(1,018,075)
Fuel recovery	(4,600,000)
Provision for inventory obsolescence	(1,069,158)
Revenue loss	(2,730,560)
Extraordinary gain, finalized as of September 30, 2018	22,164,293
Extraordinary gain, estimated as of September 30, 2017	20,243,859
Extraordinary gain recognized in 2018	$ 1,920,434

(11) Related Party Transactions and Balances

During the years ended September 30, 2019 and 2018, GPA billed GovGuam agencies $57,823,299 and $55,108,243, respectively, for sales of electricity. Receivables from GovGuam agencies were $6,351,446 and $5,663,115 at September 30, 2019 and 2018, respectively (see note 3).

GPA provides electrical and administrative services to GWA, a component unit of the GovGuam, which is also governed by the CCU. Electricity sales to GWA for the years ended September 30, 2019 and 2018 were $16,062,334 and $14,686,636, respectively. Outstanding receivables were $1,397,945 and $1,137,558 at September 30, 2019 and 2018, respectively, which are included in the GovGuam agencies receivable mentioned above.

On June 23, 2009, GPA and GWA entered into a Memorandum of Understanding (MOU) where each agency agrees to provide administrative, operational, maintenance, repair and other specified services on behalf of the other agency and each will reimburse the other for their actual costs for providing said services. Total billings by GPA to GWA for administrative expenses and cost reimbursements were $32,732 and $145,583 for the years ended September 30, 2019 and 2018, respectively. Outstanding receivables totaled $60,509 and $148,169 at September 30, 2019 and 2018, respectively, and were included in other receivables (see note 3).

Effective October 1, 2015, GPA and GWA implemented an agreement to share in the costs of the office building commonly occupied by them for an annual cost of $269,170 due from GWA to GPA. GWA also shares in the actual costs incurred for security, janitorial services, building insurance and other maintenance costs. Total billings by GPA to GWA for its share in the costs of the office building were $388,427 and $409,406 for the years ended September 30, 2019 and 2018, respectively. Outstanding receivables were $79,592 and $69,524 at September 30, 2019 and 2018, respectively, and were included in other receivables (see note 3).

GWA billed GPA for water and sewer charges totaling $2,379,002 and $1,798,395 for the years ended September 30, 2019 and 2018, respectively. The amount due to GWA at September 30, 2019 and 2018 was $294,409 and $438,872, respectively, which was included in accounts payable - operations in the accompanying statements of net position.

In October 2011, U.S. Federal Emergency Management Agency (FEMA) reimbursed GPA for certain typhoon related costs incurred in 2002 of approximately $1,800,000. The reimbursement was received by GovGuam DOA which plans to offset such amount against billings to GPA related to the Autonomous Agency Collections Fund (see note 9). Due to uncertainty of receipt, GPA has not recorded the reimbursement in the accompanying financial statements.

(12) Restricted Net Position

At September 30, 2019 and 2018, net position was restricted for the following purposes:

	2019	2018
Debt service	$ 19,039,882	$ 3,945,052
Budgeted maintenance and operating expenses	3,955,940	14,719,830
Demand Side Management Program and projects	333,528	1,085,472
	$ 23,329,350	$ 19,750,354

(13) Subsequent Events

COVID-19

On March 11, 2020, the World Health Organization declared the novel strain of coronavirus (COVID-19) a global pandemic and recommended containment and mitigation measures worldwide. On March 13, 2020, President Donald J. Trump declared a national emergency within the United States. In response to the national emergency declared by the U.S. President, on March 14, 2020, Governor Lourdes A. Leon Guerrero issued Executive Order 2020-03 declaring a state of emergency in response to COVID-19. Further, Executive Order 2020-04 ordered the closure of all non-essential Government of Guam offices, prohibited large gatherings, and restricted entry into Guam from countries with confirmed COVID-19 cases. As a result, schools and non-essential government agencies and businesses have closed. GPA has closed its offices to the public and has required all non-essential employees to work from home. While the disruption is currently expected to be temporary, there is uncertainty around the duration. While this matter is expected to negatively impact GPA's business, results of operations and financial position, the related financial impact cannot be reasonably estimated at this time.

(14) Utility Plant

A summary of changes in capital assets for the years ended September 30, 2019 and 2018 were as follows:

2019	Estimated Useful Lives in Years	Beginning Balance October 1, 2018	Transfers and Additions	Transfers and Deletions	Ending Balance September 30, 2019
Depreciable:					
Steam production plant	25 - 50	$ 123,391,558	$ 12,386	$	$ 123,403,944
Other production plant	12 - 25	250,254,236	134,129,512	(51,496)	384,332,252
Transmission plant	30 - 45	183,517,768	3,694,054	(82,679)	187,129,143
Distribution plant	15 - 45	230,282,883	8,777,764	(566,278)	238,494,369
General plant	3 - 60	100,611,857	6,943,727	(1,175,836)	106,379,748
Production plant under capital lease	15 - 40	163,085,831	-	(130,619,315)	32,466,516
		1,051,144,133	153,557,443	(132,495,604)	1,072,205,972
Accumulated depreciation		(597,448,643)	(36,999,409)	1,580,395	(632,867,657)
		453,695,490	116,558,034	(130,915,209)	439,338,315
Non-depreciable:					
Land and land rights		12,070,557	179,273	-	12,249,830
Construction work in progress		28,021,290	37,576,511	(27,949,656)	37,648,145
		40,091,847	37,755,784	(27,949,656)	49,897,975
		$ 493,787,337	$ 154,313,818	$ (158,864,865)	$ 489,236,290

2018	Estimated Useful Lives in Years	Beginning Balance October 1, 2017	Transfers and Additions	Transfers and Deletions	Ending Balance September 30, 2018
Depreciable:					
Steam production plant	25 - 50	$ 123,516,355	$ 120,896	$ (245,693)	$ 123,391,558
Other production plant	12 - 25	225,026,426	28,279,306	(3,051,496)	250,254,236
Transmission plant	30 - 45	182,300,247	1,217,521	-	183,517,768
Distribution plant	15 - 45	225,771,235	4,859,184	(347,536)	230,282,883
General plant	3 - 60	95,607,360	6,107,112	(1,102,615)	100,611,857
Production plant under capital lease	15 - 40	184,849,243	-	(21,763,412)	163,085,831
		1,037,070,866	40,584,019	(26,510,752)	1,051,144,133
Accumulated depreciation		(561,851,071)	(37,184,133)	1,586,561	(597,448,643)
		475,219,795	3,399,886	(24,924,191)	453,695,490
Non-depreciable:					
Land and land rights		1,072,236	10,998,321	-	12,070,557
Construction work in progress		18,480,173	42,330,515	(32,789,398)	28,021,290
		19,552,409	53,328,836	(32,789,398)	40,091,847
		$ 494,772,204	$ 56,728,722	$ (57,713,589)	$ 493,787,337

GPA reassessed the estimated useful life of Cabras 1 and 2 based on the expected retirement of these plants when the new power plant becomes operational (see note 9). GPA recorded additional depreciation expense of approximately $3.7 million and $6.2 million during the years ended September 30, 2019 and 2018, respectively, due to the revised estimated useful life of these power plants.

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)

Required Supplemental Information (Unaudited)
Schedule of Proportional Share of the Net Pension Liability
Last 10 Fiscal Years*

Defined Benefit Plan

	2019	2018	2017	2016	2015	2014
Total Government of Guam net pension liability	$ 1,179,192,550	$ 1,142,249,393	$ 1,368,645,126	$ 1,436,814,230	$ 1,246,306,754	$ 1,303,304,636
Guam Power Authority's (GPA's) proportionate share of the net pension liability	$ 64,825,399	$ 58,849,896	$ 71,113,926	$ 74,504,797	$ 67,025,973	$ 77,870,353
GPA's proportion of the net pension liability	5.50%	5.15%	5.20%	5.19%	5.38%	5.97%
GPA's covered-employee payroll**	$ 28,249,473	$ 26,188,178	$ 26,308,182	$ 26,516,476	$ 27,155,671	$ 27,505,038
GPA's proportionate share of the net pension liability as percentage of its covered employee payroll	229.47%	224.72%	270.31%	280.98%	246.82%	283.11%
Plan fiduciary net position as a percentage of the total pension liability	63.28%	60.63%	54.62%	52.32%	56.60%	53.94%

* This data is presented for those years for which information is available.
** Covered-employee payroll data from the actuarial valuation date with one-year lag.

See Accompanying Independent Auditors' Report.

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)

Required Supplemental Information (Unaudited)
Schedule of Proportional Share of the Net Pension Liability
Last 10 Fiscal Years*

Ad Hoc COLA/Supplemental Annuity Plan for DB Retirees

	2019	2018	2017	2016
Total Government of Guam net pension liability***	$ 289,875,668	$ 288,147,121	$ 229,486,687	$ 235,799,709
Guam Power Authority's (GPA's) proportionate share of the net pension liability	$ 14,132,063	$ 13,986,942	$ 10,942,403	$ 11,002,776
GPA's proportion of the net pension liability	4.88%	4.85%	4.77%	4.67%
GPA's covered-employee payroll**	$ 25,052,074	$ 24,673,401	$ 24,142,501	$ 23,861,140
GPA's proportionate share of the net pension liability as percentage of its covered employee payroll	56.41%	56.69%	45.32%	46.11%

* This data is presented for those years for which information is available.
** Covered-employee payroll data from the actuarial valuation date with one-year lag.
*** No assets accumulated in a trust to pay benefits.

See Accompanying Independent Auditors' Report.

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)

Required Supplemental Information (Unaudited)
Schedule of Proportional Share of the Net Pension Liability
Last 10 Fiscal Years*

Ad Hoc COLA Plan for DCRS Retirees

	2019	2018	2017	2016
Total Government of Guam net pension liability***	$ 49,342,424	$ 62,445,490	$ 61,688,067	$ 52,115,736
Guam Power Authority's (GPA's) proportionate share of the net pension liability	$ 2,843,640	$ 3,717,897	$ 3,818,888	$ 3,392,046
GPA's proportion of the net pension liability	5.76%	5.95%	6.19%	6.51%
GPA's covered-employee payroll**	$ 15,241,921	$ 22,433,189	$ 22,600,153	$ 23,164,094
GPA's proportionate share of the net pension liability as percentage of its covered employee payroll	18.66%	16.57%	16.90%	14.64%

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** Covered-employee payroll data from the actuarial valuation date with one-year lag.
*** No assets accumulated in a trust to pay benefits.

See Accompanying Independent Auditors' Report.

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)

Required Supplemental Information (Unaudited)
Schedule of Pension Contributions
Last 10 Fiscal Years*

	2019	2018	2017	2016	2015	2014
Statutorily required contribution	$ 7,047,809	$ 6,458,402	$ 6,474,792	$ 6,993,365	$ 7,249,568	$ 7,375,045
Contributions in relation to the statutorily required contribution	7,468,311	6,454,286	6,464,756	6,974,715	7,212,224	7,285,774
Contribution (excess) deficiency	$ (420,502)	$ 4,116	$ 10,036	$ 18,650	$ 37,344	$ 89,271
GPA's covered-employee payroll **	$ 28,249,473	$ 26,188,178	$ 26,308,182	$ 26,516,476	$ 27,155,671	$ 27,505,038
Contribution as a percentage of covered-employee payroll	26.44%	24.65%	24.57%	26.30%	26.56%	26.49%

* This data is presented for those years for which information is available.
** Covered-employee payroll data from the actuarial valuation date with one-year lag.

See Accompanying Independent Auditors' Report.

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)

Required Supplemental Information (Unaudited)
Schedule of Changes in the Proportional Share of the Total OPEB Liability and Related Ratios
Last 10 Fiscal Years*

	2019	2018	2017	2016
Service cost	$ 3,637,954	$ 4,181,160	$ 3,281,051	
Interest	5,383,112	4,805,542	4,969,757	
Changes in proportionate share	13,530,834	169,528	-	
Difference between expected and actual experience	(33,509,074)	-	-	
Change of assumptions	(12,122,578)	(14,997,174)	16,377,134	
Benefit payments	(2,597,426)	(2,337,202)	(2,337,202)	
Net change in total OPEB liability	(25,677,178)	(8,178,146)	22,290,740	
Total OPEB liability, beginning	145,955,861	154,134,007	131,843,267	
Total OPEB liability, ending	$ 120,278,683	$ 145,955,861	$ 154,134,007	$ 131,843,267
Covered-employee payroll as of valuation date	$ 29,507,688	$ 25,806,659	$ 25,806,659	
Total OPEB liability as a percentage of covered-employee payroll	407.62%	565.57%	597.26%	

Notes to schedule:

Discount rate	4.180%	3.630%	3.058%	3.710%

Change in benefit terms:
None.

Change of assumptions:
Discount rate has changed from respective measurement dates.

* This data is presented for those years for which information is available.
** No assets accumulated in a trust to pay the benefits.

See Accompanying Independent Auditors' Report.

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)

Required Supplemental Information (Unaudited)
Schedule of Proportional Share of the Total OPEB Liability
Last 10 Fiscal Years*

	2019	2018	2017
Total OPEB liability **	$ 1,874,970,335	$ 2,431,048,672	$ 2,532,753,040
GPA's proportionate share of the total OPEB liability	$ 120,278,683	$ 145,955,861	$ 145,955,861
GPA's proportion of the total OPEB liability	6.41%	6.00%	5.76%
GPA's covered-employee payroll	$ 29,507,688	$ 25,806,659	$ 25,806,659
GPA's proportionate share of the total OPEB liability as percentage of its covered-employee payroll	407.62%	565.57%	565.57%

* This data is presented for those years for which information is available.

** No assets accumulated in a trust to pay the benefits.

See Accompanying Independent Auditors' Report.

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)

Required Supplemental Information (Unaudited)
Schedule of OPEB Contributions
Last 10 Fiscal Years*

	2019	2018	2017
Actuarially determined contribution	$ 11,836,895	$ 4,181,160	$ 10,762,017
Contributions in relation to the actuarially determined contribution	2,597,426	2,337,202	2,337,202
Contribution deficiency	$ 9,239,469	$ 1,843,958	$ 8,424,815
Covered-employee payroll as of valuation date	$ 29,507,688	$ 25,806,659	$ 25,806,659
Contributions as a percentage of covered-employee payroll	8.80%	9.06%	9.06%

Notes to schedule:

Valuation date:

Actuarially determined contributions rates are calculated as of September 30, 2018.

Method and assumptions used to determine contributions rates:

Actuarial cost method:	Entry age normal.
Amortization method:	Level dollar amount on an open amortization period for pay-as-you-go funding.
Amortization period:	30 years
Inflation:	2.75%
Healthcare cost trend rates:	Non-medicare 13.5%; Medicare -25%; and Part B 5.33%. For the second year, 6.75% then reducing 0.25% annually to an ultimate rate of 4.25% for 2029 and later years.
Salary increase:	4.5% to 7.5%
Mortality (Healthy Retiree):	RP-2000 Combined Healthy Mortality Table, set forward 3 years and 2 years for males and females, respectively, projected generationally using 30% of Scale BB
Mortality (Disabled Retiree):	RP-2000 Disabled Mortality Table, set forward 6 years and 4 years for males and females, respectively, projected generationally using 30% of Scale BB

* This data is presented for those years for which information is available.

See Accompanying Independent Auditors' Report.

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)

Schedule of Sales of Electricity
Years Ended September 30, 2019 and 2018

	2019	2018
Commercial	$ 151,736,583	$ 146,278,001
Residential	124,466,118	117,823,431
Government of Guam	57,823,299	55,108,243
U.S. Navy	65,706,812	59,119,199
	$ 399,732,812	$ 378,328,874
Annual Electric Sales in kWh		
Commercial	565,418,209	573,872,719
Residential	496,772,627	495,346,749
Government of Guam	182,658,794	181,923,229
U.S. Navy	313,798,066	306,460,172
Other	9,638,055	9,449,275
	1,568,285,751	1,567,052,144

See Accompanying Independent Auditors' Report.

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)

Schedule of Operating and Maintenance Expenses
Years Ended September 30, 2019 and 2018

	2019	2018
Administrative and General:		
Salaries and wages:		
Regular pay	$ 5,830,715	$ 5,740,084
Overtime	138,398	52,003
Premium pay	5,595	3,387
Benefits	2,104,445	1,835,127
Pension adjustment	10,090,944	2,176,126
OPEB adjustment	2,971,780	3,019,736
Sick leave adjustment	-	(2,677,246)
Total salaries and wages	21,141,877	10,149,217
Retiree healthcare and other benefits	2,687,176	8,085,585
Insurance	5,828,582	7,340,487
Contract	5,931,318	5,288,085
Utilities	2,538,278	2,357,039
Travel	380,115	338,664
Training	217,606	157,658
Operating supplies	141,772	104,355
Other administrative expenses	115,035	82,404
Trustee fee	102,564	80,058
Office supplies	95,413	66,374
Overhead allocations	10,328	8,970
Completed work orders	(1,122,539)	(295,404)
Miscellaneous	221,826	207,946
Total administrative and general	$ 38,289,351	$ 33,971,438
Customer Accounting:		
Salaries and wages:		
Regular pay	$ 2,089,920	$ 2,105,173
Overtime	40,357	44,900
Premium pay	2,416	5,098
Benefits	202,204	160,701
Total salaries and wages	2,334,897	2,315,872
Demand-side management program	1,494,975	1,528,403
Collection fee	1,282,969	1,088,398
Contracts	393,464	376,221
Communications	266,390	284,396
Office supplies	22,823	23,022
Overhead allocations	4,842	46,999
Completed work orders	-	8,435
Miscellaneous	(963)	4,656
Total customer accounting	$ 5,799,397	$ 5,676,402

See Accompanying Independent Auditors' Report.

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)

Schedule of Operating and Maintenance Expenses, Continued
Years Ended September 30, 2019 and 2018

	2019	2018
Fuel:		
Salaries and wages:		
Regular pay	$ 98,315	$ 138,911
Overtime	5,089	7,849
Premium pay	194	225
Benefits	-	308
Total salaries and wages	103,598	147,293
Fuel	238,765,919	217,419,746
Total fuel costs	$ 238,869,517	$ 217,567,039
Other Production:		
Salaries and wages:		
Regular pay	$ 7,479,340	$ 7,880,985
Overtime	1,387,136	1,099,425
Premium pay	182,381	169,596
Benefits	703,361	730,058
Total salaries and wages	9,752,218	9,880,064
Contract	6,013,093	5,080,569
Operating supplies	704,733	557,278
Completed work orders	239,132	1,781,588
Overhead allocations	90,568	102,295
Office supplies	14,345	12,745
Total other production	$ 16,814,089	$ 17,414,539
Transmission and Distribution:		
Salaries and wages:		
Regular pay	$ 7,495,035	$ 7,097,396
Overtime	439,128	319,196
Premium pay	73,633	73,350
Benefits	583,051	508,328
Total salaries and wages	8,590,847	7,998,270
Overhead allocations	1,768,782	1,959,404
Operating supplies	1,324,383	601,629
Contract	741,283	1,349,250
Completed work orders	253,645	392,785
Office supplies	66,941	36,804
Total transmission and distribution	$ 12,745,881	$ 12,338,142

See Accompanying Independent Auditors' Report.

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)

Schedule of Salaries and Wages
Years Ended September 30, 2019 and 2018

	2019	2018
Salaries and wages:		
Regular pay	$ 22,993,325	$ 22,962,549
Overtime	2,010,108	1,523,373
Premium pay	264,219	251,656
Benefits	3,593,061	3,234,522
Pension adjustment	10,090,944	2,176,126
OPEB adjustment	2,971,780	3,019,736
Sick leave adjustment	-	(2,677,246)
Total salaries and wages	$ 41,923,437	$ 30,490,716

See Accompanying Independent Auditors' Report.

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)

Employees by Department
Years Ended September 30, 2019 and 2018

	2019	
	Full Time Employees (b)	PL 28-150 Section 45b Category Personnel Services (a)
Department:		
Board	2	$ 176,912
Executive	18	833,399
Administration	26	2,450,697
Finance	42	2,647,642
Planning and Regulatory	8	770,553
Property and Facilities	8	461,981
Purchasing and Supply Management	21	722,912
Customer Service	31	1,551,684
Engineering	38	1,942,029
Generation	117	9,325,649
Strategic Planning and Operation Research and Development	10	859,461
Power System Control Center	23	1,716,572
Transportation	10	47,895
Transmission and Distribution	100	5,353,327
Total full time employees	454	28,860,713
OPEB adjustment		2,971,780
Pension adjustment		10,090,944
		$ 41,923,437

	2018	
	Full Time Employees (b)	PL 28-150 Section 45b Category Personnel Services (a)
Department:		
Board	2	$ 244,764
Executive	17	801,687
Administration	24	2,547,319
Finance	40	2,710,870
Planning and Regulatory	8	837,328
Property and Facilities	9	481,352
Purchasing and Supply Management	21	679,038
Customer Service	38	1,767,953
Engineering	37	2,208,183
Generation	128	10,098,937
Strategic Planning and Operation Research and Development	9	868,293
Power System Control Center	22	1,656,278
Transportation	11	80,172
Transmission and Distribution	98	5,166,052
Total full time employees	464	30,148,226
OPEB adjustment		3,019,736
Sick leave adjustment for change in retirement plan		(2,677,246)
		$ 30,490,716

Note:
(a) The amounts consist of total payroll charge to O & M for the year end funded by revenues.
(b) Filled positions at the end of the year, excluding apprentices.