Guam Community College
Planning and Development
FY 18-19 Annual Report

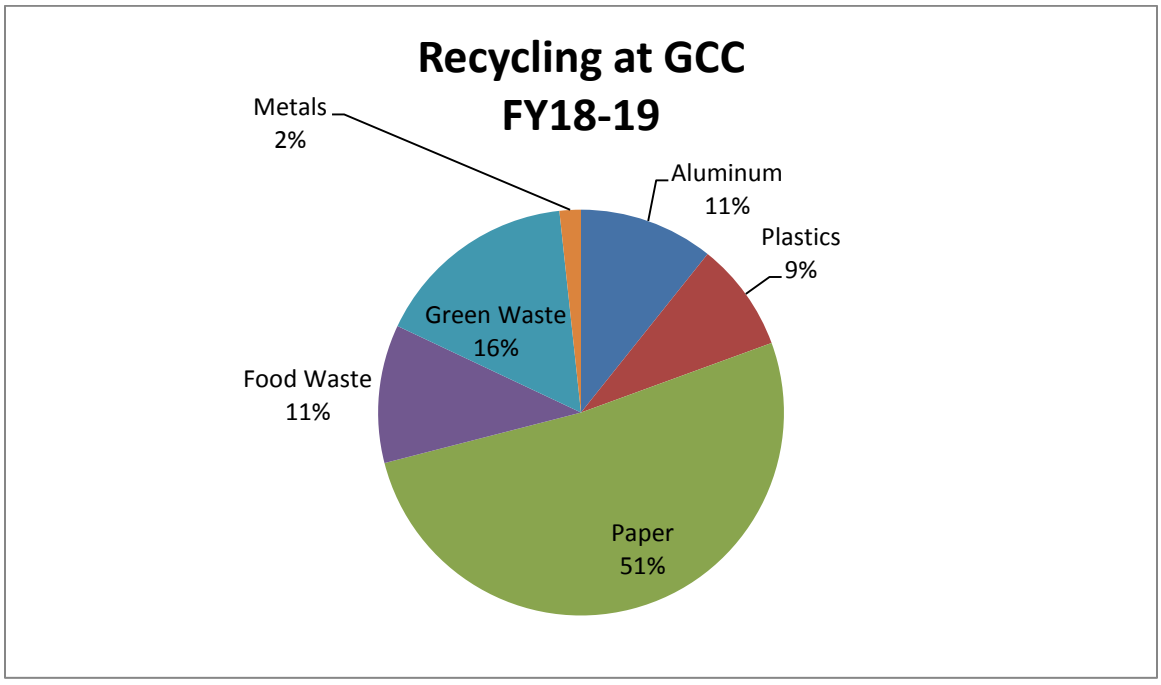
The following report is reflective of GCC's Commitment to modernizing and sustaining the institution for fiscal year 2018-2019 (i.e. October 2018 to September 2019). This report contains information of GCC's Capital Improvement Projects (CIP), recycling efforts, energy usage, water usage, renewable energy production and other sustainability related information. Data for such sections are collected on a regular basis depending on available billing, post waste diversion events, online and manual databases.

GCC is forever committed to student-centered education while sustaining the college and the environment. It is our responsibility as leaders in career and technical workforce development, providing the highest quality, student centered education and job training for Micronesia.

CAPITAL IMPROVEMENT PROJECTS (CIP)- FY 18-19 Status

PROJECT NAME	AWARD	NTP	# of DAYS	CONTRACTOR	STATUS FY 18-19
Building 300	$4,451,889.36	02/20/2018	450	J&B Modern Tech	45.46%
Forensic DNA Lab	$5,079,425.04	07/03/2019	540	BME & Sons	4.48%
Barrel Vault Canopy	$296,000.00	03/01/2019	240	ClayArch	75.57%
Wellness Center	$				
Bldg. B Renovation	$				
Building 100	$4,516,000.00	09/13/2017	450	ProPacific Builders Inc.	99.978%

RECYCLING/SUSTAINABLE WASTE DIVERSION

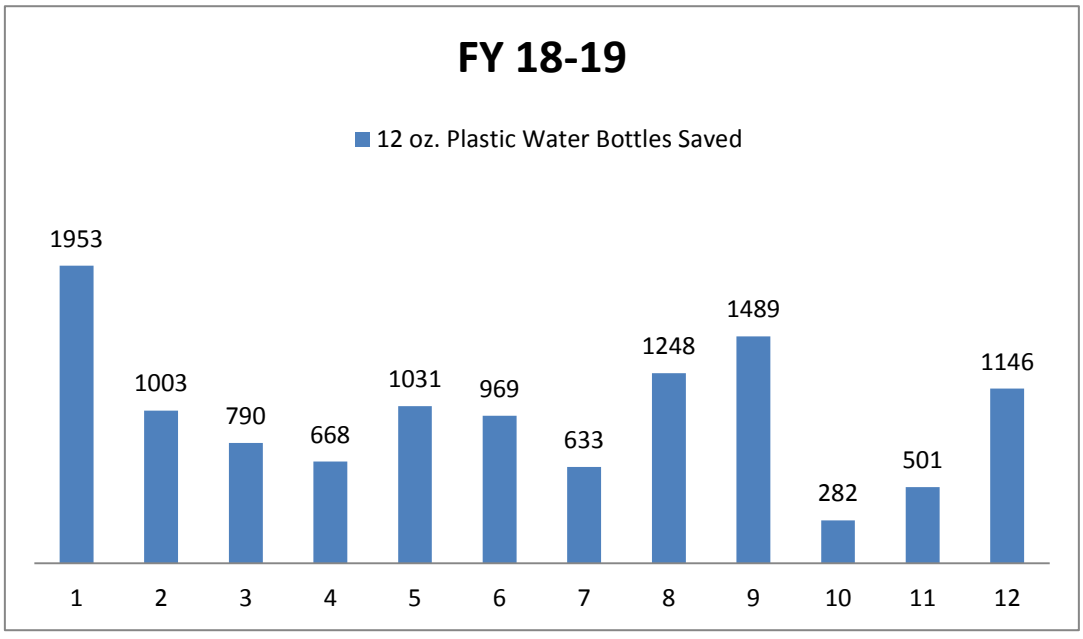


The above graph depicts percentages of recycled material at GCC for the FY 18-19. It is evident that paper recycling is the material most recycled at our Institution. In addition to these items, GCC also recycles cardboard and used ink cartridges. Data is lacking for cardboard due to this segment being contracted to a third party vendor that is unable to provide us with the requested data. However, it is prevalent that GCC recycles **at least 75% of its cardboard waste**. Below are actual pounds recycled for the above items for fiscal year 2018-2019.

Nearly all used Xerox Ink Toners/Drums/Cartridges were recycled by our Xerox contractor. Only 17 HP (cartridge world branded) toners were recycled this year. Original HP cartridge recycling program was suspended for Guam as per HP's Manufacturing Company. No more original HP cartridges will be recycled except for cartridge world branded units.

MATERIAL RECYCLED	POUNDS
Aluminum	1459
Plastics 1&2	1176
Paper (Mixed and shredded)	6967
Food Waste	1489
Green Waste	2200
Metals	230

In an effort to reduce the use and purchase of single use plastic bottles, several water bottle filling stations were installed throughout the campus community. The graph below depicts the use of GCC's installed Water Bottle Filling Station for the fiscal year, starting in October 2018 and ending in September 2019. An estimated total **of 11,713 x twelve ounce plastic bottles** have been saved from the campus community's use of these water filling systems located at four (4) buildings around campus. GCC plans on installing more water filling stations on campus.



Photovoltaic Systems- Renewable Energy

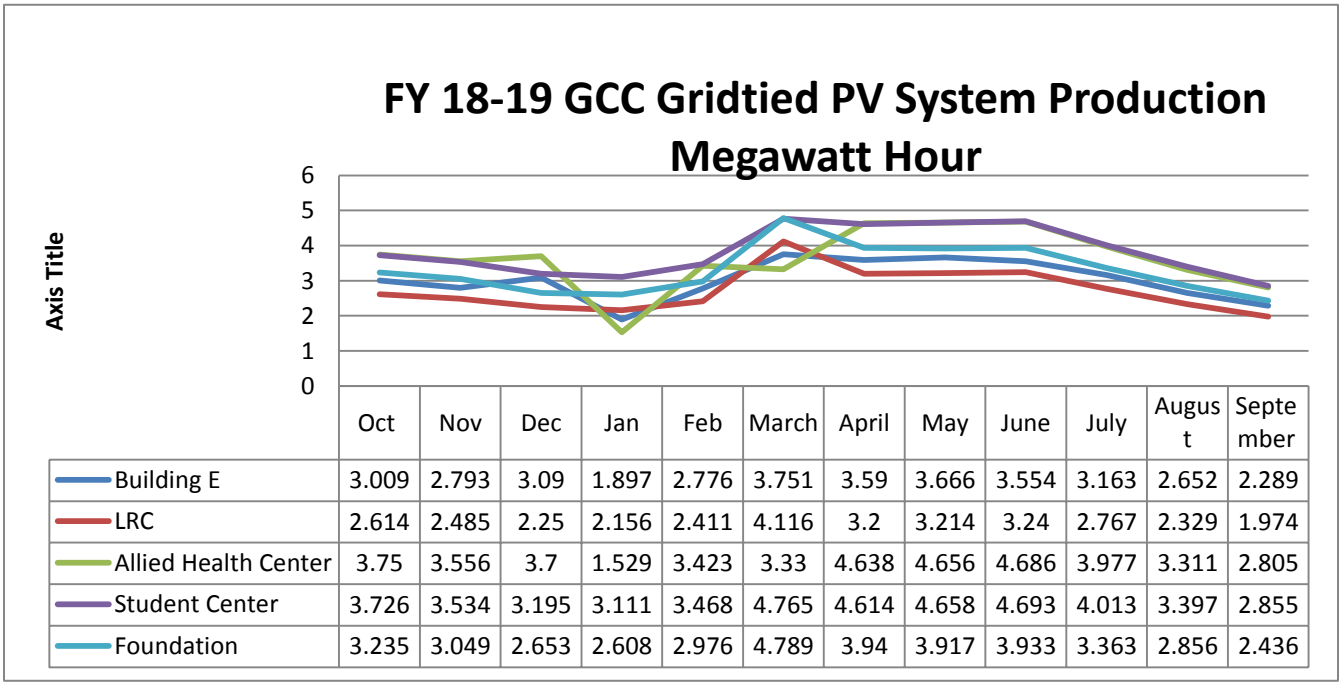
In fiscal year 2018-2019, GCC produced **198.131 Megawatt-hours** (or 189,000 kilowatt-hours) of clean energy. This equates to approximately **$53,495.37** of energy savings based on a $.27 (cents) per kilowatt-hour energy rate. In addition, GCC was able to reduce co2 emission as a result of its renewable energy generation by **283,747 pounds**.

In addition, most of GCC's parking lights are stand-alone solar led lighting systems that are independent of the utility company and grid. GCC has about 80 single and 22 dual solar parking lighting systems. Given its normal operating hours, GCC saves approximately **$2,651.61** based on a $.27 cent energy rate per kilowatt-hour.

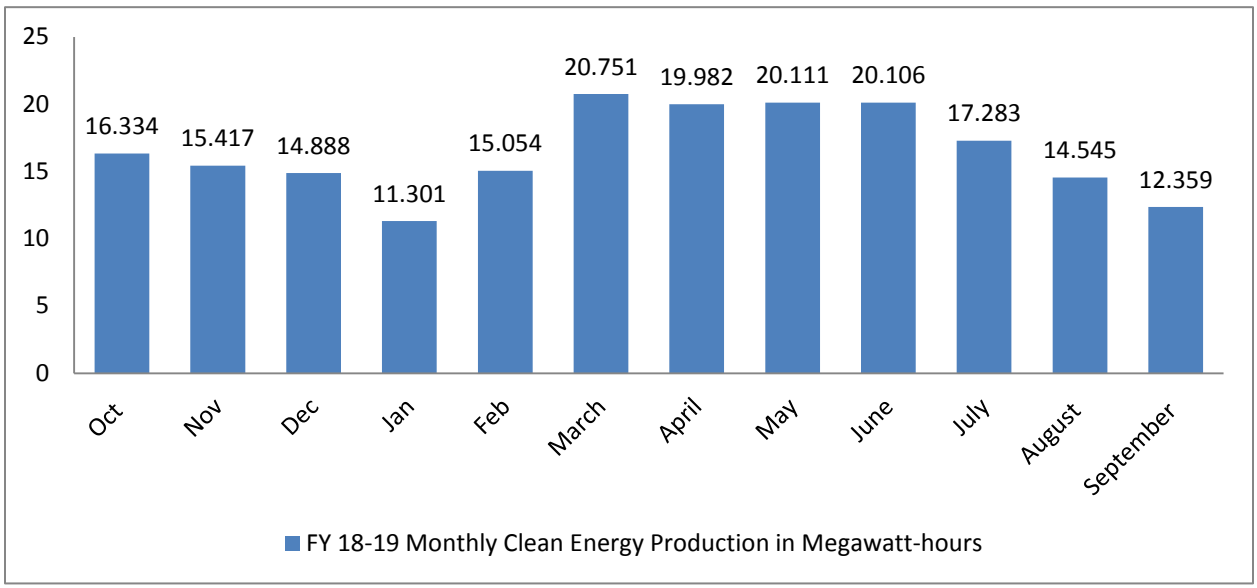
GCC will be adding about 30 kilowatts more of solar energy on its campus by next year 2020 and the institution can expect an increase in utility savings as a result of these added systems.

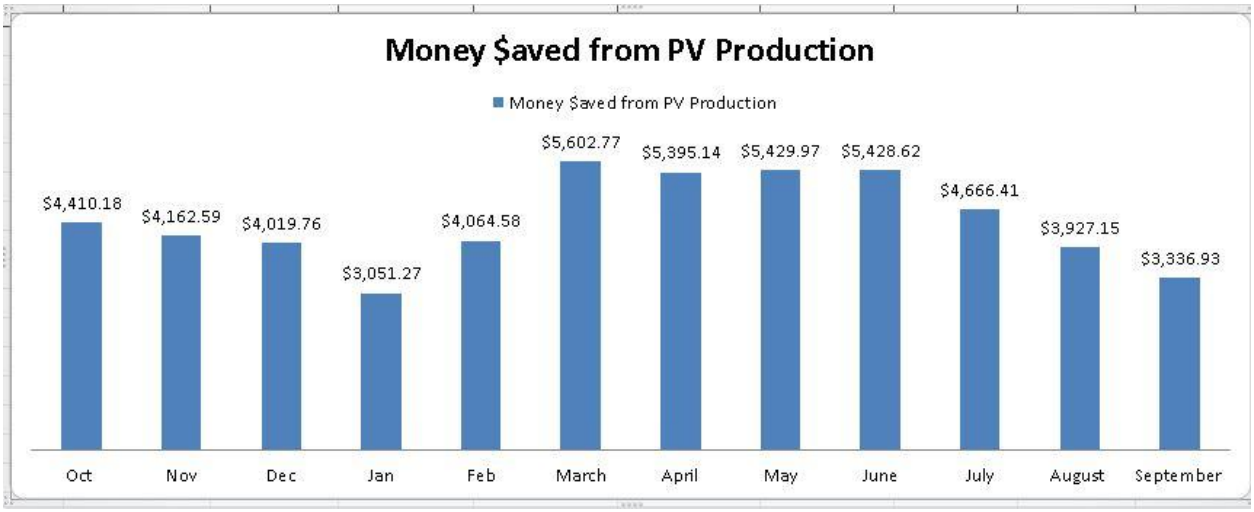
Renewable Energy Systems	Cost Savings (FY17-18)
Grid-Tied System (5 Total)	$53,495.37
Solar Parking Lighting Systems (102 total)	$2,651.61
TOTAL SAVINGS FROM SOLAR (Estimate)	**$56,146.98**

Oct	Nov	Dec	Jan	Feb	March	April	May	June	July	August	September	TOTALS
3.009	2.793	3.09	1.897	2.776	3.751	3.59	3.666	3.554	3.163	2.652	2.289	36.23
2.614	2.485	2.25	2.156	2.411	4.116	3.2	3.214	3.24	2.767	2.329	1.974	32.756
3.75	3.556	3.7	1.529	3.423	3.33	4.638	4.656	4.686	3.977	3.311	2.805	43.361
3.726	3.534	3.195	3.111	3.468	4.765	4.614	4.658	4.693	4.013	3.397	2.855	46.029
3.235	3.049	2.653	2.608	2.976	4.789	3.94	3.917	3.933	3.363	2.856	2.436	39.755
16.334	**15.417**	**14.888**	**11.301**	**15.054**	**20.751**	**19.982**	**20.111**	**20.106**	**17.283**	**14.545**	**12.359**	**198.131**
25,899	24,768	22,890	18,002.00	23,990.00	28,789.00	25,679.00	26,234.00	26,098	19,965.00	18,651.00	22,782.00	**283,747.00**
$4,410.18	$4,162.59	$4,019.76	$3,051.27	$4,064.58	$5,602.77	$5,395.14	$5,429.97	$5,428.62	$4,666.41	$3,927.15	$3,336.93	**$53,495.37**

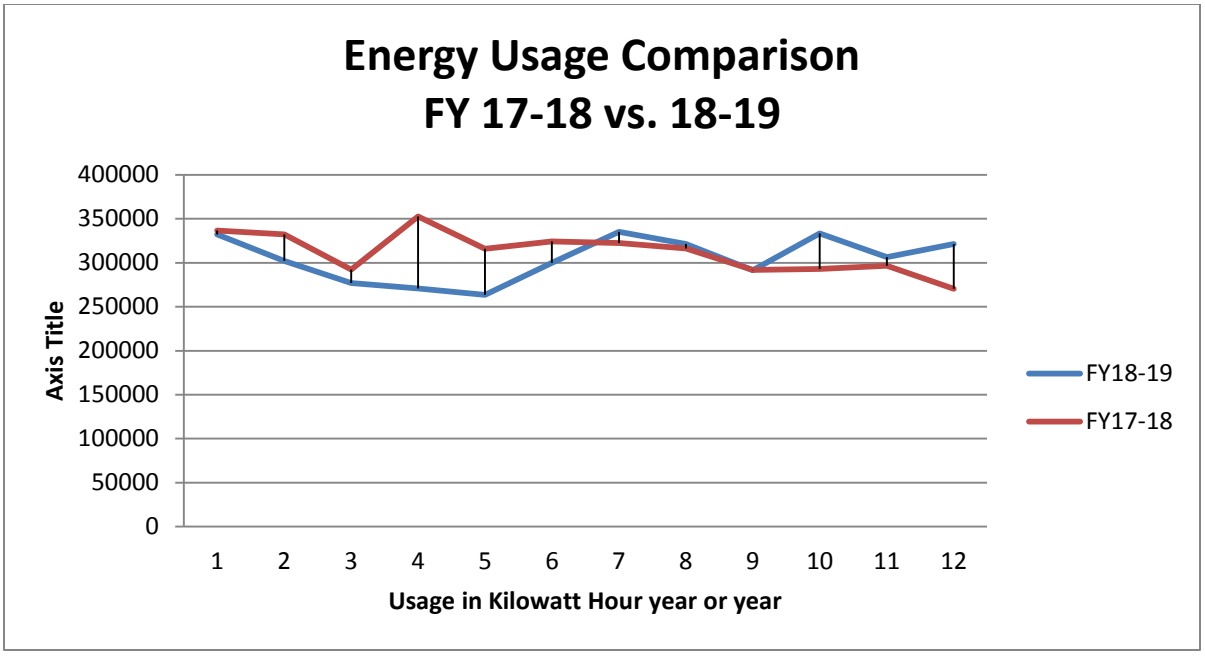


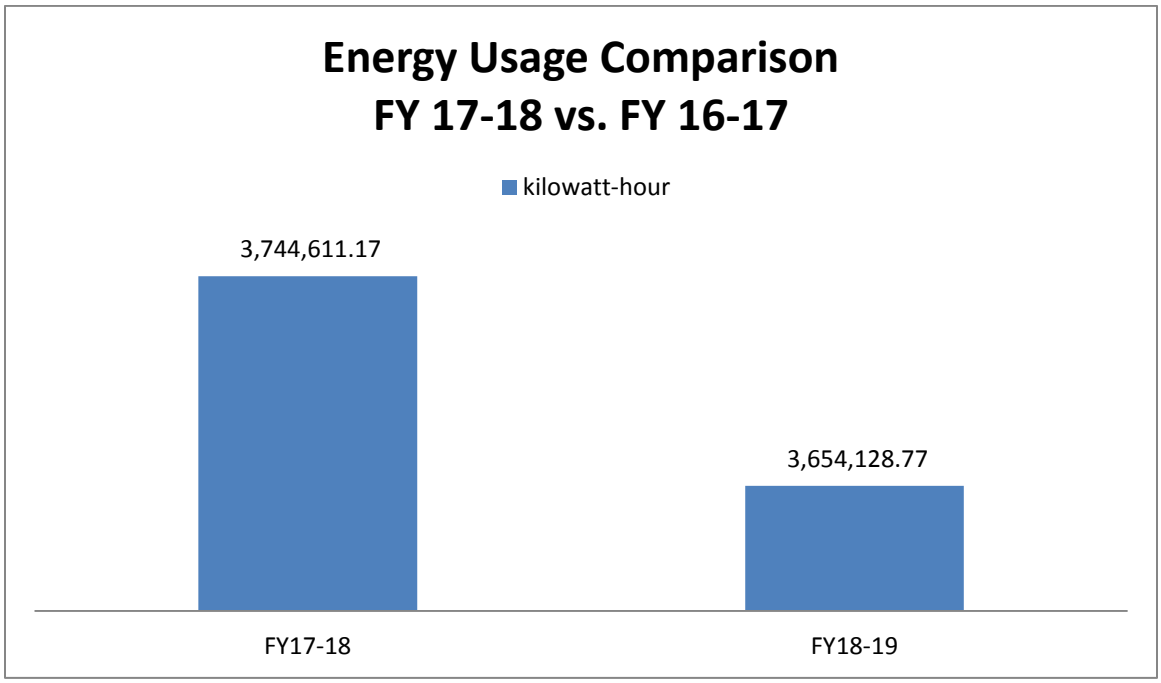
	Oct	Nov	Dec	Jan	Feb	March	April	May	June	July	August	September
Building E	3.009	2.793	3.09	1.897	2.776	3.751	3.59	3.666	3.554	3.163	2.652	2.289
LRC	2.614	2.485	2.25	2.156	2.411	4.116	3.2	3.214	3.24	2.767	2.329	1.974
Allied Health Center	3.75	3.556	3.7	1.529	3.423	3.33	4.638	4.656	4.686	3.977	3.311	2.805
Student Center	3.726	3.534	3.195	3.111	3.468	4.765	4.614	4.658	4.693	4.013	3.397	2.855
Foundation	3.235	3.049	2.653	2.608	2.976	4.789	3.94	3.917	3.933	3.363	2.856	2.436



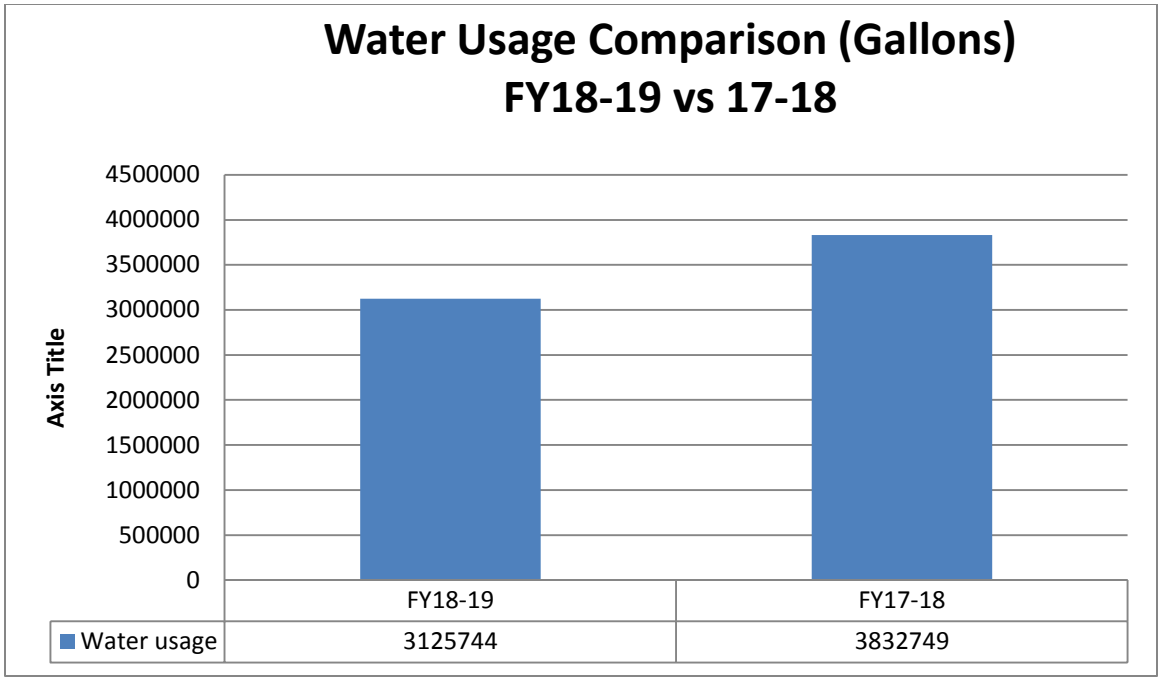


Despite the growing size of GCC's campus and its buildings, the institution continues to reduce its energy usage via integration of more efficient AC units, energy savings technologies and conservation best practices. Because of this, GCC was able to **reduce its energy usage by 90,482.4 kilowatt-hour** in fiscal year 2018-2019 compared with fiscal year 2017-2018. That would equate to an estimate energy savings of **$24,430.25** for fiscal year 18-19 power with regard to energy given the approximate cost per kilowatt-hour at $.27 (cents).





GCC has had a tough time in the past with determining issues related to water usage, meter readings, defective meters and the overall infrastructure of water at GCC. However, after working with Guam Water Authority (GWA) with many concerns of GCC's water meters and infrastructure, some changes and fixes were made. In addition, GCC has installed several thousand gallons of rainwater harvesting systems that help reduce utility water use and results in cost savings. We can now see a steady and more reliable water usage data. When we compared water usage between FY17-18 and FY18-19, we can see a **dramatic reduction in water usage by an estimated 707,005 gallons** of water. That's a **reduction by approximately 18.44%**!


Water Usage Comparison (Gallons)
FY18-19 vs 17-18
Axis Title
4500000
4000000
3500000
3000000
2500000
2000000
1500000
1000000
500000
0
FY18-19
FY17-18
Water usage
3125744
3832749