



## Mission Statement



The Commonwealth Utilities Corporation is dedicated to *excellent customer service* and *effective* POWER, WATER AND WASTEWATER services for the people of the CNMI at the lowest reasonable cost while providing safety to the employees and community.

# Commonwealth Utilities Corporation (CUC)

## CITIZEN CENTRIC REPORT / FISCAL YR 2019

CUC is an independent agency that is self-funded and regulated by the Public Utilities Commission operating on three islands.

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The message is clear. CUC is changing. From within, the organization is filling out its vacancies, expanding its training regimen, realigning personnel to fill significant gaps in past service delivery areas, improving customer service interaction, reducing waiting lines, redefining its Rules and Regulations, policies and procedures and finally, fulfilling its obligations to satisfy EPA Stipulated Orders 1 and 2. But this is not nearly enough. CUC has more to do and that is the purpose of our Strategic Plan.

### What Makes CUC Different From Other Agencies

CUC is a complex entity operating three unique service divisions of power, water and wastewater. It has come a long way towards correcting past issues based on the rising and falling fortunes of an economic bust and following typhoon Soudelor that is giving CUC a chance to rise from the ashes of a disaster with new leadership, eight years of investment by EPA in key water and wastewater systems, an aging power plant that continues to perform because of the skills and talents of its personnel and the appointment of a new Board of Directors.

CUC went through an explosive growth condition of 40% due to tourism from the Pacific basin and Asia, predominately from 2016 thru October of 2018. With Typhoon Yutu dramatically slowing growth, CUC has been given some breathing room to reset, look at new opportunities for grants, push for resiliency opportunities in all areas, and finally, build some durability into CUC's more vulnerable infrastructure. There are many far-reaching decisions and new investments that must be put in motion if CUC hopes to stay ahead of the next growth curve that is gradually returning over the next five years. This is a team effort and management is grateful to the team spirit that runs through this critical organization.



### LOCALES OF RESPONSIBILITY

There are thirteen islands of the Northern Marianas. CUC is responsible for providing power, water and sewer services on three of those islands, Saipan, Tinian and Rota. Presently, Saipan is the only island where CUC provides wastewater treatment services.

### Managements Central Tenants

The goal of any professional organization requires a set of parameters that management and its leadership team can use to promote a shared sense of mission, a set of core values, and a common vision of each divisions future.

Priority	Objectives
Consistent Leadership Strategy	<ul style="list-style-type: none"> <li>• Mentor senior leaders to be accountable for their divisions/sections</li> <li>• Emphasize efficiency, new treatment technology (modular waste treatment)</li> <li>• Participate in interagency leadership initiatives</li> <li>• Establish CUC as financially viable to banking institutions</li> </ul>
Pre-Disaster Planning	<ul style="list-style-type: none"> <li>• Remind, lead, and push divisions to always prepare for a disaster</li> <li>• Annually review gaps that need disaster assistance</li> <li>• Identify smart investments for hardening</li> </ul>
Asset Preservation	<ul style="list-style-type: none"> <li>• Push to establish criticality and condition of all primary assets</li> <li>• Emphasize maintenance planning based on risk</li> <li>• Argue for creation of maintenance reserves</li> </ul>
Communicate, Coordinate, Delegate	<ul style="list-style-type: none"> <li>• Improve transparency of purpose, mission, goals, objectives</li> <li>• Work with outside agencies as partners to a sustainable future</li> <li>• Build a team spirit that shares, talks about, and understands CUC's mission and leaders are held accountable</li> </ul>
Develop Core Leadership Team	<ul style="list-style-type: none"> <li>• Attract and develop desired leadership capability through hiring process</li> <li>• Develop, train and certify high quality workforce</li> <li>• Work with local universities/high schools to build career alternatives</li> </ul>
Financial Stability and Rate Setting	<ul style="list-style-type: none"> <li>• Support solar and green waste energy supply sources</li> <li>• Establish a reputation for solid financial management and control</li> <li>• Create financial rate base to justify issuance of long-term debt to build and maintain expensive long-lived capital infrastructure</li> </ul>
Promote Technology	<ul style="list-style-type: none"> <li>• Support Waste to Energy and other alternative energy systems (renewables)</li> <li>• Support New Efficiency systems (AMR, AMI, SCADA, Desalination)</li> </ul>

# What Services Make up CUC . . .

**Administration** This is CUC's leadership team who provides guidance, consistency where necessary, an open door to ideas and opportunities, promotes a team spirit and coordinated program delivery, and works to provide quality service to every customer on a day to day basis. Senior leadership also is responsible to the Board and to the customer. They take that duty seriously and work to match or exceed regulatory guidelines. Billing, Collection and Finance monitor revenue and collections on a daily basis which is the life blood of any utility that is self-funding.

**Power Generation** There are three power plants under CUC control. Plant #4 is the oldest with five engines that have more than 45 years of service. Plants #1 & #2 are similar in age with six in the former and four in the latter with more than 40 years of service. Together they could generate 68 MW of power and we are averaging 40 MW per day. The carcass of the existing Power Plant #1 building is structurally deficient and a decision to replace that structure and the primary generating engines is needed. CUC supports alternative energy systems, PV and waste-to-energy. The downturn in the economy has slowed the rapid increase in power demands coming back after Typhoon Yutu which is providing time to reset and build some baseline resiliency in anticipation of the next storm. For that, CUC must be ready. On **Rota**, power generation averages 1.2 MW per day at peak load, whereas, **Tinian** averages 1.9 MW per day

**Power T&D** Since coming out of Typhoon Yutu, which began with the start of the 2019 Budget Year, CUC has added more than 4,000 concrete poles to both **Tinian** and Saipan replaced more than 800 transformers, and have strung miles of new wire working six and seven days a week for nine months. At the present time, Power T&D has achieved a 5% line loss on Saipan, which secures the bulk of available power for meeting daily demand and generating revenue for CUC. CUC performs T&D services on **Rota**, whereas, Telesource is the service provider for both power and T&D on **Tinian**.

**Water Division** CUC achieved, for the first time, 24-hour water island-wide in July of 2018 providing water to 60,000 residents in 14 Tank Service Areas (TSA's) using 131 wells to meet demand. Despite Typhoon Yutu, CUC only lost 24-hour water for less than two months which was a significant improvement over the five month delay in providing scheduled water following Typhoon Soudelor. There are fourteen TSA's on Saipan with only one each on both **Tinian** and **Rota**. Water production reaches 265 mg/month with 119 mg/month of billings which represents 55.9% non-revenue water loss efficiency on Saipan. CUC is diligently working to reduce that loss due to leaks and to improve system pressures in support of new development opportunities as CUC and EPA invest in rehabilitating the water system each year.

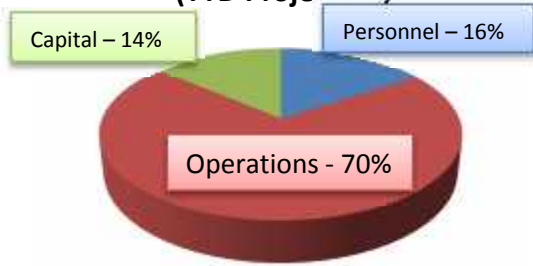
Typhoon Soudelor identified a gap in CUC's critical systems of backup generating units to supply temporary power pending reinstallation of the overhead power system to wells and booster stations. FEMA is funding the installation of backup generating units and containment facilities to assure power will be available for a minimum of 70% of the island. **Tinian** received a new power backup unit for its primary well head and **Rota** has two new generating units purchased by CUC.

**Wastewater Division** Saipan is the only island with sewage treatment. **Tinian** and **Rota** rely exclusively on septic systems. The age and condition of Saipan's two treatment plants and its collection system is fair to poor. Age and soil condition, harshness of the influent wastewater and under investment in its rehabilitation and maintenance has caused this condition. CUC has plans to correct this condition and put both the wastewater plants back into their original design condition over the next year. Collections is spending extra time identifying the highest priority sewer main repairs and are going back to identify new and existing sewer accounts CUC had missed. For **Rota** and **Tinian**, CUC does not provide wastewater treatment services at this time but there is interest developing to introduce a small modular system for each homestead.



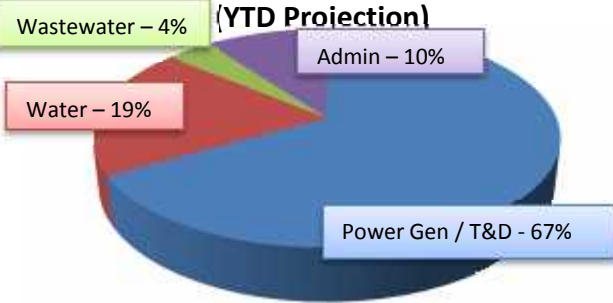
**FY 2019 Overall Budget by Expenditure (YTD Projection)**

# Where CUC Funds are Used – 2019



The Commonwealth Utilities Corporation (“CUC”) has a total 2019 budget of \$122,190,340 which is less than a 1% increase over 2018’s Approved Budget. As the pie charts at the top indicate, the bulk of expenditures continue to lie with the **Power Division** that includes Power Generation and Power Transmission and Distribution. Two thirds of Power Divisions budget reflects fuel costs totaling \$56 million out of \$84 million of planned spending. Power Generation is spending considerable amount of budget on the rehabilitation, repair and maintenance of its 40 plus year old engines. CUC is working on plans to procure one new generating unit rated between 8 – 13MW that will provide CUC with new technically advanced engines with an opportunity to reduce fuel and lube oil consumption by a significant amount, whereas **Power T&D** will be installing 2,500 new concrete power poles on Tinian and Saipan.

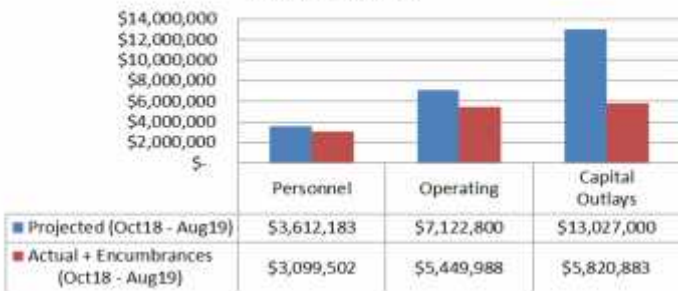
**FY 2019 Overall Budget by Division (YTD Projection)**



**Power Expenditures Budget to Actuals (Oct18 - Aug19)**



**Water Expenditures Budget to Actuals (Oct18 - Aug19)**



**The Water Division** is also spending approximately \$10 million out of its \$30 million budget on Capital Improvements to its Water and Wastewater infrastructure assets. Incorporated into the Water budget are the Water and Wastewater Engineering Division and the Laboratory Section. Engineering oversees all capital project activities of the named divisions, Stipulated Order 1 Federal Court requirements, and the implementation of a water audit that is intended to help determine the cause and correct the problems allowing for non-revenue water loss presently at 61% of production. Water Lab performs daily, weekly, and monthly tests of water to assure wells are clear of ecoli, turbidity and other potentially harmful substances.

**The Wastewater Division** is the smallest area of expenditure at this time, however, capital spending in 2020 will grow dramatically to bring the two wastewater treatment plants, Sadog Tasi and Agingan, back up to their original design parameters so that CUC will be prepared for the projected growth in resort and tourism activity anticipated over the next five years. In addition to treatment, Wastewater handles all collection system repairs and pipeline replacement programs supported and funded by EPA. At the present time, CUC is looking to extend sewers into previously unsewered areas of Saipan to eliminate septic systems that may need replacement, renewal or rehabilitation.

**Wastewater Expenditures Budget to Actuals (Oct18 - Aug19)**



Coming off a year where CUC’s revenues were depleted and yet the team managed to avoid severe austerity measures through an organized effort to communicate the need to all levels of the organization, switching overtime for flex-time where possible, and increasing planning efforts to incorporate deliberate and measured work order requests that both contained and prioritized spending in all Divisions. CUC admits that this has been a difficult year because revenue constraints outside of FEMA reimbursements due to large unpaid receivables by a couple of government entities have placed CUC in a fiscal crunch that jeopardizes normal utility activities. CUC must operate as a private business and as such we must expect payment from customers just as any other private sector entity does because we are self-funded and do not accept appropriations from the local Legislature. We have one goal – Be successful and provide critical services to the islands of Saipan, Tinian and Rota.

## CUC's Strategic Vision

Looking ahead to Fiscal Year 2020, CUC is at a loss to know what it can fully afford until several large customer groups (i.e., CHCC, and Gov't Offices totaling approximately \$40 mil in Accounts Receivable) begin paying their arrears for services rendered. At the start of 2020, the first quarter of the year and maybe longer, will require restraining spending to 2019 monthly levels because of the continuing 21% gap in revenue that exists and will affect all Divisions, Power, Water and Sewer. The bulk of the revenue, at least 50%, goes to purchase fuel for power. As discussed under CUC's Finances, there is some flexibility in capital spending but not nearly enough to address non-grant related activity. Therefore, let's turn to topics where CUC will perform and has control over its destiny.

## FEMA Funding

Without a doubt, FEMA and CUC is committing to resiliency plans that will give Saipan and Tinian the opportunity to strengthen the backbone of their power distribution systems support structure with concrete power poles and fiber glass cross arms. There are 2,500 new poles along with cross arms and LED lighting that will reestablish normalcy on and around these islands.

For Water, FEMA will be completing the water hardening effort with installation of backup power supplies and building structures to house these units for up to 70% of the water supply system.

## EPA Funding

Additional funding is being identified that will support a further fourteen well sites. Annual funding from EPA of \$7 million will be supplemented for FY 2020 with an additional \$10.084 million targeted primarily for wastewater treatment plant rehabilitation for both Sadog Tasi and

Agingan. The intent is to return them to their original design specification and operating condition so that CUC can get an additional 25 to 40 years of life out of those two critical facilities. The original \$7 million will go for prioritized project requirements that have been scored and authorized by BECQ, CUC and EPA and relate strongly to the original water and wastewater Master Plans.

## Dept of Agriculture, Economic Development Administration, and Dept of the Interior Grant Funding Opportunities

CUC will be looking to identify a large number of projects under various grant opportunities that have a matching obligation of local funds, long-term bonding or the use of other eligible grant funds. What is critical to CUC is to approach each funding entity with a prioritized list of capital infrastructure improvements that will not only replace an existing failing asset but will also provide a complete return on investment due to the benefit of new technology gains, adds resiliency with the elimination of old worn technology that required extensive maintenance and well past its useful life, reduces line loss in power, reduces non-revenue water loss in water, adds new wastewater customers and upgrades failing lift stations and sewer mains, and substantially reduces labor demand to focus more on preventive maintenance and planned repairs and no corrective maintenance that tend to cost twice as much as planned or scheduled work.

Examples of potential projects include:

- a. New power plant for Saipan to replace the current three plants.
- b. Replace three metal water tanks with pressurized concrete tanks.
- c. Introduce SCADA systems to power, water and wastewater infrastructure facilities.
- d. Beach Road sewer main and water main replacement in conjunction with DPW.

## New Generating Engines Power Plant #1

CUC is concluding a lengthy bid process to acquire one new 8 – 13 MW gensets to replace one failed unit, No. 8. The opportunity this affords CUC is the acquisition of new baseload power units that will have an immediate return on investment and will reduce the cost of power in support of providing critical funding for existing units where deferred maintenance is affecting their reliability. It is also the first step in the process of updating the power units that will have the flexibility to use both diesel and liquid natural gas as a fuel source. This will also provide new funding to support a long term loan strategy to replace additional engines thereby eliminating the 40 plus year old units for new equipment and technology. CUC's strategy to replace engines as part of our five year capital program will allow CUC to create a project to construct the carcass of a new generating plant into which the new gensets can transition to during its construction. This planning agenda gives CUC time to get it right and to incorporate automated systems making the power plant less labor intensive and more fuel efficient.

## Telesource Contract Renewal

Finally, the Telesource contract on Tinian is coming up for rebidding in the first quarter of 2020. The original estimate for major development opportunities was never realized but progress is slowly developing once again. These include new businesses downtown, new homesteads under consideration and the military diversion and training project.

