



# ON THE grid

CONSOLIDATED  
COMMISSION ON  
UTILITIES  
NEWSLETTER

OCTOBER 2012

## 2012 is the Year of the Meters for Guam's Families!

Smart power meters will be installed in all of Guam's residential, commercial, and government power customers beginning **October 2012**. The first areas to get this new meter will be **Paradise Estates, YPao Pao Estates and Barrigada Heights**. By the Summer of 2013 all power customers will have new meters. Also, work began in **August 2012 to replace each non-registering water meter with a new radio read meter**. By the end of 2013 GWA will have installed 24,000 customers with new meters.

**dollar** grant from the US Department of Energy (USD OE) to which GPA was able to match the grant. This **\$32 million dollar** project will revolutionize the way we think and use our power and will fundamentally change the way GPA interacts with our customers.

**But why are Smart Meters important? And why should we care about them?** Smart meters are important because they are the point of information collection for the Smart Grid (SG). The SG will improve GPA's response to outages to restore power faster and report to dispatchers on power quality to your home or business. Again, **this will revolutionize the way GPA does business from top to bottom and bottom to top**. Smart meters will only take a few minutes to install and will cause a brief power outage. Customers will be sent a post card notice on when GPA and our contractor, APEX, will be coming to your village. Ultimately you will be able to better manage your power usage in your home and even identify which appliances are the biggest consumers of power. **You will be managing your power usage** and you will be able to do this from your computer or even your mobile device.

*Between both utilities this amounts to approximately 50,000 customers. Guam will have new water and power meters.*

The Public Utilities Commission (PUC), Consolidated Commission on Utilities (CCU) and the executive and all employees of both utilities have wholeheartedly endorsed the plan to change out every single utility meter. In the case of GPA the agency was fortunate to have been awarded a **\$16 million**



YOUR NEW WATER METER

In the case of GWA the USEPA in the recently signed Court Order (CO) has mandated that GWA install all and replace all existing meters. GWA has already begun this process with the non registering meters and should have them all installed by November, 2012. Crews are replacing failing meters at the rate of 100-135 daily. In January of 2013 GWA will then begin replacing all 13,000 Sensus meters which have been in the ground since the 1970's on Guam.

*By the end of next year in accordance with the (CO) GWA and its hardworking meter staff will have installed over 24,000 meters. This is no small feat!*

Having functioning water meters is vital to the health of GWA and the community. Without it the utility simply cannot run its day to day functions in a manner befitting our families. Over the past several years crews have been battling non registering AMR's which have been failing at an alarming rate. The consequence of this is not just the constant replacement of these meters, but the fatigue on the part of the crew and time and energy which could be better spent on other critical issues facing the utilities. Once we conquer our meter problem many, many improvements will begin to flow through the pipes of GWA and our island.

*It's an exciting time for Guam and for our utilities, and we invite you to be a part of it.*

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YOUR NEW POWER METER

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### more on GPA Smart meters...

**But what exactly are smart meters?** Smart meters are digital devices that record the amount of energy you use in your home and send this information to GPA. Smart meters are the advanced digital replacements of their predecessors, the old electro-mechanical analog meter. They have a digital display and are about the same size as the old analog electric meter.

These new electric meters provide two-way communication between your home and the utility and use secure wireless network technology to communicate power consumption and quality to GPA. We will use the information from the smart meter to calculate your energy use to produce your

monthly electric bill. GPA's Smart meters track electric use periodically and you will get more accurate power bills.

**Why is GPA installing smart meters?** We are installing smart meters for many reasons. Those include efficiencies related to meter reading, ensuring power quality, remote reconnect/disconnect features and improved outage detection and response to GPA. One of the critical factors driving smart meter technology is the need to match electricity consumption with the real time demands on the grid. Currently our traditional analog meters track total consumption. Smart meters will allow GPA to track when electricity is used and thus match the time the energy is being consumed with amount of electricity consumed. GPA customers will have information available to better manage

their energy consumption. This is a powerful tool not currently available to our customers.

You can learn more about GPA's Smart Meters by logging on to [www.guampowerauthority.com](http://www.guampowerauthority.com)





# What's new at GPA.

## GPA signs renewable energy contract.

On June 27th, 2012 GPA signed a 25 year \$199 million dollar contract with Quantum Guam Power (QGP). QGP solar facility is located near the Layon Landfill in Dandan, Inarajan. The solar facility

will harness the energy from the sun through solar photovoltaic cells panels with a single axis tracker system. QGP has been contracted for 20MW capacity with capacity factor averaging 21%. The expected production from this facility will service the equivalent 2,044 homes which average 1500 kwh in power use per month. This 25 year contract includes terms that require QGP to guarantee an annual energy production and at a fixed price per contract year. CCU Chairman Simon Sanchez said it

was the first big step for renewable energy on Guam. "We're using an energy source that will always be here", Sanchez said. "[Fuel costs are] about \$300 million dollars which leaves Guam every year", Sanchez said of GPA's annual purchase of fossil fuel. "With solar, part of that money can be going to the local economy", he added. GPA's goal is to have 5% of power coming from renewable energy within five years, and in the next 20 years the utility aims is to have 20% renewable.

## 24 new apprentices hard at work in your utilities.

On Friday, July 27th GPA along with its partner utility GWA, graduated a total of 24 new apprentices already hard at work in your utilities. GPA along with GWA has an aging workforce and it's predicted in the next several years over 25% of the work force will be retiring. These apprentices are the future of the utility and work all areas ranging from meter shops, plant mechanic pump technicians, wastewater operators and linemen and the Power Systems Control Center (PSCC). Typically a male dominated environment this year GWA also graduat-

ed its 2nd female apprentice. We welcome these apprentices who have been on the job already for three to four years and come from all over Guam!

In September GPA has already begun recruiting new apprentices. A total of 24 apprentices have already signed on and will be mentored in the following areas: Generation, Transmission & Distribution (T&D), and the remaining 5 to PSCC. These new recruits will not only be mentored by 24 seasoned employees, but also attend classes at GCC.



## A decrease in your monthly power bill

On August 1st, 2012 the CCU/GPA requested and was granted by the PUC a 1.73% decrease in your monthly power bill or about \$2 dollars on an average 1000kwh residential power bill. The Levelized Energy Adjustment Clause or (LEAC) occurs every 6 months, and this charge is based SOLELY on the price of oil which Guam is 100% dependent on imported oil. Two thirds of our total power bill goes directly to the purchase of oil. The use of the LEAC is a common utility practice. Every month GPA spends approximately \$30 million dollars for oil imports to ensure that we have reliable power. In the coming years GPA will be investing in solar and wind energy as well as other energy sources which can reduce our dependency on foreign oil and even just as important keep more of Guam's money circulating in our local economy.

## BIG NEWS at GPA

The big news coming to GPA and all of Guam in the next several months is the completion of the Integrated Resource Plan (IRP). Over \$300 million dollars will be invested in developing new sources of energy to lessen our dependence on imported oil. GPA will diversify its energy base not just with renewable energy, but other alternative sources such as Liquefied Natural Gas (LNG). Why should you care about an IRP because it's vital to sustainability of our island. Diversifying our power needs is vital to a growing Guam that support our quality of life.

*\* Bill 484-31 pending legislation from Senator Tom Ada for refl of existing 1990 era bonds to help reduce power rates.*



## Hagatna and Marbo/Pagat underground (UG) line project

In August 2012 GPA and its contractors completed the \$5 million dollar Hagatna and Marbo/Pagat underground (UG) line project. These improvements will reduce outages and the overall quality of power you receive. Underground lines are expensive but very important especially during times of bad weather and of course typhoons. Power restoration will be quicker and transmission lines will not be damaged. We are pleased to have UG in some of our more remote parts of Guam.

# What's coming in 2013 at GWA.



GUAM WATERWORKS AUTHORITY

"Investing in Better Water Better Lives" Phase II

In November of 2010 GWA closed approximately \$87 million dollars worth of bond financing to do continued improvements in our island. "A vital and function water system is key to a good and excellent quality of life for all of Guam's residents," said Simon Sanchez, Chairman of the CCU.

What is GWA and its Performance Maintenance Office (PMO) planning on doing over the next several years? Here are just a few of the many things which will improve our water and wastewater systems:

1. The Northern Wastewater Treatment Plant (NWWTP) near Two Lovers Point will complete its \$10 million dollar interim upgrades improvements by November, 2012. Why is this important? "For any resident or business wishing to hook up to the GWA wastewater system we must be able to transport more wastewater to the plant. Without the increased capacity we simply cannot hook up more homes and business. The plant will go from treating 6 Million Gallons Daily (MGD) to 11 MGD", said Tom Cruz Chief Engineer of GWA.
2. In August of 2012 new meters are being installed at a rate of 130-150 daily (see cover story). The goal is to replace all non registering AMR meters by November, 2012. In January of 2013 GWA crews will begin replacing all of the Sensus meters some of which have been in the ground for 30 years, One of the key improvements to go along with this \$4 million dollar meter replace-

ment program is the purchase and use of a state of the art meter test bench. This \$1 million dollar piece of equipment allows GWA to immediately calibrate and repair all meters should they require it. Prior to this GWA had never had to utilize outside contractors and resources to repair and calibrate meters.

3. Coming soon will be upgrades to the Hagatna Wastewater Treatment Plant (HWWTP). But why should you care about the HWWTP? This is a vital \$11 million dollar upgrade to the pump stations which will keep the HWWTP in compliance and stay in compliance of the NPDES permit as granted by the USEPA. Being in compliance with the clean water act keeps our environment safe for all who use it.

4. Every village should already be feeling the effects of a stepped up leak repair and identification

process. GWA crews along with our contractor Giant Construction have been repairing leaks at a increased rate. Previously our system had as many as 600 outstanding leaks now currently has less than 50. "We are working to get all leaks repaired within 3-5 business days", said Martin Roush General Manager of GWA. Also, GWA along with its other contractor GHR has been identifying underground leaks. These are leaks which are not evident above ground but can be heard with specialized equipment. "Every village has been getting swept with this program and once we identify these leaks we then put them on the leak repair list", said Mengliou Wang, Sr. Engineer for GWA.

5. Right now and until May of 2013 GWA will begin replacing water lines throughout Guam which have been identified as top 50 line offenders. These are lines that have 10 clamps or more on them. Almost \$1 million dollars will be spent replacing these old lines. Once this project is



Northern Wastewater Treatment Plant upgrade.



Northern Wastewater Treatment Plant upgrade.



Line replacement in Yigo.

successful GWA will increase the amount of the contract. We hope to spend several million dollars in the coming years on replacing old 2 inch water lines with 6 and 8 inch water lines.

6. By mid-October 2012 GWA will award a contractor with the bid to replace the Barrigada 2 million gallon (MG) Tank which has been in need of replacement for many years. The Barrigada tank located in Latte Heights is a \$5 million dollar project. When finished in June of 2013 GWA will have a storage capacity of 2MG of water to service, Barrigada, Barrigada Heights, and Mongmong-Toto-Maite. Simultane-

ously both the Agana and Chaote tanks will be replaced as well. This \$5 million dollar improvement to the central and parts of Guam will greatly enhance water storage for Chalan Pago, Sinajana, Agana Heights and Hagatna Anigua, Asan and Piti.

7. Over the next several years GWA will rehabilitating 7 wells in northern Guam. Of the 120 wells that GWA has currently only 100 are operational. We want to get more wells to work for us. This \$1.5 million dollar project is important because it will do just that. Simultaneously we are hoping to develop 3 new water wells which have not

been done on Guam since the early 90's. New wells are important too and will cost approximately \$4 million dollars.

8. Ugum is GWA's only surface water treatment plant, and can produce up to 4 million gallons of fresh water daily. The Ugum Water Treatment plant is the only state of the art membrane treatment plant on island. Ugum supplies water to the villages of Ipan, Malojloj, Inarajan, Merizo and Umatac; and occasionally supplements northern water feeding Talafofo, Windward Hills, Santa Rita and Agat. This \$10 million dollar project began in 2007.