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## Summary:

# Guam Power Authority; Retail Electric

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## Summary:

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### Credit Profile

US\$146.45 mil rev rfdg bnds ser 2017A due 10/01/2030

<i>Long Term Rating</i>	BBB/Stable	New
Guam Pwr Auth rev bnds		
<i>Long Term Rating</i>	BBB/Stable	Affirmed
Guam Pwr Auth (AGM)		
<i>Unenhanced Rating</i>	BBB(SPUR)/Stable	Affirmed

Many issues are enhanced by bond insurance.

## Rationale

S&P Global Ratings assigned its 'BBB' long-term rating to the Guam Power Authority's (GPA) \$146.5 million series 2017A revenue refunding bonds. We also affirmed our 'BBB' long-term rating and underlying rating (SPUR) on GPA's senior-lien revenue bonds outstanding. The outlook is stable.

The rating reflects our view of GPA's:

- Dependence on oil, although fuel diversification is a key operational focus;
- Medium- to longer-term challenges, as it plans to add 180 megawatts (MW) of combined cycle generation by December 2021 and retire various aging, inefficient units (this will increase debt or capital lease obligations and likely base rates on top of the authority's already high rates);
- Challenges related to being an island-based utility, which introduces capacity and reliability challenges and costs given the lack of a connection to a regional grid;
- Narrow economic base with concentration in military and tourism, which leaves it vulnerable to economic cycles and defense spending;
- Financial projections that indicate a weakening of fixed-charge coverage and liquidity, although we note that these metrics have improved significantly in recent years; and
- Exposure to the general government (GovGuam; BB-/Stable general obligation rating), which accounts for about 14% of GPA's operating revenue, although GovGuam remains current on all department of education and department of public works payments.

Partly offsetting the above weaknesses, in our view, are GPA's:

- Continued support from the Guam Public Utilities Commission (PUC) under the Consolidated Commission on Utilities (CCU) governance structure in terms of its levelized energy adjustment clause (LEAC) fuel adjustment factor, and of recommended base rate adjustments;
- Improved economic stability in recent years, including good tourism growth and favorable prospects for continued growth given economic development initiatives being undertaken as well as the pending military buildup;
- Improved fixed-charge coverage and liquidity, partly as a result of cost-cutting initiatives but also as a result of lower debt service requirements; and

- Substantial completion of redundancy and storm-hardening projects for GPA's transmission and distribution system, and even the introduction of some renewable energy resources, which alleviates capacity constraints.

We have assigned GPA a business profile score of '6' on a 10-point scale on which '1' is the strongest. The business profile reflects our view of GPA's support from the Guam PUC and CCU for rate adjustments and pass-throughs, high rates, a concentrated and sometimes constrained resource portfolio, and adequate management practices and policies.

The bond proceeds will be used to refund all or a portion of the authority's series 2010A bonds. The bonds are secured by a first lien on net revenue of the approximately 51,000-customer vertically integrated electric system. A debt service reserve fund, cash funded at maximum annual debt service, provides additional liquidity. The senior lien remains GPA's working lien; no subordinate-lien debt is outstanding. We have applied our electric and gas utility criteria to determine GPA's general creditworthiness and have applied this rating (BBB) to the senior-lien issues.

Since an explosion and major fire broke out at GPA's Cabras 3 and 4 oil-fired power plants on Aug. 31, 2015, one of GPA's main challenges has been to quickly restore 78 MW (two units at 39 MW each) of lost capacity to its system, given the lack of grid connectivity that most mainland utilities have. Although no one was injured, the fire resulted in significant damage to both units, and Cabras 4 has been determined to be a total loss. While Cabras 3 was initially deemed reparable, GPA will likely retire the unit because of its age and the additional significant investments required to make it comply with current and future environmental regulations. The forced outage increased GPA's reliance on intermediate, less efficient power resources as opposed to its typical baseload generation. When the outage occurred, GPA promptly coordinated with large customers to establish about 29 MW of interruptible load programs, fired up some of its older and smaller units, and installed 40 MW of newly acquired temporary generation (Aggreko).

Prior to the outage, Cabras 3 and 4 on a combined basis represented a significant 79 MW, or 22%, of GPA's total system capacity of 354 MW, and GPA's reserve margin was approximately 42% given its peak load of about 250 MW. But as a result of the outage, its reserve capacity immediately declined to a marginal 8% (which was inadequate given the need to perform periodic maintenance on other units) with a total capacity of 276 MW. But over the past 27 months, GPA has been able to bring various small generating units on line and has increased the capacity of other combustion turbine units through repairs such that its capacity increased to 324 MW by April 7, 2016, 380 MW by Nov. 15, 2016, and 449.7 MW currently (380.4 MW consists of baseload and intermediate generation, and 69.3 MW peaking, wind and solar capacity). Not including solar and wind, GPA's 424 MW of capacity gives it a comfortable reserve margin of 163 MW (63%) versus recent peak load of 261 MW.

While these immediate and intermediate power supply solutions have stabilized GPA's operations, its long-term plan involves the implementation of its 180 MW combined-cycle/flexible generation (dual-fueled, combined cycle) project per its Integrated Resources Plan (IRP). This plan also includes the retirement of old units (Cabras 1 and 2; by July 2021), the expansion of renewable energy programs, and the installation of a 40 MW energy storage system. Key factors considered in the revised IRP included environmental compliance cost options, reduction of peak from time-of-use rates, fuel options and strategies, the impact of demand side management and distributed generation, and funding strategies. The 180 MW of combined-cycle units are estimated to be commissioned by the end of 2021, and would also convert 88 MW of existing oil-fired units to ultralow sulfur diesel (ULSD) within one year of operation of the new combined-cycle units. While the execution of GPA's generation plan has been subject to delays, GPA has

moved forward with the land acquisition for the project. In addition, its temporary power supplies and capacity are sufficient, the costs of future generation projects have declined, and management has been afforded additional time to plan. The Guam PUC approved GPA's generation plan in October 2016 and will review and approve procurement parameters and generation capacity of the projects in the first quarter of 2018, with construction to begin later that year.

We note that the process of converting to gas or ULSD from oil introduces risk and uncertainty, with regard to such factors as cost overruns and higher debt servicing costs. Combined-cycle generation does, however, offer several benefits, including better efficiency, lower capital cost than installing emission controls on existing units, fuel diversity, and compliance with regulatory standards. GPA estimates that it would have to spend well over \$475 million on its existing fleet of generation facilities to bring them into compliance with Environmental Protection Agency regulations. GPA has also made progress on renewable energy, with its take-and-pay obligation NRG Energy's 25 MW Dandan Solar Project becoming operational in October 2015 and with an additional 120 MW of solar projects planned. A portion of the 2014 bond proceeds will also be used for a 40 MW energy storage project that will be an additional measure in enhancing the entire grid's redundancy. Management anticipates that new combined-cycle units and increased renewable energy resources will eventually account for 75% of GPA's energy supply.

GPA's financial performance continues to be good and fairly stable, as various actions in the past several years have improved cash flow certainty, buoyed by supportive rate regulation from the PUC. This includes allowing GPA to recover not just fuel costs but related out-of-the-money hedges and even renewable energy through the LEAC, which is adjusted every six months, as well as the aforementioned surcharge. As of Aug. 1, 2017 the LEAC charge has been about 12 cents per kilowatt-hour (kWh; in addition to the base rate of 10 cents per kWh), and since 2001 38 adjustments have been made to the LEAC. GPA plans to file a proposed adjustment with the PUC for an adjustment effective Feb. 1, 2018, and the increase to the LEAC is estimated in the range of 11% to 22%. The average residential rate in fiscal 2017 was about 20 cents per kWh, and while rates may be competitive versus those of comparable island-based systems, current rates are still well above average rates on the U.S. mainland. A recent PUC ruling also kept in place GPA's plan to boost liquidity to management's eventual goal of 60 days of operating expenses, from 45 days, and GPA is now comfortably above the revised goal. GPA has also built up its self-insurance fund to \$19 million. The most recent base rate adjustment was in October 2013, when the authority received approval for a 6.0% increase versus the requested 7.3%.

Energy sales increased 2.2% in fiscal 2017 after increasing 2.3% in fiscal 2016 and 0.4% in fiscal 2015. Fixed-charge coverage improved again to 1.88x in audited fiscal 2016 from 1.48x in audited fiscal 2015, 1.28x in fiscal 2014, 1.15x in fiscal 2013, and an inadequate 0.90x in fiscal 2012. Fixed-charge coverage for unaudited fiscal 2017 (ended Sept. 30, 2017) is estimated at 1.54x. Fixed-charge coverage is our internally adjusted debt service coverage (DSC) metric that imputes certain recurring debtlike obligations (capital leases) into the calculation, treating them as if they were long-term debt even if they are operating expenses of the system or subordinate to senior-lien debt. Financial metrics improved in recent years as a result of better-than-forecast energy sales, headcount reductions, lower fuel consumption costs, and other operational efficiencies.

GPA's forecast assumes operating revenue will spike 25% in fiscal 2018 mainly as a result of rate increases with

management expecting operating costs to increase 35% largely as a result of higher fuel cost forecasts. Revenue from the LEAC is expected to move in tandem with fuel prices. Forecast costs associated with combined-cycle generation, either through a lease structure or from traditional debt, are likely to be offset by lower operating costs related to expiring leases, operational savings, or, if necessary, from base rate adjustments. Management also anticipates that an increase in rooftop solar panels will offset the increase in demand from population growth. GPA's financial forecast indicates that fixed-charge coverage will drop to about 1.33x in fiscal 2018 and range from 1.28x to 1.79x during fiscal years 2019 to 2022, including about 1.30x in fiscal 2022, when debt service requirements (or capital lease payments) related to new gas-fired generation are projected to come on line.

Unrestricted cash as of audited fiscal 2016 was \$95 million, or 155 days' cash of operations. Unrestricted cash declined to \$84 million, or 124 days' cash, according to unaudited fiscal 2017 results. To preserve liquidity, GPA has moved to safer fuel hedging arrangements that eliminate margin calls and collateral posting exposure. GPA has a contract in place through August 2018 that supplies nearly all of its residual fuel oil and has a \$35 million credit line in place for fuel delivery payment; we believe the LEAC and the relatively lower-risk fuel supply contracts should reduce cash flow volatility. Nonetheless, GPA's forecast indicates unrestricted cash will decline to 76 days by 2022, not including its self-insurance fund. (The self-insurance fund totaled \$19.2 million in fiscal 2017 and GPA may be able to use it for debt service based on PUC approval.)

As of audited fiscal 2016, GPA had about \$612 million in long-term debt and capital leases, with no variable-rate debt. All subordinate-lien debt has matured. Debt service requirements and capacity payments declined to \$46 million in fiscal 2016 from \$61 million in fiscal 2015, but these obligations grew to \$57 million in fiscal 2017 are projected to grow to \$66 million by 2021 with the financing of new generation. As of fiscal 2016, total debt to capitalization was a high 89% with debt per customer also high at almost \$12,000. Capital spending budgeted over the next five years is about \$36 million annually. A GPA borrowing for its combined-cycle project could occur as early as 2021, but the specific plan of finance and structure is still being finalized.

GPA is a vertically integrated, 261 MW peak load electric utility that provides service to approximately 160,000 people on the island of Guam, the largest and southernmost of the Mariana archipelago, approximately 1,500 miles southeast of Tokyo. GPA is a statutorily autonomous component unit of the government and thus revenue may not otherwise be required to be transferred to GovGuam. Even if the laws were to change to authorize GPA to transfer money out, the CCU and PUC would also have to approve any use of surplus net revenue to that end. Otherwise, surplus net revenue stays within GPA's coffers and is not subject to general fund clawback or a payment in lieu of taxes.

Guam's economic activity is largely based on tourism and military spending. Because of this, many of the government's economic development initiatives focus on these pillars, especially tourism. Hotel property owners have invested substantially in renovations and expansions in recent years. Recently added customers include the 400-room Dusit Thani Hotel and Guam Regional Medical City, and an additional 340-room hotel, Tsubaki Tower, is under construction. In addition, approximately 1,400 additional rooms are expected to begin construction by 2020 and more new hotels (over \$400 million in developments) are expected that year. Visitor arrivals were up 3.2% in fiscal 2017 with Korean visitors alone up 25%, helping to mitigate a decline in Japanese visitors. Unemployment declined to 5.4% as of September 2016, the most recent period for which data are available, from a much higher 13.3% in September

2011.

The ongoing U.S. military buildup, while still a large undertaking, has been scaled back. Originally as many as 9,000 troops were to relocate to the island, mainly from Japan, in 2014 to 2017. A couple years ago, however, the Department of Defense (DOD) reported that the number would be closer to 4,700 active duty personnel, along with family members, support and civilian staff, vendors, and suppliers. What was once estimated at a \$15 billion economic impact is now estimated at \$8.7 billion. A record of decision, which identifies the final locations for additional bases and facilities to accommodate the marines, was released in August 2015. A 13-year period (revised from seven years) of moderate construction followed by a gradual phase-out is planned. All facets of Guam's government, from the general government to utilities, the port, and airport, have reached a general understanding with DOD that any impact from the relocation would be cost neutral to Guam, even if many of the details are undetermined. Six large military construction contracts totaling over \$300 million have been awarded in recent months.

## Outlook

The stable outlook reflects our view of GPA's adequate financial capacity to meet its obligations.

### Upside scenario

We don't anticipate raising the rating over the next two years given GPA's large capital plan and concentrated and constrained resource portfolio. Rating upside is also limited by the remoteness of the utility, its shallow economic base, and lack of grid connectivity.

### Downside scenario

The rating could come under pressure within our two-year horizon as the utility begins what we anticipate will be a capital-intensive period and with possible pressure on financial margins. We note that the project poses construction risk and will increase obligations, even though the long-term benefit could be a drop in high rates. Although the utility could benefit from fuel cost recovery mechanisms, past delays have led to volatile financial performance.

Consequently, rating stability is also dependent on timely base rate and LEAC adjustments that preserve GPA's liquidity. Because of its remoteness, there is a need to maintain strong coverage, liquidity, and redundancy to account for unexpected circumstances, such as the recent fires at Cabras 3 and 4.

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at [www.standardandpoors.com](http://www.standardandpoors.com) for further information. Complete ratings information is available to subscribers of RatingsDirect at [www.capitaliq.com](http://www.capitaliq.com). All ratings affected by this rating action can be found on the S&P Global Ratings' public website at [www.standardandpoors.com](http://www.standardandpoors.com). Use the Ratings search box located in the left column.

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