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Ratings

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Guam Power Authority; Retail Electric

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

Many issues are enhanced by bond insurance.

Rationale

S&P Global Ratings affirmed its 'BBB' long-term rating and underlying rating (SPUR) on Guam Power Authority's (GPA) senior-lien revenue bonds outstanding. The outlook is stable.

The long-term rating and SPUR reflect the application of our "U.S. Municipal Retail Electric And Gas Utilities: Methodology And Assumptions" criteria, published Sept. 27, 2018.

The rating reflects our opinion of GPA's adequate enterprise risk profile due to our view of its adequate market position, vulnerable economic fundamentals and operational management assessment (OMA), and our opinion of the authority's adequate financial risk profile, given strong coverage metrics and vulnerable debt and liability position.

The adequate enterprise risk profile further reflects our view of the authority's:

- Vulnerable OMA, highlighted by our vulnerable operational asset and environmental regulation and compliance assessments, offset partially by our view of GPA's adequate rate setting practices and strong management policies and planning;
- Vulnerable service area economic fundamentals, given our view of Guam's shallow economic base reliant on tourism and military, low income levels, remote location, moderate customer concentration, and relatively low contribution to operating revenues by residential customers;
- Adequate market position, due to our view of GPA's high rates and the authority's lack of full rate-making autonomy as a regulated utility, although somewhat offset by GPA's monopolistic position as the sole electric utility on the island, favorable relations with its regulator and the presence of a pass-through mechanism that allows for ample and prompt fuel cost recovery; and
- Extremely strong industry risk assessment relative to other industries and sectors.

The adequate financial risk profile further reflects our view of the authority's:

- Strong coverage metrics, including fixed charge coverage (FCC) in audited fiscal 2017 and unaudited fiscal 2018 of slightly more than 1.4x, projected at a range of 1.2x-1.7x over fiscal years 2019-2023;
- Adequate liquidity and reserve position, with $91 million in available reserves or 101 days' cash in fiscal 2018 (not including insurance proceeds), including the authority's self-insurance reserve that totaled about $19.3 million; and,
- Vulnerable debt and liabilities assessment, suggested by the authority's debt-to-capitalization of a high 85% as of

fiscal 2017 and a moderate $108 million internally funded capital plan over fiscal years 2019-2022.

Securing the bonds is a first lien on net revenue of GPA's approximately 51,000-customer vertically integrated electric system. A debt service reserve fund, cash funded at maximum annual debt service (MADS), provides additional liquidity. The senior lien remains GPA's working lien; no subordinate-lien debt is outstanding. Total system debt outstanding as of audited fiscal 2017 ended Sept. 30, 2017, was $640 million.

Outlook

The stable outlook reflects our view of GPA's adequate financial capacity to meet its obligations, and our expectation that GPA will continue to adjust base rates or its Levelized Energy Adjustment Clause (LEAC) as needed to maintain stable financial metrics as the authority proceeds with its plan to significantly overhaul its power supply portfolio.

Upside scenario

We don't anticipate raising the rating in the next two years given the uncertainty around GPA's plan to significantly overhaul its power portfolio, the authority's shallow economic base, and lack of grid connectivity.

Downside scenario

The rating could come under pressure within our two-year outlook horizon, as the utility begins what we anticipate will be a capital-intensive period, that might stress financial margins, although we factored in the possibility of some FCC erosion. The combined cycle generation project could pose construction risk, in our view, and will increase obligations, even though the long-term benefit could be a drop in the utility's currently 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 several areas of exposure as an island utility, there is a need to maintain strong coverage, liquidity, and redundancy to account for unexpected circumstances, such as severe weather, global economic shocks and the recent fires at Cabras 3 and 4.

Utility Description And Credit Overview

GPA is a vertically integrated, 254-megawatt (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. The authority provides electric generation, transmission and distribution service throughout Guam, and provides wholesale power to the island's military bases. GPA has a total system capacity of about 446 MW to meet its load, and power supply consists almost entirely of fuel-oil based generating units.

The authority is a statutorily autonomous component unit of the government. However, in 1997, the Guam general fund "transfer legislation" was created, which requires GPA, the port, and the airport to collectively transfer $3.5 million annually from surpluses to the general fund in consideration of services provided like police, fire, and road maintenance. The legislation also provided that the proportionate contribution by the three agencies be determined by a formula, but this formula was never provided. While the port did transfer the full $3.5 million in 1997 on its own, no transfers by any autonomous agency have occurred since (including by GPA, the port or the airport). The government also invoiced the port for $12.25 million in 2011 under the transfer legislation, to which the port responded with an offsetting $16.00 million invoice to the government that accounted for previously transferred funds and other services or facilities for which it believed it should be reimbursed. No response to the port has occurred since 2011 and there has been no other transfer activity. Even if the laws were to change to authorize GPA to transfer money out, the Consolidated Commission on Utilities (CCU) and Guam Public Utilities Commission (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. While the Government of Guam (GovGuam) has been operating with an accumulated general fund deficit for several years and has experienced slim cash flow patterns from time to time, we believe there is a de minimis risk that the government will interfere with GPA's pledged revenue stream, so no related government adjustments or caps currently apply. GovGuam's Department of Education, the third largest customer of GPA on a revenue basis, is current with its billings, according to GPA.

Enterprise Risk Profile: Adequate

Operational management assessment: Vulnerable

In our opinion, the authority's operational management is vulnerable, highlighted by its vulnerable operational asset assessment and environmental compliance, adequate rate-setting practices, and strong management, policies, and planning.

We view the authority's operational assets as vulnerable. While GPA has plans to significantly overhaul its generation portfolio in the next few years, currently 97% of power on an energy basis is sourced from fuel-oil based generating units. This subjects the authority to fuel cost volatility as the market price for oil fluctuates. The authority has strong shaft diversity, however, with its power supply sourced from multiple baseload (4) and intermediate (5) units with good geographic dispersion, including owned and jointly owned, and via several power purchase agreements (PPAs). Since an explosion and major fire caused a forced outage to GPA's Cabras units 3 and 4 oil-fired power plants in 2015 (two units at 39 MW each or 78 total MW), GPA has relied to a greater extent on its intermediate power resources. GPA has about 420 MW of generating capacity, not including 25 MW of renewable resources consisting of mostly solar generation. One of GPA's major challenges is maintaining sufficient resource adequacy given the lack of grid connectivity that most mainland utilities have. Immediately after the fire and outage for Cabras 3 and 4, the authority had very slim reserve capacity; this resulted in GPA having to load shed during peak demand when Cabras 1 was offline for repairs. Reliability is consistently a challenge, too, given Guam is often in the path of severe storms and typhoons. However, as a partial offset, GPA has demonstrated significantly improved resilience in recent years due to ongoing system hardening projects. The authority now serves 60% of system load through new underground infrastructure.

While no one was injured, the 2015 explosion and fire resulted in significant damage to both Cabras 3 and 4, and Cabras 4 has been determined to be a total loss. An insurance settlement of $126 million was negotiated, most of which will be used to reduce the costs of GPA's proposed future combined cycle units. While Cabras 3 was initially deemed reparable, GPA will instead retire the unit because of its age and the additional significant investments required to make it comply with current and future environmental regulations. 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). Not including solar and wind, GPA's 420 MW of capacity gives it a comfortable reserve margin of 166 MW (66%) versus recent peak load of 254 MW.

We view the authority's environmental regulation and compliance assessment as vulnerable given GPA is not compliant with the U.S. Environment Protection Agency (EPA) regulations known as RICE MACT and EGU MACT with regard to emissions standards on some units. However, GPA is in discussions with the EPA to negotiate a consent decree that will allow sufficient time to implement recommendations in its Integrated Resources Plan (IRP), which includes new and efficient generation, renewable energy, and diversification of its fuel sources. GPA estimates it would have to spend well over $475 million on its existing fleet of generation facilities to bring them into compliance with EPA regulations, so it is in the process converting to dual fuel (ultra low sulfur diesel [ULSD] and natural gas) from oil, which requires lower capital costs than installing emission controls on existing units. However, investing in new generation introduces risk and uncertainty with regard to such factors as cost overruns and higher debt servicing costs. No fines by the EPA have been levied on GPA.

We view the authority's management, policies, and planning as strong. Top officials have long tenures with GPA, with the general manager (GM), in particular, having 34 years of experience at GPA including 23 years as the GM. We consider management practices as good. GPA has a strategy in place to completely overhaul its power supply into combined cycle generation over the next five to 10 years, given exposure to oil price swings and aging and costly units with environmental exposures. Management has adequate working knowledge of plant operations, the industry and customer needs and provides updates of its long-term capital plans and financial plans from time to time. The LEAC provides prompt cost recovery such that FCC has been consistently strong in recent years--but the LEAC is at management's discretion (not automatic). Management acted quickly to recover from a forced outage a few years ago that significantly reduced system capacity and has been proactive on storm hardening. GPA is also forecasting that renewable resources will account for 21% of energy by 2021, and it has good relations with its regulator.

The authority's rate-setting practices are adequate, in our view, reflecting GPA's rates that are regulated by the PUC and require approval for rate increases. Semiannual rate adjustments are done through the LEAC through which they recover fuel expenses (as oil prices fluctuate), working capital fund surcharges and renewable energy costs. The LEAC is currently at management's discretion and not automatic, as it was historically. Base rate changes and the LEAC have together provided for good cost recovery in recent years, and the PUC has generally been supportive of rate adjustments in its relationship with GPA.

Economic fundamentals: Vulnerable

We view the authority's economic fundamentals as vulnerable given low income levels, moderate customer concentration and given residential customers account for only 30% of total revenue. We generally consider residential customers as having more stable usage patterns and as being less exposed to periodic economic weakness than nonresidential customers. The 10-leading customers account for 29% of revenues, partially mitigated by the presence of the U.S. Navy as its top customer, which provides some stability to revenue. We also view Guam as having a shallow island economy concentrated in military and tourism, and we believe its remote location adds to its exposures. Guam is also subject to global economic shocks given its reliance on tourism. Guam's per capita effective buying income is just 26% of the U.S. level, with 2010 the latest year of data available. With regard to median household effective buying income (disposable income), no data is available for Guam, but data on a pre-tax basis (also from 2010) suggest household income levels are about 69% of the U.S. Factors that partially offset these economic risks, in our view, include the island's military buildup initiative, generally good tourism trends, and declining unemployment. As of March 2018, Guam's unemployment rate declined to 4.4%, its lowest in several years but higher than the U.S. rate of 4.1% at that time. Many of the government's economic development initiatives focus on tourism, with hotel property owners investing substantially in renovations and expansions in recent years. Visitor arrivals were up 3.2% to 1.56 million in fiscal 2017, with Korean visitors alone up 25.0%, helping to mitigate a decline in Japanese visitors. Fiscal year 2018 closed as the second best year in Guam's tourism history with 1.52 million visitors.

The ongoing U.S. military buildup consists of the relocation of 4,700 troops to Guam from Japan, along with family members, support and civilian staff, vendors, and suppliers. The economic impact is estimated at $8.7 billion. All facets of Guam's government, from the general government to utilities, the port, and airport, have reached a general understanding with the Department of Defense that any effect from the relocation would be cost neutral to Guam, even if many of the details are undetermined. Over half a billion dollars in related projects have already been completed with another half billion dollars awarded and under construction.

Market position: Adequate

We consider the authority's market position as adequate, as the island's sole electric utility (monopolistic position), offset by high rates and Guam's regulatory framework. Despite the lack of full rate autonomy, GPA's stable financial performance is buoyed by generally supportive rate regulation from the Guam 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. While we view the presence of the LEAC as favorable to credit, the adjustment is currently at management's discretion rather than automatic, as it historically has been. The current LEAC charge is about 15 cents per kilowatt-hour (kWh, in addition to the base rate of about 10 cents per kWh).

The average residential rate in fiscal 2018 was about 24 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 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. GPA's most recent base-rate adjustment was in October 2013, when the authority received approval for a 6.0% increase versus the requested 7.3% increase. In terms of the last five base-rate petitions from and including March 2008 to October 2013, the Guam PUC's rate increase approved was, on average, 73% of the increase requested by GPA. While high, rates have come down in recent years--all-in system rates were more than 28 cents in fiscal 2013 due to high oil prices. However, the overall system rate was up 17% in fiscal 2018, and, given residents' low income levels, rate flexibility is, in our view, constrained.

Industry risk: Extremely strong

Consistent with our "Methodology: Industry Risk" criteria (published Nov. 19, 2013), we consider industry risk for municipal retail electric and gas utilities covered under these criteria very low, and therefore extremely strong compared with other industries and sectors.

Financial Risk Profile: Adequate

Coverage metrics: Strong

Energy sales declined 2.7% in fiscal 2018 after increasing 2.2% in fiscal 2017, 2.3% in fiscal 2016, and 0.4% in fiscal 2015. FCC was, in our view, very strong at 1.45x in unaudited fiscal 2018, and 1.43x in audited fiscal 2017, although it declined from 1.81x in fiscal 2016. FCC during fiscal years 2010-2015 was relatively weaker at an average of 1.2x. FCC is our internally adjusted DSC metric that imputes certain recurring debt-like obligations (capital leases) into the calculation, treating them as if they were long-term debt (debt service), even if they are operating expenses of the system or subordinate to senior-lien debt service. Financial metrics have 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 increase 15% in fiscal 2019 mainly as a result of rate increases with management expecting operating costs to increase 16% 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, likely through a lease structure, are likely to be offset by lower operating costs related to expiring leases, operational savings, or, if necessary, from base-rate adjustments.GPA's financial forecast indicates that FCC will weaken to slightly better than 1.2x in fiscal years 2022 and 2023 (still strong, in our view) when capital lease payments related to new gas-fired generation are projected to come on line.

Liquidity and reserves: Adequate

We consider the authority's liquidity and reserves very strong, with about $91 million in available reserves or 101 days' cash as of unaudited fiscal 2018 (excluding $126 million in insurance proceeds received from the fires at Cabras 3 and 4), down slightly from 134 days' liquidity in audited fiscal 2017. Included within our calculation of GPA's liquidity sources is self-insurance reserve of about $19 million; GPA may be able to use it for debt service based on PUC approval.. To preserve liquidity, GPA has moved to safer fuel hedging arrangements that eliminate margin calls and collateral posting exposure. GPA forecasts that its unrestricted cash balances will decline to near $50 million by fiscal 2023, with all-in liquidity, assuming it maintains its $19 million self-insurance reserve, declining to an adequate 63 days of cash. Not included in the above calculations is the presence of a $35 million line of credit that can only be used for payment for fuel delivery (and insurance proceeds mentioned above); any draw must be reimbursed on a monthly basis.

Debt and liabilities: Vulnerable

In our opinion, GPA's debt and liabilities assessment is vulnerable, suggested by a debt-to-capitalization of 85% as of fiscal 2017, which we consider high. As of audited fiscal 2017, GPA had about $640 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 increased to $57 million in fiscal 2017 from $46 million in fiscal 2016, and these obligations are forecast to grow to near $70 million in 2022 with the financing of new generation. Debt per customer also is high at almost $12,000. Capital spending budgeted over the next four years is about $27 million annually, all internally funded, but we believe 2% annual revenue growth and other reasonable assumptions through 2023 temper this exposure and should allow the utility to maintain FCC that is consistent with its rating. We view the authority's pension and other postemployment benefits obligations as manageable, with a funded ratio of 55% and 0%, respectively, as of fiscal 2017.

Long-Term Resource Plan

While GPA's 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 IRP. This plan also includes the retirement of old units, 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 effect 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 2022, and would also convert 88 MW of existing oil-fired units to 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 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. However, combined-cycle generation does offer several benefits, including better efficiency, lower capital cost than installing emission controls on existing units, fuel diversity, and compliance with regulatory standards. Management anticipates that new combined-cycle units and increased renewable energy resources will eventually account for 75% of GPA's energy supply.