

RatingsDirect®

Pasadena, California; Retail Electric

Primary Credit Analyst:

Jenny Poree, San Francisco (1) 415-371-5044; jenny.poree@spglobal.com

Secondary Contact:

Doug Snider, Centennial + 1 (303) 721 4709; doug.snider@spglobal.com

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US\$11.6 mil elec rev rfdg bnds ser 2019A due 08/01/2024

<i>Long Term Rating</i>	AA/Stable	New
Pasadena elec		
<i>Long Term Rating</i>	AA/Stable	Upgraded

Rationale

S&P Global Ratings raised its rating to 'AA' from 'AA-' on Pasadena, Calif.'s existing electric revenue bonds. At the same time, S&P Global Ratings assigned its 'AA' long-term rating to the city's series 2019A electric refunding revenue bonds. The outlook on all ratings is stable.

The rating reflects the application of our "U.S. Municipal Retail Electric And Gas Utilities" criteria, published Sept. 27, 2018. Net electric utility revenue secure the bonds. Following the issuance of the 2019A refunding bonds, Pasadena will have \$205.1 million of debt outstanding.

The bonds are secured by a net revenue pledge on a parity with other obligations of the electric system and a pledge of amounts in the parity reserve fund. Rates are set to provide 1.10x net income of the electric system. Security provisions also include a historic and projected additional bonds test (ABT).

The upgrade reflects our opinion of Pasadena's strong service area that contributes to a competitive market position and the future flexibility to meet environmental requirements without negatively influencing the city's market position. The city's rate structure with prudent cost recovery supports very strong fixed charge coverage and extremely strong liquidity. Lastly, management demonstrates considerable acumen both financially and with respect to power supply planning. It is evident in the city's integrated resource plan that management is thoughtfully balancing ratepayer costs with the need to be compliant, environmentally conscious, and diverse. In addition, management and city council are transparent with ratepayers and take seriously their role in guiding the strategic approach of the utility. Based on the city's reserve policies, it is also clear management has a very clear understanding of their risk and cost profile and sets aside funds to meet potential contingencies.

The enterprise risk profile reflects our view of Pasadena's:

- Extremely strong service area economy with above average incomes, access to a broad and diverse economy, and a diverse customer base;
- Very strong operational and management assessment, with a diverse supply of fuels, strong environmental management and a solid management team. Tempering this assessment are the potential increased costs associated with transitioning away from Intermountain Power Agency (IPA) and replacing this baseload resource;
- Very strong market position, with retail rates that were 98% of the state average in 2017 and extremely strong income levels; and

- Extremely strong industry risk relative to other industries and sectors.

The financial risk profile reflects our view of the utility's:

- Very strong coverage metrics, as evidenced by fixed cost coverage (FCC) that is projected to remain above 1.5x;
- Extremely strong liquidity and reserves, reflecting over 600 days of cash on hand; and
- Strong debt and liabilities profile, suggested by a 31% debt-to-capitalization ratio, which we expect will modestly improve because the lack of debt plans over the next three years and debt capacity freeing up within five years.

Outlook

The stable outlook reflects our expectation for future coverage, liquidity, and debt assuming the city will remain aggressive in meeting environmental mandates and other liabilities. We believe power supply costs will increase and may result in higher rates than peers due to the plan for reducing greenhouse gas (GHG) emissions. These are factored into our rating and are not expected to negatively affect the credit profile. We believe most peer utilities will be increasing rates to meet environmental mandates and PWP's rate base has very strong income levels and considerable support for environmental stewardship mitigating this potential risk. In addition, the city's rate structure with prudent fixed charges and considerable cost recovery supports continued financial health.

Upside scenario

Given the projections for fixed charge coverage and the industry risks associated with wildfire and regulatory changes as well as some uncertainty surrounding the cost of utility's replacement power upon the IPA contract's expiration, we do not anticipate raising the rating in the next two years.

Downside scenario

Although unlikely, we could lower the rating if PWP does not perpetuate historical practices that have produced robust financial metrics, or if the costs of reducing GHG and meeting RPS targets significantly outpace revenue, eroding fixed charge coverage. We could also lower the rating if climate change results in a continued increase in wildfire exposure and PWP's mitigation efforts are ineffective or are not implemented as currently planned.

Enterprise Risk

Utility Description And Credit Overview

Pasadena Water and Power (PWP) supplies electricity to 58,524 residential, 8,632 commercial/industrial customers, five street lighting, and five wholesale customers. The service area is approximately 23 square miles, with a current estimated population of approximately 144,388. Residents benefit from the city's own employment opportunities as well as the broad employment opportunities in the greater Los Angeles area. The service area is characterized by high income, low unemployment, and access to a broad and diverse employment base.

Economic fundamentals: Extremely Strong

We consider Pasadena's economy extremely strong. The city is located in Los Angeles County in the Los

Angeles-Long Beach-Anaheim, Calif., MSA, which we consider broad and diverse. Given its location along major freeways and its proximity to downtown Los Angeles, Pasadena benefits from, in our view, a strong local job market and very good access to employment opportunities throughout the greater Los Angeles metropolitan area. Since peaking at 150,185 in 2010, the city's population decreased to 140,879 in 2015 and has been climbing steadily for the last three years to 144,388. The city is a local employment area, and the daytime population doubles that of residents. Local employers include the Jet Propulsion Laboratory (5,200 employees), Kaiser Permanente (4,813), a California Institute of Technology campus (3,900), and Huntington Memorial Hospital (3,238). The city is also home to Pasadena City College and Art Center College of Design.

Although residential customers account for approximately one third of total revenue, this is offset by the diversity of the customer base as well as the nature of the top 10 customers, which consist of largely public entities, three universities, and a hospital. Median household effective buying income is extremely strong at 136% of national level.

Industry risk: Extremely strong

Consistent with "Methodology: Industry Risk," 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 that of other industries and sectors.

Market position: Very Strong

As is generally the case with municipal utilities in California, Pasadena retains local control over its electric system rates. The city's rate structure is unbundled into charges specific to distribution, customer, energy, transmission, and public benefit. The rate structure is cost based and has a mix of variable and fixed charges. Transmission and energy are recovered through automatic cost recovery components, which we view favorably. A new fixed grid access charge was approved by City Council and was effective July 1, 2019.

PWP's residential rates, at 16.24 cents per kW-hour, remain competitive versus those of neighboring large municipal and investor-owned utilities in Southern California. Average overall revenue per kW-hour was 98.8% the state average in 2017, the most recent year of available comparative information from the Energy Information Administration).

Operational management assessment: Very Strong

The electric system includes generation, transmission and distribution facilities. In fiscal year 2017-2018, PWP generated approximately 76 gigawatt hours (GWh) from its local resources and purchased approximately 1,022 GWh from long-term contracts and the spot market. System peak demand was 315 MW in 2018 and load has been declining slightly, as is the case with most of PWP's peers. The city primarily purchases power and transmission service from Intermountain Power Agency (IPA) and Southern California Public Power Authority (SCPPA). The current resource mix includes local simple and combined cycle gas turbines (Glenarm), small hydroelectric (Azusa Hydroelectric) and long-term purchase contracts (remote generation) from a variety of sources, including hydroelectric, coal and nuclear generating units and a variety of renewable energy resources including wind, solar, geothermal, and biogas projects. PWP is shifting from longer-term 30-year contracts to shorter term 15-year contracts and transitioning to a practice of increasing their market exposure. They are doing this to be more nimble given the rapidly evolving energy regulations in the state. In addition, they are increasing their exposure to the market to take advantage of economic efficiencies when available. Management is prudently coupling this increased exposure with revised risk management policies and

the addition of staff members who have experience with hedging strategies and financial products. We believe coupling the increased exposure with augmented management and revised policies favorably. While there are inherent risks in shorter contracts and increased exposure to the spot market, we feel prudent risk management policies can offset the degree of risk. Further, the nature of the regulatory environment in the state suggests some degree of supply flexibility is prudent.

Pasadena has a 107 MW share in the Utah-based Intermountain Power Project through its contract with IPA generating station, which consists of two coal-fired units. This coal-fired power is a competitive baseload resource and provided about 43% of PWP's energy requirements in 2018. The contract expires in 2027, and as noted above, PWP is opting not to renew the contract despite plans to repower the plant to coal-fired from gas-fired.

PWP's next-largest resources are from SCPPA. The first is the Magnolia Power Plant, a 14.8 MW, natural-gas-fired power plant located in the city, operated by the utility, and owned by SCPPA. PWP has a 6.4% ownership share of the plant, which fulfills baseload generation needs along with providing increased reliability and reduced power and transmission costs. In fiscal 2018, the plant provided 7.78% of the system's power supply. PWP also has approximately 9.9 MW from the Palo Verde Nuclear Generating Station through its participation in SCPPA.

PWP has take-or-pay contracts with both SCPPA and IPA that require unconditional payments sufficient to cover PWP's debt service and operating costs at both projects. These are essentially off-balance-sheet debt obligations, because payments are required regardless of the project's operations.

Renewable-energy resources provide 24.4% of the resource portfolio followed by market purchases (7.9%) and Hoover project power (4.13%). Ultimately, we view management's fuel and resource diversity positively.

PWP's 20-year Energy Integrated Resource Plan sets an aggressive plan for the city's power supply portfolio that reflects ratepayers' commitment to shift PWP's energy supply portfolio more quickly than required by the state to low-carbon and renewable resources. The Integrated Resource Plan (IRP) analyzed a number of different scenarios through the lens of ratepayer cost, compliance, environmental impact, and diversity (in that order of weighting). The scenario selected for planning purposes eliminates all GHG and fossil energy (including IRP) and replaces it with additional incremental solar and wind. The recommended approach is compliant with the expectations of SB 100. PWP has met the state RPS standards, achieving 30% in 2018 with the expectation to meet 40% in 2020 and 60% by 2030. The IRP also sets a goal of eliminating coal-fired generation by the end of 2027. As noted, the city made the decision to opt out of the Intermountain Power Renewal Project. By opting out of the project, PWP will not receive energy from IRP after June 30, 2027. According to management, opting out will decrease PWP's GHG emissions by up to 85% and will reduce economic uncertainties with the project. There will be some decommission obligations, which are being determined in conjunction with LADWP, the operator. Costs are currently unknown but we believe PWP has the financial flexibility to support them.

Wildfire assessment

S&P Global Ratings believes that PWP's principally urban service territory tempers the potential for its power lines to spark catastrophic wildfires like those that have plagued other utilities in the state. Further, within the designated areas that are considered to have higher relative risk, the majority of the distribution lines are underground and the higher-risk areas have more robust tree trimming requirements and fire department inspections, which we believe

offsets some of the susceptibility to fire. Management has a robust fire mitigation approach that follows the PWP Power Line Fire Prevention Manual and is updating the Fire Mitigation plan to match new CPUC regulations by Jan. 1, 2020. The existing fire mitigation plan includes vegetation management, insulated tree wire (which has been replicated by other utilities), a strong monitoring and de-energizing of lines program and continuous improvement of design standards and construction practices. We continue to observe and assess the success of fire mitigation in changing climate environments. In our view, PWP has a thoughtful approach to mitigating near and long-term wildfire risk. Fire mitigation planning cannot entirely eliminate wildfire- and/or climate-related risks but we believe such planning materially lessens the risk as reflected in the rating.

Pasadena also has some exposure via the almost 500-mile SCPA's Southern Transmission System for importing significant amounts of electricity, although the SCPA projects have relatively low wildfire ignition potential as they cover mostly desert terrain. These transmission systems extend across areas that could expose the municipal utility to fire risks from sparking high-voltage transmission lines.

We understand that under California law, courts can apply the principle of "inverse condemnation" to investor-owned and municipal electric utilities alike. The principle of inverse condemnation provides that if a state actor or a company providing services to the public, like an electric utility, contributes to the destruction of property, whether or not through negligence, it can be held liable for damages to affected properties. Consequently, we believe that any fires that PWP causes, or more conceivably that the Southern Transmission might trigger, could expose PWP, as a SCPA participant, to liability for damage to properties and the damages might be significant. To date, we have not seen manifestations of this exposure. PWP cannot issue judgement obligation bonds based on the current city charter. However, the city could amend the charter through a vote or could conceivably issue bonds on the utility's behalf.

Financial Risk

Coverage metrics: Extremely strong

PWP's FCC--which takes into consideration the system's off-balance-sheet debt obligations and in-lieu taxes transferred to the city's general fund--ranged from 1.4x to 1.8x between fiscal 2015 and fiscal 2018. Management's five-year forecast assumes minimal rate increases and no load growth, and indicates FCC will remain above 1.48x, according to our calculations.

Debt and liabilities: Strong

We believe that the limited amount of on-balance-sheet debt from PWP's participation in SCPA and IPA projects aids the city's direct leverage ratios. Total on-balance-sheet debt to total capital was just 31.87% in fiscal 2018. PWP is expected to spend \$214 million on capital projects over the next five years. No near-term additional debt funding is anticipated and a significant amount rolls off in the coming three years so we expect the debt ratios to improve.

Liquidity and reserves: Extremely strong

PWP's liquidity and reserve position is extremely strong characterized by over 600 days' cash on hand and prudent reserve funds to address potential expenses and liabilities. Reserves include a 60-day operating reserve, an energy cost reserve, 12 months of capital expenditures, one year general fund transfer, additional reserves for transmission, public benefit commitments, and the stranded investment fund.

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