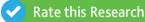


CREDIT OPINION

7 March 2022

Update



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Tacoma Power, WA

Update to credit analysis

Summary

Tacoma Power's (Aa3 stable) credit profile is supported by a large and diverse customer base centered around the City of Tacoma (Aa2 stable) combined with unregulated rate-setting authority. Credit strength is additionally derived from the utility's power portfolio, which is both low cost and has zero emissions, reflective of the combination of owned and purchased hydroelectric resources. Financial metrics have generally been stable, though climate change will increasingly affect hydrological conditions and increase expenditure volatility; 2019 net revenue, fixed obligation charge coverage and liquidity all showed meaningful declines compared to 2018 before recovering in 2020 because of increased costs associated with purchased power. Financial leverage is moderate, with most of the increase in the utility's adjusted debt ratio driven by our evaluation of pension liabilities that should improve as interest rates rise.

Credit strengths

- » Large and diverse service area in the Puget Sound region centered around Tacoma
- » Ownership of low cost hydro and contracted power from Bonneville Power Administration (BPA)
- » Competitive rates and typically strong financial metrics

Credit challenges

- » Exposure to hydrological conditions
- » Slightly below-average income measures in the service territory

Rating outlook

The stable outlook considers Moody's expectation that the utility's debt service coverage ratio (adjusted) will exceed 2.0x in most years and that internal liquidity will exceed 200 days cash on hand. The stable outlook also incorporates Moody's expectation that Tacoma Power will implement rate changes to maintain forecasted financial performance.

Factors that could lead to an upgrade

- » Electric retail revenues representing more than 90% of total revenues on a sustained basis in conjunction with at least 2.0x adjusted debt service coverage ratio and at least 250 days cash on hand on a continuing basis
- » Substantial improvement in the service area's underlying economy

Factors that could lead to a downgrade

- » Debt service coverage falls below 2.0x (adjusted) and internal liquidity drops below 150 days cash on hand on a sustained basis
- » Energy hedging program is not conservatively executed
- » Substantial decline in service area's economic strength

Key indicators

Exhibit 1

Tacoma Power

December 31 fiscal year

	2016	2017	2018	2019	2020
Total mWh Sales (\$'000)	7,359	7,588	6,774	6,104	6,937
Adjusted Debt Outstanding (\$'000)	722,119	704,686	746,669	759,305	880,074
Adjusted Debt Ratio (%)	54.5	54.1	56.1	58.2	63.1
Operating Revenues (\$'000)	418,614	446,343	455,291	461,366	460,953
Operating Ratio (%)	77.8	75.4	76.9	87.7	77.8
Adjusted Debt Service Coverage Ratio (x)	2.3	2.6	2.5	1.2	2.9

Adjusted debt and adjusted debt ratio outstanding includes both bonds as well as net pension liabilities (as calculated by Moody's). Adjusted debt service ratio includes only debt service related to bonds and JPA payments and not pension payments/contributions.

Source: Moody's Investors Service and Audited Financial Statements

Profile

Tacoma Power is an enterprise of the City of Tacoma that provides electric service to retail customers within the city's boundaries as well as to several wholesale customers in the metropolitan area, including Joint Base Lewis-McChord and the Town of Ruston. In 2020 the enterprise had 182,526 accounts and sold 4,611 GWh of electricity. Tacoma Power's power portfolio is comprised entirely of hydroelectric generation, of which 38% is owned by the utility, with the remaining coming from BPA, Columbia Basin Hydro Power and Grant County Public Utility District No. 2. The utility's board is nominated by the mayor and confirmed by the city council, with rates initiated by the board and adopted by the city council.

Detailed credit considerations

Revenue Generating Base

The electric enterprise benefits from a large and diverse service territory that is rapidly recovering from the coronavirus pandemic, according to Moody's Analytics. Slower growth from logistics and manufacturing will be offset by strength in the technology sector of the nearby Seattle market, with Tacoma benefitting from increased teleworking and flexible work arrangements. Preliminary figures from the Bureau of Labor Statistics show Tacoma's unemployment rate at just 4.1% at the end of December 2021, effectively erasing most of the job losses from the pandemic. Moody's Analytics expects the economic recovery to gain momentum in 2022.

In 2020, the electric enterprise averaged 182,526 customer accounts, most of which were residential (89%). Account growth has been fairly steady over the years across the two largest sectors (residential and small commercial), and overall customer account growth

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is typically between less than 1% and 3% annually, a trend we expect will continue. Energy sales (measured in GWh) can fluctuate meaningfully from year to year, with much of the change in load driven by wholesale activities, though the impact to total revenue from these fluctuations tends to be more limited; retail sales in 2020 accounted for 66% of sales by load, but represented more than 86% of sales by revenue, which is typical for the enterprise.

Tacoma Power's power portfolio is comprised entirely of hydroelectric generation, of which 38% is owned by the utility, with the remaining coming from BPA, Columbia Basin Hydro Power and Grant County Public Utility District No. 2. The utility purchases its power from BPA pursuant to a contract that expires in September 2028. The BPA contract provides both firm power (block) and a portion (slice) of the federal hydro system output in the Pacific Northwest. Because of the utility's full dependence upon hydroelectric generation, its cost of power was substantially lower than the average in Washington as well as compared to nearby electricity providers, but also exposes the utility to drought risk.

Financial Operations and Position

The utility's financial operations are a credit strength, though its exposure to hydrological risk can result in somewhat volatile financial results. Operating revenue in 2020 was \$461 million, about equal to operating revenue in 2019. However, net revenue in 2020 (\$76 million) was substantially higher than in 2019 (\$35 million) because extremely dry weather conditions in 2019 resulted in very low amounts of hydroelectric generation from the utility's owned resources, forcing the utility to purchase five times more power than normal in the wholesale market and also led to a transfer of \$10 million from the rate stabilization fund. Consequently, fixed obligation charge coverage in 2020 was a strong 2.86x compared to the much weaker 1.22x in 2019. Over the past decade, the utility's fixed obligation charge coverage has averaged 2.11x (with a median of 2.15x), with just three years under 2x.

Notably, the utility uses a hedging program to manage its wholesale exposure, updating its policies and procedures in 2020 to meet industry standards and streamline processes, and will enter the Western Energy Imbalance Market in 2022 as part of its overall effort to better manage its power portfolio.

Water elevations levels at Riffe Lake, where the utility's highest nameplate capacity project is situated, appeared within historic norms in 2021, though lower than 2020 levels. Water levels in January 2022 were similar to those in January 2021, though hydrological conditions can change meaningfully throughout the year. Looking forward, we expect the utility's financial performance to remain close to recent historic performance, subject to hydrologic conditions.

Liquidity

Tacoma Power's liquidity position is generally strong, though cash has meaningfully declined over the past decade. The enterprise closed 2020 with \$241.8 million in cash and investments, equal to about 237 days cash on hand. This was up from \$177.5 million (160 DCOH) in 2019, reflective of cash utilization to address the utility's power purchase needs in the drought year. While 2020 liquidity levels were in line with levels over the past five years, it is down substantially from the early years of the last decade (2011-2014) when the enterprise averaged \$347 million, or 334 DCOH; a substantial portion was used in 2015 to call its 2005B bonds. Tacoma's formal policy threshold is to maintain at least 90 days of cash during normal hydrological conditions.

Debt and Other Liabilities

Financial leverage for Tacoma Power is moderate. At the end of 2020, the electric utility had \$504 million in debt outstanding. Total adjusted debt, which includes the utility's unfunded portion of the city's pension liabilities (as adjusted by Moody's), was \$880 million, or an adjusted debt ratio of 63%. The utility issued an addition \$122 million of debt in 2021 (unrated by Moody's) to repay its 2015A notes, resulting in outstanding debt of \$476 million.

The utility's capital improvement program through 2025 is about \$78 million annually, financed by a split of debt and ongoing revenue.

Legal security

The utility's 2010 and 2013 bonds have a pledge of Tacoma Power's net revenues and requires that the utility set rates to maintain 1.25x debt service coverage. The additional bonds test similarly requires rates be set to maintain 1.25x debt service coverage. Furthermore, the utility's bonds (issued prior to 2017) have a pooled debt service reserve sized to the lesser of 125% of average annual

debt service or one year of maximum debt service net of US government subsidy payments such as Build America Bond subsidies. Currently, the debt service reserve mostly consists of a \$24.3 million surety from Assured Guaranty Municipal Corp. (A2 stable) with the remaining in cash (\$5 million). The utility's 2017 and 2021 bonds do not have a debt service reserve.

Debt structure

The utility's debt consists of fixed rate obligations that mature in full in 2051.

Debt-related derivatives

Tacoma Power has no debt-related derivatives.

Pensions and OPEB

Tacoma Power participates in the City of Tacoma's pension plan. Based on Moody's adjustments to reported pension data, we calculate the electric utility's share of the city's adjusted net pension liability was \$375 million at the end of 2020 versus a reported net pension asset of \$7 million. Moody's adjusts the reported pension liabilities of entities that report under governmental accounting standards in order to enhance comparability across rated issuers. Under governmental pension accounting, liabilities are discounted using an assumed rate of investment return on plan assets. Under Moody's adjustments, we value liabilities using a market-based discount rate for high quality taxable bonds. The difference between the utility's reported pension position and Moody's ANPL primarily reflects the different discount rates of 7.00% for the utility and 3.2% for the Moody's ANPL.

ESG considerations

Environmental

Environmental considerations are a moderate credit risk to the electric enterprise given its sole reliance on hydroelectric power generation as discussed above. According to Moody's affiliate Four Twenty-Seven, the city has a high risk exposure to wildfires and moderate exposure to heat stress.

Social

Social considerations are not a material credit driver for Tacoma Power. Because rates are low, affordability is not a significant driver of growth in accounts receivable or doubtful accounts, which increased in 2020 due to the effects of the coronavirus pandemic. Nonetheless, delinquencies do not appear to have had a material impact on the utility's financial position, which improved in 2020.

Governance

Governance is a modestly positive credit consideration given the city's ability to set rates and charges without approval from the state or other governing body. Tacoma Power is governed by the Public Utility Board (PUB) whose five board members are appointed by the Tacoma City Council.

The PUB appoints Tacoma Public Utilities' (TPU) CEO/Director of Utilities and the TPU CEO appoints Tacoma Power's Superintendent/ Chief Operating Officer. The PUB and the Tacoma City Council approves Tacoma Power's rate changes, budget, financings and other material decisions. As a city owned utility, it currently pays a gross earnings tax of 7.5% on electrical revenues. These taxes are subordinate to debt service.

Rating methodology and scorecard factors

Moody's evaluates Tacoma Power under the US Public Power Electric Utilities with Generation Ownership Exposure methodology, and, as depicted below, the grid indicated outcome after notching is Aa3, in-line with its current Aa3 rating.

The grid is a reference tool that can be used to approximate credit profiles in the US public power industry in most cases. However, the grid is a summary that does not include every rating consideration. Please see U.S. Public Power Electric Utilities with Generation Ownership Exposure for more information about the limitations inherent to grids.

Exhibit 2
Tacoma Power methodology grid

Factor	Subfactor	Score	Metric
1. Cost Recovery Framework Within Service Territory	Monopoly with unregulated rate setting. Service area characteristics- GO rating.	Aa	
	Customer base stability		
2. Willingness and Ability to Recover Costs with Sound Financial Metrics	Rate setting record. Timeliness of recovery.	Aa	
	Political risk. Local Government		
	Supportiveness. General fund transfer policy		
3. Generation and Power Procurement Risk Exposure	Diversity of Supply. Reliability and cost of	А	
	supply & distribution		
4. Competitiveness Rate Competitiveness (compared to state average)		Aa	
5. Financial Strength and Liquidity	a) Adjusted days liquidity on hand (3-year avg)	Aa	201
	(days)		
	b) Adjusted Debt ratio (3-year avg) (%)	Aa	59.10%
	c) Adjusted Debt Service Coverage or Fixed	Aa	2.20
	Obligation Charge Coverage (3-year avg) (x)		
liminary Grid Indicated Outcome from Grid factors 1-5			
		Notch	
6. Operational Considerations	Construction risk, whether the utility is a vital	0.0	
7. Debt Structure and Reserves	service provider	0.0	
7. Debt Structure dilu keserves	Debt service reserves, special borrowing arrangements and debt structure	0.0	
8. Revenue Stability and Diversity	Exposure to wholesale power markets,	-0.5	
o. Nevenue Stability and Diversity		-0.5	
	customer concentration, diversity from combined utility operations		
rid Indicated Outcome:	combined utility operations	Aa3	

Source: Moody's Investors Service

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