



RATING ACTION COMMENTARY

Fitch Upgrades Philadelphia PA's Gas Works Revs to 'A-'; Outlook Stable

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Fitch Ratings - New York - 17 Feb 2022: Fitch Ratings has upgraded the rating on the following revenue bonds issued by the city of Philadelphia on behalf of Philadelphia Gas Works (PGW, or the system) to 'A-' from 'BBB+':

--Approximately \$1 billion of outstanding gas works revenue bonds, various series (senior 1998 ordinance).

Fitch has assessed PGW's standalone credit profile (SCP) at 'a-'.

The Rating Outlook is Stable.

ANALYTICAL CONCLUSION

The upgrade to 'A-' reflects a consistent trend of lower leverage over the past few years, influenced in part by improved financial margins, especially in 2019-2021, and a stable debt profile. Margins are expected to remain strong with revenue

enhancements approved by the Pennsylvania Public Utility Commission (PUC) for 2022.

The rating is further supported by PGW's strong revenue defensibility assessment, including provision of a mostly monopolistic service to a diverse and growing customer base and strong rate flexibility. While PGW's service area is subject to customer choice for gas supply, the vast majority of customers choose PGW as the supplier and, as a regulated monopoly, all retail customers within PGW's service territory receive gas distribution services only from PGW.

The operating risk profile is midrange primarily reflecting a rising operating cost burden and elevated, but manageable, capital needs and diverse natural gas supply sources. Fitch assesses PGW's financial profile to also be strong reflecting a low leverage ratio, which totaled 4.9x in 2021 and has been on a steady decline since peaking at over 8.0x in fiscal 2017. Fitch's FAST analysis incorporates a two-year decline in gas sales and shows a decline in revenues/margin and higher leverage ratio. However, even with a stress in volumes the leverage ratio remains fully supportive of the rating.

CREDIT PROFILE

PGW is owned by the city of Philadelphia (A-/Stable) and provides for the acquisition, storage and distribution of natural gas to residents and businesses located entirely within the city's limits. PGW is the exclusive distributor of natural gas within the limits of the city. However, customers can choose an alternate gas supplier pursuant to the Natural Gas Choice and Competition Act of 1999 (the Gas Choice Act). PGW maintains a distribution system with over 3,000 miles of gas mains and approximately 476,000 service lines serving approximately 524,000 customers in 2021.

The system is managed by the Philadelphia Facilities Management Corporation (PFMC), a not-for-profit corporation created for the sole purpose of operating the utility. PFMC is governed by a seven-member board of directors appointed by the mayor and is responsible for the hiring of PGW executive staff. PFMC has operated the system since 1973 pursuant to a two-year management agreement

that extends automatically to successive two-year periods unless cancelled at least 90 days prior to the expiration date.

Fitch considers the system to be a related entity to the city of Philadelphia for rating purposes given PGW is owned by the city and accounted for as a component unit. PGW makes annual transfer payments to the city, and oversight of the capital and operating budgets is provided by the Philadelphia Gas Commission, created by ordinance of the city council and consisting of the city's controller and two members appointed by the city council and the mayor. The rating on the bonds is not currently constrained by the IDR of the city. However, as a result of being a related entity, the bond rating could become constrained by a material decline in the general credit quality of the city.

KEY RATING DRIVERS

Revenue Defensibility: 'a'

Rate Regulated System, Revenues Not Completely Monopolistic

PGW's strong revenue defensibility assessment is underpinned by strong revenue source characteristics, a stable demand profile including a stable service territory with mixed demographic indicators and strong employment growth. However, The Gas Choice Act allows customers to choose gas supply from sources other than PGW and subjects PGW to rate regulation and approval by the PUC, which are limiting factors in the overall assessment.

Rates that are subject to regulatory approval often lead to a lag in potential revenue recovery and limits overall financial flexibility in Fitch's view. Positively, while rate changes are ultimately approved by the PUC, a generally supportive regulatory regime has provided the system with sufficient support to maintain a stable financial profile.

Operating Risk: 'bbb'

Midrange Operating Cost Burden, Elevated Life-cycle Needs

The midrange operating risk profile reflects a rising operating cost burden and elevated but manageable life-cycle investment needs. Fitch expects costs will rise further as indicated in PGW's five-year financial forecast, and based in part on higher expected natural gas commodity prices over the next few years. The capital plan anticipates spending over \$800 million through 2026, which is expected to be funded from existing bonds proceeds, internally generated funds, a dedicated distribution system improvement surcharge on customers' bills, and some additional debt.

PGW's operating cost flexibility is neutral reflecting a diverse gas supply consisting of a combination of long-term prepaid contracts, short-term contracted and seasonal supplies, off-system underground storage and two city-owned/PGW-operated liquefied natural gas (LNG) facilities.

Financial Profile: 'a'

Strong Financial Profile, Low Leverage

PGW's strong financial profile considers the system's improved margins and trend of lower leverage ratios over the past several years. Fitch-calculated coverage of full obligations (COFO) totaled 1.9x in 2021 and has averaged 1.5x since 2017. Liquidity is neutral to the financial profile assessment, totaling \$158 million at YE 2021, which is equivalent to 151 days cash of on hand.

Asymmetric Additional Risk Considerations

There are no additional asymmetric risks currently impacting the rating.

RATING SENSITIVITIES

Factors that could, individually or collectively, lead to positive rating action/upgrade:

-- Leverage ratio consistently below 6.0x in Fitch's base and stress cases.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

-- An unexpected increase in financial leverage to levels that are sustained above 8.0x in Fitch's base and stress cases;

-- An increase in competitive pressures or weakening service area demographics that leads to a weaker assessment for revenue defensibility.

BEST/WORST CASE RATING SCENARIO

International scale credit ratings of Sovereigns, Public Finance and Infrastructure issuers have a best-case rating upgrade scenario (defined as the 99th percentile of rating transitions, measured in a positive direction) of three notches over a three-year rating horizon; and a worst-case rating downgrade scenario (defined as the 99th percentile of rating transitions, measured in a negative direction) of three notches over three years. The complete span of best- and worst-case scenario credit ratings for all rating categories ranges from 'AAA' to 'D'. Best- and worst-case scenario credit ratings are based on historical performance. For more information about the methodology used to determine sector-specific best- and worst-case scenario credit ratings, visit

<https://www.fitchratings.com/site/re/10111579>.

SECURITY

The senior 1998 general ordinance bonds are secured by net revenues of the city of Philadelphia's gas works utility, in addition to a debt service reserve fund.

REVENUE DEFENSIBILITY

PGW's revenue source characteristics are considered to be strong given a significant portion of the utility's revenues are derived from the provision of monopolistic gas distribution services. The Gas Choice Act (effective July 1, 2000) subjects PGW to rate regulation and provides customers a choice amongst natural gas suppliers. Accordingly, PGW's rates are unbundled such that any customer may choose a commodity supplier that is different from its distribution

provider. While this introduces some competition with respect to gas supplier, the vast majority of PGW's revenues are derived from primarily residential firm heating customers (distribution).

Gas distribution remains a regulated monopoly, and only a small percentage (roughly 20,000) of PGW's total customers have chosen an alternate supplier. In addition, very few customers are lost each year due to provider choice. Natural gas sales continue to fluctuate, but the historical variations are more a function of yoy weather (based on winter season temperature) variances than changes in local economic conditions. PGW's ability to normalize its revenues to account for weather variability helps stabilize margins and helps offset the significant sales variability in some years.

Service Area Characteristics

Service area characteristics are considered midrange. The city's economic underpinnings are sound and Philadelphia has a distinct role as the economic driver for the broader metropolitan area that ensures continued stability throughout the service area. Employment opportunities are well diversified, despite being weighted toward a stable cluster of large higher education and healthcare institutions, but median household income (MHI) is weak, and unemployment is chronically high. The University of Pennsylvania remains the city's largest employer, followed by Children's Hospital of Philadelphia.

Tourism, government and financial services also play an important role in the city's economy. The city is also served by a robust transportation infrastructure, including the Philadelphia International Airport, Amtrak's Northeast Corridor, major interstate highway access, regional train service, and the Port of Philadelphia. Its central location allows access to large and significant economic centers in New York and Washington, D.C.

The unemployment rate was trending downward prior to coronavirus, but at 5.6% in 2019 was over 150% of the national average. In 2020, the unemployment rate jumped to 12.4%, and remained well above the national rate. By December 2021, the unemployment rate was much-improved, but at 5.8% was still about 157% of the nation. Weak income levels also persist, as the city's poverty rate

remains nearly twice the national rate and MHI approximates just 73% of the national average.

The system has demonstrated steady customer growth over the past five years reaching approximately 524,000 total customers in 2021. The customer base is mostly residential (totaling about 80% of total sales) and very diverse with the leading 10 comprising less than 3% of total revenues.

Rate Flexibility

The strong rate flexibility assessment considers PGW's lack of independent rate setting, but high affordability despite retail rates that are solidly above the state average. While rates are ultimately approved by the PUC, PGW's relationship with regulators has remained constructive and supportive in recent years, evidenced by an approximate 6.8% base rate increase approved in December 2017 (for FY 2018), followed by subsequent rate filings (and settlement) that increased revenues in 2021 and 2022.

PGW's rate structure incorporates a base rate, a gas cost rate (GCR), which consists of the purchased gas costs, transportation costs and off-system storage costs, a distribution charge and numerous surcharges imposed to recover costs associated with social programs, capital projects, OPEB and efficiency programs. A weather normalization adjustment (WNA) is also deployed to compensate for lower heating demand during more temperate periods and to stabilize cash flow. The GCR captures the increase or decrease in natural gas commodity costs. All of the various charges and surcharges provide PGW with a high degree of rate recovery in Fitch's view.

PGW filed for an increase in distribution rates in early 2020, which sought \$70 million in additional operating revenues (a 10.5% increase) as well as other changes. A settlement agreement was reached whereby PGW was granted approval for a general rate increase of \$35 million to be implemented in installments in 2021 and 2022. While the agreed upon revenue increases were lower than amounts PGW originally requested, settlements for lower revenue recovery are typical, and in PGW's case the initial request for \$70 million was based on budgeted expectations in a pre-pandemic environment. Throughout

2020, lower actual headcount and other budgetary costs lowered the revenue needs for the system, and was a main driver of the lower agreed upon rate.

OPERATING RISK

The operating cost burden is midrange and has been trending higher since fiscal 2017. For natural gas systems, Fitch measures the cost burden using the total gas operating costs in a given year relative to total retail gas sales (not including transportation sales). The cost burden totaled \$12.13/Mcf in 2021, which is just above the threshold for the midrange assessment. While natural gas prices are expected to rise beginning in 2022 and could rise further over the next few years, operating costs are expected to remain in line with the current assessment over time.

Cost drivers are well-defined and changes in demand are not a significant risk for PGW as the majority of operating costs are tied to gas commodity costs, which are passed onto customers directly through the GCR. A largely unionized labor force also provides some stability in labor costs. Labor contracts were recently extended for an additional two years.

Operating Cost Flexibility

Operating cost flexibility is neutral reflecting a sufficient and diverse natural gas supply portfolio to meet both peak and annual customer demand. PGW utilizes physical hedging, various long and short-term gas supply contracts, including two pre-pay gas contracts and owned production and storage/facilities (LNG) to manage commodity costs and fluctuations in operating expenses. Fitch does not deem the use of shorter-term contracts for a portion of its supply to be a credit risk given the potential for customer choice, as shorter terms allow PGW to adjust its resource needs following potential changes in customer demand. The utility's off-system storage and LNG capability to purchase excess gas to store during off-peak months reduces the amount of capacity needed to be reserved during higher cost winter months.

Direct connections to two interstate pipeline companies serving PGW through a total of nine city-wide gate stations (mostly owned by the two pipeline

companies) provide PGW's distribution facilities with the entirety of its gas supply needs. Various contracts for each city gate station have evergreen provisions with automatic annual renewals.

Capital Planning and Management

The system's average age of plant in 2021 totaled 18 years, indicating manageable life-cycle investment needs. Historical capital spending has been very strong over the past five years at almost 200% of annual depreciation. PGW's capital improvement program (CIP) is developed based on the capital budget approved by the city council. The CIP is financed through a combination of revenue bonds, note sales, cash flow and internal funds and a distribution system improvement (DSIC) surcharge, which is included as a separate charge on customer's bills.

Replacement of cast iron mains is a significant driver of the system's capital needs. This is a long-term project, with full replacement of all pipelines originally expected by 2063. However, the pace of replacements has been accelerated with an increase in the DSIC in 2016 (PUC approved) to directly fund accelerated main replacement. The CIP through 2026 totals approximately \$800 million and is dominated by distribution system projects, including the long-term main replacement program.

State law permits public utilities to file a request with the PUC for the implementation of a system improvement surcharge to recover costs related to main and service replacement costs not already included in base rates. The legislation (Act 11) provides utilities with a supplemental recovery mechanism for distribution repair and replacement costs, providing some flexibility to recover these costs outside of the operating budget. In fiscal 2021, roughly \$35 million was billed to customers for capital replacement (which is about 50% of annual depreciation).

FINANCIAL PROFILE

PGW's historically stable financial profile has improved over the past few years as combination of rate changes and budgetary adjustments that have led to

greater revenue recovery and operating income. These positive trends have led to a lower leverage ratio and a strong financial profile assessment. Fitch-calculated coverage of full obligations totaled 1.9x in 2021 and has averaged roughly 1.5x since 2017. PGW's leverage ratio declined for a fourth consecutive year to 4.9x in 2012 from a peak of 8.4x just four years prior. Liquidity remains solid and is neutral to the rating. Unrestricted cash totaled \$158 million in 2021 and has averaged \$135 million over the past five years. In addition, a \$120 million commercial paper program is available to support the issuance of short-term notes for working capital purposes or for capital spending.

Fitch Analytical Stress Test (FAST)

Fitch expects leverage to remain supportive of the 'A-' rating even through a fairly significant stress on revenues as demonstrated in the FAST stress scenario. The base case scenario represents Fitch's expectation for PGW's financial performance through the five-year period ending in 2026. The base case utilizes PGW's financial forecast and expected capital spending over the next five years. Specifically, the base case incorporates potential revenue enhancements from a future rate filing in the 2023/2024 timeframe, a continuation of an \$18 million annual transfer to the city, amortization of roughly \$300 million in existing bonds and some additional debt to fund the capital program. The base case shows a slight decline in the leverage ratio to 4.7x in 2022 (year one) before a decline in the ratio to closer to 4.3x in 2025.

Fitch's stress case includes a two-year decline in demand before a return to sales growth in the last three years, although volumes do not fully recover to 2021 levels. Fitch provides for some revenue recovery in the stress case attributable to weather normalization equivalent to amounts billed in 2020 and 2021 for higher than average temperatures. All of the base case assumptions for new debt and capex, existing debt amortization, and annual transfers are also applied. The stress case indicates a rise in leverage to 7.9x in year 2023 before a decline to 6.4x by 2025. Leverage ratios at these levels are still supportive of a rating of 'A-'.

Debt Profile

The system's debt profile is neutral to the rating. As of YE 2021, PGW's total debt outstanding was roughly \$1.1 billion consisting mostly of fixed rate, long term revenue bonds. Variable rate debt comprises a manageable 15% of total debt outstanding. PGW's net pension liability, adjusted by Fitch to include a more conservative 6% discount rate, increases total debt for calculating leverage by \$225 million.

The bulk of PGW's variable rate debt is hedged with floating-to-fixed rate swaps. There are four fixed payor swaps that have a combined notional value of \$122.8 million at YE 2021 (8B: \$27.4 million, 8C: \$27.2 million, 8D: \$40.8 million and 8E: \$27.4 million) and the mark-to-market of the swaps was approximately negative \$19 million. There are no collateral posting requirements, although the swaps can be terminated by the counterparty if PGW's rating falls below 'BBB'.

PGW makes an \$18 million annual transfer to the city which is subordinate to operating expenses but on parity with debt service. However, the city has the right to obtain such payment from PGW in any lawful manner, including set off against payments the city would otherwise make to PGW. Fitch includes the transfers as a fixed obligation on the system.

In addition to the sources of information identified in Fitch's applicable criteria specified below, this action was informed by information from Lumesis.

REFERENCES FOR SUBSTANTIALLY MATERIAL SOURCE CITED AS KEY DRIVER OF RATING

The principal sources of information used in the analysis are described in the Applicable Criteria.

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RATING ACTIONS

ENTITY / DEBT	RATING	PRIOR
Philadelphia (PA) [Gas]		
Philadelphia (PA) /Gas Revenues/1 LT	LT A- Rating Outlook Stable Upgrade	BBB+ Rating Outlook Positive

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APPLICABLE CRITERIA

[U.S. Public Power Rating Criteria \(pub. 09 Apr 2021\) \(including rating assumption sensitivity\)](#)

[Public Sector, Revenue-Supported Entities Rating Criteria \(pub. 01 Sep 2021\) \(including rating assumption sensitivity\)](#)

APPLICABLE MODELS

Numbers in parentheses accompanying applicable model(s) contain hyperlinks to criteria providing description of model(s).

[FAST Econometric API - Fitch Analytical Stress Test Model, v3.0.0 \(1\)](#)

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