BEFORE THE
WASHINGTON UTILITIES & TRANSPORTATION COMMISSION
UG
GENERAL RATE APPLICATION
OF
NORTHWEST NATURAL GAS COMPANY
December 31, 2018
Direct Exhibit of Brody J. Wilson
COST OF CAPITAL
Exh. BJW-2



CREDIT OPINION

1 February 2018

Update

Rate this Research



RATINGS

Northwest Natural Gas Company

Domicile	Portland, Oregon, United States
Long Term Rating	(P)A3
Туре	Senior Unsec. Shelf - Dom Curr
Outlook	Negative

Please see the <u>ratings section</u> at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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Northwest Natural Gas Company

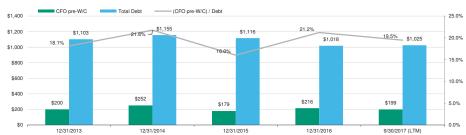
Update following negative outlook

Summary

Northwest Natural Gas Company's (NW Natural, A3 negative) credit profile is supported by 1) its low business risk as a local gas distribution company (LDC), 2) a supportive regulatory environment in Oregon, its primary regulatory jurisdiction, and 3) stable and predictable cash flow derived from a suite of cost recovery mechanisms.

NW Natural's credit profile is constrained by 1) weak financial metrics compared to peers, including cash flow from operations before changes in working capital to debt (CFO pre-WC to debt) in the high-teens range and 2) a shareholder dividend policy that has resulted in a payout ratio well over 80% for the past three years and 3) US tax reform that could pressure these financial metrics even further.

Exhibit 1
CFO Pre-W/C, total debt (\$ million) and CFO Pre-W/C to debt ratio



Source: Moody's Investors Service

Credit strengths

- » Low business risk local gas distribution company
- » Supportive regulatory jurisdiction with a suite of cost recovery provisions

Credit challenges

- » Weak financial metrics versus peers
- » Over 80% dividend payout ratio
- » Long-term risks associated with environmental remediation costs

Rating outlook

NW Natural's negative outlook reflects the potential for cash leakage due to newly signed US tax law and the possibility of CFO pre-WC to debt falling below 16% on a sustainable basis.

Factors that could lead to an upgrade

An upgrade would be considered with a material improvement to NW Natural's financial profile, such that cash flow from operations pre-working capital (CFO pre-WC) to debt is over 20% and CFO pre-WC less dividends to debt is over 15%, on a sustained basis.

Factors that could lead to a downgrade

Since NW Natural's rating balances strong regulatory support that counterbalances a weak financial profile, any decline in the degree of ongoing OPUC support would likely trigger negative ratings pressure. Also, negative ratings action could take place if NW Natural were to produce ongoing CFO pre-WC to debt below 16%, or if the company's high dividend payout were to reduce CFO pre-WC less dividends to debt to below 12%, on a sustainable basis.

Key indicators

Exhibit 2
Northwest Natural Gas Company

	12/31/2013	12/31/2014	12/31/2015	12/31/2016	9/30/2017(L)
CFO pre-WC + Interest / Interest	4.8x	6.0x	4.5x	5.6x	5.2x
CFO pre-WC / Debt	18.1%	21.8%	16.0%	21.2%	19.5%
CFO pre-WC – Dividends / Debt	13.7%	17.4%	11.6%	16.2%	14.3%
Debt / Capitalization	46.2%	47.1%	46.2%	42.1%	42.1%

^[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

Source: Moody's Financial Metrics™

Profile

Northwest Natural Gas Company (NW Natural, A3 negative) is a natural gas local distribution company (LDC), serving over 725,000 customers in Oregon (about 90% of utility margins) and Washington (about 10% of utility margins). NW Natural is regulated by the Oregon Public Utility Commission (OPUC) and the Washington Utilities and Transportation Commission (WUTC). NW Natural also operates around 31 Bcf of underground gas storage facilities, contracts for additional gas storage outside its service area, and operates two LNG plants in its service territory.

Detailed credit considerations

Federal tax reform expected to negatively impact financial metrics, pending mitigation efforts

NW Natural's current financial profile reflects CFO pre-WC to debt around 19% through LTM 30 September 2017. We had expected a reduction of this metric over the next two years, but now the additional impact of tax reform could reduce this metric to below 16%. That said, we expect that the company will attempt to mitigate this trend through its recently filed general rate case in Oregon. The negotiations around this case could allow the company to receive the necessary rate relief to maintain cash flow to debt ratios in the high-teen's range, which would support its current credit profile.

In December 2017, NW Natural filed a general rate case with the OPUC, requesting a \$52.4 million gas base rate increase (\$40.4 after an adjustment for a conservation tariff deferral), premised on a 7.62% rate of return on an average rate base of approximately \$1.19 billion for a forward test year ending 31 October 2019. The company also requested a 10.0% return on equity (ROE), compared to a current ROE of 9.5%. NW Natural's previous rate case was fully litigated and concluded after 10 months. We expect rates to become effective by November 2018.

NW Natural could also seek to buoy financial metrics through changes to financial policies, such as reducing its dividend or issuing more equity. However, these measures are not incorporated into our current view of the company going forward.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

Financial metrics further pressured by high dividend payout ratio

NW Natural's high payout ratio additionally pressures cash flow to debt metrics, positioning the company weakly compared to LDC peers. For example, the company's LTM 3Q17 payout and CFO pre-WC to debt metrics of around 85% and nearly 20% are worse than A3-rated LDC peers averaging 70% and 23%, respectively.

We view the very high payout ratio as a sign of a higher-risk financial policy for the company; therefore, we will pay increasing attention to the ratio of CFO pre-WC less dividends ("retained cash flow") to debt when assessing NW Natural's financial profile. Through LTM 3Q17, NW Natural had retained cash flow to debt of about 14%, which is more indicative of a Baa1 type metric for a low-risk LDC.

Supportive regulatory environment offers suite of cost recovery mechanisms

NW Natural's low business risk profile is supported by gas distribution operations that receive supportive regulatory treatment from the Oregon Public Utility Commission (OPUC). NW Natural enjoys a suite of cost recovery mechanisms that provide stability and predictability of cash flow, which helps to offset a degree of financial weakness compared to peers.

These mechanisms include: NW Natural's use of forward test years for capital expenditures; weather adjusted rate mechanism (WARM); conservation tariff (i.e., revenue decoupling); purchased gas adjustment (PGA); utility gas reserve investments included in rate base; pension balancing account; and a Site Remediation and Recovery Mechanism (SRRM), primarily for the recovery of manufactured gas plant environmental expenditures. These various cost recovery mechanisms help to support the recovery of the most significant costs that NW Natural faces.

Environmental remediation costs are significant, but regulatory support provides eventual cost recovery

Like many LDC's NW Natural is exposed to environmental liabilities belonging to properties that may require a significant amount of environmental remediation. These efforts, and associated costs, are often uncertain and subject to the orders of the Environmental Protection Agency (EPA) and state environmental agencies. The cash outlay for these efforts can be substantial and require an ample amount of liquidity.

We view the SRRM to be an important mechanism since it allows for full cost recovery over time; however, we note that it does have a limited benefit to the company's near-term cash profile, since cash recovery occurs over a five year period. Therefore, if NW Natural were to incur a material level of costs in any given year, its cash and financial position would be impaired for some time as it waits for full recovery in authorized rates. We note that the company is able to collect interest on the balance outstanding - a positive.

For NW Natural, the Portland Harbor site represents its largest uncertainty, as efforts to determine a remediation plan, scope the necessary work and allocate corrective responsibility amongst various parties is ongoing. The range of present value costs estimated by the EPA for site remedial alternatives range from \$791 million to \$2.45 billion for Portland Harbor. We expect the ultimate plan and identification of NW Natural costs to be highly contentious with protracted litigation; however, we note that when the matter is resolved and costs are to be incurred, NW Natural's financial position could be impaired for several years. NW Natural's credit profile would likely decline commensurately, if the SRRM (or other regulatory provided recovery mechanism) is insufficient to maintain NW Natural's cash flow at levels to cover debt in the mid-to-high teens.

Regulated water acquisition plans awaiting regulatory approval

In December 2017, NW Natural disclosed an agreement to acquire two privately owned regulated water utilities in Oregon and Idaho, representing the company's first entrance into the regulated water business. These two acquisitions include Salmon Valley Water Company and Falls Water Company, serving 975 customers in Oregon and 5,500 customers in Idaho, respectively. The transactions are still outstanding pending regulatory approval by both the OPUC and the Idaho Public Utilities Commission (IPUC).

NW Natural intends to upgrade and improve current infrastructure at each of these water companies. While the company's financing plans remain unclear at this moment, we do not believe the financial impact will be material, given the companies' small size and conservative business risk profile.

We also see the transaction as offering a small amount of diversification for NWN, and its newly licensed holding company. The acquisition of water utilities would provide alternative revenue sources and expose the company to a very supportive regulatory environment in Idaho.

Liquidity analysis

We expect NW Natural to maintain adequate liquidity over the next 12-18 months.

NW Natural has a \$300 million credit facility that expires in December 2019, \$100 million of which is available for issuance of letters of credit. At 30 September 2017, NWN had no outstanding balance under the credit facility. The credit facility has one financial covenant that limits NW Natural's debt to capitalization ratio to 70%, which the company was in compliance with as of 30 September 2017, at 47.9%.

At 30 September 2017, NW Natural had approximately \$16 million of cash on hand and generated \$224 million of adjusted CFO over the LTM. This compares to about \$192 million in adjusted capex and \$53 million in dividends for the same period. We expect the company to continue to produce over \$200 million of cash flow from operations over the next twelve months, which should cover capital expenditures (i.e., an average of roughly \$190 million per year through 2019), leaving the need to finance its dividend, which was \$53 million through LTM 3Q17. NW Natural's dividend payout ratio has averaged about 86% for the last three years, which we expect to remain consistent over the next twelve months.

NW Natural's next long-term debt maturity is \$22 million of first mortgage bonds (FMBs) due March 2018 followed by \$75 million of FMBs due December 2018.

Rating methodology and scorecard factors

Exhibit 3

Rating Factors						
Northwest Natural Gas Company						
Regulated Electric and Gas Utilities Industry Grid [1][2]	Curi LTM 9/3		Moody's 12-18 Month Forward View As of Date Published [3]			
Factor 1 : Regulatory Framework (25%)	Measure	Score	Measure	Score		
a) Legislative and Judicial Underpinnings of the Regulatory Framework	А	Α	A	Α		
b) Consistency and Predictability of Regulation	A	Α	A	Α		
Factor 2 : Ability to Recover Costs and Earn Returns (25%)						
a) Timeliness of Recovery of Operating and Capital Costs	Aa	Aa	Aa	Aa		
b) Sufficiency of Rates and Returns	А	Α	Α	Α		
Factor 3 : Diversification (10%)						
a) Market Position	Baa	Baa	Baa	Baa		
b) Generation and Fuel Diversity	N/A	N/A	N/A	N/A		
Factor 4 : Financial Strength (40%)						
a) CFO pre-WC + Interest / Interest (3 Year Avg)	5.0x	Α	4.5x - 5x	Α		
b) CFO pre-WC / Debt (3 Year Avg)	18.3%	Baa	14% - 17%	Baa		
c) CFO pre-WC - Dividends / Debt (3 Year Avg)	13.4%	Baa	10% - 13%	Baa		
d) Debt / Capitalization (3 Year Avg)	44.1%	Α	45% - 50%	Baa		
Rating:						
Grid-Indicated Rating Before Notching Adjustment	 -	A3		A3		
HoldCo Structural Subordination Notching	0	0	0	0		
a) Indicated Rating from Grid		A3	_	A3		
b) Actual Rating Assigned	.	(P)A3	_	(P)A3		

^[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

^[2] As of 9/30/2017(L); Source: Moody's Financial Metrics™

^[3] This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures. Source: Moody's Financial Metrics™

Appendix

Exhibit 4 Cash Flow and Credit Measures [1]

CF Metrics	20	12	2013	2	2014	2015		2016		LTM (09/17)
As Adjusted										
EBITDA	\$	224	\$ 229	\$	231	\$	220	\$ 22	9 \$	236
FFO		\$150	\$172		\$276		\$189	\$20	4	\$202
- Div		\$48	\$49		\$50		\$49	\$5	2	\$53
RCF		\$102	\$123		\$226		\$140	\$15	2	\$148
FFO		\$150	\$172		\$276		\$189	\$20	4	\$202
+/- ΔWC		\$14	\$(16)		\$(27)		\$17	\$2	1	\$24
+/- Other		\$25	\$28		\$(25)		\$(10)	\$1	2	\$(2)
CFO		\$189	\$185		\$225		\$196	\$23	7	\$224
- Div		\$48	\$49		\$50		\$49	\$5	2	\$53
- Capex		\$189	\$196		\$151		\$124	\$14	5	\$192
FCF		\$(48)	\$(61)		\$24		\$23	\$4	1	\$(21)
Debt / EBITDA		5.0x	4.8x		5.0x		5.1x	4.4	Х	4.3x
EBITDA / Interest		4.3x	4.3x		4.5x		4.3x	4.9	Х	5.0x
FFO / Debt		13.4%	15.6%		23.9%		16.9%	20.09	6	19.7%
RCF / Debt		9.2%	11.1%		19.6%		12.5%	14.99	6	14.5%

 $[\]label{eq:continuous} \begin{tabular}{ll} [1] All figures \& ratios calculated using Moody's estimates \& standard adjustments. \\ \textit{Source: Moody's Financial Metrics} \end{tabular}$

Exhibit 5 Peer Comparison [1]

	No	orthwes	t Nati	latural Gas Company				Questar Gas Company					Wisconsin Gas LLC						Southwest Gas Holdings, Inc.					
			A3, N	legative	•		Baa1, Stable				Baa1, Stable						Baa1, Stable							
(\$ in US millions)				2017LTM- 20						201	7LTM-	2017LTM-				7LTM-	- 20			201	2017LTM-			
(*	20	015	20	16	C	23	20)15	20	016	(Q3	20	015	20	16		Q3	Q3 20		2	016		Q3
Revenue	\$	724	\$	676	\$	755	\$	918	\$	921	\$	925	\$	610	\$	572	\$	591	\$	2,464	\$	2,460	\$	2,450
EBITDA	\$	220	\$	229	\$	236	\$	195	\$	199	\$	215	\$	161	\$	174	\$	181	\$	634	\$	671	\$	659
(CFO Pre-WC + Interest) / Interest		4.5x		5.6x		5.2x		7.4x		6.1x		6.8x		12.3x		10.3x		8.2x		6.6x		7.1x		6.7x
CFO Pre-W/C / Debt		16%		21%		19%		23%		18%		22%		23%		23%		25%		24%		26%		23%
(CFO Pre-W/C - Dividends) / Debt		12%		16%		14%		18%		14%		22%		19%		12%		20%		20%		22%		19%
Debt / Book Capitalization		46%		42%		42%		44%		44%		41%		37%		37%		35%		48%		47%		49%
Debt / EBITDA		5.1x		4.4x		4.3x		4.3x		4.4x		4.0x		4.0x		3.8x		3.5x		3.4x		3.3x		3.7x

 $^[1] All figures \& ratios calculated using Moody's estimates \& standard adjustments. \ LTM = Last Twelve Months.$ Source: Moody's Financial Metrics

Ratings

Exhibit 6

Category	Moody's Rating
NORTHWEST NATURAL GAS COMPANY	
Outlook	Negative
First Mortgage Bonds	A1
Senior Secured	A1
Senior Unsecured MTN	(P)A3
Pref. Shelf	(P)Baa2
Commercial Paper	P-2
Source: Moody's Investors Service	

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