

CASCADE NATURAL GAS CORPORATION

State of Oregon Twelve Months Ending December 31, 2017 Description of Adjustments

Type I Adjustments

(a) Removal of Promotional Advertising Expense

Removes all promotional advertising for the test period

(b) Removal of 25% of Membership Fees

Removes 25% of Membership Fees paid in the test period

(c) Normalize Uncollectible Expense

Restates uncollectible expense to the 3 year average of actual net write-offs

(d) Incentive Compensation Adjustment

Adjusts test period expense for Officers and Employees incentive compensation

(e) Interest Coordination Adjustment

Adjusts interest expense to the level associated with the current weighted average cost of debt

CASCADE NATURAL GAS CORPORATION

State of Oregon Twelve Months Ending December 31, 2017 Description of Adjustments

Type II Adjustments

(a) Annualized Wage Rate

Adjusts the reporting period operating expenses to reflect the effects of the general wage increase as if it had been in effect for the entire period.

(b) PGA Commodity Sharing Adjustment

Adjusts test period revenue to add the revenues associated with the sharing of commodity costs through the PGA mechanism.

Earnings Deferral

State of Oregon 12 months ended December 31, 2017

Adjusted overall rate of return Less return required for:	6.48%
Long term debt	-2.79%
Preferred stock	0.00%
Treferred stock	 0.0070
Return available for common	3.69%
Capitalization ratio for common	47.55%
Implied ROE (common return / ratio)	7.76%
Threshold per OPUC order 16-481	9.43%
Return on Equity in excess of threshold	-1.67%
Capitalization ratio for common	 47.55%
Overall Return in excess of threshold	-0.79%
Average rate base	\$ 86,063,721
Excess earnings	\$ (679,903)
Net to Gross Conversion Factor	0.58313
Pre-Tax over the threshold Earnings	\$ (1,165,963)
	(-,,- 00)
Earnings sharing percentage	33.00%
Earnings Sharing for CY 17	\$ (384,768)

ADJUSTED STATEMENT OF OPERATIONS AND RATE OF RETURN FOR THE TWELVE MONTHS ENDED 12/31/17

State of Oregon
Order 99-272

			State of Oregon	11				
		Actual	Order 99-272		Total	Total		Total
		Statement of	Appendix B		Adjusted	Annualizing		Adjusted
Line		Operations per			Actuals at	Adjustments		Results at
No.	Description	Books 12/31/17	(Type I)		12/31/17	(Type II)		12/31/17
	(a)	(b)	(c)	\perp	(d)	(e)		(f)
							Γ	
	OPERATING REVENUES							
1	Natural Gas Sales	\$ 59,895,194			,,-	\$	\$	59,895,194
2	Gas Transportation Revenue	4,114,883	0	~	4,114,883	0		4,114,883
3	Other Operating Revenues	264,704	0		264,704	198,081	<u> </u>	462,786
4	SUBTOTAL	\$ 64,274,782		0 \$, ,	\$ 198,081	\$	64,472,863
5	LESS: Nat. Gas/Production Costs	30,733,688	0	~	30,733,688	0		30,733,688
6	Revenue Taxes	3,015,262	0		3,015,262	0		3,015,262
7	OPERATING MARGIN	\$ 30,525,832	\$ 0	0 \$	30,525,832	\$ 198,081	\$	30,723,913
1		T					T	
	OPERATING EXPENSES							
8	Production	101,025	0	0 \$,	0		101,025
9	Distribution	\$ 6,434,534	C)	6,434,534	\$ 0	\$	6,434,534
10	Customer Accounts	1,904,929	(43,552	2)	1,861,377	0		1,861,377
11	Customer Service	121,204	0		121,204	0		121,204
12	Sales	913	(913	3)	0	0		0
13	Administrative & General	6,213,010	(653,700	3)	5,559,310	29,530		5,588,840
14	Depreciation & Amortization	6,437,588	0		6,437,588	0		6,437,588
15	Regulatory Debits	0	C)	0	0		0
16	Taxes Other Than Income	2,155,564	0)	2,155,564	5,763		2,161,327
17	State & Federal Income Taxes	1,875,733	405,267	7	2,281,000	65,018		2,346,018
18	TOTAL OPERATING EXPENSES	\$ 25,244,500					\$	25,051,913
			` .		· ·		†	
19	NET OPERATING INCOME	\$ 5,281,332	\$ 292,898	3 \$	5,574,230	\$ 97,770	\$	5,672,000
				十			†	
	RATE BASE							
20	Total Plant in Service	\$ 209,695,352	\$ 0	0 \$	209,695,352	\$ 0	\$	209,695,352
21	Total Accumulated Depreciation	(99,336,089)		δ E	(99,336,089)	0	'	(99,336,089)
22	Contributions in Aid of Construct.	0	l	á	0	0		0
23	Customer Advances for Construction	(509,450)	C	á	(509,450)	0		(509,450)
24	Deferred Accumulated Income Taxes	(26,598,592)		áΙ	(26,598,592)	0		(26,598,592)
25	Deferred Debits	0		á	0	0		0
26	Working Capital Allowance	2,812,500	0	áΙ	2,812,500	0		2,812,500
L	TOTAL RATE BASE	\$ 86,063,721		0 \$			\$	86,063,721
	101111111111111111111111111111111111111	Ψ οσίττο,	Ψ .	<u> </u>	,,	<u>-</u>	Ψ.	
28	RATE OF RETURN	6.14%			6.48%			6.59%
	IMPLIED RETURN ON EQUITY							
29	LESS: Return Required for Long							
>	Term Debt	2.79%			2.79%			2.79%
30	LESS: Return Required for	2.17,0			⊒. 1,2,√			2.17,0
50	Preferred Stock	0.00%			0.00%			0.00%
31	Adjusted Return Available for	0.0070			0.0070			0.0070
<i>J</i> 1	Common Stock	3.35%			3.69%			3.80%
	Common Stock	3.35 /0			3.07,0			3.0070
32	IMPLIED RETURN (Divide by Ratio of							
52	Common to Total: 47.55%	7.04%			7.76%			7.99%
	Common to Total. 17.0070	,			,., ,.,			

ORDER 99-272 APPENDIX B (TYPE I) ADJUSTMENTS FOR RATE OF RETURN FOR THE TWELVE MONTHS ENDED 12/31/17

State of Oregon

.				State of O				
	1		Promotional	Removal of	Normalize	Incentive	Interest	Total
Line	1		Advertising	25% Membership	Uncollectible	Comp.	Coordination	- 1
No.	Description		Adjustment	Fees	Expense	Adjustment	Adjustment	Adjustments
]	·	1	(a)	(b)	(c)	(d)	(e)	!
	OPERATING REVENUES		-	'		,		
<i>i</i>	, <u> </u>		,	1	1	1 '	1	
1	Natural Gas Sales	\$	0	0	0	1 '	0	\$
2	Gas Transportation Revenue		0	0	0		0	ď
3	Other Operating Revenues		0	0	0		0	ď
4	TOTAL OPERATING REVENUES	\$	0	0	0	0	0	\$
1		\vdash		 	 	Т		
1	OPERATING EXPENSES		,	1		1 '	1	
1	or English to English		,	1	1	1 '	1	
5	Natural Gas Purchased	\$,	1		1 '	1	<u> </u> s
6	Manufactured Gas Production	۳	,	1		1 '	1	[^{\pi}]
7	Distribution		,	1	1	1 '	1	1
8	Customer Accounting		,	1	(43,552)	.1 '	0	(43,552
9	Customer Service		,	1	(10,00=)	1 '	1	(,]
10	Sales		(913)	.[1	1 '	1	(913
11	Administrative & General		(710),	(16,837)	.1	(636,863)	0	(653,700
12	Depreciation & Amortization		,	(10,057)	1	(030,003)	1	(055,704
13	Regulatory Debits		,	1	1	1 '	1]
14	Taxes Other Than Income		0	0	0	0	0	
15	State & Federal Income Tax		365	6,725	17,395	-	126,419	405,267
		\$	(548)					
	NET OPERATING INCOME	\$	548	10,112	26,157	382,500	(126,419)	
1/	NET OPERATING INCOME	1	J40)	10,112	20,137	302,300	(120,417)	\$ 272,079
1	1		,	1		1	,	
<i>i</i>	RATE BASE		,	1	1	1	,	
1	RATE BASE		,	1		1	,	
18	Total Plant in Service	\$,	1		1	,	6
		Þ	,	1	1	1	,	1
19	Total Accumulated Depreciation		,	1	1	1	,	
20	Customer Advances for Construct.		,	1	1	1	,	
21	Contributions in Aid of Construct.		,	1	1	1	,	
22	Deferred Income Taxes - ACRS		,	1	1	1	,	
23	Deferred Income Taxes - Other		,	1	1	1	,	
24	Deferred Debits-Oregon Water		,	1	1	1	,	
25	Heater Program		,	1	1	1	,	
26	Deferred Debits-Astoria Cleanup		,	1	1	1	,	
27	Working Capital Allowance	Т.		<u> </u>	 '			

28 TOTAL RATE BASE

TYPE II ADJUSTMENTS FOR RATE OF RETURN FOR THE TWELVE MONTHS ENDED 12/31/17

			_			
			Annualizing	PGA Commodity	I	Total
Line			Wage Rate	Sharing		Type II
No.	Description		Adjustment	Adjustment		Adjustments
			(a)	(b)		
	OPERATING REVENUE					
1	Natural Gas Sales	\$	0	0	\$	0
2	Gas Transportation Revenue		0	0		0
3	Other Operating Revenue		0	198,081		198,081
4	Total Operating Revenue	\$	0	198,081	\$	198,081
	OPERATING EXPENSES					
5	Natural Gas Purchased	\$	0	0	\$	0
6	Manufactured Gas Production	Ψ	U	U	Ψ	0
7	Distribution					0
8	Customer Accounting		0	0		0
9	Customer Service		O .	O		0
10	Sales					0
11	Administrative & General		29,530	0		29,530
12	Depreciation & Amortization		25,888	v		0
13	Regulatory Debits		0			0
14	Taxes Other Than Income			5,763		5,763
15	State & Federal Income Tax		(11,794)	76,812		65,018
16	Total Operating Expenses	\$	17,736	82,575	\$	100,311
17	NET OPERATING INCOME	\$	(17,736)	115,506	\$	97,770
	DATE DAGE					
	RATE BASE					
18	Total Plant in Service	\$			\$	0
19	Total Accumulated Depreciation	ľ			ľ	0
20	Customer Advances for Construct.					0
21	Contributions Aiding Construct.					0
22	Deferred Income Taxes - ACRS					0
23	Deferred Income Taxes - Other					0
24	Deferred Debits-Oregon Water					0
25	Heater Program					0
26	Deferred Debits-Astoria Cleanup					0
27	Working Capital Allowance	L				0
28	TOTAL RATE BASE	\$	0	0	\$	0

TYPE I ADJUSTMENTS

PROMOTIONAL ADVERTISING EXPENSE ADJUSTMENT

State of Oregon

FERC 913 Advertising Expense

CY 2017	\$ 913
Removal	\$ (913)

Cascade Natural Gas Corporation MEMBERSHIP & DUES EXPENSE ADJUSTMENT

State of Oregon

Removal of 25% of Total

CY 2017 Membership Fees	\$ 67,348

\$ (16,837)

NORMALIZE UNCOLLECTIBLE EXPENSE

Net Write Offs	
Calendar Year 2015	169,224
Calendar Year 2016	197,056
Calendar Year 2017	226,924
	593,204
3 years of Net Write Offs: 2013 - 2015	593,204
Calendar Year 2015 Natural Gas Sales	63,397,033
Calendar Year 2016 Natural Gas Sales	59,573,715
Calendar Year 2017 Natural Gas Sales	59,895,194
	182,865,942
Uncollectible Expenses (Bad Debt Provision) for the 12 months ended 12/31/17	237,848
3 Year Average Net Write Off as a percentage of 2015-2017 Gross Revenues	0.324%
2017 Sales	59,895,194
Proforma Expense	194,296
Adjustment to normalize Uncollectible Expenses	-43,552

CASCADE NATURAL GAS CORPORATION

INCENTIVE COMPENSATION ANNUALIZATION ADJUSTMENT

CY17 Officer Incentive Compensation	\$ 309,033		
Oregon Total	\$ 309,033		
Removal	\$ (309,033)		
Total 2017 Employee Incentive Accrual (OR)	\$ 561,994.14		
Incentive tied to Financial Performance (1/3)	\$ 187,331.38	75%	\$ 140,498.54
Incentive encouraging reduced spending (1/3)	\$ 187,331.38	50%	\$ 93,665.69
Incentive fbased on Customer Satisfaction (1/3)	\$ 187,331.38	50%	\$ 93,665.69
Total			\$ 327,829.92
Removal			\$ (327,829.92)

Cascade Natural Gas Corporation Interest Coordination Adjustment

1-17 to 12-17

OREGON:

	Avg of Avgs	Ratio	Weighted Cost	Overall Cost of Capital
Long Term Debt	222,697,250	52.45%	5.32%	2.79%
Preferred Stock	0	0.00%		0.00%
Common Equity	201,924,712	47.55%	9.40%	4.47%
	424,621,962	100.00%	_	7.26%

Rate Base 12/31/2017	Avg Cost of Debt	Subtotal	Test period Interest Expense	Adjustment	State and F.I.T.	Total Adjust
86,063,721	2.79%	2,401,178	2,717,700	(316,522)	0.39940	126,419

TYPE I ADJUSTMENT WORKPAPERS

Cascade Natural Gas Corporation Oregon Type 1 Adjustment Memberships & Dues CY 2017

	Professional/	
	Organization	
	Dues	Total
Location	(5811 & 5912)	OR
	_	
Oregon Direct	4,929	4,929
General Office	62,419	62,419
Total		67,348
Removal of 25% of Total		(16,837)

Source(s): State Allocation Report, Rate Base				Overall Cost of
				Overall Cost of
Average	e of Averages	Ratio	Weighted Cost	Capital
Long-Term Debt	222,697,250	52.45%	5.32%	2.79%
Preferred Stock	-	0.00%		0.00%
Common Equity-excl Accum OCI	201,924,712	47.55%	9.40%	4.47%
	424,621,962	100.00%		7.26%
Rate base as of	December 31, 2017			86,063,721
Average cost of debt	,			2.79%
Subtotal				2,401,178
Period Int Exp: Interest on long-term debt 427.0		2,604,546		
Period Int Exp: Amort. Of debt discount & exp 428.0		103,796		
Period Int. Exp: Amort. Of loss on reacq debt 428.1		9,358		2,717,700
Adjustment				(316,522)
Total adjustment @ State & F.I.T of 39.94%				(126,419)

		7.098% MTN Due	5.25% IQN Due	5.21% MTN	5.79% Snr Nt	4.11% Snr Nt	4.36% Snr Nt	4.09% Snr Nt	4.24% Snr Nt	4.09% Snr Nt	4.24% Snr Nt			COMMON	BALANCE SHEET
	7.48% MTN Due 9/15/2027	3/16/2029	2/1/2035	Due 9/1/2020	Due 3/8/2037	Due 8/23/2025	Due 8/23/2028	Due 11/24/2044	Due 11/24/2054	DUE 1/15/2045	DUE 1/15/2055	LOC	TOTAL DEBT	EQUITY	EQUITY
Jan-17	20,000,000	15,000,000	24,471,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000		214,471,000	197,284,967	197,284,967
Feb-17	20,000,000	15,000,000	24,471,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000		214,471,000	197,667,785	197,667,785
Mar-17	20,000,000	15,000,000	24,471,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000		214,471,000	201,071,623	201,071,623
Apr-17	20,000,000	15,000,000	24,471,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000		214,471,000	201,800,060	201,800,060
May-17	20,000,000	15,000,000	24,471,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000		214,471,000	199,779,622	199,779,622
Jun-17	20,000,000	15,000,000	24,471,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000		214,471,000	198,115,355	198,115,355
Jul-17	20,000,000	15,000,000	24,471,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000	6,750,000	221,221,000	196,345,946	196,345,946
Aug-17	20,000,000	15,000,000	24,446,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000	17,950,000	232,396,000	191,285,068	191,285,068
Sep-17	20,000,000	15,000,000	24,446,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000	10,000,000	224,446,000	210,403,949	210,403,949
Oct-17	20,000,000	15,000,000	24,446,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000	21,450,000	235,896,000	210,597,255	210,597,255
Nov-17	20,000,000	15,000,000	24,431,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000	34,050,000	248,481,000	210,212,155	210,212,155
Dec-17	20,000,000	15,000,000	24,431,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000	17,300,000	231,731,000	224,513,351	224,513,351
Dec-16	20,000,000	15,000,000	24,471,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000		214,471,000	192,552,179	192,552,179
e of Avgs	20,000,000	15,000,000	24,459,750 -	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000	8,237,500	222,697,250	201,924,712	201,924,712
nual Rate	7.4800%	7.0980%	5.2500%	5.2100%	5.7900%	4.1100%	4.3600%	4.0900%	4.2400%	4.0900%	4.2400%	3.1700%	5.32%		
Cost	1,496,000	1,064,700	1,284,137 -	781,500	2,316,000	1,027,500	1,090,000	511,250	530,000	511,250	530,000	261,191			•

TYPE II ADJUSTMENTS

Cascade Natural Gas Corporation **CY17 WAGE ADJUSTMENT**

Wage Annualization Adjustment	\$ 29,530
Adjustment to Annualize & Restate	\$ 29,530

PGA COMMODITY SHARING ADJUSTMENT

State of Oregon

CY 2017 PGA Commodity Sharing Revenue \$ (198,081)

Adjustment \$ 198,081

Cascade Natural Gas Corporation Oregon Wage Adjustment

Adjustment to Restate CY 2017

2017	Gross Salaries/Wages		% Salary/Wage Increase	Salary/Wage Istment Before Taxes	Social Security Tax @ 6.2%		Security Tax		Medicare Tax @ 1.45%		Total Taxes		Adjustment to Restate CY17 Salaries/Wages	
January February March	\$ \$ \$	1,542,051 1,006,924 996,296												
CY16 Hourly OR 3-Factor Alloc	\$ ation %	3,545,271	3.10%	\$ 109,903	\$	6,814	\$	1,594	\$	8,408	\$ \$	118,311 25.0% 29,530		

Note: Salaried increase effective 1/1/17 Hourly increase effective 4/1/17

TYPE II ADJUSTMENT WORKPAPERS

CASCADE NATURAL GAS STATE OF OREGON CY17

PGA Commodity Sharing (I.e. () loss)

Jan-17	\$ (105,397)
Feb-17	\$ (18,098)
Mar-17	\$ (3,860)
Apr-17	\$ (1,455)
May-17	\$ (11,609)
Jun-17	\$ (18,609)
Jul-17	\$ 18,094
Aug-17	\$ 2,227
Sep-17	\$ 15,532
Oct-17	\$ 7,365
Nov-17	\$ (7,001)
Dec-17	\$ (75,272)
Total	\$ (198,081)

Cascade Natural Gas Corporation Revenue Sensitive Cost Conversion Factor State of Oregon

FOR THE TWELVE MONTHS ENDED 12/31/17

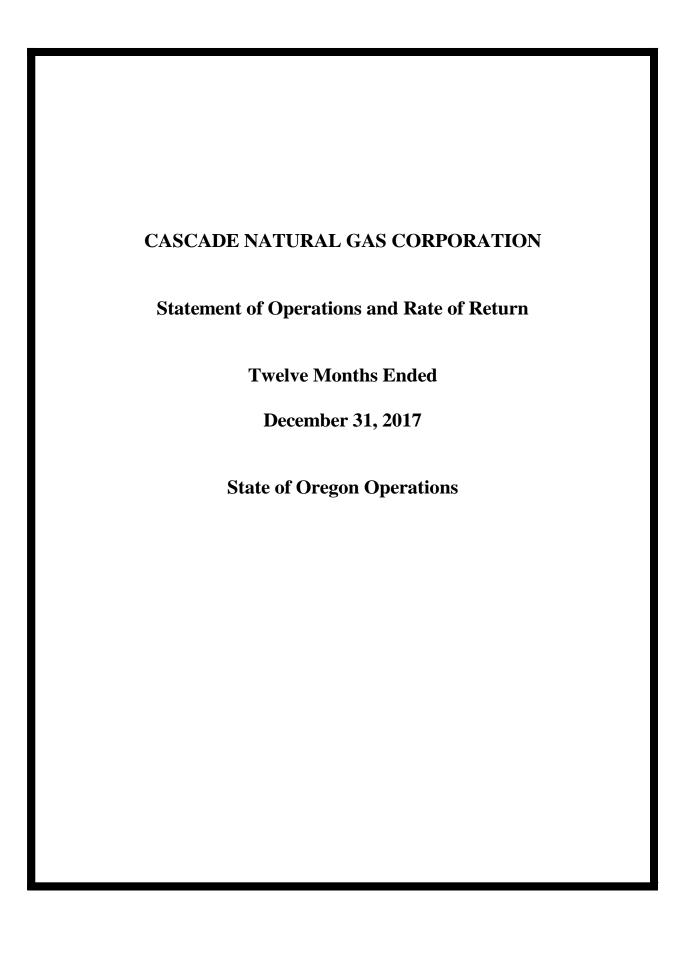
Line				
No.	Description		Amount	
1	Gross Revenue		1.00000	
2	Less Uncollectibles		(0.00324)	
3	Net Revenue		0.99676	
	Less Revenue Sensitive Costs			
4 5	Gross Revenue Fee City Franchise Fees	0.00275 0.02310	0.02585	
6	Net Before State & Federal Income Taxes		0.97091	2.91%
7	Oregon Income Tax @7.6%	,	0.07379	
8	Net Before Federal Income Tax		0.89712	
9	Federal Income Tax @ 35%		0.31399	
10	Net to Gross Conversion Factor		0.58313	

Combo-State & Fede	eral Income Tax	
State	0.07600	
Federal	0.35000	
Combo (calculated)	0.3994	
Revenue Sensitive		
Uncollectibles	0.00324	
OPUC Fees	0.00275	
City Franchise	0.02310	
	0.02909	0.970906072

	INPUT DATA AND CALCULATIONS						
	Annual Thm						
	Sales as of	Therms	Restatement	Weighted			
COMMERCIA	09/30/06	<u>Percentage</u>	Rates	Rates			
R/S 104	23,584,120	0.98955	0.81029	0.80182			
105 104	23,304,120	0.76733	0.0102)	0.00102			
R/S 111-C	249,097	0.01045	0.73502	0.00768			
	23,833,217	1.00000	•		•		
WEIGHTED C	OMMMERCI	AL RATE	=	0.80950	0.80950		
WACOG RATI	E COMMOT	NTV ONI V		0.42007	0.42907		
WACOG RATI	E - COMMOL	JII I ONL I	=	0.42807	0.42807		
RESIDENTIAI	L RATE		0.91049	0.91049	0.91049		
			=		:		
INPUT ENTRY	/*********** /	********	*******	******			
Test Period End	ded	09/30/06					
Unbilled		09/30/05	prior				
Revenue Sensit							
Uncollectibles	•	0.00324					
OPUC Fees		0.00275					
City Franchise	9	0.02310 0.02909	0.970906072				
Combo-State &	Federal Incor		0.970900072				
State State &	. I ederal meor	0.07600					
Federal		0.35000					

Combo (calculated)

0.3994



CASCADE NATURAL GAS CORPORATION

State of Oregon Twelve Months Ending December 31, 2017 Description of Adjustments

Type I Adjustments

(a) Removal of Promotional Advertising Expense

Removes all promotional advertising for the test period

(b) Removal of 25% of Membership Fees

Removes 25% of Membership Fees paid in the test period

(c) Normalize Uncollectible Expense

Restates uncollectible expense to the 3 year average of actual net write-offs

(d) Incentive Compensation Adjustment

Adjusts test period expense for Officers and Employees incentive compensation

(e) Interest Coordination Adjustment

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State of Oregon 12 months ended December 31, 2017

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Long term debt	-2.79%
Preferred stock	0.00%
Treferred stock	 0.0070
Return available for common	3.69%
Capitalization ratio for common	47.55%
Implied ROE (common return / ratio)	7.76%
Threshold per OPUC order 16-481	9.43%
Return on Equity in excess of threshold	-1.67%
Capitalization ratio for common	 47.55%
Overall Return in excess of threshold	-0.79%
Average rate base	\$ 86,063,721
Excess earnings	\$ (679,903)
Net to Gross Conversion Factor	0.58313
Pre-Tax over the threshold Earnings	\$ (1,165,963)
	(-,,- 00)
Earnings sharing percentage	33.00%
Earnings Sharing for CY 17	\$ (384,768)

ADJUSTED STATEMENT OF OPERATIONS AND RATE OF RETURN FOR THE TWELVE MONTHS ENDED 12/31/17

State of Oregon
Order 99-272

			State of Oregon	11				
		Actual	Order 99-272		Total	Total		Total
		Statement of	Appendix B		Adjusted	Annualizing		Adjusted
Line		Operations per			Actuals at	Adjustments		Results at
No.	Description	Books 12/31/17	(Type I)		12/31/17	(Type II)		12/31/17
	(a)	(b)	(c)	\perp	(d)	(e)		(f)
							Γ	
	OPERATING REVENUES							
1	Natural Gas Sales	\$ 59,895,194			,,-	\$	\$	59,895,194
2	Gas Transportation Revenue	4,114,883	0	~	4,114,883	0		4,114,883
3	Other Operating Revenues	264,704	0		264,704	198,081	<u> </u>	462,786
4	SUBTOTAL	\$ 64,274,782		0 \$, ,	\$ 198,081	\$	64,472,863
5	LESS: Nat. Gas/Production Costs	30,733,688	0	~	30,733,688	0		30,733,688
6	Revenue Taxes	3,015,262	0		3,015,262	0		3,015,262
7	OPERATING MARGIN	\$ 30,525,832	\$ 0	0 \$	30,525,832	\$ 198,081	\$	30,723,913
1		T					T	
	OPERATING EXPENSES							
8	Production	101,025	0	0 \$,	0		101,025
9	Distribution	\$ 6,434,534	C)	6,434,534	\$ 0	\$	6,434,534
10	Customer Accounts	1,904,929	(43,552	2)	1,861,377	0		1,861,377
11	Customer Service	121,204	0		121,204	0		121,204
12	Sales	913	(913	3)	0	0		0
13	Administrative & General	6,213,010	(653,700	3)	5,559,310	29,530		5,588,840
14	Depreciation & Amortization	6,437,588	0		6,437,588	0		6,437,588
15	Regulatory Debits	0	C)	0	0		0
16	Taxes Other Than Income	2,155,564	0)	2,155,564	5,763		2,161,327
17	State & Federal Income Taxes	1,875,733	405,267	7	2,281,000	65,018		2,346,018
18	TOTAL OPERATING EXPENSES	\$ 25,244,500					\$	25,051,913
			` .		· ·		†	
19	NET OPERATING INCOME	\$ 5,281,332	\$ 292,898	3 \$	5,574,230	\$ 97,770	\$	5,672,000
				十			†	
	RATE BASE							
20	Total Plant in Service	\$ 209,695,352	\$ 0	0 \$	209,695,352	\$ 0	\$	209,695,352
21	Total Accumulated Depreciation	(99,336,089)		δ E	(99,336,089)	0	'	(99,336,089)
22	Contributions in Aid of Construct.	0	l	á	0	0		0
23	Customer Advances for Construction	(509,450)	C	á	(509,450)	0		(509,450)
24	Deferred Accumulated Income Taxes	(26,598,592)		áΙ	(26,598,592)	0		(26,598,592)
25	Deferred Debits	0		á	0	0		0
26	Working Capital Allowance	2,812,500	0	áΙ	2,812,500	0		2,812,500
L	TOTAL RATE BASE	\$ 86,063,721		0 \$			\$	86,063,721
	101111111111111111111111111111111111111	Ψ οσίττο,	Ψ .	<u> </u>	,,	<u>-</u>	Ψ.	
28	RATE OF RETURN	6.14%			6.48%			6.59%
	IMPLIED RETURN ON EQUITY							
29	LESS: Return Required for Long							
>	Term Debt	2.79%			2.79%			2.79%
30	LESS: Return Required for	2.17,0			⊒. 1,2,√			2.17,0
50	Preferred Stock	0.00%			0.00%			0.00%
31	Adjusted Return Available for	0.0070			0.0070			0.0070
<i>J</i> 1	Common Stock	3.35%			3.69%			3.80%
	Common Stock	3.35 /0			3.07,0			3.0070
32	IMPLIED RETURN (Divide by Ratio of							
52	Common to Total: 47.55%	7.04%			7.76%			7.99%
	Common to Total. 17.0070	,			,., ,.,			

ORDER 99-272 APPENDIX B (TYPE I) ADJUSTMENTS FOR RATE OF RETURN FOR THE TWELVE MONTHS ENDED 12/31/17

	1		Promotional	Removal of		Incentive	Interest	Total
Line	1		Advertising	25% Membership	Uncollectible	Comp.	Coordination	Type I
No.	Description		Adjustment	Fees		Adjustment	Adjustment	Adjustments
<u> </u>	<u></u> '	_	(a)	(b)	(c)	(d)	(e)	!
	OPERATING REVENUES							
	1		'	1	1 '	1 '	1	
1	Natural Gas Sales	\$	0	0	0	1 '	0	\$
2	Gas Transportation Revenue		0	0	0	1 '	0	
3	Other Operating Revenues		0	0	0	1'	0	1
4	TOTAL OPERATING REVENUES	\$	0	0	0	0	0	\$
	OPERATING EXPENSES				<u> </u>			
5	Natural Gas Purchased	s	!	'	'	'	1	¢
6	Manufactured Gas Production	Ψ	'	1	1 '	1 '	1	["
7	Distribution		'	1	1 '	1 '	1	1
8	Customer Accounting		,	1	(43,552)	.1	0	(43,552
9	Customer Service		'	'	(30,002)	1 '	1	(15,55
10	Sales		(913)	.]	1 '	1 '	1	(913
11	Administrative & General		(),	(16,837)	.1 '	(636,863)	0	(653,700
12	Depreciation & Amortization		,	(10,00.,	1 '	(030,000,	1	(000),
13	Regulatory Debits		,	1	1 '	1 '	1	1
14	Taxes Other Than Income		0	0	0	0	0	l J
15	State & Federal Income Tax		365	6,725	17,395	254,363	126,419	405,267
16	TOTAL OPERATING EXPENSES	\$	(548)					\$ (292,898
	NET OPERATING INCOME	\$	548	10,112	26,157	382,500		· · · · · · · · · · · · · · · · · · ·
1,	NET OF ERRIFING INCOLLE	Ψ		10,112	20,137	302,500	(120,117)	ψ,·-,·
	RATE BASE		1	'	'		!	
18	Total Plant in Service	s	!		'		!	()
19	Total Accumulated Depreciation	Ψ	'	1	1 '	1	,	\int_{0}^{Φ}
20	Customer Advances for Construct.		,	1	1 '	1	,	
21	Contributions in Aid of Construct.		'	'	1 '	1	,	
22	Deferred Income Taxes - ACRS		'	1	1 '	1	,	
23	Deferred Income Taxes - Other		'	1	1 '	1	,	
24	Deferred Debits-Oregon Water		,	1	1 '	1	,	
25	Heater Program		,	1	1 '	1	,	
26	Deferred Debits-Astoria Cleanup		'	1	1 '	1	,	
27	Working Capital Allowance		'	1	1 '	1	,	1
	TOTAL RATE BASE	\$			 			\$
	<u>. </u>	<u> </u>		<u> </u>				<u> </u>

TYPE II ADJUSTMENTS FOR RATE OF RETURN FOR THE TWELVE MONTHS ENDED 12/31/17

			_			
			Annualizing	PGA Commodity	I	Total
Line			Wage Rate	Sharing		Type II
No.	Description		Adjustment	Adjustment		Adjustments
			(a)	(b)		
	OPERATING REVENUE					
1	Natural Gas Sales	\$	0	0	\$	0
2	Gas Transportation Revenue		0	0		0
3	Other Operating Revenue		0	198,081		198,081
4	Total Operating Revenue	\$	0	198,081	\$	198,081
	OPERATING EXPENSES					
5	Natural Gas Purchased	\$	0	0	\$	0
6	Manufactured Gas Production	Ψ	U	U	Ψ	0
7	Distribution					0
8	Customer Accounting		0	0		0
9	Customer Service		O .	O		0
10	Sales					0
11	Administrative & General		29,530	0		29,530
12	Depreciation & Amortization		25,888	v		0
13	Regulatory Debits		0			0
14	Taxes Other Than Income			5,763		5,763
15	State & Federal Income Tax		(11,794)	76,812		65,018
16	Total Operating Expenses	\$	17,736	82,575	\$	100,311
17	NET OPERATING INCOME	\$	(17,736)	115,506	\$	97,770
	DATE DAGE					
	RATE BASE					
18	Total Plant in Service	\$			\$	0
19	Total Accumulated Depreciation	ľ			ľ	0
20	Customer Advances for Construct.					0
21	Contributions Aiding Construct.					0
22	Deferred Income Taxes - ACRS					0
23	Deferred Income Taxes - Other					0
24	Deferred Debits-Oregon Water					0
25	Heater Program					0
26	Deferred Debits-Astoria Cleanup					0
27	Working Capital Allowance	L				0
28	TOTAL RATE BASE	\$	0	0	\$	0

TYPE I ADJUSTMENTS

PROMOTIONAL ADVERTISING EXPENSE ADJUSTMENT

State of Oregon

FERC 913 Advertising Expense

CY 2017	\$ 913
Removal	\$ (913)

Cascade Natural Gas Corporation MEMBERSHIP & DUES EXPENSE ADJUSTMENT

State of Oregon

Removal of 25% of Total

CY 2017 Membership Fees	\$ 67,348

\$ (16,837)

NORMALIZE UNCOLLECTIBLE EXPENSE

Net Write Offs	
Calendar Year 2015	169,224
Calendar Year 2016	197,056
Calendar Year 2017	226,924
	593,204
3 years of Net Write Offs: 2013 - 2015	593,204
Calendar Year 2015 Natural Gas Sales	63,397,033
Calendar Year 2016 Natural Gas Sales	59,573,715
Calendar Year 2017 Natural Gas Sales	59,895,194
	182,865,942
Uncollectible Expenses (Bad Debt Provision) for the 12 months ended 12/31/17	237,848
3 Year Average Net Write Off as a percentage of 2015-2017 Gross Revenues	0.324%
2017 Sales	59,895,194
Proforma Expense	194,296
Adjustment to normalize Uncollectible Expenses	-43,552

CASCADE NATURAL GAS CORPORATION

INCENTIVE COMPENSATION ANNUALIZATION ADJUSTMENT

CY17 Officer Incentive Compensation	\$ 309,033		
Oregon Total	\$ 309,033		
Removal	\$ (309,033)		
Total 2017 Employee Incentive Accrual (OR)	\$ 561,994.14		
Incentive tied to Financial Performance (1/3)	\$ 187,331.38	75%	\$ 140,498.54
Incentive encouraging reduced spending (1/3)	\$ 187,331.38	50%	\$ 93,665.69
Incentive fbased on Customer Satisfaction (1/3)	\$ 187,331.38	50%	\$ 93,665.69
Total			\$ 327,829.92
Removal			\$ (327,829.92)

Cascade Natural Gas Corporation Interest Coordination Adjustment

1-17 to 12-17

OREGON:

	Avg of Avgs	Ratio	Weighted Cost	Overall Cost of Capital
Long Term Debt	222,697,250	52.45%	5.32%	2.79%
Preferred Stock	0	0.00%		0.00%
Common Equity	201,924,712	47.55%	9.40%	4.47%
	424,621,962	100.00%	_	7.26%

Rate Base 12/31/2017	Avg Cost of Debt	Subtotal	Test period Interest Expense	Adjustment	State and F.I.T.	Total Adjust
86,063,721	2.79%	2,401,178	2,717,700	(316,522)	0.39940	126,419

TYPE I ADJUSTMENT WORKPAPERS

Cascade Natural Gas Corporation Oregon Type 1 Adjustment Memberships & Dues CY 2017

	Professional/	
	Organization	
	Dues	Total
Location	(5811 & 5912)	OR
	_	
Oregon Direct	4,929	4,929
General Office	62,419	62,419
Total		67,348
Removal of 25% of Total		(16,837)

Source(s): State Allocation Report, Rate Base				Overall Cost of
				Overall Cost of
Average	e of Averages	Ratio	Weighted Cost	Capital
Long-Term Debt	222,697,250	52.45%	5.32%	2.79%
Preferred Stock	-	0.00%		0.00%
Common Equity-excl Accum OCI	201,924,712	47.55%	9.40%	4.47%
	424,621,962	100.00%		7.26%
Rate base as of	December 31, 2017			86,063,721
Average cost of debt	,			2.79%
Subtotal				2,401,178
Period Int Exp: Interest on long-term debt 427.0		2,604,546		
Period Int Exp: Amort. Of debt discount & exp 428.0		103,796		
Period Int. Exp: Amort. Of loss on reacq debt 428.1		9,358		2,717,700
Adjustment				(316,522)
Total adjustment @ State & F.I.T of 39.94%				(126,419)

		7.098% MTN Due	5.25% IQN Due	5.21% MTN	5.79% Snr Nt	4.11% Snr Nt	4.36% Snr Nt	4.09% Snr Nt	4.24% Snr Nt	4.09% Snr Nt	4.24% Snr Nt			COMMON	BALANCE SHEET
	7.48% MTN Due 9/15/2027	3/16/2029	2/1/2035	Due 9/1/2020	Due 3/8/2037	Due 8/23/2025	Due 8/23/2028	Due 11/24/2044	Due 11/24/2054	DUE 1/15/2045	DUE 1/15/2055	LOC	TOTAL DEBT	EQUITY	EQUITY
Jan-17	20,000,000	15,000,000	24,471,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000		214,471,000	197,284,967	197,284,967
Feb-17	20,000,000	15,000,000	24,471,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000		214,471,000	197,667,785	197,667,785
Mar-17	20,000,000	15,000,000	24,471,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000		214,471,000	201,071,623	201,071,623
Apr-17	20,000,000	15,000,000	24,471,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000		214,471,000	201,800,060	201,800,060
May-17	20,000,000	15,000,000	24,471,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000		214,471,000	199,779,622	199,779,622
Jun-17	20,000,000	15,000,000	24,471,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000		214,471,000	198,115,355	198,115,355
Jul-17	20,000,000	15,000,000	24,471,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000	6,750,000	221,221,000	196,345,946	196,345,946
Aug-17	20,000,000	15,000,000	24,446,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000	17,950,000	232,396,000	191,285,068	191,285,068
Sep-17	20,000,000	15,000,000	24,446,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000	10,000,000	224,446,000	210,403,949	210,403,949
Oct-17	20,000,000	15,000,000	24,446,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000	21,450,000	235,896,000	210,597,255	210,597,255
Nov-17	20,000,000	15,000,000	24,431,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000	34,050,000	248,481,000	210,212,155	210,212,155
Dec-17	20,000,000	15,000,000	24,431,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000	17,300,000	231,731,000	224,513,351	224,513,351
Dec-16	20,000,000	15,000,000	24,471,000	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000		214,471,000	192,552,179	192,552,179
e of Avgs	20,000,000	15,000,000	24,459,750 -	15,000,000	40,000,000	25,000,000	25,000,000	12,500,000	12,500,000	12,500,000	12,500,000	8,237,500	222,697,250	201,924,712	201,924,712
nual Rate	7.4800%	7.0980%	5.2500%	5.2100%	5.7900%	4.1100%	4.3600%	4.0900%	4.2400%	4.0900%	4.2400%	3.1700%	5.32%		
Cost	1,496,000	1,064,700	1,284,137 -	781,500	2,316,000	1,027,500	1,090,000	511,250	530,000	511,250	530,000	261,191			•

TYPE II ADJUSTMENTS

Cascade Natural Gas Corporation **CY17 WAGE ADJUSTMENT**

State of Oregon

Wage Annualization Adjustment	\$ 29,530
Adjustment to Annualize & Restate	\$ 29,530

Cascade Natural Gas Corporation

PGA COMMODITY SHARING ADJUSTMENT

State of Oregon

CY 2017 PGA Commodity Sharing Revenue \$ (198,081)

Adjustment \$ 198,081

Cascade Natural Gas Corporation Oregon Wage Adjustment

Adjustment to Restate CY 2017

2017	Sal	Gross laries/Wages	% Salary/Wage Increase	alary/Wage stment Before Taxes	Sec	Social curity Tax	N	Medicare Tax @ 1.45%	Tota	al Taxes	Res	djustment to estate CY17 aries/Wages
January February March	\$ \$ \$	1,542,051 1,006,924 996,296										
CY16 Hourly OR 3-Factor Alloc	\$ ation %	3,545,271	3.10%	\$ 109,903	\$	6,814	\$	1,594	\$	8,408	\$ \$	118,311 25.0% 29,530

Note: Salaried increase effective 1/1/17 Hourly increase effective 4/1/17

TYPE II ADJUSTMENT WORKPAPERS

CASCADE NATURAL GAS STATE OF OREGON CY17

PGA Commodity Sharing (I.e. () loss)

Jan-17	\$ (105,397)
Feb-17	\$ (18,098)
Mar-17	\$ (3,860)
Apr-17	\$ (1,455)
May-17	\$ (11,609)
Jun-17	\$ (18,609)
Jul-17	\$ 18,094
Aug-17	\$ 2,227
Sep-17	\$ 15,532
Oct-17	\$ 7,365
Nov-17	\$ (7,001)
Dec-17	\$ (75,272)
Total	\$ (198,081)

Cascade Natural Gas Corporation Revenue Sensitive Cost Conversion Factor State of Oregon

FOR THE TWELVE MONTHS ENDED 12/31/17

Line				
No.	Description		Amount	
1	Gross Revenue		1.00000	
2	Less Uncollectibles		(0.00324)	
3	Net Revenue		0.99676	
	Less Revenue Sensitive Costs			
4 5	Gross Revenue Fee City Franchise Fees	0.00275 0.02310	0.02585	
6	Net Before State & Federal Income Taxes		0.97091	2.91%
7	Oregon Income Tax @7.6%		0.07379	
8	Net Before Federal Income Tax		0.89712	
9	Federal Income Tax @ 35%		0.31399	
10	Net to Gross Conversion Factor		0.58313	

Combo-State & Fede	eral Income Tax	
State	0.07600	
Federal	0.35000	
Combo (calculated)	0.3994	
Revenue Sensitive		
Uncollectibles	0.00324	
OPUC Fees	0.00275	
City Franchise	0.02310	
	0.02909	0.970906072

	INPUT D	ATA AND C	ALCULATIONS		
	Annual Thm				
	Sales as of	Therms	Restatement	Weighted	
COMMERCIA	09/30/06	<u>Percentage</u>	Rates	Rates	
R/S 104	23,584,120	0.98955	0.81029	0.80182	
105 104	23,304,120	0.76733	0.0102)	0.00102	
R/S 111-C	249,097	0.01045	0.73502	0.00768	
	23,833,217	1.00000	-		•
WEIGHTED C	OMMMERCI	AL RATE	=	0.80950	0.80950
WACOG RATI	E COMMOI	NTV ONI V		0.42907	0.42907
WACOG RATI	E - COMINIOL	JII I ONL I	=	0.42807	0.42807
RESIDENTIAI	L RATE		0.91049	0.91049	0.91049
			=		
INPUT ENTRY	<u> </u>	******	******	*****	
Test Period End	ded	09/30/06			
Unbilled		09/30/05	prior		
Revenue Sensit	ive				
Uncollectibles		0.00324			
OPUC Fees		0.00275			
City Franchise	9	0.02310 0.02909	0.970906072		
Combo-State &	Federal Incor		0.970900072		
State State &	r caerar meor	0.07600			
Federal		0.35000			

Combo (calculated)

0.3994