1	BEFORE THE PUBLIC UTILITY COMMISSION
2	OF OREGON
3	UM 1727
4	In the Matter of
5 6	CASCADE NATURAL GAS STIPULATION CORPORATION,
7	Depreciation Study on All Gas Plant as Of December 31, 2013.
8	
9	This Stipulation is between Cascade Natural Gas Corporation (CNG or Company) and
10	the Staff of the Public Utility Commission of Oregon (Staff) (collectively, the Stipulating
11	Parties). ¹ This Stipulation includes the following exhibits: Staff-CNG/100 through Staff-
12	CNG/104.
13	On April 30, 2015, CNG filed with the Public Utility Commission of Oregon
14	(Commission) the results of a detailed depreciation study of its utility properties as of December
15	13, 2013, which include depreciation lives, survivor curves, and net salvage rates (collectively,
16	the "parameters") and depreciation rates for CNG's transmission, distribution, and general plant
17	assets. Based on the December 31, 2013 plant balances, the change in depreciation parameters
18	proposed by CNG would have resulted in an annual depreciation increase of approximately \$2.0
9	million.
20	On March 31, 2015 CNG filed an application for a general rate revision. CNG's
21	application was docketed as Docket No. UG 287. CNG requests in UG 287 for its rates to be
22	effective February 1, 2016. The depreciation rates that will be used in Docket UG 287 are the
23	rates set in this docket (UM 1727).
24	On August 18, 2015, CNG and Staff participated in a settlement conference. The
25	discussions resulted in a compromise settlement by the Stipulating Parties. Exhibits Staff-
26	¹ The Citizens' Utility Board of Oregon (CUB) is a party to this case. However, CUB has notified CNG and Staff that it has decided not to actively participate in the case.

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CNG/100 through Staff-CNG/102, included with this Stipulation, set forth the detailed account by-account depreciation parameters and rates that the Stipulating Parties agree should be adopted
 by the Commission.

The Stipulating Parties request that the Commission issue an order in this docket accepting the Stipulation. The Stipulating Parties have agreed to depreciation parameters and rates that would result in a net annual depreciation expense reduction of approximately \$1.985 million from the \$2.0 million depreciation increase originally proposed in this docket based on plant data as of December 31, 2013. Stated differently, CNG will have an annual depreciation expense increase of approximately \$35,797 as a result of this Stipulation.

10

TERMS OF STIPULATION

This Stipulation resolves all issues regarding CNG's application seeking a change in
 depreciation rates applicable to its plant.

2. The Stipulating Parties agree that the changes shown in Staff-CNG/101 (Table 1) is a
 complete list of all CNG depreciation parameters and depreciation expense and rates for all plant
 accounts.

3. Staff-CNG/102 (Table 2) is a list of all CNG depreciation parameters for the identified
lives, survivor curves, and net salvage for all plant accounts.

4. The revised depreciation parameters described above and set forth in Staff-CNG/101
and Staff-CNG/102 are reasonable and should be adopted.

5. The Parties support an effective date for the revised depreciation rates set forth in the Joint Testimony to be effective January 1, 2016 for accounting purposes only; the Parties support the revised depreciation rates to be effective for ratemaking purposes upon completion of Cascade's general rate case (UG 287).

6. The Stipulating Parties recommend and request that the Commission approve the
adjustments described herein as appropriate and reasonable resolutions of all issues in this docket
(UM 1727).

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Department of Justice 1162 Court Street NE Salem, OR 97301-4096 (503) 947-4520 / Fax: (503) 378-3784 7. The Stipulating Parties agree that this Stipulation is in the public interest and will
 result in rates that are fair, just and reasonable and, if approved, will meet the standard in ORS
 756.040.

8. The Stipulating Parties agree that this Stipulation represents a compromise in the positions of the parties. Without the written consent of all parties, evidence of conduct or statements, including but not limited to term sheets or other documents created solely for use in settlement conferences in this docket, are confidential and not admissible in the instant or any subsequent proceeding, unless independently discoverable or offered for other purposes allowed under ORS 40.190.

10 9. The Stipulating Parties have negotiated this Stipulation, with its accompanying exhibits, as an integrated document. If the Commission rejects all or any material part of this 11 12 Stipulation, or adds any material condition to any final order that is not consistent with this Stipulation, each Stipulating Party reserves its right to: (i) withdraw from the Stipulation, upon 13 14 written notice to the Commission and other Parties within five (5) business days of service of the final order that rejects this Stipulation, in whole or material part, or adds such material condition; 15 (ii) pursuant to OAR 860-001-0350(9), to present evidence and argument on the record in 16 17 support of the Stipulation, including the right to cross-examine witnesses, introduce evidence as deemed appropriate to respond fully to issues presented, and raise issues that are incorporated in 18 the settlement embodied in this Stipulation; and (iii) pursuant to ORS 756.561 and OAR 860-19 20 001-0720, to seek rehearing or reconsideration or to appeal the Commission order under ORS 756.610. Nothing in this paragraph provides any Party the right to withdraw from this 21 Stipulation as a result of the Commission's resolution of issues that this Stipulation does not 22 23 resolve.

10. This Stipulation will be offered into the record in this proceeding as evidence
pursuant to OAR 860-01-0350(7). The Stipulating Parties agree to support this Stipulation
throughout this proceeding and in any appeal, provide witnesses to support this Stipulation (if

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Department of Justice 1162 Court Street NE Salem, OR 97301-4096 (503) 947-4520 / Fax: (503) 378-3784

1 specifically required by the Commission), and recommend that the Commission issue an order 2 adopting the settlements contained herein. The Stipulating Parties also agree to cooperate in 3 drafting and submitting an explanatory brief and written testimony per OAR 860-001-0350(7), unless such requirement is waived. By entering into this Stipulation, no Stipulating Party shall 4 be deemed to have approved, admitted or consented to the facts, principles, methods or theories 5 employed by any other Party in arriving at the terms of this Stipulation. Except as provided in 6 7 this Stipulation, no Stipulating Party shall be deemed to have agreed that any provision of this 8 Stipulation is appropriate for resolving issues in any other proceeding.

9 This Stipulation may be signed in any number of counterparts, each of which will be an 10 original for all purposes, but all of which taken together will constitute one and the same 11 agreement.

12	DATED this _//	day of September	, 2015.		
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Department of Justice 1162 Court Street NE Salem, OR 97301-4096 (503) 947-4520 / Fax: (503) 378-3784

UM 1727 Staff - CNG / 100 Peng - Weinert

BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

UM 1727

CASCADE NATURAL GAS CORPORATION

Joint Testimony in Support of Stipulation

Ming Peng Jerome C. Weinert

August 19, 2015

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I. Introduction

1	Q.	Please state your names and positions with Cascade Natural Gas Corporation.
2	A.	My name is Ming Peng. I am a Senior Economist for the Public Utility Commission of
3		Oregon (OPUC or Commission). My business address is 201 High St SE Suite 100, Salem,
4		OR 97301.
5		My name is Jerome C. Weinert. I am Principal and Director of AUS Consultants -
6		Depreciation and Valuation Services. My business address is 8555 West Forest Home
7		Avenue, Suite 201, Greenfield, WI 53228. I represent Cascade Natural Gas Corporation
8		(CNG or Company) in this docket.
9		Our qualification statements are found in Exhibits 103 and 104, respectively.
10	Q.	What is the purpose of your testimony?
11	A.	This testimony addresses the depreciation study CNG filed with the Commission on April
12		30, 2015. The Commission docketed Cascade's filing as Docket No. UM 1727 (UM 1727).
13		The purpose of our testimony is to describe our analysis and to support the Stipulation
14		reached between CNG and Commission Staff, collectively referred to as the "Stipulating
15		Parties." The adjustments discussed in the Stipulation are reasonable and, for its part, will
16		yield fair and equitable rates if adopted by the Commission in its final order in this docket.
17	Q.	What precipitated this proceeding?
18	А.	Pursuant to Oregon Revised Statue (ORS) 757.140, "Each public utility shall conform its
19		depreciation accounts to the rates so ascertained and determined by the commission." In
20		compliance with the ORS 757.140, CNG filed a depreciation study with the Commission on
21		April 30, 2015. All assets in the study are included at December 31, 2013 in traditional

II. Summary of Proceeding

A. Depreciation Study Results

1 Q. Please summarize CNG's depreciation study proposal.

A. CNG's depreciation study recommended revisions in depreciation lives, survivor curves,
and net salvage rates for all plant accounts, and a revision to the average remaining life
methodology for plant assets.

5 In CNG's depreciation study, the company updated its depreciation parameters 6 (depreciation lives, survivor curves and net salvage rates). The straight-line remaining life 7 and average service life group depreciation rates were calculated using plant and reserve 8 balances and vintaged plant in-service balances at December 31, 2013.

In this filing, CNG requests that the Commission prescribe the depreciation rates
derived from, and included with, the Iowa survivor curve and life combinations in the
Stipulation, and that the rates be fixed until the effective date, as determined by the
Commission, in context with Cascade's the next depreciation study filing. The prescription
of depreciation rates is the industry standard.

The depreciation rates initially proposed in UM 1727 would have resulted in an annual depreciation expense increase of approximately \$2.0 million. The differences are based upon a comparison of 2013 depreciation expense using as-filed depreciation study rates to 2013 depreciation expense using currently approved depreciation parameters. Both depreciation estimates incorporate estimated plant in-service and reserve balances at December 31, 2013.

B. Stipulated Results

20 Q. Did Staff independently review the depreciation study?

1	А.	Yes, Staff performed an independent review of CNG's depreciation statistics and
2		recommended depreciation parameters for numerous depreciation groups. Utility
3		depreciation expense includes components for both the recovery of the original cost of the
4		asset and an estimate of net salvage costs (gross salvage less cost of removal) at retirement.
5		The depreciation rate utilized will ensure an appropriate level of total cost allocation to the
6		customers who benefit from the asset's service, based upon the best estimate of useful
7		service life. (See Introduction to Depreciation - for Public Utilities and Other Industries,
8		page 111, April 2013.) Staff proposed two types of adjustments. The first type of
9		adjustment concerns Iowa survivor curves and projected average service lives. The second
10		type of adjustment concerns net salvage rates.
11	Q.	Did Staff's analysis suggest adjustments to CNG's proposal?
12	A.	Yes. Staff's proposed six adjustments concerning Iowa survivor curves and projected
13		average service lives, and 12 adjustments concerning net salvage rates.
14	Q.	Were Staff and CNG able to resolve the study differences for the gas plant accounts?
15	A.	Yes, the differences were resolved in a settlement meeting held on August 18, 2015. Staff
16		accepted most of CNG's proposals for its FERC 300 level accounts. The Staff positions that
17		differed from CNG's filing were reasonably close to those requested by CNG. After
18		considerable discussion and an understanding of the methods for all plant assets at existing
19		facilities, Staff and CNG reached the final agreement in settlement discussions as showed in
20		Exhibit 102, Table 2. The Stipulating Parties recommend that the Commission adopt the
21		position outlined in the Stipulation.
22	O .	What is the final impact on estimated depreciation expense due to settlement

23 discussions?

1	A	١.	The result of the settlement is a depreciation expense of \$20,552,192 or a depreciation rate
2			of 2.77% as of December 31, 2013 as shown in Exhibit 101, Table 1. The net annual
3	,		difference in depreciation expense, when comparing the final settlement position to the
4			depreciation study as-filed, is a reduction of approximately \$1.985 million.
5	Q	2.	Please describe the analyses that CNG and Staff performed regarding CNG's
6			depreciation study.
7	А	٩.	CNG and Staff both considered Iowa survivor curves and average service lives as well as net
8			salvage rates. The review procedures included the selection of the capital recovery
9			parameters of retirement dispersion (survivor curve), service life projections for the future,
10			salvage, and cost of removal projections for the future.
11	Q	2.	How did CNG and Staff analyze Iowa Curves and Average Service Lives?
12	A	٩.	Both CNG and Staff utilized the plant balances to analyze historical retirement data to help
13			determine Iowa survivor curves and average service lives for each depreciation group. For
14			survivor curve fitting purposes, CNG and Staff utilized the ordinary least-squares statistical
15			method. Under this method, the Iowa survivor curve alternative resulting in a "fit" with the
16			smallest sum of squared differences (fit to actual) is considered to be the best fit and to be
17			indicative of average life and retirement dispersion of the account. The following table
18			shows the depreciation groups for which the Staff analyses produced differing results from
19			CNG, and the final position agreed to by the parties in settlement discussions.

UM 1727 – Settlement Adjustments to Depreciation Study Survivor Curve-Projection Life and Net Salvage Rate

August 18, 2015

8/18/2015		Proposed Depreciation Parameters			Settled Depreciation Parameters			
UM 1727-CNG	-	AS FILED	AS FILED			SETTLEMENT AGREEMENT		
Account Description	FERC Account #	Survivor Curve	Projection Life years	Net Salvage Percent	Survivor Curve	Projection Life years	Net Salvage % of OC	
Transmission Plant			·			r		
Rights of Way	365.20	S5.0	65	0%	S5.0	65	0%	
Mains	367.00	S5.0	65	-20%	S5.0	65	-20%	
Meas. & Reg.Station Equip.	369.00	R2.5	50	-10%	R2.5	50	-10%	
Total Transmission Plant								
Distribution Plant		1	2				-	
Land Rights	374.20	R2.0	60	0%	R2.0	60	0%	
Structures and Improvements	375.10	R4.0	40	-5%	R4.0	40	0%	
Leasehold Improvements	375.20	R2.0	26	0%	R2.0	26	0%	
Mains	376.10	R4.0	75	-100%	R4.0	75	-80%	
Mains - High Pressure	376.20	R2.5	85	-23%	R2.5	85	-18%	
Mains - Polyethylene	376.30	L3.0	36	-30%	L3.0	36	-26%	
Compressor Station Equip.	377.10	R3.0	35	-5%	R3.0	35	0%	
Meas. & Reg.Sta General	378.10	L1.0	60	-40%	L1.0	60	-30%	
Services	380.10	R5.0	56	-160%	R5.0	56	-135%	
Services - Polyethylene	380.30	S4.0	35	-30%	S4.0	35	-30%	
Meters	381.00	S2.0	42	0%	S2.0	42	0%	
Meter Installations	382.10	R3.0	55	-15%	R3.0	55	-15%	
Regulators	383.00	R3.0	42	0%	R50	45	0%	
Ind'l Meas. & Reg.Sta Equip	385.00	R2.0	38	-10%	R2.0	38	0%	
Asset Retirement Obligation	388.00	R2.0	38	0%	R2.0	38	0%	
Total Distribution Plant	2							

General Plant

				,,			
Structures & Improvements	390.10	R3.0	45	0%	R3.0	45	0%
Leasehold Improvements	390.20	S1.0	30	0%	S1.0	30	0%
Computer System	391.10	L1.0	8	6%	L0.0	10	6%
Computer Softwares	391.20	L3.0	8	0%	L3.0	8	0%
Data Communication System	391.30	S6.0	7	0%	SQ	11	0%
Office Equipment	391.40	R1.0	15	0%	R1.0	15	0%
Office Furniture & Fixtures	391.00	R1.0	25	0%	R1.0	25	0%

Transportation Equipment -					1	[]	1
Trailers	392.10	L3.0	24	3%	L3.0	24	3%
Transportation Equipment	392.20	L1.0	11	15%	L1.0	11	18%
Stores Equipment	393.10	S6.0	33	0%	S6.0	33	0%
Tools, Shop & Garage Equip.	394.10	S6.0	31	0%	S6.0	31	0%
CNG Equipment	394.20	R4.0	31	0%	R4.0	31	0%
Laboratory Equipment	395.10	R5.0	25	0%	R5.0	25	0%
Power Operated Equipment - Trailers	396.10	L2.0	17	25%	L2.0	17	25%
Power Operated Equipment	396.20	L1.5	15	25%	L1.5	15	30%
Comm. Equip - Base Station	397.10	R2.0	20	0%	R2.0	20	0%
Comm. Equip - Telemetering	397.20	L1.0	18	0%	L1.0	18	0%
Comm. Equip - Telex & Tel.	397.30	L1.5	12	0%	L1.5	12	0%
Comm. Equip - Mobile	397.40	R5.0	12	0	R5.0	12	0%
Miscellaneous Equipment	398.10	R3.0	20	0%	R3.0	20	0%

Total General Plant

1

2 Q. How did CNG and Staff determine curve-lives?

A. Iowa survivor curve-projection life selection was based on Company's raw data, and Staff
also compared data from other gas companies. The curve-life statistic is the minimum sum
of the normalized squared deviations. Normalization is done by dividing each deviation by
the corresponding observed balance. The selected survivor curve-projection lives were
made in the average service life or dispersion curve (or both) for the FERC account
categories in the Transmission Plant, Distribution Plant, and General Plant.

9 Q. Could you provide examples of how the Stipulating Parties agreed upon the curve-life
 adjustment?

A. Yes. The Staff position for the Distribution Plant Account 383 Regulators was a curve life
combination of R5-45 (R5 type of dispersion and 45 year of average service life). The CNG
Study recommendation was R3-42. In settlement discussions, CNG discussed the statistical
support underlying the R3-42 curve life combination it requested in the filing. Staff
evaluated that curve life combination in a statistical model, finding that R5-45 was a better

1		fit for a set of observations than was R3-42. CNG believes that the Oregon Staff's
2		recommendation of R5.0 Iowa survivor curve with a 45 year life is not significantly different
3		than the historical evidence. CNG recommended R3.0 Iowa survivor curve with a 42 year
4		life and accepts Staff's recommendation of R5-45.
5		The Staff position for Account 391.3 Data Communication System was a curve life
6		combination of SQ-15. CNG requested an S6-7 in its filing. Staff evaluated that curve life
7		combination in a statistical model. Given the lack of retirement activity, and assuming the
8		actual life is equal to the average life, Staff believes that the SQ-15 (square survivor curve)
9		for a set of observations is more pertinent for this account. However, CNG believes that a
10		service life of seven years with a S6.0 curve is preferred, especially with the longer band
11		retirement bands which contain more retirement and survival data. Unlike the computer
12		equipment account, the data communications account continues to have investment
13		additions. For settlement purposes, the Stipulating Parties agreed to a curve of SQ-11 for
14		this depreciation study which both parties find supportable and fair.
15	Q.	Why it is important to include a net salvage component in depreciation rates?
16	Α.	The annual depreciation rate is the ratio of plant costs, adjusted for net salvage value, that
17		are allocated to a one-year period in accordance with a rational and consistent plan of
18		allocation over the average service life of the property.
19		It is important to include a net salvage component in depreciation rates for proper cost
20		allocation. For example, assume an account with assets costing \$100. Further, assume a net
21		salvage cost of \$80 is required to retire the \$100 of assets at the end of their lives. That
22		equates to a net salvage percentage of negative 80 percent. Instead of only allocating the
23		installed cost of \$100, to ensure equitable cost allocation to customers receiving the service

1		value, \$180 of cost allocation is required over the lives of the assets. Without the inclusion
2		of the \$80 in net cost to retire the assets, the company will not be made whole, the equitable
3		cost allocation will not occur, and customers who have benefitted from the use of the assets
4		will not pay the full cost of the assets. (See Introduction to Depreciation - for Public Utilities
5		and Other Industries, page 112, April 2013.)
6	Q.	How did CNG and Staff determine net salvage rates?
7	А.	To set the proper net salvage rates, CNG and Staff thoroughly studied the observed data for
8		plant assets to help estimate net salvage characteristics and help determine future net salvage
9		trends.
10		Net salvage is the difference between gross salvage and cost of removal. Net salvage is
11		positive when gross salvage exceeds the "cost of removal" and reduces the revenue
12		requirement. Conversely, net salvage is negative when cost of removal exceeds gross
13		salvage and increases the revenue requirement. FERC defines cost of removal as "the cost of
14		demolishing, dismantling, tearing down, or otherwise removing retirements of utility plant,
15		including the cost of transportation, and handling incidental thereto."(See FERC 18 CFR 4-
16		1-12 Edition, Pt 101, Definition 10, Pg. 365).
17		To determine net salvage rates for its facilities, the analysis relied primarily upon
18		historical retirement data. Both CNG and Staff utilized the statistical methods of overall
19		averages, and rolling band analyses, to study historical data to help estimate net salvage
20		characteristics. Banding is the compositing of a number of years of data in order to merge
21		them into a single data set for further analysis. By making determinations of the net salvage
22		indicated in successive bands, a clear indication of whether there is a trend in the net salvage

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experience. The rolling bands analyses have the selection of three and five years bandwidth to detect trends.

3 Q. How were net salvage rates adjusted for plant assets?

A. For Account 376.1 Distribution Plant Mains, CNG recommended a net salvage rate of
negative 100% (-100%). Based upon Staff's analysis, CNG's year-by-year net salvage rate
was negative 67 percent (-67%), the 3-year and 5-year rolling bands results were negative 55
percent (-55%) and negative 54 percent (-54%) respectively. Based on CNG's actual asset
retirement and cost removal level, Staff recommends the net salvage level at negative 59
percent (-59%) for Account 376.1 which is similar to CNG's current net salvage of negative
60 percent (-60%).

11 In the settlement meeting, Staff reasoned that the term of cost of removal in some cases is not suitably described by its definition. An example of this is the retirement of gas mains 12 (Mains). With Mains, the property would not be physically removed when the Mains and 13 services are retired, and they are retired in place (abandonment in place). Therefore, based 14 on the analysis, Staff believes that a negative 100 percent (-100%) of net salvage rate for gas 15 16 Mains account is too high. CNG countered with the argument that even though these assets are retired in place, there would normally be costs involved in retiring them (e.g., cutting, 17 capping or purging the pipe). Also, data in the more recent periods, the costs of 18 19 removal/abandonment are high and net salvage rates were lower than a negative 100 percent 20 (-100%). After discussion, the Stipulating Parties agreed that a net salvage rate of (-80%) for Account 376.1 Distribution Plant Mains was supportable and reasonable. 21

22

1	For Account 376.2 Distribution Plant Mains – High Pressure, CNG recommended a net
2	salvage rate of (-23%). Staff's analysis was based on CNG's actual asset retirement
3	activities and cost removal level, and Staff recommended the net salvage level at negative 13
4	percent (-13%) for Account 376.2. CNG explained that Account 376.2 has a salvage of 0%
5	and cost of removal / abandonment of (-23%). Also, net salvage experience is highly
6	correlated to scrap material prices for salvage, labor costs related to removal and inflation
7	rates over the life of the plant. Therefore, when analyzing such data, emphasis must be
8	placed on more recent periods.
9	Given the consideration of the labor economics that the functioning and dynamics of the
10	markets for wage labor is increasing, and net salvage economics that the factors which
11	determine the production, distribution and consumption of goods and services is changing,
12	both Staff and CNG gave more weight to more recent net salvage activities to deal with the
13	upward trend of labor cost. The Stipulating Parties agreed upon a negative 18 percent
14	(-18%) for Account 376.2. The compromise net salvage rate is less negative than the rate
15	currently filed by the CNG.
16	For Account 377.1, Compressor Station Equipment under the Distribution Plant, Staff's
17	position is a net salvage rate of 0%, while CNG proposed a net salvage rate of negative five
18	percent (-5%). The account 377.1 (distribution plant compressor station equipment), the
19	capital addition was placed in 2002, but it has not experienced any retirements. CNG's net
20	salvage was based on engineering judgment at a negative five percent (-5%). Given the lack
21	of retirement activity over the past 13 years from 2000 to 2013, where the average net
22	salvage rate was zero percent, Staff recommends the net salvage level at zero percent (0%)

- for Account 377.1. CNG accepted the Staff's 0% net salvage until such time when
 additional net salvage evidence is available.
- For Account 378.1, Distribution Plant Measuring & Regulating (M&R) Station 3 4 Equipment, Staff's position was a salvage level of negative 18 percent (-18%). CNG 5 proposed a salvage level of negative 40 percent (-40%). Staff's analysis for the year-by-year 6 net salvage rate was negative 31 percent (-31%), the 3-year and 5-year rolling bands results were negative 13 percent (-13%) and negative 9 percent (-9%) respectively. Based on 7 8 CNG's actual asset retirement and cost removal level. Staff recommended the average net salvage level at negative 18 percent (-18%) for Account 378.1. CNG countered with the 9 argument that the Company's net salvage experience is very sporadic and contains a single 10 11 large salvage amount of \$156,619 in 2005 which make the review of the net salvage difficult. Cascade also noted that most other salvage entries are \$0. In order to eliminate the 12 impact of the 2005 retirement and its associated salvage and removal cost, the bands were 13 recalculated removing that data. As is demonstrated by the yearly data and the modified 14 banded data, salvage is indicated at 0% and cost of removal ranges from 49% to 73.2%, 15 resulting in net salvage of a negative 49.1% (-49.1%) to a negative 73.2% (-73.2%). The 16 Stipulating Parties reconsidered the impact of outlier data point, and agreed to utilize a net 17 salvage rate of -30% for this study, based upon the lack of retirement activity. 18

The Staff position for Account 380.1, Distribution Plant Services, is a salvage level of negative 113 percent (-113%). CNG proposed a salvage level of negative 160 percent (-160%). Staff's analysis from year-by-year net salvage rate was negative 117 percent (-117%), the 3-year and 5-year rolling bands results were negative 116 percent (-116%) and (negative) 105 percent (-105%) respectively, based on CNG's actual asset retirement and

cost removal level. Therefore, Staff recommended the average net salvage level at negative
 113 percent (-113%) for Account 380.1.

In settlement negotiation, CNG countered with the argument that Company's net 3 salvage experience is irregular and contains a single large salvage amount of \$466,617 in 4 2005 which makes the review of the net salvage difficult. Most other salvage entries are \$0. 5 In order to eliminate the impact of the 2005 retirement and its associated salvage and 6 removal cost, the bands were recalculated removing that data. As is demonstrated by the 7 yearly data and the modified banded data, salvage is indicated at 0% and cost of removal 8 ranges from 125.4 percent to 220.0 percent resulting in net salvage of a negative 125.4 9 10 percent (-125.4%) to a negative 220.0 percent (-220%).

For settlement purpose, the Stipulating Parties settled with a negative 135 percent (-135%) for this study. This agreement is based upon overall historical net salvage data and the expectations of future costs. The parties agreed that the net salvage position of negative 135 percent (-135%) for this depreciation study would reflect the Company's experience.

15 Q. Please summarize your recommendations to the Commission.

A. The Stipulating Parties request that the Commission make the revised depreciation rates set
 forth in the Joint Testimony effective January 1, 2016 for accounting purposes only; the
 revised depreciation rates would then become effective for ratemaking purposes upon
 completion of Cascade's general rate case (UG 287).

20 Q. Have Stipulating Parties discussed the date for the next depreciation filing?

A. Yes. In the settlement meeting, CNG agreed to file a new detailed depreciation study within
 five years of the date of the Company's most recent filing – i.e. within five years of
 April 30, 2015.

Q. Does this conclude your testimony?

2 A. Yes.

List of Exhibits

CNG Exhibit		Description								
101	, , ,	Table 1. Settlement Results - Cascade Depreciation Summary								
102		Table 2. Settlement Adjustments – Parameter Comparison								
103		Witness Qualification Statement: Ming Peng								
104		Witness Qualification Statement: Jerome C. Weinert								

UM 1727, Exhibit 101 - Table 1

TABLE1. S				examples and a standard second a consideration	ORIGINAL COST, BOO		ALCULATED	er e	
UM 1727, Exhibit 101	ANNUA	AL DEPRI		CRUALS RELATED TO G	AS PLANT AT DECEMBE	K 31, 2013	1	1	1
				ORIGINAL COST	BOOK RESERVE		CALCU	LATED	COMPOSIT
	SURV	IVOR	SALVAGE	AT	AT	FUTURE	ANNUAL A	CCRUAL	REMAININ
ACCOUNT	CUF	CURVE		DECEMBER 31, 2013	DECEMBER 31, 2013	ACCRUALS	AMOUNT	RATE	LIFE
(1)	(2	2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7
RANSMISSION PLANT	a and go composition								
365.2 Rights of Way	S5.0	65	0%	1,026,089	723,038	303,164	16,212	1.58%	18.7
367.1 Mains	S5.0	65	-20%	15,804,274	9,718,327	9,261,944	287,638	1.82%	32.2
369.1 Meas. & Reg.Station Equip.	R2.5	50	-10%	198,115	207,794	10,069	812	0.41%	12.4
				47 000 470	40 640 450	0 676 477	204 662	. 1.79%	31.4
OTAL TRANSMISSION PLANT				17,028,478	10,649,159	9,575,177	304,662	. 1./9%	31.4
				na ai memane serence en					
STRIBUTION PLANT									
374.2 Land Rights	R2.0	60	0%	2,024,481	555,373	1,472,922	38,060	1.88%	38.7
375.1 Structures and Improvemen		40	0%	1,457,570	1,259,530	197,380	17,782	1.22%	11.1
375.2 Leasehold Improvements	R2.0	26	0%	1,457,570	564	655	156	12.80%	4.2
376.1 Mains	R4.0	75	-80%	125,838,733	95,299,863	130,947,780	2,768,452	2.20%	47.3
376.2 Mains - High Pressure	R2.5	85	-18%	125,140,041	36,642,755	110,592,546	1,564,251	1.25%	70.7
376.3 Mains - Polyethylene	L3.0	36	-26%	110,360,600	26,989,236	112,124,168	4,557,893	4.13%	24.6
377 Compressor Station Equip.	R3.0	35	0%	2,000,731	1,147,763	854,712	35,613	1.78%	24.0
378 Meas. & Reg.Sta General	L1.0	60	-30%	21,468,661	7,185,579	20,774,779	412,198	1.92%	50.4
380.1 Services	R5.0	56	-135%	75,986,423	103,363,585	75,151,336	2,530,348	3.33%	29.7
380.3 Services - Polyethylene	S4.0	35	-30%	113,058,770	39,549,158	107,473,660	4,386,680	3.88%	24.5
381 Meters	S2.0	42	0%	47,965,227	16,046,526	31,902,162	1,088,811	2.27%	29.3
382 Meter Installations	R3.0	55	-15%	30,029,637	11,908,944	22,565,460	558,551	1.86%	40.4
383 Regulators	R5.0	45	0%	9,922,839	3,577,768	6,353,796	230,210	2.32%	27.6
385 Ind'l Meas. & Reg.Sta Equip	R2.0	38	0%	8,890,422	3,536,036	5,349,184	193,811	2.18%	27.6
388 Asset Retirement Obligation	R2.0	38	0%	48,962	39,792	30,905	1,493	3.05%	20.7
e e a Junite communication de la communication de la communication de la communication de la communication de l									
TOTAL DISTRIBUTION PLANT				674,194,316	347,102,470	625,791,445	18,384,309	2.73%	34.0
SENERAL PLANT									-
390.1 Structures & Improvements	R3.0	45	0%	17,480,754	10,720,055	6,784,619	216,761	1.24%	31.3
390.2 Leasehold Improvements	S1.0	30	0%	16,808	32,657	0	0	0.00%	4.9
391.1 Computer System	L0.0	10	6%	92,213	86,365	317	46	0.05%	6.9
391.2 Computer Softwares	L3.0	8	0%	3,306,327	3,306,327	0	0	0.00%	3.5
391.3 Data Communication System		11	0%	1,742,736	16,594	1,726,422	283,020	16.24%	6.1
391.4 Office Equipment	R1.0	15	0%	390,712	(240,421)	631,163	67,867	17.37%	9.3
391.5 Office Furniture & Fixtures	R1.0	25	0%	1,623,532	(116,110)	1,738,318	80,852	4.98%	21.5
392.1 Transportation Equip-Trailer		24	3%	476,107	223,385	238,452	14,997	3.15%	15.9
392.2 Transportation Equipment	L1.0	11	18%	11,218,709	3,815,356	5,381,618	689,951	6.15%	7.8
393 Stores Equipment	S6.0	33	0%	55,776	4,236	51,519	2,978	5.34%	17.3
394.1 Tools, Shop & Garage Equip	. S6.0	31	0%	5,672,068	1,650,158	4,018,327	201,926	3.56%	19.9
394.2 CNG Equipment	R4.0	31	0%	127,445	113,108	14,305	2,345	1.84%	6.1
395 Laboratory Equipment	R5.0	25	0%	138,043	58,603	79,375	6,350	4.60%	12.5
396.1 Pow er Operated Equip-Trai		17	25%	. 464,441	177,196	170,994	14,491	3.12%	11.8
396.2 Pow er Operated Equipment	L1.5	15	30%	2,452,121	294,109	1,422,624	127,020	5.18%	11.2
397.1 Comm. Equip - Base Station		20		328,232	166,411	161,644	14,967	4.56%	10.8
397.2 Comm. Equip - Telemetering	L1.0	18		3,489,559	3,443,101	47,628	4,536	0.13%	10.5
397.3 Comm. Equip - Telex & Tel.	L1.5	12		799,129	227,099	572,208	73,360	9.18%	7.8
397.4 Comm. Equip - Mobile	R5.0	12		615,452	(1,293)	617,048	57,668	9.37%	10.7
398 Miscellaneous Equipment	R3.0	20	0%	38,881	(17,908)	56,795	4,086	10.51%	13.9
TOTAL GENERAL PLANT			1	50,529,045	23,959,026	23,713,376	1,863,221	3.69%	12.7
				00,020,040	£0,000,0E0		1,000,841	0.0070	
						1			
TOTAL DEPRECIABLE PLANT				741,751,839	381,710,655	659,079,998	20,552,192	2.77%	32.1

Exhibit 102 – Table 2 – page 1 - UM 1727

UM 1727	CASCADE NATURAL GAS CORPORATION										
Exhibit 102			COMP	ARISON OF ES	TIMATED	SURVIV	OR CURVES	& NET SA	LVAGE		
Table 2											
		CN	IG PROP	OSED	STAFF PRE-SETTLEMENT			08	-18-15 SE	TTLED	
		PARAMETERS			PARAMETERS			PARAMETERS			
		SURVIVOR CURVE-LIFE		NET	SURVIVOR CURVE-LIFE		NET SALVAGE	SURVIVOR CURVE-LIFE		NET	
	АССТ										
		TYPE	YEAR	%	TYPE	YEAR	%	TYPE	YEAR	%	
	(1)	(2) (3)		(3)	(4)		(5)	(6))	(7)	
Transmission Plant											
Rights of Way	365.20	S5.0	65	0%	S5.0	65	0%	S5.0	65	0%	
Mains	367.00	S5.0	65	-20%	S5.0	65	-20%	S5.0	65	-20%	
Meas. & Reg.Station Equip.	369.00	R2.5	50	-10%	R2.5	50	-10%	R2.5	50	-10%	
Total Transmission Plant											
				1							
Distribution Plant											
Land Rights	374.20	R2.0	60	0%	R2.0	60	0%	R2.0	60	0%	
Structures and Improvements	375.10	R4.0	40	-5%	R4.0	40	0%	R4.0	40	0%	
Leasehold Improvements	375.20	R2.0	26	0%	R2.0	26	0%	R2.0	26	0%	
Mains	376.10	R4.0	75	-100%	R4.0	75	-59%	R4.0	75	-80%	
Mains - High Pressure	376.20	R2.5	85	-23%	R2.5	85	-13%	R2.5	85	-18%	
Mains - Polyethylene	376.30	L3.0	36	-30%	L3.0	36	-19%	L3.0	36	-26%	
Compressor Station Equip.	377.10	R3.0	35	-5%	R3.0	35	0%	R3.0	35	0%	
Meas. & Reg.Sta General	378.10	L1.0	60	-40%	L1.0	60	-18%	L1.0	60	-30%	
Services	380.10	R5.0	56	-160%	R5.0	56	-113%	R5.0	56	-135%	
Services - Polyethylene	380.30	S4.0	35	-30%	S4.0	35	-30%	S4.0	35	-30%	
Meters	381.00	S2.0	42	0%	S2.0	42	0%	S2.0	42	0%	
Meter Installations	382.10	R3.0	55	-15%	. R3.0	55	-15%	R3.0	55	-15%	
Regulators	383.00	R3.0	42	0%	R5.0	45	0%	R50	45	0%	
Ind'l Meas. & Reg.Sta Equip	385.00	R2.0	38	-10%	R2.0	38	14%	R2.0	38	.0%	
Asset Retirement Obligation	388.00	R2.0	38	0%	R2.0	38	0%	R2.0	38	0%	
Total Distribution Plant									and and and		

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Exhibit 102 – Table 2 – page 2 - UM 1727

General Plant										
Structures & Improvements	390.10	R3.0	45	0%	R3.0	45	0%	R3.0	45	0%
Leasehold Improvements	390.20	S1.0	30	0%	L5.0	60	0%	S1.0	30	0%
Computer System	391.10	L1.0	8	6%	L0.0	10	6%	L0.0	10	6%
Computer Softw ares	391.20	L3.0	8	0%	L3.0	8	0%	L3.0	8	0%
Data Communication System	391.30	S6.0	7	0%	SQ	15	0%	SQ	11	0%
Office Equipment	391.40	R1.0	15	0%	R1.0	15	0%	R1.0	15	0%
Office Furniture & Fixtures	391.00	R1.0	25	0%	R1.0	25	0%	R1.0	25	0%
Transportation Equip-Trailers	392.10	L3.0	24	3%	L3.0	24	3%	L3.0	24	3%
Transportation Equipment	392.20	L1.0	11	15%	L1.0	11	18%	L1.0	11	18%
Stores Equipment	393.10	S6.0	33	0%	S6.0	33	0%	S6.0	33	0%
Tools, Shop & Garage Equip.	394.10	S6.0	31	0%	S6.0	31	0%	S6.0	31	0%
CNG Equipment	394.20	R4.0	31	0%	R4.0	31	0%	R4.0	31	0%
Laboratory Equipment	395.10	R5.0	25	0%	R5.0	25	0%	R5.0	25	0%
Pow er Operated Equipt-Trailers	396.10	L2.0	17	25%	L2.0	17	40%	L2.0	17	25%
Pow er Operated Equipment	396.20	L1.5	15	25%	L1.5	15	60%	L1.5	15	30%
Comm. Equip - Base Station	397.10	R2.0	20	0%	R5.0	40	0%	R2.0	20	0%
Comm. Equip - Telemetering	397.20	L1.0	18	0%	L1.0	18	4%	L1.0	18	0%
Comm. Equip - Telex & Tel.	397.30	L1.5	12	0%	L1.5	12	0%	L1.5	12	0%
Comm. Equip - Mobile	397.40	R5.0	12	0%	L5.0	25	0%	R5.0	12	0%
Miscellaneous Equipment	398.10	R3.0	20	0%	R3.0	20	0%	R3.0	20	0%
Total General Plant										
Total Depreciable		- 10 Mar - 1 Ma 		ana ana amin'ny faritr'o amin'ny faritr'o amin'ny faritr'o amin'ny faritr'o amin'ny faritr'o amin'ny faritr'o a Jeografia						

Docket No. UM 1727

Staff/ 103 Peng/1

WITNESS QUALIFICATIONS STATEMENT

NAME:

TITLE:

MING PENG (Ms.)

EMPLOYER:

PUBLIC UTIILTY COMMISSION OF OREGON

Senior Economist Utility Program Energy Rates Finance and Audit Division

ADDRESS:

3930 Fairview Industrial Dr. SE Salem, Oregon 97302

EDUCATION:

M.S. Applied Economics University of Idaho, Moscow

B.S. Statistics People's University of China, Beijing

C.R.R.A. Certified Rate of Return Analyst Society of Utility and Regulatory Financial Analysts

Depreciation studies - the Society of Depreciation Professionals

NARUC Annual Regulatory Studies Program Michigan State University, East Lansing

EXPERIENCE:

1/11/1999-Present

I have been employed by the Public Utility Commission of Oregon (OPUC) since January 1999, working in a wide area of topics and testifying in various formal state hearings, with my current responsibility focusing most on the review of energy utility depreciation rates. Docket No. UM 1727

CNG/ 104 Weinert/1

WITNESS QUALIFICATIONS STATEMENT

NAME: JEROME C. WEINERT

EMPLOYER: AUS CONSULTANTS

TITLE: Principal & Director

ADDRESS:

8555 West Forest Home Avenue, Suite 201 Greenfield, Wisconsin 53228

EDUCATION:

M.S. Mechanical Engineering 1972 Milwaukee School of Engineering Milwaukee, Wisconsin

Master of Business Administration 1988 Marquette University Milwaukee, Wisconsin

PROFESSIONAL AFFILIATION:

Certified Depreciation Professional (CDP) - 1999 Society of Depreciation Professionals

Founding Member 1987

Offices served – Secretary, Treasurer, Vice President, President, Past President

Accomplishments - Developed Society's Certification and Re-certification Programs and administered each in their formative years

Registered Professional Engineer (PE) - 1976 State of Wisconsin

Accredited Senior Appraiser (ASA) – Public Utilities -1982 American Society of Appraisers Docket No. UM 1727

CNG/ 104 Weinert/2

WITNESS QUALIFICATIONS STATEMENT

EXPERIENCE:

1987-Present

AUS Consultants – Valuation and Depreciation Group Associated Utility Services, Inc. (AUS Inc.) Performing depreciation studies and appraisals for utility companies in the gas, electric, telephone, and water industries

1970- 1986

American Appraisal Associates

Performed depreciation studies and appraisals for utility companies in the gas, electric, telephone, and water industries

TESTIMONY EXPERIENCE:

Mr. Weinert has appeared before regulatory bodies in Alaska, Arkansas, Illinois, Indiana, Iowa, Missouri, Nevada, Nebraska, North Carolina, Ohio, Oregon, and South Carolina in support of rate-base valuation determination and capital recovery. He has presented testimony on depreciation matters before the Canadian Radio-Television and Telecommunications Commission (CRTC) and the United States Federal Energy Regulatory Commission (FERC). He has submitted study results to the State Commissions of Alabama. Alaska, Arkansas, Idaho, Illinois, Indiana, Iowa, Kentucky, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, North Carolina, Oregon, Pennsylvania, South Carolina, Washington, and Wisconsin, and the Federal Communications Commission (FCC).