

**Exh. RMM-1T
Dockets UE-220066, UG-220067,
UG-210918
Witness: Roxie M. McCullar**

**BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,**

Complainant,

v.

PUGET SOUND ENERGY,

Respondent.

**DOCKETS UE-220066, UG-220067,
UG-210918 (*Consolidated*)**

In the Matter of the Petition of

PUGET SOUND ENERGY

**For an Order Authorizing Deferred
Accounting Treatment for Puget Sound
Energy's Share of Costs Associated with
the Tacoma LNG Facility**

TESTIMONY OF

ROXIE M. MCCULLAR

**ON BEHALF OF STAFF OF
WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION**

Depreciation

July 28, 2022

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1 I. INTRODUCTION

2

3 **Q. Please state your name, present occupation, and business address.**

4 A. My name is Roxie McCullar. Since 1997, I have been employed with the firm of William
5 Dunkel and Associates and have regularly provided consulting services in regulatory
6 proceedings throughout the country. My business address is 8625 Farmington Cemetery
7 Road, Pleasant Plains, Illinois 62677.

8

9 **Q. Please describe your educational and professional background.**

10 A. I have over 20 years of experience consulting and testifying in regulatory rate cases and
11 have addressed depreciation rate issues in numerous jurisdictions nationwide. I am a
12 Certified Public Accountant licensed in the state of Illinois. I am a Certified Depreciation
13 Professional through the Society of Depreciation Professionals. I received my Master of
14 Arts degree in Accounting from the University of Illinois in Springfield. I received my
15 Bachelor of Science degree in Mathematics from Illinois State University in Normal.

16

17 **Q. On whose behalf are you testifying?**

18 A. I am testifying on behalf of the Staff of the Washington Utilities and Transportation
19 Commission (Staff).

20

21 **Q. Have you prepared an exhibit that describes your qualifications?**

22 A. Yes. My qualifications and previous experiences are shown on the attached
23 Exh. RMM-2.

1 **Q. What is the purpose of your testimony?**

2 A. The purpose of my testimony is to address the depreciation rates filed in this proceeding
3 by Puget Sound Energy, Inc. (PSE or Company).

4

5 **Q. Does Staff agree with PSE's proposed depreciation rates?**

6 A. No. I propose depreciation rates that differ from PSE proposed depreciation rates for
7 Electric Account 366, Underground Conduit, and Natural Gas Accounts 380.20 and
8 380.30, Services.

9

10 **Q. Can you summarize Staff's proposed depreciation rates for PSE?**

11 A. Yes. Staff's proposed depreciation rates compared to PSE's proposed depreciation rates
12 are summarized below:

1

Table 1: Comparison of Depreciation Accrual Rates

Function	Original Cost as of June 30, 2021	Current Approved Accrual Rate	PSE Proposed Accrual Rate ¹	Staff Proposed Accrual Rate	Staff Proposed Difference from PSE Proposed
Electric Plant					
Steam Production Plant	999,531,476	4.87%	4.22%	4.22%	0.00%
Hydro Production Plant	727,206,025	2.68%	2.72%	2.72%	0.00%
Other Production Plant	1,943,858,723	4.21%	4.75%	4.75%	0.00%
Transmission Plant	1,643,218,305	2.27%	2.11%	2.11%	0.00%
Distribution Plant	4,443,046,463	3.26%	3.30%	3.26%	-0.04%
General Plant	237,893,464	6.37%	6.46%	6.46%	0.00%
Total Electric Plant	9,994,754,455	3.47%	3.51%	3.49%	-0.02%
Gas Plant					
Underground Storage Plant	53,768,438	2.51%	3.35%	3.35%	0.00%
Other Storage Plant	12,793,443	2.81%	2.62%	2.62%	0.00%
Distribution Plant	4,391,416,969	2.83%	3.22%	3.01%	-0.21%
General Plant	40,805,151	4.77%	4.58%	4.58%	0.00%
Total Gas Plant	4,498,784,001	2.84%	3.23%	3.03%	-0.20%
Common Plant					
General Plant	375,183,118	7.23%	7.47%	7.47%	0.00%
Total Common Plant	375,183,118	7.23%	7.47%	7.47%	0.00%
TOTAL	14,868,721,574	3.38%	3.53%	3.45%	-0.07%

2

The annualized accrual based on June 30, 2021, investments using Staff's

3

proposed depreciation rates compared to PSE's proposed depreciation rates are

4

summarized below:

¹ PSE Proposed Electric Depreciation Rates from Allis, Exh. NWA-4. (Free, Exh. SEF-1T at 118:21-23). PSE Proposed Natural Gas and Common Depreciation Rates from Allis, Exh. NWA-3. (Free, Exh. SEF-1T at 118:21-23).

Table 2: Comparison of Annual Depreciation Accrual Amount

Function	Original Cost as of June 30, 2021	Accrual Amount at Current Depr. Rates	Accrual Amount at PSE Proposed Depr. Rates	Accrual Amount at Staff Proposed Depr. Rates	Staff Proposed Difference from PSE Proposed
Electric Plant					
Steam Production Plant	999,531,476	48,683,637	42,169,300	42,169,300	0
Hydro Production Plant	727,206,025	19,504,729	19,766,926	19,766,926	0
Other Production Plant	1,943,858,723	81,926,131	92,293,725	92,293,725	0
Transmission Plant	1,643,218,305	37,238,912	34,717,774	34,717,774	0
Distribution Plant	4,443,046,463	144,749,758	146,672,360	144,821,533	(1,850,827)
General Plant	237,893,464	15,149,567	15,363,778	15,363,778	0
Total Electric Plant	9,994,754,455	347,252,734	350,983,863	349,133,036	(1,850,827)
Gas Plant					
Underground Storage Plant	53,768,438	1,348,076	1,803,742	1,803,742	0
Other Storage Plant	12,793,443	359,363	335,281	335,281	0
Distribution Plant	4,391,416,969	124,195,387	141,305,842	132,190,600	(9,115,242)
General Plant	40,805,151	1,944,665	1,869,624	1,869,624	0
Total Gas Plant	4,498,784,001	127,847,491	145,314,489	136,199,247	(9,115,242)
Common Plant					
General Plant	375,183,118	27,112,182	28,018,977	28,018,977	0
Total Common Plant	375,183,118	27,112,182	28,018,977	28,018,977	0
TOTAL	14,868,721,574	502,212,407	524,317,329	513,351,260	(10,966,068)

2 **Q. Please describe your Exh. RMM-3.**

3 A. Exh. RMM-3 contains the summary of Staff's proposed depreciation rates compared to
4 PSE's proposed depreciation rates and current approved depreciation rates as summarized
5 on Tables 1 and 2 above.

6

7 **Q. Please describe your Exh. RMM-4.**

8 A. Exh. RMM-4 contains the calculations of Staff's proposed depreciation rates for PSE's
9 Electric Plant.

1 **Q. Please describe your Exh. RMM-5.**

2 A. Exh. RMM-5 contains the calculations of Staff's proposed depreciation rates for PSE's
3 Natural Gas Plant.

4

5 **II. DEFINITION OF DEPRECIATION**

6

7 **Q. Will you please provide the definition of depreciation?**

8 A. Yes. The Federal Energy Regulatory Commission (FERC) definitions contained in the
9 FERC Uniform System of Accounts (FERC USOA) state:

10 *12. Depreciation, as applied to depreciable electric plant, means the loss in*
11 *service value not restored by current maintenance, incurred in connection*
12 *with the consumption or prospective retirement of electric plant in the*
13 *course of service from causes which are known to be in current operation*
14 *and against which the utility is not protected by insurance. Among the*
15 *causes to be given consideration are wear and tear, decay, action of the*
16 *elements, inadequacy, obsolescence, changes in the art, changes in*
17 *demand and requirements of public authorities.²*

18

19 The FERC USOA definition of "depreciation" specifically states depreciation is a "loss in
20 service value." FERC defines service value as "the difference between original cost and
21 net salvage value of electric plant."³

22

² FERC Uniform System of Accounts Prescribed for Public Utilities and Licensees Subject to the Provisions of the Federal Power Act. (18 CFR 101). A similar definition for Natural Gas contained in FERC Uniform System of Accounts Prescribed for Natural Gas Companies Subject to the Provisions of the Natural Gas Act. (18 CFR 201), Definition 12.B.

³ FERC USOA (18 CFR 101) Definition 37. A similar definition for Natural Gas contained in FERC USOA (18 CFR 201) Definition 37.

1 **Q. What definition of depreciation do you rely on in this testimony?**

2 A. Since this is a utility regulation proceeding, I rely on the FERC USOA definition of
3 “depreciation” which focuses on the “loss of service value.” Determining reasonable
4 depreciation rates is necessary for establishing the loss in service value of utility cost-
5 based plant-in-service and incorporating it into a ratemaking revenue requirement to
6 allow for recovery of that cost.

7

8 **A. Overview of Depreciation Expense Impact on Revenue Requirement**

9

10 **Q. Please provide an overview of the impact of depreciation rates on the revenue**
11 **requirement.**

12 A. The depreciation rates approved by the Commission are multiplied by gross plant in
13 service to produce a calculated annual depreciation expense. The calculated depreciation
14 expense is included in the revenue requirement that is to be recovered from ratepayers.

15 As pointed out by the National Association of Regulatory Utility Commissioners’
16 (NARUC) text *Public Utility Depreciation Practices*:

17 It is essential to remember that depreciation is intended only for the
18 purpose of recording the periodic allocation of cost in a manner properly
19 related to the useful life of the plant. It is not intended, for example, to
20 achieve a desired financial objective or to fund modernization programs.⁴

21

22

⁴ Page 23, *Public Utility Depreciation Practices*, published by the National Association of Regulatory Utility Commissioners (NARUC), 1996.

1 **Q. What are the impacts of your recommended depreciation rates on Staff's revenue**
2 **requirement calculations in this case?**

3 A. As discussed by Staff witness McGuire, my recommended depreciation rates impact
4 depreciation expense for (a) test year plant (reflected at rate year balances), and (b) post-
5 test year plant additions.⁵ The depreciation expense impact amounts shown in Staff
6 witness McGuire Exh. CRM-8 are based on the estimated future gross plant for the years
7 2023, 2024, and 2025.⁶

8 For electric operations, relative to the depreciation rates included in PSE's as-filed
9 revenue requirement, my recommended depreciation rates reduce revenue requirement by
10 approximately \$2.0 million in 2023, \$2.0 million in 2024, and \$1.9 million in 2025.⁷

11 For natural gas operations, relative to the depreciation rates included in PSE's as-
12 filed revenue requirement, my recommended depreciation rates reduce revenue
13 requirement by approximately \$10.0 million in 2023, \$9.5 million in 2024, and \$9.1
14 million in 2025.⁸

15
16 **Q. What impact do the depreciation rates set in this proceeding have on future**
17 **proceedings?**

⁵ McGuire Exh. CRM-1T. See Sections IV.C, IV.D, and IV.E.1. Test year plant balances are rolled forward to each rate year via Adjustments 6.29/11.29 for accumulated depreciation and via Adjustments 6.30/11.30 for post-test year retirements. Post-test year plant additions are included in revenue requirement via electric Adjustments 6.31-6.34 and natural gas Adjustments 11.31-11.34

⁶ The annualized depreciation expense amounts shown in Exh. RMM-3, Exh. RMM-4, and Exh. RMM-5 are based on investment amounts as of June 30, 2021.

⁷ McGuire Exh. CRM-8, at 7.

⁸ McGuire Exh. CRM-8, at 8.

1 A. The depreciation rates, or any other adjustment to the accumulated depreciation reserve,
2 decided in this proceeding will impact the level of the accumulated depreciation reserve
3 in a future rate case.

4 The accumulated depreciation reserve balances reflect the portion of the initial
5 plant-in-service investment and the estimated future net salvage costs that have been
6 recovered by the company from ratepayers. The depreciation expense and the gross
7 salvage amounts go into the accumulated depreciation reserve (credit) while the cost of
8 removal and the original investment amount that retires are taken out of the accumulated
9 depreciation reserve (debit).⁹ The depreciation expense is calculated by multiplying the
10 approved depreciation rates by the booked plant-in-service investments.

11 In a rate case, the calculated net rate base is multiplied by a rate of return (ROR)
12 to calculate the shareholders' and other investors' "return on" their investment. The
13 calculation of the allowed return on rate base included in customer rates is expressed in a
14 simplified way:¹⁰

15
$$\text{allowed return} = (\text{investment} - \text{reserve}) * \text{ROR}$$

16 The accumulated depreciation reserve is a significant amount in the "reserve" part of the
17 formula shown above.

⁹ FERC USOA (18 CFR 101) Account 108. FERC USOA (18 CFR 201) Account 108.

¹⁰ Other items such as cash working capital, materials and supplies, deferred income taxes, regulatory liabilities, regulatory assets, etc. are included in the net rate base calculation.

1 **B. Calculation of Depreciation Rates**

2

3 **Q. Please provide a brief discussion about the remaining life techniques for calculating**
4 **depreciation rates.**

5 A. In the calculation of depreciation rates, the remaining life technique formula is:

$$\text{Depreciation Rate} = \frac{(100 \text{ percent} - \text{Book Reserve percent} - \text{Future Net Salvage percent})}{\text{Average Remaining Life}}$$

6 In the formula above, the 100 percent represents the actual plant-in-service
7 investment and the book reserve percent is the actual accumulated depreciation reserve
8 on the Company’s books divided by the actual plant-in-service investment on the
9 Company’s books at the time of the Depreciation Study.

10 A Depreciation Study estimates the future net salvage percent and the average
11 remaining life. These estimates are referred to as depreciation parameters. The estimated
12 future net salvage parameter from the Depreciation Study estimates the future cost of
13 removing or retiring less any estimated future salvage. The projected average service life
14 and retirement pattern (survivor curve) are the two parameters from the Depreciation
15 Study that calculate the average remaining life.

16

17 **Q. Please explain what is meant by net salvage.**

18 A. NARUC’s *Public Utility Depreciation Practices* defines net salvage as “the gross salvage
19 for the property retired less its cost of removal.”¹¹ Gross salvage is defined as “the
20 amount recorded for the property retired due to the sale, reimbursement, or reuse of the

¹¹ Page 322, *Public Utility Depreciation Practices*, published by NARUC, 1996.

1 property.”¹² Cost of removal is defined as “the costs incurred in connection with the
2 retirement from service and the disposition of depreciable plant. Cost of removal may be
3 incurred for plant that is retired in place.”¹³

4 NARUC also explains that careful consideration should be given to the net
5 salvage estimate stating:

6 Cost of retirement, however, must be given careful thought and attention,
7 since for certain types of plant, it can be the most critical component of the
8 depreciation rate.¹⁴

9
10
11 NARUC’s Public Utility Depreciation Practices later points out that:

12 Determining a reasonably accurate estimate of the average or future net
13 salvage is not an easy task; estimates can be the subject of considerable
14 discussion and controversy between regulators and utility personnel.¹⁵

15
16
17
18 **Q. What impact does the estimated future net salvage percent have on depreciation
19 rates?**

20 A. All other things being equal, positive net salvage results in a lower depreciation rate since
21 a positive net salvage percent assumes the company will receive value for the asset when
22 it retires which reduces the total amount to be recovered over the life of the asset.
23 Conversely, negative net salvage results in a higher depreciation rate since a negative net
24 salvage percent assumes the company will have expenses exceeding any possible salvage
25 at the time of retirement, all other things being equal.

¹² Page 320, *Public Utility Depreciation Practices*, published by NARUC, 1996.

¹³ Page 317, *Public Utility Depreciation Practices*, published by NARUC, 1996.

¹⁴ Page 19, *Public Utility Depreciation Practices*, published by NARUC, 1996.

¹⁵ Page 157, *Public Utility Depreciation Practices*, published by NARUC, 1996.

1 As stated in NARUC's Public Utility Depreciation Practices:

2 Positive net salvage occurs when gross salvage exceeds cost of retirement,
3 and negative net salvage occurs when cost of retirement exceeds gross
4 salvage.¹⁶
5

6 The estimated future net salvage is part of the annual depreciation accrual, which is
7 credited to the depreciation reserve to cover the estimated future net salvage costs the
8 company may incur in the future associated with plant asset retirements.
9

10 **Q. Why is the estimated future net salvage parameter shown as a percent?**

11 A. The future net salvage parameter is an estimate of the future cost that may be incurred
12 related to future plant retirements. Since the depreciation study produces a depreciation
13 rate, the estimated future net salvage is included in the depreciation rate formula as a
14 percent of the investment as of December 31, 2020. The depreciation rates resulting from
15 the depreciation study are then applied to the investment amounts as of the date of the test
16 year in the rate proceeding.
17

18 **Q. What are some considerations used when estimating the depreciation parameters
19 used in the depreciation rate formula?**

20 A. When estimating a depreciation parameter for an account, an initial step is to analyze that
21 utility's actual historic life and historic net salvage experience data for that account. In
22 addition to considering the lives and net salvage indicated by the utility's historic
23 experience data, the expectations of the management, any changes to the current industry
24 practices, and informed judgement are part of the estimation process.

¹⁶ Page 18, *Public Utility Depreciation Practices*, published by NARUC, 1996.

1 Informed judgement as explained in NARUC's *Public Utility Depreciation*

2 *Practices* states:

3 *Informed judgment* is a term used to define the subjective portion of the
4 depreciation study process. It is based on a combination of general
5 experience, knowledge of the properties and a physical inspection,
6 information gathered throughout the industry, and other factors which
7 assist the analyst in making a knowledgeable estimate.

8
9 The use of informed judgment can be a major factor in forecasting. A
10 logical process of examining and prioritizing the usefulness of information
11 must be employed, since there are many sources of data that must be
12 considered and weighed by importance.¹⁷
13
14

15 **III. STAFF PROPOSED ESTIMATED FUTURE NET SALVAGE PERCENT**

16
17 **Q. Based on your review do you recommend a different estimate future net salvage**
18 **percent for any mass property accounts?**

19 A. Yes. For Electric Account 366, Underground Conduit, I recommend maintaining the
20 current approved estimated future net salvage (FNS) percent -10 percent instead of the
21 Company proposed increase to -20 percent. Additionally, for Natural Gas Accounts
22 380.20 and 380.30, Services, I recommend maintaining the current approved estimated
23 FNS -75 percent instead of the Company proposed increase to -100 percent.
24

25 **Q. Have you reviewed the recovery of estimated future cost of retirement included in**
26 **the proposed depreciation accrual as compared to the actual net salvage costs PSE**
27 **has incurred in today's dollars over the last few years?**

¹⁷ Page 128, *Public Utility Depreciation Practices* published by NARUC, 1996.

1 A. Yes. A depreciation recommendation requires judgment. Relevant information in
2 addition to what has been presented in PSE's depreciation study can properly be
3 considered. The interests of PSE should be considered, but the interests of the ratepayers
4 should also be considered.

5 As a reasonableness check on the estimated future net salvage accrual amount to
6 be included in the revenue requirement, which is collected from the ratepayer in today's
7 dollars, I have compared the estimated future net salvage costs included in PSE's
8 proposed depreciation accrual to the actual net salvage costs incurred by PSE on average
9 over the recent five-year period of 2016 through 2020. This comparison is shown in Exh.
10 RMM-6.

11

12 **Q. Please explain how your recommended estimated future net salvage is more**
13 **reasonable than PSE's proposal.**

14 A. The table below shows the recent five-year period of 2016 through 2020 per year average
15 of actually incurred net salvage compared to PSE and Staff proposed annual accrual
16 related to the recovery of the estimated future net salvage.

1
2

Table 3: Comparison of PSE and Staff Proposed Net Cost of Removal Accrual and Average Net Cost of Removal Actually Incurred

Account	Description	Five Year Net Cost of Removal Actually Incurred	Net Cost of Removal Recovery included in PSE's Proposed Depr Rates	PSE's Proposed / Actually Incurred	Net Cost of Removal Recovery included in Staff's Proposed Depr Rates	Staff's Proposed / Actually Incurred
A	B	C	D	E=D/C	F	G=F/C
Electric - 366.00	Underground Conduit	504,396	2,527,555	5.0	1,199,122	2.4
Natural Gas - 380.20	Services - Plastic		26,289,288		18,822,596	
Natural Gas - 380.30	Services - Wrapped Steel		1,602,822		1,118,254	
Natural Gas - 380.20 & 380.30	Services - Combined	7,344,915	27,892,110	3.8	19,940,850	2.7

3
4
5
6

In my judgment, PSE’s proposed increase in the net cost of removal accrual collected annually from ratepayers for net salvage 5.0 times for Electric Account 366, Underground Conduit and 3.8 times for Natural Gas Accounts 380.20 and 380.30, Services, is excessive and should be rejected.

7
8
9

My recommendation results in the net cost of removal accrual collected annually from ratepayers for net salvage 2.4 times for Electric Account 366, Underground Conduit and 2.7 times for Natural Gas Accounts 380.20 and 380.30, Services.¹⁸

10
11

Q. Does your proposal to maintain the current approved estimated future net salvage percent result in an under-recovery of the estimated future costs?

12
13
14

A. No. As stated above, my recommendation results in an annual accrual that is 2.4 times for Electric Account 366, Underground Conduit and 2.7 times for Natural Gas Accounts

¹⁸ I am not recommending or implying a change from the “accrual” basis to the “cash” basis for the recovery of future net salvage costs. In other words, I am not recommending or implying that the depreciation accrual no longer be credited to the Accumulated Provision for Depreciation or that the net salvage costs be “expensed.”

1 380.20 and 380.30, Services. In other words, my recommendation provides PSE an
2 annual net cost of removal accrual that is more than double the annual average of net
3 removal costs that the Company actually incurred between 2016 through 2020.

4 Therefore, my recommendation provides recovery of the estimated cost of removal
5 expected to be incurred in the near future and builds a reserve for estimated future cost of
6 removal associated with future retirements.

7
8 **Q. Did PSE also provide historical net salvage data in the depreciation study?**

9 A. Yes. PSE's depreciation study also included the historic data of the actual incurred from
10 2016 through 2020 and recorded net salvage and related retirements.

11 Additionally in discovery, PSE confirmed that more than 80 percent of the retired
12 assets in Electric Account 366, Underground Conduit and Natural Gas Accounts 380.20
13 and 380.30, Services, are physically retired in place, which reduces the cost of removal
14 associated with the retirements.¹⁹

15
16 **Q. What review of the historic net salvage data is conducted by PSE in the depreciation
17 study?**

18 A. Regarding historic net salvage data, PSE relies on historic net salvage ratios as stated in
19 the depreciation study:

20 The estimates of net salvage by account were based in part on historical
21 data compiled through 2020. Cost of removal and gross salvage were
22 expressed as percents of the original cost of plant retired, both on annual
23 and three-year moving average bases. The most recent five-year average
24 also was calculated for consideration. The net salvage estimates by
25 account are expressed as a percent of the original cost of plant retired.²⁰

¹⁹ PSE Responses to UTC Staff Data Request Nos. 224 and 225, attached as Exh. RMM-7.

²⁰ Allis, Exh. NWA-3, page 44 of 766.

1 **Q. What is a concern regarding the historic net salvage ratios calculated in the**
2 **depreciation study?**

3 A. As pointed out in Wolf and Fitch's *Depreciation Systems*: Salvage ratios are a function
4 of inflation.²¹

5 Additionally, Wolf and Fitch's *Depreciation Systems* points out that a historic net
6 salvage ratio that includes inflated dollars in the numerator and historic dollars in the
7 denominator is a ratio using different units, stating:

8 One inherent characteristic of the salvage ratio is that the numerator and
9 denominator are measured in different units; the numerator is measured in
10 dollars at the time of retirement, while the denominator is measured in
11 dollars at the time of installation. Inflation is an economic fact of life and
12 although both numerator and denominator are measured in dollars, the
13 timing of the cash flows reflects different price levels.²²

14 The calculation of the historic net salvage ratio includes the impact of historic
15 inflation rates, since the net salvage amount in the numerator is in current dollars and the
16 cost of the plant (which may have been installed decades before) in the denominator is in
17 historic dollars. In other words, due to inflation the amounts in the numerator and
18 denominator of the net salvage ratio are at different price levels.

19
20
21 **Q. Why should inflation in the historic net salvage ratios be considered when**
22 **estimating the future net salvage amounts to be collected from today's ratepayers?**

23 A. The estimated future net salvage accruals included in the revenue requirement in this
24 proceeding are to be collected from the ratepayers in today's more valuable current
25 dollars. Therefore, I not only reviewed the historic net salvage data as presented in the

²¹ Page 267, Wolf, Frank K. and W. Chester Fitch, *Depreciation Systems*, Iowa State University Press, 1994.

²² Page 53, Wolf, Frank K. and W. Chester Fitch, *Depreciation Systems*, Iowa State University Press, 1994.

1 depreciation study and the underlying data provided in response to discovery, I also
2 evaluated the impact of collecting the more valuable current dollars from the ratepayers
3 to pay for estimated future costs.
4

5 **Q. Please explain what you mean by more valuable current dollars.**

6 A. Due to inflation, today's dollar has more purchasing power than a future dollar.
7

8 **Q. Is the fact that historic inflation is included in the net salvage ratio recognized in
9 another authoritative depreciation text?**

10 A. Yes. NARUC's *Public Utility Depreciation Practices*, regarding inflation states:

11 The sensitivity of salvage and cost of retirement to the age of the property
12 retired is also troublesome. Due to inflation and other factors, there is a
13 tendency for costs of retirement, typically labor, to increase more rapidly
14 than material prices.²³
15

16 **Q. Are your proposed estimated future net salvage percentages based only on the
17 comparison shown in Exh. RMM-6?**

18 A. No. This is evidenced by the fact that my proposed estimated future net salvage accrual
19 amounts are not equal to the average annual historical amount as shown in Exh. RMM-6.
20 Exh. RMM-6 is a reasonableness check on the estimated future net salvage accrual
21 amount to be included in the revenue requirement.

22 As discussed in this testimony, estimating the depreciation parameters includes
23 the review of relevant information provided in the company filing, the review of the

²³ Page 19, *Public Utility Depreciation Practices*, published by NARUC, 1996.

1 historic net salvage data provided in the depreciation study, the relevant information
2 provided in response to discovery, and informed judgment.

3
4 **IV. CONCLUSION**

5
6 **Q. Please summarize your recommendations.**

7 A. For the reasons stated above, I recommend that Staff's proposed depreciation rates for
8 Electric Plant, shown on Exh. RMM-4, and for Natural Gas Plant, shown on Exh.
9 RMM-5, be approved for PSE in Washington.

10
11 **Q. Does this conclude your direct testimony?**

12 A. Yes.