BEFORE THE WASHINGTON

UTILITIES & TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,

Complainant,

V.

PUGET SOUND ENERGY,

Respondent.

DOCKETS UE-170033 & UG-170034 (*Consolidated*)

DIRECT TESTIMONY OF ROXIE M. MCCULLAR (RMM-1T)

ON BEHALF OF

WASHINGTON STATE OFFICE OF THE ATTORNEY GENERAL,

PUBLIC COUNSEL UNIT

JUNE 30, 2017

DIRECT TESTIMONY OF ROXIE M. MCCULAR (RMM-1T)

DOCKETS UE-170033 and UG-170034 (*Consolidated)*

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DIRECT TESTIMONY OF ROXIE M. MCCULAR (RMM-1T)

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EXHIBITS LIST

I. INTRODUCTION

Q: Please state your name and business address?

A: My name is Roxie McCullar. My business address is 8625 Farmington Cemetery Road, Pleasant Plains, Illinois 62677.

Q: What is your present occupation?

A: Since 1997, I have been employed as a consultant with the firm of William Dunkel and Associates and have regularly provided consulting services in regulatory proceedings throughout the country.

Q: Please describe your educational and professional background.

A: I am a Certified Public Accountant licensed in the state of Illinois. I received my Master of Arts degree in Accounting from the University of Illinois in Springfield. I received my Bachelor of Science degree in Mathematics from Illinois State University in Normal. Over the past 20 years, I have filed testimony in over 40 state regulatory proceedings on cost allocation, universal service, and depreciation issues.

Q: On whose behalf are you testifying?

A: I am testifying on behalf of the Public Counsel Unit of the Washington State Office of the Attorney General ("Public Counsel" or "PC").

Q: Have you prepared an exhibit that describes your qualifications?

A: Yes. My qualifications and previous experiences are shown on the attached Exhibit No. RMM-2.

Q: What exhibits are you sponsoring in this proceeding?

A: I am sponsoring the following exhibits in this proceeding:

- Exhibit No. RMM-3: Comparison of Current Approved, PSE Proposed, and Public Counsel Proposed Accrual Rate and Annual Accrual Amounts
- Exhibit No. RMM-4: Public Counsel's Proposed Depreciation Rates for PSE's Electric Plant
- Exhibit No. RMM-5: Public Counsel's Proposed Depreciation Rates for PSE's Natural Gas Plant
- Exhibit No. RMM-6: Referenced pages from NARUC's *Public Utility Depreciation Practices* (August 1996)
- Exhibit No. RMM-7: PSE Response to ICNU Data Request No. 27, Attachment A (PSE - 2016 - Production Net Salvage Calculations.xlsx)
- Exhibit No. RMM-8: Comparison of PSE Proposed Future Net Salvage Accrual and Average Net Salvage Actually Incurred in Recent Years for Natural Gas Plant
- Exhibit No. RMM-9: Comparison of Public Counsel's Proposed Future Net Salvage Accrual and Average Net Salvage Actually Incurred in Recent Years for Natural Gas Plant
- Exhibit No. RMM-10: Comparison of PSE Proposed Future Net Salvage Accrual and Average Net Salvage Actually Incurred in Recent Years for Electric Plant
- Exhibit No. RMM-11: Comparison of Public Counsel's Proposed Future Net Salvage Accrual and Average Net Salvage Actually Incurred in Recent Years for Electric Plant

Q: What is the purpose of your testimony?

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

Q: Did you participate in a field visit of PSE's facilities in Washington?

A: Yes. On May 17-18, 2017, I participated in a field visit of six different PSE facilities or project locations.[1] As requested, several of these locations were locations in which Company personnel or contractors were active during the visit. At each location, Company personnel or outside contractors discussed the facilities and ongoing projects with me.

Q: Please describe some of the other steps you took in the preparation of this testimony.

A: I took the following steps in order to prepare this testimony:

- Examined Mr. Spanos's testimony[2] pertaining to depreciation accrual rates and the 2016 Depreciation Rate Study provided as revised Exhibit No. JJS-3r in detail.
- Reviewed portions of testimonies filed by other PSE witnesses related to the setting of the depreciation accrual rates in this proceeding.[3]
- Reviewed Public Counsel's and other parties' data requests as they pertain to depreciation.
- Examined the Company's data requests responses in detail and prepared rounds of follow-up data requests as appropriate, and reviewed responses to the follow-up data requests.
- Obtained and reviewed the depreciation portions of the Washington Utilities and Transportation Commission (WUTC) Order 12 in Dockets UE-072300 and UG-072301 regarding the current approved depreciation rates.

[1] On May 17, 2017, I visited an aerial electric distribution relocation project, the Lakeside Substation, an underground natural gas distribution replacement project, and an underground electric replacement project. On May 18, 2017, I visited the Mint Farm Generating Facility and the Jackson Prairie Gas Storage Facility.

[2] Prefiled Direct Testimony of John J. Spanos, Exh. JJS-1T.

[3] This included portions of Prefiled Direct Testimonies of Ronald J. Roberts, Exh. RJR-1CT (Redacted version), David E. Mills, Exh. DEM-1T, Katherine J. Barnard, Exh. KJB-1T, and Susan E. Free, Exh. SEF-1T.

- Considered the Uniform System of Accounts (USOA) requirements pertaining to depreciation.[4]
- Considered the accepted depreciation practices, including those contained in the *Public Utilities Depreciation Practices* published by the National Association of Regulatory Utility Commissioners (NARUC).[5]
- Conducted additional analyses, which are detailed in this testimony.

Q: Can you summarize Public Counsel's proposed depreciation rates for PSE?

A: Yes. Public Counsel's proposed depreciation rates compared to PSE's proposed depreciation rates are summarized below:

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[4] 18 C.F.R. 101 (Uniform System of Accounts Prescribed for Public Utilities and Licensees Subject to the Provisions of the Federal Power Act) and 18 C.F.R. 201 (Uniform System of Accounts Prescribed for Natural Gas Companies Subject to the Provisions of the Natural Gas Act).

[5] *See* Exh. RMM-6 (National Association of Regulatory Utility Commissioners (NARUC), *Public Utilities Depreciation Practices* (1996)).

Table 1: Comparison of Depreciation Accrual Rates

Function	Original Cost as of September 30, 2016	Current Approved Accrual Rate	PSE Proposed Accrual Rate	PC Proposed Accrual Rate	PC Proposed Difference from PSE Proposed
Electric Plant					
Steam Production Plant	1,277,134,228	1.74%	4.45%	3.20%	-1.25%
Hydro Production Plant	704,883,823	1.44%	2.68%	2.67%	-0.02%
Other Production Plant	1,895,861,022	3.64%	4.24%	4.24%	0.00%
Transmission Plant	1,408,833,111	2.29%	2.23%	2.14%	-0.09%
Distribution Plant	3,556,655,873	2.83%	3.35%	3.13%	-0.22%
General Plant	215,779,075	7.28%	5.76%	5.76%	0.00%
Total Electric Plant	**9,059,147,131**	**2.76%**	**3.52%**	**3.24%**	**-0.28%**
Gas Plant					
Production Plant	6,583,872	0.91%	0.55%	0.55%	0.00%
Underground Storage Plant	42,322,153	2.04%	2.49%	2.49%	0.00%
Other Storage Plant	12,793,443	3.20%	2.81%	2.81%	0.00%
Distribution Plant	3,348,858,872	3.55%	2.80%	2.33%	-0.47%
General Plant	35,223,867	11.93%	3.40%	3.40%	0.00%
Total Gas Plant	**3,445,782,207**	**3.61%**	**2.79%**	**2.34%**	**-0.46%**
Common Plant					
General Plant	280,165,405	8.90%	7.18%	7.18%	0.00%
Total Common Plant	**280,165,405**	**8.90%**	**7.18%**	**7.18%**	**0.00%**
TOTAL	**12,785,094,743**	**3.12%**	**3.45%**	**3.13%**	**-0.32%**

The annualized accrual based on September 30, 2016, investments using Public Counsel's proposed depreciation rates compared to PSE's proposed depreciation rates are summarized below:

Table 2: Comparison of Annual Depreciation Accrual Amount

Function	Original Cost as of September 30, 2016	Accrual Amount at Current Depr. Rates	Accrual Amount at PSE Proposed Depr. Rates	Accrual Amount at PC Proposed Depr. Rates	PC Proposed Difference from PSE Proposed
Electric Plant					
Steam Production Plant	1,277,134,228	22,238,735	56,840,731	40,826,693	(16,014,038)
Hydro Production Plant	704,883,823	10,145,475	18,909,748	18,801,464	(108,284)
Other Production Plant	1,895,861,022	68,915,890	80,310,360	80,310,360	0
Transmission Plant	1,408,833,111	32,210,752	31,445,954	30,133,884	(1,312,070)
Distribution Plant	3,556,655,873	100,526,253	119,111,992	111,355,149	(7,756,843)
General Plant	215,779,075	15,699,123	12,429,126	12,429,126	0
Total Electric Plant	**9,059,147,131**	**249,736,228**	**319,047,911**	**293,856,675**	**(25,191,236)**
Gas Plant					
Production Plant	6,583,872	60,214	36,534	36,534	0
Underground Storage Plant	42,322,153	864,446	1,054,584	1,054,584	0
Other Storage Plant	12,793,443	408,806	359,095	359,095	0
Distribution Plant	3,348,858,872	118,962,961	93,646,266	77,939,616	(15,706,650)
General Plant	35,223,867	4,203,251	1,196,831	1,196,831	0
Total Gas Plant	**3,445,782,207**	**124,499,678**	**96,293,310**	**80,586,660**	**(15,706,650)**
Common Plant					
General Plant	280,165,405	24,930,601	20,103,357	20,103,357	0
Total Common Plant	**280,165,405**	**24,930,601**	**20,103,357**	**20,103,357**	**0**
Unrecovered Reserve					
Electric Plant	0	0	2,788,097	2,788,097	0
Gas Plant	0	0	566,148	566,148	0
Common Plant	0	0	1,657,869	1,657,869	0
Total Unrecovered Reserve	**0**	**0**	**5,012,114**	**5,012,114**	**0**
TOTAL	**12,785,094,743**	**399,166,507**	**440,456,692**	**399,558,806**	**(40,897,886)**

Q: Please describe your Exhibit No. RMM-3.

A: Exhibit No. RMM-3 contains the summary of Public Counsel's proposed depreciation rates compared to PSE's proposed depreciation rates and current approved depreciation rates as summarized on Tables 1 and 2 above.

Q: Please describe your Exhibit No. RMM-4.

A: Exhibit No. RMM-4 contains the calculations of Public Counsel's proposed depreciation rates for PSE's Electric Plant.

Q: Please describe your Exhibit No. RMM-5.

A: Exhibit No. RMM-5 contains the calculations of Public Counsel's proposed depreciation rates for PSE's Natural Gas Plant.

II. REMAINING LIFE DEPRECIATION RATES

Q: Please provide a brief description of how remaining life depreciation rates are calculated.

A: The remaining life depreciation rate formula is:

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

In the formula above, the book reserve percent is the actual reserve on the Company's books divided by the actual plant in service investment on the Company's books at the time of the depreciation study.

The future net salvage percent and the average remaining life are estimates from the depreciation study. The depreciation study estimates the projected average service life of the assets, the retirement pattern of those assets, and the cost of removing or retiring those assets less any expected salvage from the sale, scrap, insurance, reimbursements, etc. of those assets. These estimates are referred to as depreciation

parameters. The projected average service life and retirement pattern (survivor curve) are the two parameters that calculate the average remaining life. The estimated future net salvage percent is the estimated future cost of removing or retiring less any estimated future salvage from the sale, scrap, insurance, reimbursements, etc.

III. STEAM PRODUCTION PLANT RESERVE

Q: Do you have an observation regarding the book reserve percent used in the depreciation rate formula for some accounts?

A: Yes. Even though the depreciation study shows an overall reserve surplus in the Steam Production accounts, PSE is showing a significant reserve deficiency in Colstrip Units 1 and 2 which cause the remaining life depreciation rate to be higher than it otherwise would be.[6]

Q: Please explain what is meant by a depreciation reserve surplus and deficiency.

A: A reserve surplus indicates that there is more in the actual book reserve than is calculated to be needed based on the current depreciation study. A reserve deficiency indicates that there is not enough actual book reserve than is calculated to be needed based on the current depreciation study.

Looking at the remaining life depreciation rate, any deficiency in the book reserve is recovered through higher depreciation rates over the remaining life of the asset. On the other hand, any surplus in the book reserve lowers the depreciation rate over the remaining life of the asset.

As stated in the National Association of Regulatory Utility Commissioners' (NARUC) *Public Utility Depreciation Practices*: "A reserve imbalance exists when the

[6] Exh. RMM-4 at 29 shows a $92,980,019 reserve surplus in the Steam Production functional classification.

theoretical reserve is either greater or less than the actual reserve. If changes are made to the estimated service life and net salvage, creating a reserve imbalance, a decision must be made as to whether and how to correct the reserve imbalance."[7]

NARUC defines a theoretical reserve as: "The calculated balance that would be in the accumulated depreciation account at a point in time using current depreciation parameters, such as average service and net salvage. Also known as 'reserve requirement' or 'calculated accumulated depreciation (CAD).'"[8]

Q: What is one change made to the estimated service life that impacted the reserve imbalance in the Steam Production accounts?

A: The decrease in the estimated lifespan for the Colstrip Units 1 and 2 is a major reason for the reserve deficiency for Colstrip included in PSE's proposed depreciation rates.

For example, Table 3 below shows the comparison of the theoretical (or calculated)[9] reserve and the book reserve in Account 312, Boiler Plant Equipment. As column D in this table shows, Account 312 has an overall depreciation reserve surplus of $47 million.

However, for Colstrip Units 1 and 2, which are expected to retire in 2022, PSE's depreciation study shows a reserve deficiency of $44 million.[10] On the other hand, column D shows that several plant units have a depreciation reserve surplus. For example, Goldendale has a depreciation reserve surplus of $44 million.

[7] Exh. RMM-6 at 4 (NARUC, *Public Utilities Depreciation Practices* 188 (1996)).
[8] Exh. RMM-6 at 9 (NARUC, *Public Utilities Depreciation Practices* 325 (1996)).
[9] The terms "theoretical reserve" or "calculated accrued" or "calculated reserve" all refer to the estimated reserve level based on the parameters estimated in the Depreciation Study.
[10] $(21,153,744) + $(23,722,766) = $(44,876,510).

Table 3: PSE Accrual *Increase* in Account 312 Based on a Reserve *Surplus*

Plant Unit	9/30/16 Book Reserve	PSE Calculated or Theoretical Reserve	Book Reserve Surplus / (Deficiency)	PSE Remaining Life	Increase or (Decrease) in Accrual
A	B	C	D=B-C	E	F=-D/E
Colstrip 1	42,279,305	63,433,049	(21,153,744)	5.7	3,711,183
Colstrip 2	36,998,692	60,721,457	(23,722,766)	5.7	4,161,889
Colstrip 3	88,664,395	82,086,559	6,577,836	17.6	(373,741)
Colstrip 4	74,762,985	72,613,068	2,149,917	17.6	(122,154)
Colstrip 1-2	5,184,007	5,766,890	(582,883)	5.6	104,086
Colstrip 3-4	10,094,597	10,442,054	(347,457)	17.3	20,084
Encogen	34,057,590	21,846,851	12,210,739	16.0	(763,171)
Frederickson 1/EPCOR	7,308,605	6,143,948	1,164,657	24.0	(48,527)
Goldendale	66,841,917	22,846,712	43,995,205	25.9	(1,698,657)
Mint Farm	3,059,104	5,463,024	(2,403,920)	28.5	84,348
Sumas	13,938,347	5,446,472	8,491,875	16.2	(524,190)
Ferndale	30,590,589	9,138,763	21,451,826	17.2	(1,247,199)
Total Account 312	413,780,132	365,948,847	47,831,285		3,303,951

Q: What impact does a reserve imbalance have on the remaining life depreciation rates?

A: Looking at the depreciation rate formula, the book reserve percent is in the numerator of the remaining life depreciation rate formula.[11] All other things being equal, a reserve surplus decreases the depreciation rate and a reserve deficiency increases the depreciation rate.

To illustrate, PSE's Depreciation Study shows a 5.7 remaining life for Colstrip Units 1 and 2, Account 312.[12] This means that PSE's proposed remaining life depreciation rate includes the collecting the $44 million deficiency in Account 312 over 5.7 years, which increases the depreciation annual accrual $7.8 million per year.[13]

[11] The percent reserve used in the remaining life depreciation rate formula is the book reserve percent not the theoretical reserve percent.
[12] Spanos, Exh. JJS-3r at 57.
[13] $3,711,183 + $4,161,889 = $7,873,072.

Looking at Goldendale, which shows a reserve surplus of $44 million and a remaining life of 25.9 years,[14] PSE's remaining life depreciation rate includes a reduction of only $1.7 million per year.[15]

As Table 3 shows the even though Account 312 overall has a reserve surplus the PSE proposed annual depreciation accrual increases by a total of $3.3 million. This reserve surplus should *decrease* the depreciation accrual. PSE's proposal to increase the annual depreciation accrual for Account 312 is not a reasonable result since the reserve surplus indicates the opposite result is appropriate. Therefore, effectively allocating a depreciation reserve surplus over time should result in a reduction in the depreciation annual accrual, not a $3.3 million increase as proposed by PSE.

Q: What is your recommendation regarding how to account for the depreciation accrual reduction result called for by the reserve surplus in Account 312?

A: Since Account 312 shows an overall surplus, I recommend allocating the Account 312 book reserve among the production plants which results in depreciation rates that reduce the depreciation accrual by a $4.6 million based on September 30, 2016, amounts used in the depreciation study.[16]

A reduction in the depreciation accrual due to a reserve surplus is a reasonable result, compared to the $3.3 million increase in the depreciation accrual proposed by PSE.

[14] Spanos, Exh. JJS-3r at 57.
[15] $43,995,205 / 25.9 years = $1,698,657.
[16] The annual depreciation accrual is $4.6 million lower than it otherwise would have been due to the reserve surplus.

Table 4: Public Counsel's Accrual *Decrease* in Account 312 Based on a Reserve *Surplus*

Plant Unit	9/30/16 Book Reserve	PSE Calculated or Theoretical Reserve	PC Reallocated Book Reserve	Book Reserve Surplus / (Deficiency) after Reallocation	PSE Remaining Life	Increase or (Decrease) in Accrual
A	B	C	E	F=E-C	E	F=-D/E
Colstrip 1	42,279,305	63,433,049	71,724,055	8,291,006	5.7	(1,454,563)
Colstrip 2	36,998,692	60,721,457	68,658,045	7,936,588	5.7	(1,392,384)
Colstrip 3	88,664,395	82,086,559	92,815,669	10,729,110	17.6	(609,609)
Colstrip 4	74,762,985	72,613,068	82,103,947	9,490,879	17.6	(539,255)
Colstrip 1-2	5,184,007	5,766,890	6,520,650	753,760	5.6	(134,600)
Colstrip 3-4	10,094,597	10,442,054	11,806,881	1,364,827	17.3	(78,892)
Encogen	34,057,590	21,846,851	24,702,340	2,855,489	16.0	(178,468)
Frederickson 1/EPCOR	7,308,605	6,143,948	6,946,992	803,044	24.0	(33,460)
Goldendale	66,841,917	22,846,712	25,832,888	2,986,176	25.9	(115,296)
Mint Farm	3,059,104	5,463,024	6,177,068	714,044	28.5	(25,054)
Sumas	13,938,347	5,446,472	6,158,352	711,880	16.2	(43,943)
Ferndale	30,590,589	9,138,763	10,333,244	1,194,481	17.2	(69,447)
Total Account 312	413,780,132	365,948,847	413,780,132	47,831,285		(4,674,970)

Public Counsel's proposed depreciation rates shown on pages 1-2 of Exhibit No. RMM-4 use the reallocated depreciation reserve for Steam Production Account 311, Structures and Improvements, Account 312, Boiler Plant Equipment, Account 314, Turbogenerator Units, Account 315, Accessory Electric Equipment, and Account 316, Miscellaneous Power Plant Equipment.

Q: Does your reallocation of the depreciation reserve change the total book reserve for Steam Production Accounts 311-316?

A: No. As shown for Account 312 in Table 4 above, the reallocated reserve in column E has the same total as the book reserve in column B. The reallocation does not impact the overall book reserve amount. Rather, the reallocation only adjusts the reserve amount by production unit to address the reserve imbalance in the Steam Production accounts. As

shown on pages 27-29 of Exhibit No. RMM-4, the reallocated reserve total is the same as the book total for all Steam Production Accounts 311-316.

Q: Is it proper to reallocate the Steam Production book reserve amounts?

A: Yes. FERC USOA only requires the book reserve to be recorded by functional classification. FERC USOA states:

> **108 Accumulated provision for depreciation of electric utility plant (Major only).**
> …
> C. For general ledger and balance sheet purposes, this account shall be regarded and treated as a single composite provision for depreciation. For purposes of analysis, however, each utility shall maintain subsidiary records in which this account is segregated according to the following functional classification for electric plant:
> (1) Steam production,
> (2) Nuclear production,
> (3) Hydraulic production,
> (4) Other production,
> (5) Transmission,
> (6) Distribution,
> (7) Regional Transmission and Market Operation, and
> (8) General. …[17]

Based on this statement, reallocating the reserve within the Steam Production functional classification does not change the amount in the reserve in that functional classification or violate the FERC USOA requirement to record the reserve by functional classification.

However, reallocating the reserve within the Steam Production Accounts addresses the reserve imbalance that exists in the Steam Production Accounts.[18]

[17] 18 C.F.R. 101 (Uniform System of Accounts Prescribed for Public Utilities and Licensees Subject to the Provisions of the Federal Power Act).

[18] PSE is proposing to reallocate some regulatory liabilities to address any deficiency in the "decommissioning and remediation costs associated with the retirement of Colstrip Units 1 and 2." *See* Exh. KJB-1T at 30:15 – 31:3.

Q: Is it reasonable to use the remaining life depreciation rates to address reserve imbalances?

A: Yes. As stated in NARUC's *Public Utility Depreciation Practices*: "The use of an annual amortization over a short period of time or the setting of depreciation rates using the remaining life technique are two of the most common options for eliminating the imbalance."[19]

Q: What is your recommendation regarding Steam Production depreciation rates?

A: I performed the same analysis discussed for Account 312, Boiler Plant Equipment, to all Steam Production Accounts. I recommend that the Steam Production depreciation rates be calculated using the reallocated depreciation reserve shown on pages 27-29 of Exhibit No. RMM-4.

Similar to the results for Account 312 shown in Table 4 above, the reallocation of the book reserve for all Steam Production Accounts results in a decrease to the depreciation accrual compared to what they otherwise would have been. This is expected because of the overall reserve surplus instead of the depreciation accrual increase PSE included in its proposed depreciation rates.

IV. INFLATION OF ELECTRIC PRODUCTION PLANT ESTIMATED TERMINAL NET SALVAGE COSTS

Q: Do you have a recommendation regarding the amount of future inflation PSE included in the estimated terminal net salvage costs used in the calculation of its proposed depreciation rates?

A: Yes. PSE is inflating the estimated terminal net salvage costs to the year of final retirement of the facility, but is collecting the future inflated estimated costs in today's

[19] Exh. RMM-6 at 5 (NARUC, *Public Utilities Depreciation Practices* 189 (1996)).

more valuable dollars. PSE's proposal collects the more valuable current dollars to pay for estimated future inflated terminal net salvage costs. I recommend collecting the estimated terminal net salvage costs in year-2018 dollars, which I will discuss in detail below.

Q: What are terminal net salvage costs?

A: Terminal net salvage costs are costs associated with the closure of a production plant that has ceased operations.

Q: Please explain how PSE is inflating the estimated terminal net salvage costs.

A: Attached as Exhibit No. RMM-7 is Mr. Spanos's workpaper showing the calculation of the terminal net salvage costs included in the calculation of PSE's proposed depreciation rates.[20] Looking at the row for Colstrip 3-4, column (7) shows an estimated terminal net salvage cost of $36,375,000 in year-2016 dollars.[21] In column (10), PSE inflates $36,375,000 to $58,150,901 in year-2035 dollars, assuming a 2.5 percent inflation rate per year.[22] This means that PSE expects the year-2035 dollar to be worth only 63¢ compared to a year-2016 dollar.[23]

PSE uses year-2035 dollars since Colstrip Units 3 and 4 are estimated to retire in year 2035. The inflated $58,150,901 amount is in year-2035 dollars and is included in PSE's calculation of the depreciation accrual.[24] However, the amount in year-2035 dollars is used to calculate the amount to be collected in the more valuable year-2018

[20] *See* Exh. RMM-7 (PSE Response to Industrial Customers of Northwest Utilities (ICNU) Data Request No. 027, Attachment A ("PSE - 2016 - Production Net Salvage Calculations.xlsx")).

[21] Column (8) of the PSE workpaper states that the estimated costs in column (7) are in year 2016-dollars. *See* Exh. RMM-7.

[22] $36,375,000 * (1 + 2/5%)^(2035-2016) = $58,150,900.50.

[23] $36,375,000 / $58,150,901 = $0.626.

[24] The inflated amounts are spread over the remaining life, but the current customers are still paying in the more valuable current dollars.

dollars. The issue is not that year-2035 dollars are worth less than current dollars. Rather, determining the quantity of dollars in the lower value year-2035 dollars and collecting that quantity in the more valuable current dollars is unreasonable and unfair to ratepayers.

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

A: Due to inflation, the 2035-year dollar will have a lower purchasing power than the 2018-year dollar.

Q: Does the annual inflation rate of 2.5 percent assumed in PSE's inflation of terminal net salvage costs include a change in the purchasing power of a dollar?

A: Yes. PSE is assuming that a year-2035 dollar is worth only 63¢ compared to a year-2016 dollar.[25]

The problem of paying year-2035 dollars today can be explained by a simple example. Assume a widget costs $36,000 today. Using the PSE 2.5 percent inflation that same widget would cost $58,000 in year-2035 dollars.[26] Even if the widget will cost $58,000 in year-2035 dollars, it is not reasonable to charge someone $58,000 in today's more valuable dollars. No reasonable consumer would pay $58,000 using today's dollars for an item that should only cost $36,000 today, just because the seller claims that the item will cost $58,000 nineteen years in the future. Similarly, charging current ratepayers estimated terminal net salvage costs calculated in 2035-year dollars but collected in today's more valuable dollars is not reasonable.

[25] $36,375,000 / $58,150,901 = $0.626.
[26] Assuming 2.5 percent inflation for 19 years. $36,000 * (1+2.5%)^(19) = $57,551.

Q: What do you recommend with respect to estimated terminal net salvage costs?

A: I recommend inflating the estimated terminal net salvage costs to the effective rate year-2018 dollars. The estimated terminal net salvage costs included in Public Counsel's proposed depreciation rates is shown on page 33 of Exhibit No. RMM-4 and is summarized in Table 5 below.

Table 5: Calculation of Estimated Future Terminal Net Salvage Costs

Plant	PSE Calculated Terminal Net Salvage	Current Year	Plant Retirement Year	PSE Terminal Net Salvage Inflated to Retirement Year	Rate Year	PC Terminal Net Salvage Inflated to Rate Year
A	B	C	D	E	F	G
Colstrip 1-2	28,930,000	2016	2022	33,549,931	2018	30,394,581
Colstrip 3-4	36,375,000	2016	2035	58,150,901	2018	38,216,484
Lower Baker	1,150,000	2016	2058	3,244,144	2018	1,208,219
Upper Baker	1,000,000	2016	2058	2,820,995	2018	1,050,625
Snoqualmie #1	140,000	2016	2044	279,509	2018	147,088
Snoqualmie #2	400,000	2016	2044	798,598	2018	420,250

Again, looking at Colstrip Units 3 and 4, the estimated terminal net salvage costs are $38 million in year-2018 dollars.[27]

My recommendation is to include the terminal net salvage costs at the level of the effective rate year of 2018, which is when PSE's proposed rates are set to go into effect.[28] PSE's proposal, on the other hand, collects the more valuable current dollars to pay for the inflated future estimated terminal net salvage costs.

[27] PSE has set the net salvage for Colstrip Units 1 and 2 to zero in its revenue requirement calculation. *See* Barnard, Exh. KJB-1T at 31, ll. 21-22. This testimony is discussing the terminal net salvage costs included in the PSE filed depreciation study (Spanos, Exh. JJS-3r).

[28] Rate Year January 1, 2018, through December 31, 2018 (Mills, Exh. DEM-1T, at 26, ll. 5-6).

V. NATURAL GAS DISTRIBUTION PLANT FUTURE NET SALVAGE

Q: Do you have a recommendation regarding PSE's proposed future net salvage percent for Natural Gas Distribution Plant?

A: Yes. For Natural Gas Accounts 376.20, 376.40, 378.00, 380.20, and 380.30 I recommend future net salvage percentages that differ from PSE's proposal as shown in Table 6 below:

Table 6: Comparison of Natural Gas Future Net Salvage Percent Proposals

Account	Current Approved FNS %	PSE Proposed FNS %	PC Proposed FNS %
DISTRIBUTION PLANT			
376.20, Mains-Plastic	-35%	-50%	-20%
376.40, Mains-Wrapped Steel	-50%	-50%	-20%
378.00, Measuring & Regulating Station Eq.	-20%	-50%	-20%
380.20, Services-Plastic	-75%	-75%	-60%
380.30, Services-Wrapped Steel	-75%	-75%	-60%

Q: Please explain what is meant by net salvage.

A: In NARUC's *Public Utility Depreciation Practices*, Net Salvage is defined as "the gross salvage for the property retired less its cost of removal."[29] Gross Salvage is defined as "the amount recorded for the property retired due to the sale, reimbursement, or reuse of the property."[30] Cost of Removal is defined as "the costs incurred in connection with the retirement from service and the disposition of depreciable plant. Cost of removal may be incurred for plant that is retired in place."[31]

[29] Exh. RMM-6 at 8 (NARUC, *Public Utilities Depreciation Practices* 322 (1996)).
[30] Exh. RMM-6 at 7 (NARUC, *Public Utilities Depreciation Practices* 320 (1996)).
[31] Exh. RMM-6 at 6 (NARUC, *Public Utilities Depreciation Practices* 317 (1996)).

Q: What impact does net salvage have on depreciation rates?

A: Positive net salvage results in a lower depreciation rate, all other things being equal. Negative net salvage results in a higher depreciation rate, all other things being equal.

As stated in NARUC's *Public Utilities Depreciation Practices*: "Positive net salvage occurs when gross salvage exceeds cost of retirement, and negative net salvage occurs when cost of retirement exceeds gross salvage."[32] The estimated future net salvage is part of the annual depreciation accrual, which is credited to the reserve to cover the estimated future net salvage costs the company may incur associated with plant asset's retirement.

Q: Have you reviewed the recovery of future net salvage costs included in PSE's proposed depreciation rates and the actual net salvage costs PSE has incurred in the recent past?

A: Yes. Table 7 below is a comparison of actual net salvage costs incurred by PSE on average over the recent five-year period to future net salvage costs included in PSE's and Public Counsel's proposed depreciation accrual rates.

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[32] Exh. RMM-6 at 2 (NARUC, *Public Utilities Depreciation Practices* 18 (1996)).

Table 7: Comparison of Actually Incurred Net Salvage and Net Salvage in Proposed Depreciation Rates

Account	Description	Five-Year Net Salvage Actually Incurred	Net Salvage Recovery included in PSE's Proposed Depr Rates	PSE Proposed / Actually Incurred	Net Salvage Recovery included in PC's Proposed Depr Rates	PC Proposed / Actually Incurred
A	B	C	D	E=D/C	F	G=F/C
	NATURAL GAS PLANT					
DISTRIBUTION PLANT						
374.20 thru 374.30	Easements	0	0	0.0	0	0.0
375.00	Struct. & Imrpov.	1,929	44,082	22.8	44,059	22.8
376.1 thru 376.4 and 376.6	Mains	1,673,594	13,569,878	8.1	4,997,268	3.0
376.50	Mains - Cathodic Protection	541	0	0.0	0	0.0
378.00	Meas. & Reg. Station Eq.	304,316	1,507,047	5.0	568,384	1.9
380 thru 380.5	Services	3,723,573	13,810,392	3.7	10,632,922	2.9
381.00	Meters	804,971	644,837	0.8	645,593	0.8
382.00	Meter Installations	230,684	339,582	1.5	339,854	1.5
383.00	House Regulators	938	0	0.0	0	0.0
384.00	House Regulators Installations	467	0	0.0	0	0.0
385.00	Indust. Meas. & Reg. St. Eq.	343,043	237,176	0.7	236,585	0.7
386.00	Res. & Comm. WH & CB	0	0	0.0	0	0.0
387.00	Other Equipment	0	0	0.0	0	0.0
TOTAL DISTRIBUTION PLANT		**7,084,057**	**30,152,993**	**4.3**	**17,464,666**	**2.5**

Table 7 is a summary of the information shown on Exhibit No. RMM-8 for PSE and Exhibit No. RMM-9 for Public Counsel.

Q: Please describe Exhibit No. RMM-8.

A: Exhibit No. RMM-8 shows the comparison of the recovery of future net salvage costs included in PSE's proposed depreciation accrual and the actual average net salvage costs PSE has incurred over the recent five-year period 2011-2015. As shown on Exhibit No. RMM-8, PSE proposed net salvage accrual is 4.3 times or $23 million[33] more than the average actual amount PSE has incurred over the recent five-year period 2011-2015.

[33] $30,152,993 PSE proposed net salvage annual accrual - $7,084,057 average actually incurred during 2011-2015 = $23,068,936.

Q: Please describe Exhibit No. RMM-9.

A: Exhibit No. RMM-9 shows that Public Counsel's proposed net salvage accrual is 2.5 times or $10 million[34] more than the average actual amount PSE has incurred over the recent five-year period 2011-2015.

Q: What factors did PSE consider in estimating the future net salvage percent?

A: Mr. Spanos stated in testimony that: "The primary factors I considered to estimate the future net salvage are analyses of historical cost of removal and salvage data, expectation regarding future removal requirements, and markets for retired equipment and materials."[35]

Additionally, the 2016 Depreciation Study states:

> The estimates of net salvage by account were based in part on historical data compiled through 2015. Cost of removal and salvage were expressed as percents of the original cost of plant retired, both on annual and three-year moving average bases. The most recent five-year average also was calculated for consideration. The net salvage estimates by account are expressed as a percent of the original cost of plant retired.[36]

Q: As an example of your analysis, can you discuss the future net salvage percent PSE proposes for Accounts 376.20, Mains-Plastic and 376.40, Mains-Wrapped Steel?

A: As shown in Table 6 above, PSE is proposing a -50 percent for both 376.20, Mains-Plastic and 376.40, Mains-Wrapped Steel. The "historical data compiled through 2015" shows a historical average net salvage of -43 percent and the "most recent

[34] $17,464,666 Public Counsel proposed net salvage annual accrual - $7,084,057 average actually incurred during 2011-2015 = $10,380,609.
[35] Spanos, Exh. JJS-1T at 10, ll. 5-8.
[36] Spanos, Exh. JJS-3r at 44.

five-year average" shows a historical five-year average of $1,673,594 which produces a -55 percent in Mr. Spanos's workpaper.[37]

Q: Did you also consider this historical net salvage analysis in your recommended -20 percent future net salvage percent for Accounts 376.20, Mains-Plastic and 376.40, Mains-Wrapped Steel?

A: Yes. As shown on page 451 of Exhibit No. JJS-3r, average actual net salvage costs PSE has incurred over the recent five-year period 2011-2015 is $1,673,594.

As is shown in Table 7 above, PSE's proposed net salvage annual accrual is $13,569,878 which is 8.1 times the $1,673,594 average net salvage amount PSE actually incurred,[38] and is $11,896,284 more than the average actual net salvage costs incurred by PSE during 2011-2015.[39] In other words, PSE is proposing to charge depreciation expense to ratepayers that increases the reserve $11 million per year for *estimated* future net salvage costs.

Additionally, the historic net salvage analysis shows that PSE has incurred total net salvage costs of $18,687,156 for the entire 18-year period from 1998-2017.[40] PSE's proposal to collect $13 million per year for an account that has only incurred $18 million total costs for 18 years is excessive.

However, Public Counsel's recommended -20 percent future net salvage results in an annual accrual of $4,997,268 which is 3.0 times the actual incurred,[41] and is $3,323,674 more than the average actual net salvage costs incurred by PSE in the most

[37] Spanos, Exh. JJS-3r at 450-451,
[38] $13,569,878 PSE proposed / $1,673,594 actual = 8.1. *See* Exh. RMM-8.
[39] $13,569,878 PSE proposed net salvage accrual less $1,673,594 PSE average actual incurred over 2011-2015 equals $11,896,284.
[40] Exh. JJS-3r at 450.
[41] *See* Exh. RMM-9.

recent five-year period.[42] This means that Public Counsel's recommended future net salvage accrual will still provide a reserve for estimated future net salvage costs, but at a more reasonable annual amount.

Based on the 2011-2015 five-year period, PSE's proposed net salvage would build the book reserve for future net salvage costs $11,896,284 per year while Public Counsel's proposed net salvage accrual builds the reserve at a more reasonable amount of $3,323,674 per year. Public Counsel's proposed net salvage accrual is a good balance between the net salvage annual accrual charged to current ratepayers while still building a reserve for PSE's future estimated net salvage costs.

Q: What are some other considerations that influenced your recommended -20 percent future net salvage percent for Accounts 376.20, Mains-Plastic and 376.40, Mains-Wrapped Steel?

A: One consideration in my proposal is a gradual move in the future net salvage accrual. The current future net salvage percent is -35 percent for Account 376.20, Mains-Plastic which is the largest of the two accounts.[43] PSE's proposed -50 percent future net salvage percent is a 15 percent increase in the current approved net salvage percent. As discussed above, this proposal unnecessarily accelerates the building of the reserve for estimated future net salvage costs. Public Counsel's recommended 15 percent decrease to the current approved future net salvage percent includes a more reasonable annual amount to build the reserve for future net salvage costs than the Company's proposal.

[42] $4,997,268 Public Counsel proposed net salvage accrual less $1,673,594 PSE average actual incurred over 2011-2015 equals $3,323,674.

[43] The September 30, 2016, plant in service for Account 376.20, Mains-Plastic is $1,180,051,442 and the September 30, 2016, plant in service for Account 376.40, Mains-Wrapped Steel is $536,417,722 as is shown on page 64 of Exh. JJS-3r.

Additionally, during the field visit to PSE's service territory, I observed an underground natural gas distribution replacement project in which PSE was replacing plastic mains. At the project site, the new mains were being buried on the opposite side of the road from the old mains, and the old mains were going to be retired in place. The cost of retiring the old mains would not include the high cost of removing the old mains and restoration of the roads and landscape. There would, however, still be some costs related to retirement to make the old mains safe to retire in place.

Q: Please explain how Public Counsel's proposed net salvage accrual is more reasonable than PSE's proposed net salvage accrual.

A: Public Counsel's proposed net salvage accrual is more reasonable than PSE's proposed net salvage accrual based on analysis of the recent five-year period. PSE's proposed net salvage accrual of 4.3 times the actual incurred unnecessarily accelerates the building of the book reserve for future estimated net salvage costs, which increases the depreciation expense charged to current customers. However, Public Counsel's proposed net salvage accrual is 2.5 times the actual incurred PSE, which will build the book reserve for future estimated net salvage costs at a more reasonable rate. Public Counsel's proposed net salvage accrual is a good balance between the depreciation expense charged to current customers and the building of the book reserve to cover any PSE future net salvage costs associated with the retirement of an asset.

Q: Please summarize your recommendation for net salvage for Natural Gas Distribution Plant.

A: I recommend future net salvage percent for Natural Gas Accounts 376.20, 376.40, 378.00, 380.20, and 380.30 shown in Table 6. These proposed net salvage percents result

in an annual accrual for cost of removal that is a good balance between the depreciation expense charged to current customers and the building of the book reserve to cover any PSE future net removal costs associated with the retirement of an asset.[44]

VI. ELECTRIC DISTRIBUTION PLANT FUTURE NET SALVAGE

Q: Do you have a recommendation regarding PSE's proposed future net salvage percent for Electric Transmission and Distribution Plant?

A: Yes. For the same reasons discussed in the above section, I recommend future net salvage percentages for Electric Accounts 355, 356, 362, 367, and 369 that differ from PSE's proposal as shown in Table 8 below:

Table 8: Comparison of Electric Future Net Salvage Percent Proposals

Account	Current Approved FNS %	PSE Proposed FNS %	PC Proposed FNS %
TRANSMISSION PLANT			
355, Poles Towers, and Fixtures	-30%	-40%	-30%
356, Overhead Conductors & Devices	-20%	-10%	-5%
DISTRIBUTION PLANT			
362, Station Equipment	-10%	-15%	-10%
367, Underground Conductors & Devices	-20%	-40%	-20%
369, Services	-20%	-60%	-50%

[44] 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".

Q: Have you reviewed the recovery of future net salvage costs included in PSE's proposed depreciation rates and the actual net salvage costs PSE has incurred in the recent past?

A: Yes. Table 9 below is a comparison of the actual net salvage costs incurred by PSE on average over the recent five-year period to the future net salvage costs included in PSE's and Public Counsel's proposed depreciation accrual rates.

Table 9: Comparison of Actually Incurred Net Salvage and Net Salvage in Proposed Depreciation Rates

Account	Description	Five-Year Net Salvage Actually Incurred	Net Salvage Recovery included in PSE's Proposed Depr Rates	PSE Proposed / Actually Incurred	Net Salvage Recovery included in PC's Proposed Depr Rates	PC Proposed / Actually Incurred
A	B	C	D	E=D/C	F	G=F/C
	ELECTRIC PLANT					
TRANSMISSION PLANT						
350 thru 350.99	Easements	0	0	0.0	0	0.0
352 thru 352.9	Struct. & Imrpov.	0	6,935	0.0	6,937	0.0
353 thru 353.9	Station Equipment	613,269	1,270,148	2.1	1,269,883	2.1
354 thru 354.9	Tower and Fixtures	0	150,487	0.0	150,391	0.0
355 thru 355.9	Poles and Fixtures	1,057,822	3,208,891	3.0	2,364,441	2.2
356 thru 356.9	OH Conductors and Dev.	123,660	358,405	2.9	172,171	1.4
357 thru 357.7	Underground Conduit	0	0	0.0	0	0.0
358.7 thru 358.9	UG Conductors and Dev.	0	0	0.0	0	0.0
359 thru 359.99	Roads and Trails	0	0	0.0	0	0.0
TOTAL TRANSMISSION PLANT		**1,794,752**	**4,994,866**	**2.8**	**3,963,823**	**2.2**
DISTRIBUTION PLANT						
360.10	Easements	0	0	0.0	0	0.0
361.00	Struct. & Imrpov.	6,351	12,773	2.0	12,779	2.0
362.00	Station Equipment	272,048	1,157,142	4.3	759,060	2.8
363.00	Battery Storage Equipment	0	0	0.0	0	0.0
364.00	Poles, Towers, & Fixtures	2,600,667	3,571,300	1.4	3,567,248	1.4
365.00	OH Conductors and Dev.	1,936,404	3,061,311	1.6	3,055,618	1.6
366.00	Underground Conduit	(5,400)	1,082,974	-200.6	1,082,027	-200.4
367.00	UG Conductors and Dev.	1,985,431	9,491,712	4.8	4,430,302	2.2
368.00	Line Transformers	2,352,592	6,268,592	2.7	6,262,498	2.7
369.00	Services	597,978	2,147,850	3.6	1,710,566	2.9
370.00	Meters	1,157,315	1,066,403	0.9	1,069,988	0.9
373.00	Street Light. & SS	312,465	332,937	1.1	333,803	1.1
TOTAL DISTRIBUTION PLANT		**11,215,852**	**28,192,994**	**2.5**	**22,283,889**	**2.0**

Table 9 is a summary of the information shown on Exhibit No. RMM-10 for PSE and Exhibit No. RMM-11 for Public Counsel.

Q: Please describe Exhibit No. RMM-10.

A: Exhibit No. RMM-10 shows the comparison of the recovery of future net salvage costs included in PSE's proposed depreciation accrual and the actual average net salvage costs PSE has incurred over the recent five-year period 2011-2015. As shown in Exhibit No. RMM-10, the PSE proposed net salvage accrual recovers 2.8 times or $3.2 million[45] more than the average actual amount PSE has incurred over the recent five-year period 2011-2015 for Transmission Plant and 2.5 times or $17 million[46] more than the average actual amount PSE has incurred over the recent five-year period 2011-2015 for Distribution Plant.

Q: Please describe Exhibit No. RMM-11.

A: Exhibit No. RMM-11 shows that the Public Counsel's proposed net salvage accrual recovers 2.2 times or $2.2 million[47] more than the average actual amount PSE has incurred over the recent five-year period 2011-2015 for Transmission Plant and 2.0 times or $11 million[48] more than the average actual amount PSE has incurred over the recent five-year period 2011-2015 for Distribution Plant.

[45] $4,994,866 PSE proposed net salvage annual accrual - $1,794,752 average actually incurred during 2011-2015 = $3,200,114.
[46] $28,192,994 PSE proposed net salvage annual accrual - $11,215,852 average actually incurred during 2011-2015 = $16,977,142.
[47] $3,963,823 PSE proposed net salvage annual accrual - $1,794,752 average actually incurred during 2011-2015 = $2,169,071.
[48] $22,283,889 PSE proposed net salvage annual accrual - $11,215,852 average actually incurred during 2011-2015 = $11,068,037.

Q: Again, as an example of your analysis, please discuss the future net salvage percent PSE proposes for Account 367, Underground Conductors and Devices.

A: As shown in Table 8 above, PSE is proposing a -40 percent for Account 367, Underground Conductors and Devices. The "historical data compiled through 2015" shows a historical average net salvage of -36 percent and the "most recent five-year average" shows a historical five-year average of $1,985,431 which produces a -49 percent in Mr. Spanos's workpaper.[49]

Q: Did you also consider this historical net salvage analysis in your recommended -20 percent future net salvage percent for Account 367, Underground Conductors and Devices?

A: Yes. As is shown on page 429 of Exhibit No. JJS-3r, the average actual net salvage costs PSE has incurred over the recent five-year period 2011-2015 is $1,985,431.

As is shown on Table 9 above, PSE's proposed net salvage annual accrual is $9,491,712 which is 4.8 times the $1,985,431 average net salvage amount PSE actually incurred,[50] and is $7,506,281 more than the average actual net salvage costs incurred by PSE during 2011-2015.[51] In other words, PSE is proposing to charge depreciation expense to ratepayers that increases the reserve $7.5 million per year for *estimated* future net salvage costs.

However, Public Counsel's recommended -20 percent future net salvage results in an annual accrual of $4,430,302 which is 2.2 times the actual incurred,[52] and is $2,444,871 more than the average actual net salvage costs incurred by PSE during

[49] Spanos, Exh. JJS-3r at 428-429.
[50] $9,491,712 PSE proposed / $1,985,431 actual = 4.8.
[51] $9,491,712 PSE proposed net salvage accrual less $1,985,431 PSE average actual incurred over 2011-2015 equals $7,506,281.
[52] *See* Exh. RMM-11.

2011-2015.[53] In all, this means that Public Counsel's recommended future net salvage accrual will still provide a reserve for estimated future net salvage costs, but at a more reasonable annual amount.

Based on the 2011-2015 five-year period, PSE's proposed net salvage would build the book reserve for future net salvage costs $7,506,281 per year while Public Counsel's proposed net salvage accrual builds the reserve an at more reasonable amount of $2,444,871 per year. Public Counsel's proposed net salvage accrual is a good balance between the net salvage annual accrual charged to current ratepayers and building the reserve for PSE's future net salvage costs.

Q: Please summarize your recommendation for net salvage for Electric Transmission and Distribution Plant.

A: I recommend adjusting PSE's proposed future net salvage percent for Electric Accounts 355, 356, 362, 367, and 369, shown in Table 8. Public Counsel's proposed net salvage percents result in an annual accrual for cost of removal that strikes a balance between the depreciation expense charged to current customers and the building of the book reserve to cover any PSE's future net removal costs associated with the retirement of an asset.[54]

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[53] $4,430,302 Public Counsel proposed net salvage accrual less $1,985,431 PSE average actual incurred over 2011-2015 equals $2,444,871.

[54] 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".

VII. PROJECTED AVERAGE SERVICE LIFE

Q: Did you also review PSE proposed projected average service lives for some accounts?

A: Yes, I have reviewed the lives of several accounts and do not oppose PSE's proposed projected average service lives. For example, the historical life analysis for Electric Account 369, Services indicates the plant is living longer than the current approved 45-year projected average service life. PSE has proposed to increase the projected average service life to 55 years. I do not oppose this PSE proposal.

VIII. CONCLUSION

Q: Please summarize your recommendations.

A: For the reasons stated above, I recommend that Public Counsel's proposed depreciation rates for Electric Plant, shown on Exhibit No. RMM-4, and for Natural Gas Plant, shown on Exhibit No. RMM-5, be approved for PSE in Washington.

Public Counsel's proposed depreciation rates shown on Exhibit Nos. RMM-4 and RMM-5 include the following adjustments to PSE's proposed depreciation rates:[55]

(1) I recommend allocating the Steam Production book reserve among the production plants within the Steam Production Accounts due to the reserve imbalance that is mainly related to the change in the Colstrip estimated retirement year;

(2) I recommend setting the estimated terminal net salvage costs at current dollars, instead of PSE's proposal to estimate future inflated terminal net salvage costs in lower-value future dollars and, based on that inflated future cost, to collect from current ratepayers in the more valuable current dollars.

[55] Other than the changes directly and clearly stated in this testimony, I am not implying any other changes.

(3) I recommend the changes to the PSE's proposed future net salvage percents for Electric Accounts 355, 356, 362, 367, and 369 and Natural Gas Accounts 376.20, 376.40, 378.00, 380.20, and 380.30, as discussed in this testimony. Public Counsel's proposed future net salvage percents result in net salvage annual accruals that are a good balance between the net salvage annual accrual charged to current ratepayers and building the book reserve for PSE's future net removal costs.

Q: Does this conclude your direct testimony?

A: Yes.