

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-07 _____

DOCKET NO. UG-07 _____

DIRECT TESTIMONY OF

DAVE B. DEFELICE

REPRESENTING AVISTA CORPORATION

I. INTRODUCTION

1
2 **Q. Please state your name, employer and business address.**

3 A. My name is Dave DeFelice. I am employed by Avista Corporation as a Senior
4 Business Analyst. My business address is 1411 East Mission, Spokane, Washington.

5 **Q. Please briefly describe your education background and professional**
6 **experience.**

7 A. I graduated from Eastern Washington University in June of 1983 with a Bachelor
8 of Arts Degree in Business Administration majoring in Accounting. I have served in various
9 positions within the Company, including Analyst positions in the Finance Department (Rates
10 section and Plant Accounting) and in Marketing/Operations Departments, as well. While
11 employed in the Plant Accounting section of the Finance Department in 1988-1990, I was
12 involved in a depreciation study of the Company's Electric Plant facilities. I rejoined the Rates
13 section in December of 1997 as a Rate Analyst. Then in 1999, I joined a group in the Company
14 as a Sr. Business Analyst that focuses on economic analysis of various project proposals as well
15 as evaluations and recommendations pertaining to business policies and practices.

16 **Q. As a Senior Business Analyst, what are your responsibilities?**

17 A. As a Senior Business Analyst I am involved in activities ranging from financial
18 analysis of numerous projects with various departments such as Engineering, Operations,
19 Marketing/Sales and Finance. Also, a portion of my job tasks involve advisory and informal
20 training of employees (primarily new hires in Engineering) pertaining to regulatory finance and
21 ratemaking concepts.

1 unchanged over a long period of time implies a disregard for the inherent variability in service
2 lives and salvage and for the change of the composition of property in service. The annual
3 accrual rates proposed in this filing were calculated in accordance with the straight-line
4 remaining life method of depreciation using the average service life procedures based on
5 estimates which reflect considerations of historical evidence and expected future conditions.

6 **Q. What are the definitions of key terms used in the depreciation study report**
7 **containing the basis for your depreciation rate recommendations for Avista?**

8 A. The definitions are as follows:

9 Depreciation – As applied to depreciable utility plant, means the loss in service
10 value incurred through the consumption or prospective retirement of utility plant in the course of
11 service from causes which are known to be from current operation. Among the causes to be
12 given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence,
13 changes in demand and requirements of public authorities.

14 Service Value – The difference between original cost and net salvage of utility
15 plant.

16 Net Salvage – The salvage value of property retired less the cost of removal.

17 Salvage Value – The amount received for property that has been retired, less any
18 cost incurred in connection with the sale or in preparing the property for sale; or, if retained, the
19 amount at which the material recoverable is chargeable to materials and supplies (inventory), or
20 other appropriate account.

1 Cost of Removal – The cost of demolishing, dismantling, tearing down or
2 otherwise removing utility plant, including the cost of transportation and handling incidental
3 thereto.

4 Service Life – The time between the date utility plant is includible in utility plant
5 in service and the date of its retirement.

6 **Q. When was the last time the Company changed its depreciation rates?**

7 A. The last time the Company changed depreciation rates was October 1, 2000.

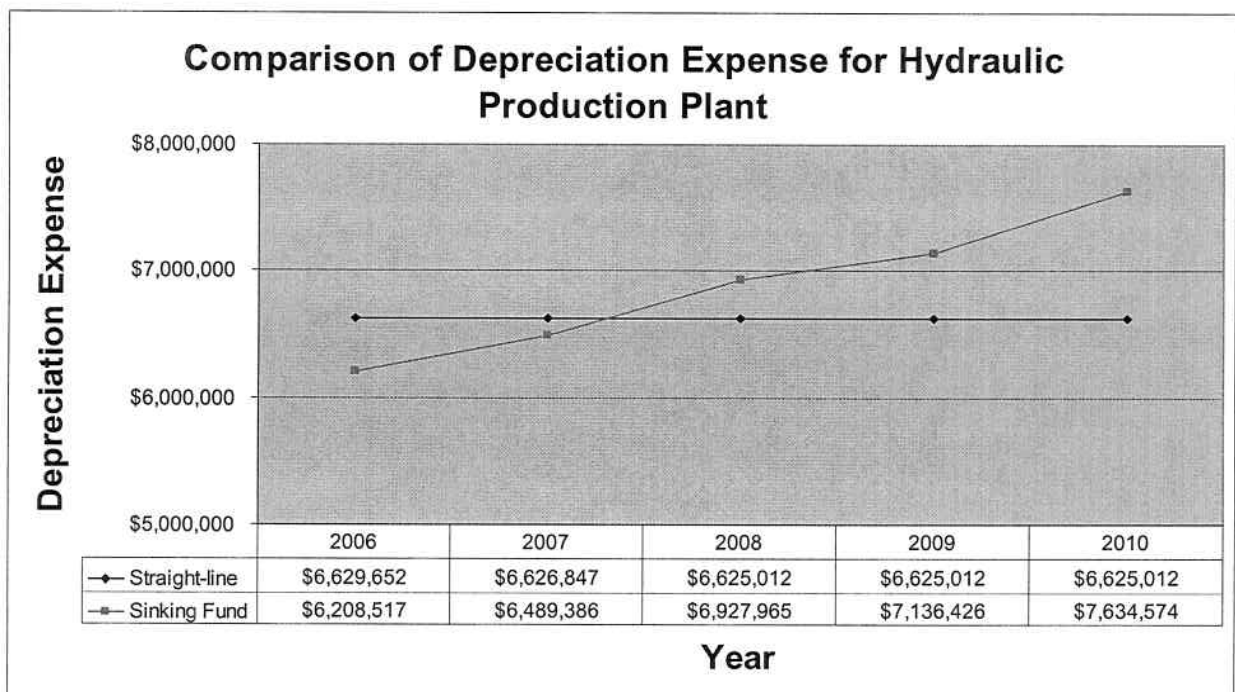
8 **Q. Is the Company proposing different depreciation methodologies in this case
9 than what were used in 2000?**

10 A. Yes. The change in depreciation rates is due to updated information determined
11 through analysis of historical retirement experience, salvage and cost of removal experience, and
12 determination of updated unit remaining lives and net salvage factors. The Company proposes to
13 utilize the straight-line methodology for hydro electric facilities, consistent to the methodology
14 used on all other categories of plant in service within the scope of this depreciation study. The
15 sinking-fund methodology has been used on hydro generation facilities up to this point in time.

16 **Q. Why is the Company proposing to use the straight-line depreciation
17 methodology on hydraulic electric generation facilities rather than the sinking-fund
18 method?**

19 A. The straight-line method of depreciation will result in lower increases in
20 depreciation expense accruals and depreciation levels consistent with capital activity in future
21 years for hydro electric generation facilities as compared to the sinking-fund methodology. (See
22 Comparison of Depreciation Expense for Hydraulic Production Plant for projected expenses

1 between 2006 through 2010 in graph below.) Also, the sinking-fund methodology is no longer
 2 recognized as a reasonable approach of depreciation for utility assets. It is not consistent with
 3 other utilities or the other asset classes in this report. The conversion to straight-line depreciation
 4 will result in a minor impact to ratepayers now (reduction in depreciation expense of
 5 approximately \$300,000 in 2008), but will also mitigate depreciation accrual changes for future
 6 studies in comparison to the sinking-fund methodology.



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8 **Q. What is the impact of the proposed changes in depreciation rates?**

9 A. The Pro Forma Depreciation Adjustment reflects an increase in electric
 10 depreciation expense due to the utilization of new depreciation rates that were the result of the
 11 detailed depreciation study performed by Gannett Fleming, Inc., explained earlier. The effect of
 12 this adjustment is to decrease electric system operating income before federal income tax by
 13 \$1,849,980. This amount is calculated on of Exhibit No. ___(DBD-2) (Pro Forma Depreciation
 14 Adjustment – Electric). The same adjustment for gas operations is to increase system operating

1 income before federal income tax by \$465,865. This amount is calculated on of Exhibit
2 No. ____ (DBD-3) (Pro Forma Depreciation Adjustment – Gas).

3 **Q. Why are new depreciation rates being proposed in this general electric**
4 **filing?**

5 A. Accounting theory requires matching of expenses with either consumption or
6 revenues to ensure that financial statements reflect results of operations as accurately as possible.
7 The matching principle of financial accounting is often referred to as the “cause and effect”
8 principle. Because utility revenues are determined through regulation, changes in asset
9 consumption are not automatically reflected in revenues until regulated revenues are adjusted to
10 reflect the changes in asset consumption. Consumption of utility assets must be measured
11 directly by conducting a book depreciation study to accurately determine mortality
12 characteristics. Matching is an element of regulatory philosophy that addresses intergenerational
13 equity. Intergenerational equity means costs are borne by the generation of customers that caused
14 them to be incurred, not by a later generation. This matching concept is one principle that can be
15 used to ensure that charges to customers reflect the actual costs of providing service. Also,
16 proper matching of costs and revenues related to group (mass) asset consumption will provide for
17 not only sufficient recovery of existing assets in service, but also provide for a mechanism to
18 fund replacements of retired assets on a timely basis, thus reducing rate impacts by way of
19 limiting “catch-up” adjustments in future deprecation studies.

20 **Q. Please summarize the analysis methods used in the depreciation study?**

21 A. The study consisted of the following processes:

1 Step One was a Life Analysis consisting of statistical historical retirement experience and
2 an evaluation of the applicability of that experience to surviving property. For Production Plant,
3 this step also entailed the establishment of the generating unit probable retirement dates suitable
4 for rate calculation.

5 Step Two was a Net Salvage Analysis consisting of a study of salvage value and cost of
6 removal experience and an evaluation of the applicability of that experience to surviving
7 property.

8 Step Three consisted of the determination of the generating unit remaining lives, the
9 average service lives, the interim retirement dispersion identified by pending construction
10 additions and interim retirement ratios for Production Plant and retirement dispersion by Iowa-
11 type curves for Transmission, Distribution and General Plant, and the net salvage factors
12 applicable to surviving property for all categories of plant.

13 Step Four was the determination of the depreciation accrual rates applicable to each plant
14 group, recognizing the results of Steps One through Three, and a comparison with the existing
15 rates.

16 **Q. Can you elaborate on the two different methods used for plant retirement**
17 **dispersions?**

18 A. For Electric Transmission, Distribution and General Plant, and Gas Plant in
19 Service Account, historical retirements were used as a basis for the actuarial method of Life
20 Analysis. This statistical analysis can be performed since the vintage of retired and surviving
21 property is known. Generally, retirement data for the years 1989-2004 were used in the actuarial

1 life computations. From this, original survivor curves were visually and statistically fitted to
2 Iowa-type survivor curves (defined below).

3 The actuarial method of Life Analysis for Production Plant will provide only an
4 indication of interim average service life and retirement dispersion without consideration of
5 terminal retirement experience. Thus, a two step analysis was utilized. Step One was the
6 estimation of the retirement date for each generating unit and Step Two was the calculation of
7 past interim addition and retirement ratios. Interim additions and retirements were determined
8 from the Company's actual recorded history by plant and account for the entire history of each
9 plant. These amounts then determined interim retirement ratios (interim retirements as a
10 percentage of past depreciable balances) that is the depreciation rate that would have recovered
11 an amount equal to the total interim retirements.

12 **Q. What would be the impact if interim retirement ratios were not used in**
13 **Production Plant depreciation analysis?**

14 A. Due to the nature of the mortality characteristics of generating plants, using only
15 historical retirements in the same way that is done for other plant categories would result in
16 artificially low depreciation rates for generating plants during the early years of asset life. This is
17 due to the fact that plant retirements for generating plants typically are not as prevalent in the
18 early years of plant life, as compared to the later years in the remaining life of a facility. Thus,
19 cost recovery through depreciation rates would be disproportional (higher) in the later years of
20 the plant life, which violates the attempt to achieve intergenerational equity.

21 **Q. What are Iowa Curves?**

22 A. Iowa Curves represent frequency dispersion of retirements identified by a simple

1 nomenclature. The nomenclature is a combination of a letter and a number, the letter refers to
2 the shape of the retirement dispersion, whereas, the number represents the concentration of
3 retirements near the average service life.

4 For example, an “L” curve has the majority of retirements occurring prior to the average
5 service life or to the left of the mean. An “R” curve has the majority of retirements occurring
6 after the average service life or to the right of the mean. An “S” curve is symmetrical to the
7 mean or average service life.

8 **Q. Could you discuss the analysis supporting the salvage and cost of removal**
9 **ratios that are proposed by the Company?**

10 A. Yes. The analysis was based upon actual salvage and cost of removal experience
11 from 1983 through 2004. Salvage and cost of removal factors were developed for each property
12 group by dividing salvage and cost of removal amounts by the original cost of the retired
13 property. Since the average dollar age of retirements of plant is young relative to the expected
14 age of surviving property at retirement, this results in overstating salvage factors and understating
15 the cost of removal factors applicable to surviving property, if history serves as the sole basis for
16 net salvage determination. From this, salvage factors would be overstated because young
17 property retirements are more likely to have a salvage value than older reused items. In addition,
18 cost of removal factors are understated because the amount of inflation reflected in the cost to
19 remove young property is much less than the amount that will be reflected in the cost to remove
20 the surviving property when it is retired. The average age of original installations at retirement is
21 equal to the average service life, meaning that the average age of surviving property at retirement

1 will be higher than the average service life and much higher than the age of current retirements.

2 Reaction to this situation resulted in an inflation adjustment to historical cost of removal ratios.

3 **Q. What were the changes in electric depreciation rates that were recommended**
4 **as a result of the study?**

5 A. Following is a table that shows the existing rates and the recommended rates:

<u>Functional Electric Group</u>	<u>Depreciation Rates</u>	
	<u>Existing %</u>	<u>Recommended %</u>
6 Steam Production Plant	3.06	3.13
7 Hydraulic Production Plant	1.89	2.02
8 Other Production Plant	3.90	3.23
9 Transmission Plant	2.45	2.15
10 Distribution Plant	2.17	2.82
11 General Plant	8.44	5.34

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16 **Q. What does that represent in terms of a percentage increase in depreciation**
17 **expense?**

18 A. By utilizing the new rates recommended in the study and applying them to system
19 electric plant monthly average balances for the twelve months ended December 31, 2006,
20 depreciation expense increased by approximately 3%.

21 **Q. Can you summarize the findings and recommendations of the depreciation**
22 **study using the functional groups listed above?**

23 A. Yes. The composite rate for electric property under the study changed from
24 2.64% to 2.73%. As a group, average service life changes were mostly increases. Net salvage
25 changes were mostly more negative due to decreased salvage and increased cost of removal. The
26 relationship of increased average service life and more negative net salvage is expected due to

1 the fact that cost of removal is sensitive to price level changes that reflect labor costs, while the
2 salvage value of an asset will inherently decrease as its age increases.

3 Steam Production plant depreciation expense increased due to increased levels of
4 negative net salvage. Hydraulic Production plant expense increased due primarily to the switch
5 from sinking-fund method of depreciation to straight-line method. Other Production plant
6 expense decreased due to increased service lives. Transmission plant expense decreased due to
7 increased service lives. Distribution plant expense significantly increased due mainly to three
8 accounts, including Poles, Overhead Conductor and Underground Conductor. For Poles and
9 Overhead Conductor, the salvage values changed from net positive to net negative. For
10 Underground Conductor, the service lives were shortened. General plant expense decreased
11 primarily due to Communication Equipment lives being increased from 12 to 15 years to better
12 reflect the type of asset being installed.

13 **Q. What were the changes in gas depreciation rates that were recommended as a**
14 **result of the study?**

15 A. Following is a table that shows the existing rates and the recommended rates:

<u>Functional Gas Group</u>	<u>Depreciation Rates</u>	
	<u>Existing %</u>	<u>Recommended %</u>
Underground Storage Plant	2.31	1.86
Distribution Plant	2.43	2.34
General Plant	5.85	4.84

23 **Q. What does that represent in terms of a percentage increase in depreciation**
24 **expense?**

1 A. By utilizing the new rates recommended in the study and applying them to system
2 gas plant monthly average balances for the twelve months ended December 31, 1996,
3 depreciation expense decreased by approximately 4.9%.

4 **Q. Can you summarize the findings and recommendations of the depreciation**
5 **study using the functional groups listed above?**

6 A. Yes. The composite rate for gas property under the study changed from 2.50% to
7 2.37%. As a group, life changes were mostly increases. Net salvage changes were mostly
8 decreases due to decreased salvage and increased cost of removal. The relationship of increased
9 asset life and net salvage decreases is expected due to the fact that cost of removal is sensitive to
10 price level changes that reflect labor costs, while the salvage value of an asset will inherently
11 decrease as its age increases.

12 **Q. Please summarize the effect the depreciation adjustment has on the electric**
13 **system results of operations?**

14 A. The effect of this adjustment decreased electric system operating income before
15 federal income tax by \$1,849,980.

16 **Q. Please summarize the effect the depreciation adjustment has on the gas**
17 **system results of operations?**

18 A. The effect of this adjustment increased gas system operating income before federal
19 income tax by \$465,865.

20 **Q. Does this conclude your pre-filed direct testimony?**

21 A. Yes, it does.