Exh. JL-1T
Dockets UE-180167/UG-180168
Witness: Jing Liu

BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **AVISTA CORPORATION, d/b/a Avista Utilities.** **Respondent.**	**DOCKETS UE-180167 and UG-180168 (*Consolidated*)**

TESTIMONY OF

Jing Liu

STAFF OF
WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION

Testimony in Support of Settlement

February 15, 2019

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Jing Liu. My office address is 1300 South Evergreen Park Drive Southwest, P.O. Box 47250, Olympia, Washington, 98504. My email address is jing.liu@utc.wa.gov.

Q. By whom are you employed and in what capacity?

A. I am employed by the Washington Utilities and Transportation Commission (Commission) as a Regulatory Analyst.

Q. Would you please state your educational and professional background?

A. I hold a Bachelor's degree in English Language and Literature, a Master of Arts degree in organizational communication and a Master of Science degree in communication technology and policy from Ohio University. I also completed four years of doctoral study in public policy at Ohio State University. I worked as a graduate research associate at the National Regulatory Research Institute (NRRI) from 2005 to 2007. I worked in the telecommunications section of the Commission between 2008 and 2014 where I was responsible for developing and implementing telecommunications universal service policies and designating and annually certifying Eligible Telecommunications Carriers in Washington. I have been working in the Energy Regulation Section of the Commission since 2014. In this role I have been the lead analyst across a number of topics, including decoupling, temperature normalization, low income bill assistance, purchased gas adjustments, gas pipeline cost recovery mechanisms, residential exchange credits, and treasury grants.

Q. Have you previously testified before the Commission?

A. Yes. I provided testimony to the Commission in proceedings addressing United Telephone Company of the Northwest Inc.'s intrastate access charges (UT-081393), the acquisition of Verizon Northwest, Inc. by Frontier Communications Corporation (UT-090842), the acquisition of Qwest Corporation by CenturyLink, Inc. (UT-100820), Frontier Communications Northwest, Inc.'s petition for competitive classification (UT-121994), Avista Corporation's General Rate Case (GRC) (UE-160228/UG-160229), and Puget Sound Energy's GRC (UE-170033/UG-170034).

II. SCOPE AND SUMMARY OF TESTIMONY

Q. Could you briefly summarize this proceeding so far?

A. Yes. Avista filed its depreciation study on February 22, 2018, requesting (1) to revise the depreciation rates on its book, effective January 1, 2019; and (2) deferred accounting treatment for the difference between the new book depreciation expense and the depreciation expense embedded in customer rates. The Company uses December 31, 2016, plant balances in this study.[1] In its revised petition on

[1] Dockets UE-180167 and UG-180168, Initial Filing, February 22, 2018, Attachment C, p. iii.

August 22, 2018, the Company requested to extend the effective date of the new depreciation rates to April 1, 2019, and withdrew its request for deferred accounting treatment. On February 12, 2019, an all-party, full Settlement Agreement was filed with the Commission.

Q. Please summarize the proposed Settlement.

A. This Settlement represents full resolution of all issues in this proceeding. Of note, this Settlement includes an acceleration of the depreciable lives for Colstrip Units 3 & 4 and mitigates the effect of that acceleration on depreciation expense by offsetting a significant portion of the remaining Colstrip balances with excess deferred income taxes (EDIT)[2] made available by the Tax Cuts and Jobs Act of 2017 (Tax Reform).

Q. What topics will you be discussing in your testimony?

A. The purpose of my testimony is to articulate Staff's support for the Settlement Agreement in these dockets. In discussing the Settlement, I divide my testimony into two categories:

- Accelerated depreciation of Colstrip Units 3 & 4; and
- Other changes to Avista's proposed depreciation rates.

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[2] Excess deferred income taxes are the portion of deferred income taxes companies have collected from ratepayers over the years, originally expected to be paid to the federal government in the future, but are no longer owed due to the reduction in corporate tax rate by the Tax Cuts and Jobs Act of 2017. Protected EDIT arises from the differences between tax and regulatory depreciation for utility plant. Unprotected EDIT arises from the same differences for everything else. For a more detailed explanation of the two types of EDIT, see Christopher R. McGuire's Testimony in Dockets UE-180899 and UG-180900, at 10-13.

Q. Please summarize Staff's position with respect to the Settlement.

A. Staff recommends that the Commission approve the Settlement without condition. The Settlement Agreement resolves all issues related to Avista's depreciation study and is the result of thoughtful collaboration among the parties. Staff concludes that the Settlement Agreement is fair, reasonable, and consistent with the public interest.

III. BACKGROUND AND OVERVIEW

Q. What is your understanding of the concept "depreciation"?

A. During the normal course of business, a capital asset experiences a decline in service value due to a number of factors such as wear and tear, obsolescence, changes in demand or requirements of public authorities. Depreciation accounting is fundamentally a process of allocating in a systematic and rational manner the value of a depreciable asset over its anticipated useful life.[3] Depreciation expense represents the allocated costs for each accounting period over the plant's expected remaining useful life.

Q. Why and how are depreciation rates updated periodically?

A. Utilities routinely examine and update depreciation rates for their capital assets every five years or so to ensure the depreciation expense accurately represents the proper allocation of costs given updated asset retirement characteristics. Customer rates,

[3] DEPRECIATION SUBCOMMITTEE, NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS (NARUC), PUBLIC UTILITY DEPRECIATION PRACTICES 11 (1996).

determined in the concurrent or subsequent rate proceedings, should cover the appropriate level of depreciation expense, or "consumption" of the assets, so that utilities neither over- nor under-recover their investment over time. The Commission has the authority to ascertain and fix the proper and adequate rates of depreciation or retirement of the regulated utilities' property.[4]

Q. What factors influence depreciation rates?

A. Influential factors in calculating a depreciation rate for a particular asset include the anticipated useful life, the net salvage value, and the Iowa curve. The useful life is typically estimated from the observation of the historical asset retirement patterns and can also be informed by engineering insights, managerial decisions, and policy considerations. The net salvage value includes both the expected positive residual value at the time of retirement and the expected negative value associated with the cost of removal. The Iowa curves consist of a number of standardized patterns of asset retirement dispersion. They depict various shapes of a type of asset's survivorship over time.

Q. What issues did the parties resolve through this Settlement?

A. This Settlement resolves all issues with respect to Avista's book depreciation rates. Most notably, this Settlement establishes an agreed-upon remaining useful life for depreciation purposes for Colstrip Units 3 & 4. Additionally, the parties resolved issues associated with the depreciable lives, salvage values, and Iowa curves for

[4] RCW 80.04.350.

several non-Colstrip asset items. I will explain the Colstrip and non-Colstrip issues separately in the next two sections.

IV. ACCELERATED DEPRECIATION OF COLSTRIP UNITS 3 & 4

Q. What problem does the Settlement address with regard to Colstrip Units 3 & 4?

A. In recent years, rapidly changing economics of natural gas and renewable energy, consumer preference for renewable power, and the potential of future regulations addressing carbon have created substantial uncertainty with respect to the estimated remaining operational lives of coal-fired generation units across the country. That uncertainty makes it difficult to determine the proper remaining useful life and depreciation rates for the Colstrip units.

Avista has a 15 percent ownership stake in Colstrip Units 3 & 4, and approximately 65 percent of that stake is allocated to Washington ratepayers. As a result, changes to the depreciation schedules for these units can have a sizeable impact on customer rates. A potentially large rate impact, and uncertainty about the remaining useful life of the plants makes reaching an agreement challenging.

Q. What did Avista propose for Colstrip Units 3 & 4 in its initial filing?

A. The Company's initial filing made no changes to the assumed 50-year average useful life for a typical coal generation plant. Avista proposed the same terminal years for Colstrip plants as in its last depreciation study: 2034 for Colstrip Unit 3 and 2036 for Colstrip Unit 4.

Q. What are the concerns with the Company's original proposal?

A. In today's economic, political, and regulatory environments, there is broad recognition of the substantial risk that Colstrip Units 3 & 4 will be forced into retirement earlier (and possibly much earlier) than engineering studies might otherwise indicate.[5]

If we do not plan accordingly, there is risk that upon closure there will be a large remaining depreciable balance for Colstrip Units 3 & 4. If that occurs, either the Company must absorb those stranded costs, or future generations of ratepayers will be asked to pay for them.

The difficulty of managing this issue proactively is that it requires accelerating the depreciation schedules for Colstrip Units 3 & 4 which, all else equal, puts upward pressure on customer rates through higher depreciation expense. Furthermore, putting the full cost burden on current ratepayers could itself lead to issues of intergenerational inequity because current ratepayers could be allocated costs that are disproportional to their use of the asset. The challenge is how to restructure the Colstrip depreciation schedules without causing a sharp increase in customer rates, while also mitigating issues of intergenerational inequity.

[5] A number of factors contribute to making coal-generated power less economically competitive, including: alternative renewable sources of electricity such as wind and solar energy has become cheaper; price for natural gas continues to be low, making gas-generated power more cost effective than coal; demand for electricity has flattened or slowed down in some sectors due to conservation and technological advancement; and increasingly stringent environmental regulations drive up the costs of operating, decommissioning and remediating coal plants.

Q. Have settling parties presented a good solution to the problem?

A. Yes; however, it's important to recognize that much of the legwork on this issue was done through settlement discussions in the Hydro One acquisition proceeding that started in late 2017.[6] Commitment 76 in the Hydro One Settlement Stipulation (Merger Commitment) presented the culmination of those discussions, and represents a collaborative solution.[7] Even though the Commission did not approve Hydro One's proposed acquisition of Avista, parties in the current proceeding agreed to adopt the same basic framework as was presented in the Merger Commitment.

Q. Were there any changes to this framework in the Settlement Agreement?

A. No, there has been no change to the proposed framework. Certain numbers are updated to reflect changes in plant balances and EDIT due to the passage of time.

Q. What are the specific agreements with respect to Colstrip Units 3 & 4?

A. As illustrated in Settlement Agreement Attachment B, all parties agree to the following:

- For the purpose of the depreciation rate calculation, assume a closure date for Colstrip Units 3 & 4 of December 31, 2027.
- The annual depreciation expense will remain unchanged at the level embedded in current customer rates, $4.533 million. The total accumulated depreciation from April 1, 2019, to December 31, 2027, is $39.7 million.

[6] *In the Matter of the Joint Application of Hydro One Limited (acting through its indirect subsidiary, Olympus Equity LLC) and Avista Corporation for an Order Authorizing Proposed Transaction*, Docket U-170970.
[7] *Id.*, *Settlement Stipulation and Motion of Hydro One and Avista Corporation for Order Approving Settlement Stipulation and Agreement* (March 27, 2018, *revised* May 7, 2018), Appendix A at 22.

- A total of $10.9 million from deferred unprotected EDIT will be used to offset a portion of the depreciable balance of Colstrip Units 3 & 4.
- The remaining depreciable balance, approximately $53.5 million, will be recovered through a regulatory asset account ("Colstrip Regulatory Asset") and amortized over 34.75 years. This amortization period was set to match the time period for complete reversal of the protected EDIT liability. Annual amortization of the Colstrip Regulatory Asset is $1.54 million.

Q. Why should the Commission accept this framework for resolution of the Colstrip issues in this proceeding?

A. The Commission should approve the proposed resolution on Colstrip depreciation because it mitigates the risk of Colstrip's early closure, avoids a rate spike for customers, and creatively balances the offsetting intergenerational equities inherent in past under-recovery of Colstrip depreciation expense and past over-collection of deferred income taxes.

Q. Is the 2027 retirement date consistent with the Commission's Colstrip-related decisions for other regulated utilities?

A. Yes. In Puget Sound Energy's 2017 GRC, the Commission approved a settlement agreement which adopted a December 31, 2027, end of useful life for Colstrip Units 3 & 4 for depreciation purposes.[8] The Commission similarly authorized Pacific

[8] *Wash. Utils. & Transp. Comm'n v. Puget Sound Energy,* Dockets UE-170033 and UG-170034, Order 08 (Dec. 5, 2017), Appendix B, *Multiparty Settlement Stipulation and Agreement*, at 8, ¶ 26.

Power & Light Company (Pacific Power) to accelerate depreciation for Jim Bridger and Colstrip Unit 4.[9] Avista's current depreciation dates of 2034 for Colstrip Unit 3 and 2036 for Colstrip Unit 4 are out of step with the dates established by the Commission for these other Washington utilities.

Q. Why do you believe this Settlement Agreement helps mitigate the risks associated with early retirement of Colstrip Units 3 & 4?

A. While the exact closure dates for Colstrip Units 3 & 4 are still unknown, the assumed December 31, 2027, retirement date more accurately reflects the anticipated useful life of the plant. If the assumed retirement dates were to remain at 2034 and 2036, and those units close early, there is a risk that the Company will not be allowed to recover the remaining undepreciated plant balance, or future customers absorb the cost of the stranded asset.[10] The Settlement significantly reduces this risk. Although there is still risk that a portion of the plant balance could be unrecovered at the time of closure, the Settlement ensures that unrecovered balance will be substantially smaller than it would otherwise be and by paying down the remaining balance, the Settlement removes a potential obstacle to early retirement.

[9] Pacific Power's Colstrip depreciation is under a different arrangement. In Order 12 in Docket UE-152253, the Commission authorized Pacific Power to accelerate depreciation of its Jim Bridger and Colstrip Unit 4 generating plants. Pacific Power is required to hold the additional revenue collected over and above the old depreciation rates for those plants in a regulatory liability account pending the Commission's review of the Company's 2018 depreciation study. *Wash. Utils. & Transp. Comm'n v. Pacific Power & Light, a Division of PacifiCorp,* Docket UE-152253, Order 12 (Sept. 1, 2016), at 2, 11-21.

[10] An asset is considered "stranded" when it is physically removed from service but not yet fully depreciated on the book. For stranded assets, the Commission could entertain some form of regulatory asset treatment, pending prudence review and public interest consideration, which would allow the Company to continue to collect revenue from customers beyond the asset's physical retirement. Alternatively, the Commission may require the Company to write off the remaining depreciable balance.

Q. Why do you think this resolution of Colstrip issues protects ratepayers' interest?

A. Accelerated depreciation, absent any offsetting credits from other sources, necessarily means upward pressure on customer rates due to a sharp increase in annual depreciation expense. The terms of the Settlement Agreement alleviate much of that pressure. By leaving the annual depreciation expense at the level currently embedded in rates, and using EDIT liabilities to offset a portion of the existing plant balances, ratepayers do not perceive an increase in cost associated with the shortened useful life.

The Settlement Agreement also provides the ancillary benefit of resolving the last remaining EDIT item for Avista, thus ensuring that ratepayers will receive the full benefit of Tax Reform, as directed by the Commission.[11] Further, by matching the amortization period for the Colstrip regulatory asset to the amortization period for protected EDIT, current ratepayers are spared the full brunt of remaining Colstrip plant balances.

Q. How does this Settlement Agreement address issues of intergenerational equity?

A. As I mentioned earlier, two important factors in determining depreciation rates are expected useful life and net salvage value. For a long-lived asset such as a coal plant, as the plant is placed in service there is substantial uncertainty with respect to

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[11] *In the Matter of the Joint Application of Hydro One Limited (acting through its indirect subsidiary, Olympus Equity LLC) and Avista Corporation for an Order Authorizing Proposed Transaction*, Docket U-170970, Order 07 (Dec. 5, 2018), at 9, fn 20. The Commission directed Avista to work cooperatively with Commission Staff and any interested parties to determine how best to treat the deferral of the unprotected EDIT and bring the matter before the Commission for further consideration within 60 days of the order. On February 4, 2019, Avista filed a letter in this docket to inform the Commission and all interested parties that the unprotected deferred EDIT will be addressed through the settlement of this depreciation proceeding.

both factors. Incorrect assumptions for the useful life and the cost of removal, including assumptions on decommissioning costs and environmental remediation, in the early life can lead to a misallocation of costs across the various generations of ratepayers using the facility.

If all parties had a crystal ball when these Colstrip units were put in service in the 1980s, and we had assumed then that the facility would close in 2027, the depreciation rates for those assets would have been set at a much higher level; accordingly, customer rates would have been set at a higher level to recover equitably allocated Colstrip-related depreciation expense. However, no party had this perfect foresight, nor could parties anticipate costly asset retirement obligations (AROs) due to the development of more stringent environmental regulations. As a result, the Colstrip plant balance is currently under-depreciated, meaning that ratepayers in the past paid less than their fair share of the cost of the asset. It is important to recognize that this intergenerational inequity has already been created, and under-recovered plant balances are not the "fault" of the ratepayers in coming decades. Nevertheless, we must now consider how to allocate the remaining undepreciated balance, while finding ways to minimize the rate impact to undeserving customers.

As Staff Witness Mr. Hancock explained in his testimony in the proposed Hydro One acquisition proceeding, the Tax Cuts and Jobs Act of 2017 provided us with a unique opportunity to remedy the intergenerational inequity related to

Colstrip.[12] The Act reduced the corporate tax rate from 35 percent to 21 percent, resulting in a large reserve of EDIT that the utilities must pass back to ratepayers. EDIT represents money overpaid by ratepayers in the past and that will be received by ratepayers in the future. Importantly, and conveniently for solving the Colstrip intergenerational inequity, the EDIT intergenerational inequity is in the opposite direction of the Colstrip intergenerational inequity; that is, ratepayers in the past substantially underpaid for Colstrip, but substantially overpaid taxes.

In solving these two intergenerational inequity problems, the Settlement Agreement proposes to offset a portion of the undepreciated Colstrip balance with EDIT. More specifically, (1) unprotected EDIT will be used to offset a portion of the Colstrip balance immediately, and (2) a newly created Colstrip Regulatory Asset will be amortized over the same time period where protected EDIT is amortized consistent with Internal Revenue Service rules. By addressing these issues simultaneously, the Settlement creatively solves the issue of intergenerational inequity.

Q. Are there any points you would like to add for further clarification of the Settlement?

A. Yes. I would like to make two notes.

First, the figures shown in Table "Summary of Colstrip Costs (WA Share)" on page 2 of Attachment B to the Settlement Agreement illustrate the dollar impact

[12] *In the Matter of the Joint Application of Hydro One Limited (acting through its indirect subsidiary, Olympus Equity LLC) and Avista Corporation for an Order Authorizing Proposed Transaction*, Docket U-170970, Testimony of Christopher S. Hancock (April 10, 2018), at 19-25.

based on Avista's Colstrip plant balances on December 31, 2017, with the accumulated depreciation associated with that plant balance calculated through March 31, 2019. Avista may propose changes to Colstrip plant balances in future rate proceedings to incorporate plant additions and retirements over time as well as any revisions to the estimated cost of removal and AROs. Parties agree that any Colstrip plant additions beyond December 16, 2016, (the end of the test period in Avista's 2017 GRC) is subject to prudence review in future rate proceedings.

Second, December 31, 2027, does not necessarily represent a firm closure date for Colstrip Units 3 & 4. Rather, it is a reasonable estimate given the substantial uncertainty surrounding the long-term viability of the facility. As new information on the economics of Colstrip becomes available, it may be necessary to further revise the depreciation schedule. For example, the current version of Washington State Senate Bill 5116 provides that "[o]n or before December 31, 2025, all electric utilities must eliminate from electric rates all costs associated with delivering electricity to Washington customers that is generated from a coal-fired resource."[13] If the bill becomes law, the depreciation rates will have to be revisited.

Q. What is the dollar impact from the agreed-upon arrangement for Colstrip depreciation?

A. There will be no change to the annual Colstrip depreciation expense per se. The Settlement Agreement set the annual depreciation expense for Colstrip Units 3 & 4 at $4.533 million, which is unchanged from current annual depreciation expense.

[13] SB 5116, 66th Leg., Reg. Sess. (Wash. 2019), available at, https://lawfilesext.leg.wa.gov/biennium/2019-20/Pdf/Bills/Senate%20Bills/5116.pdf.

There will be an addition of amortization cost associated with the Colstrip Regulatory Asset account. Upon the Commission's approval of Avista's proposed depreciation rates, Avista will begin amortizing the Colstrip Regularly Asset at the annual amount of $1.54 million. However, this amortization cost will not result in an immediate change in customer base rates until such cost is incorporated in Avista's next rate filing and approved by the Commission. In other words, Avista will absorb the annual amortization cost until the new rates from its next GRC become effective. Further, when the new amortization expense is embedded in rates, that amortization expense will be offset with EDIT amortizations.

V. OTHER DEPRECIATION RATES

Q. Are there revisions to other depreciation rates that the Parties agreed to in this Settlement Agreement?

A. Yes. First of all, there are a very large number of plant accounts for which parties did not dispute the Company's as-filed rates. Those rates are all accepted as part of the settlement package.

However, there were a handful of accounts where parties disagreed with the Company in terms of useful life, net salvage values, and Iowa curves. Through settlement negotiations, the parties were able reach agreement on all of the contested accounts.

Q. What are the accounts for which the parties resolved the depreciation rates?

A. The following is a list of the accounts with revised depreciation rates:

- Common – Transportation
  - 392.2 Light trucks
  - 392.4 Heavy trucks
  - 392.5 Other
  - 396.5 Power operated equipment – other
- Common – Transmission
  - 356.0 Overhead conductors and devices
- Electric Distribution
  - 364.0 Poles, towers & fixtures
  - 365.0 Overhead conductor & devices
  - 366.0 Underground conduit
- Natural Gas Distribution
  - 376.0 Mains
  - 380.0 Services
  - 385.0 Measuring/regulating industrial equipment

The details on Iowa curves, useful life, net salvage percentages and the corresponding depreciation rates are listed in Attachment A to the Settlement Agreement. They are also described on Pages 5-6 of the Settlement Stipulation.

Q. What are the reasons for these revisions?

A. Some revisions are intended to adjust the depreciation rates to be in alignment with the outcomes in other jurisdictions where Avista provides service. Other revisions are a result of compromise between Avista and other intervening parties.

Specifically, for transportation depreciation expense, Avista pools all transportation assets at the system level and then allocates the costs based on the actual usage of vehicles in each jurisdiction. Parties agreed to make adjustments to the net salvage percentages of these assets consistent with the settlement in Avista's depreciation proceeding in Oregon. Similarly, parties agreed to adjust the useful life of overhead conductors and devices in the common transmission category to be consistent with the preliminary settlement in Idaho.

Although there was broad agreement between the two independent consultants providing expert analysis in this case,[14] there was disagreement regarding a handful of distribution assets. Those disagreements were resolved largely by finding a reasonable middle ground between the two positions. A depreciation study involves fine tuning elements that impact the depreciation rate, such as useful life, net salvage value, and Iowa curves. A middle ground position reached by two independent experts can be considered reasonable. Therefore, Staff believes the compromises on these accounts likely reduce the potential for significant inaccuracies in the overall results of the depreciation study.

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[14] Mr. John J. Spanos from Gannett Fleming provided analysis for Avista and Mr. David J. Garrett from Resolve Utility Consulting PLLC provided analysis for Public Counsel.

Q. What is the impact on annual depreciation expense from these revisions?

A. All the non-Colstrip revisions combined reduces Avista's annual electric depreciation expense by $1,591,715 and reduces Avista's annual natural gas depreciation expense by $1,281,264 (based on December 31, 2016, balances). Although the savings in depreciation expense will not immediately result in lower customer rates, the lower depreciation rates will be captured in the Company's next GRC.

Q. What is your recommendation with regard to these revisions?

A. I recommend the Commission accept the revised depreciation rates for these assets. The negotiated results drew upon expert insights from multiple parties in multiple jurisdictions. All elements are carefully weighed. I found them just and reasonable.

VI. CONCLUSION

Q. What is your recommendation on the all-party settlement agreement?

A. I recommend the Commission accept the Settlement Agreement as filed. The Settlement Agreement resolves all issues with respect to Avista's book depreciation rates. Most imperatively, it addresses the estimated remaining service life for Colstrip Units 3 & 4, and the recovery of remaining plant balances with a revised, accelerated depreciation schedule. In the proposed Hydro One acquisition proceeding, all parties supported the framework that has now been adopted as part of this Settlement. The framework resolved Colstrip depreciation issues by creatively leveraging the unique opportunity presented by 2017 Tax Reform. Furthermore, revisions to non-Colstrip depreciation rates also reflect thoughtful negotiation and compromise among the parties. The Commission should determine that this Settlement Agreement is consistent with public interest.

Q. Does this conclude your testimony?

A. Yes.