**APPENDIX A**

# The History of Attrition Allowances in Washington

## Economic Conditions in the 1970s and 1980s.

In 1973 and 1979, the United States experienced two oil shocks. As a result, the 1970s marked the end of the Post-World War II era of high growth rates and full employment with various periods of high inflation, low growth, and high unemployment.[[1]](#footnote-1) Cheap oil, the driving force of the world’s economy, became more expensive in the 1970s when Middle Eastern producers seized control of their oil resources from the oil companies and pushed prices “to what were considered stratospheric levels.”[[2]](#footnote-2) The high price of oil was reflected directly in higher prices for gasoline, home heating oil, fuel oil, and any other product directly connected to oil.[[3]](#footnote-3) The high oil costs caused consumers to use considerably less energy.[[4]](#footnote-4)

Taken together, the slowed demand for energy, high interest rates and stratospheric energy prices created many problems for the energy industry. The industry “far overestimated its needs in the 1970s” and thus in the late 1970s and early 1980s, many utility companies were unwilling and, in some cases, financially unable to build new plants due to uncertain demand combined with soaring fuel and construction costs.[[5]](#footnote-5) Furthermore, those companies that were heavily involved with nuclear plant construction were severely harmed in the wake of the Three Mile Island accident.[[6]](#footnote-6) During this time, utilities and regulators sought solutions, such as attrition adjustments, to help combat the problems of high inflation, high construction costs and the utilities inability to attract capital for construction of new plants.[[7]](#footnote-7)

## Attrition Adjustments in the 1970s.

Early requests for attrition adjustments from Washington utilities in the 1970s were dominated by discussions centering on the proper methodology to calculate an attrition adjustment. The Washington Utilities and Transportation Commission (WUTC or Commission) consistently affirmed the pro forma test-year approach, also known as a historic test-year, as “fundamental”[[8]](#footnote-8) in determining revenue deficiencies because “selection of an actual test year permits review of company records by the Staff representatives not otherwise possible if an abstractly constructed year or estimated future year were utilized in the rate making process.”[[9]](#footnote-9)

In November of 1973, Puget Sound Power and Light Company filed revisions to its tariff seeking a general increase in its charges and rates for electric service by $23,339,600.[[10]](#footnote-10) At issue was the company’s proposal of a year-end rate base versus the accepted average rate base calculation.[[11]](#footnote-11) The Commission noted that it historically had accepted the average rate base concept as the appropriate tool to measure the earning level. Only where “special conditions exist,” where the conventional manner of adjusting for expansion and rising costs on a prospective basis are insufficient, would it consider using the year-end rate base concept.[[12]](#footnote-12) The Commission held the criteria for a year-end rate base were not met.[[13]](#footnote-13) The Commission found that Puget’s inability to achieve the anticipated rate of return was due to the Centralia steam plant injecting higher unit costs of production along with inflationary impacts that impaired the company’s ability to absorb “wage and sundry” expense increases.[[14]](#footnote-14)

The following year, in November of 1974, The Washington Water Power Company also brought a challenge to the historical pro forma test-year approach. The company initially presented evidence supporting its tariff revision for electrical service with data that utilized both actual and projected results of company operation for 1973 and 1974.[[15]](#footnote-15) The Commission rejected this presentation and stated, “[t]he historical concepts of pro forma results of operation are well supported, and should be the procedure utilized in this case; therefore, the projected basis should be rejected.”[[16]](#footnote-16)

Also in November of 1974, Pacific Power and Light Company filed a general rate increase for electric service utilizing a projection for 1974. The company argued that “during times of high inflation and great demand for expansion of electric service, the use of the historic test-year period by the Commission is outmoded.”[[17]](#footnote-17) The company contended that historic test‑periods were time-consuming, impaired the ability of the utility to finance electric service, and that costs and revenues should have been calculated closer to the time that the rates would have gone into effect.[[18]](#footnote-18) The Commission remained “committed to the proposition that the historic test-year period is best utilized for rate making.”[[19]](#footnote-19) Quoting extensively from Cause U‑73-57, the Commission “affirmed the pro forma-test year approach as the overall best and fundamental approach appropriate for determining rate deficiency.”[[20]](#footnote-20) In fact, the Commission ordered the company to refile its case using a historic test-year period. The company complied but also included the projected 1974 test-year which the Commission once again set aside, reiterating “the commission adheres to the selected historical period chosen.”[[21]](#footnote-21)

The Commission expressed concerns regarding attrition adjustments in Pacific Northwest Bell Telephone Company’s (PNB) request for a tariff increase in Cause U-74-14. PNB proposed an “earnings erosion adjustment” which the Commission found to be identical to an earlier “rate base attrition adjustment” proposed by PNB and rejected by the Commission in Cause U‑72‑30.[[22]](#footnote-22) The Commission restated its previous concerns regarding attrition adjustments and inflation. The Commission stressed, “[i]nflation is a recognized fact of economic life and in setting rates for the future the inflationary impact is indeed recognized not only in the cost of plant but also in the increased cost of money required to produce new plants.”[[23]](#footnote-23) The Commission continued by warning that accounting for inflation in an attrition adjustment could unfairly benefit investors reasoning that, “[i]nflation and the expectation of inflation must have influenced investors for the prices they paid for common stock and debt capital and the terms on which they were willing to invest their money.”[[24]](#footnote-24) Moreover, the Commission stated that “the use of an attrition factor would amount to an unwarranted duplication and would in effect not only protect the equity investor against inflation, but would in fact make him a beneficiary thereof.”[[25]](#footnote-25)

In 1978, Puget Sound Power and Light filed a general rate increase revision which included an attrition adjustment due to the effects of high inflation.[[26]](#footnote-26) Once again, the issue of whether to set rates based on a historic pro forma test year or a future test year was before the Commission. The pro forma test year approach was preferred by the Commission because the historic test period is a “reliable and consistent basis for establishing rates in electric and other utility cases, because it presents a comparison of actual results of operations for a specified period with actual rate base values outstanding for the same period.”[[27]](#footnote-27) The future test year was rejected by the Commission because a forecasted rate year is a “composite of estimates of events, revenues and expenditures” and “these events cannot be precisely calculated from present data.”[[28]](#footnote-28)

As these cases show, the Commission in the 1970s consistently mandated usage of a pro forma historic test-year when setting rates for public utilities. Additionally, the Commission rejected numerous company proposals that sought to stray from the historic test-year period such as year‑end rate base calculations, projected future test-years and combinations of historic test-year periods with future projections.

## Attrition Adjustments in the 1980s.

The bulk of the Commission orders approving attrition adjustments for public utilities were issued in the early 1980s. In total, attrition adjustments were requested of the Commission at least 17 times from 1980 to 1986.[[29]](#footnote-29)

Washington Natural Gas requested tariff revisions in Cause U-80-25 that were rejected by the Commission because the annual gross revenues sought would have produced a rate of return exceeding the proper rate.[[30]](#footnote-30) Washington Natural Gas claimed that they were experiencing a post test-year loss of revenue due to declining use by customers[[31]](#footnote-31) and thus, they argued for the adoption of year-end rate base calculations that employed a lead-lag method in computing working capital allowance compared to Staff’s balance sheet approach.[[32]](#footnote-32) The company contended that their revenues had consistently remained below levels allowed by the Commission in the seven rate orders issued since 1972 due to attrition from plant and operation costs rising more rapidly than revenues. The company also argued that a year-end rate base would mitigate attrition because year-end data more closely approximates post-rate-case conditions.[[33]](#footnote-33)

Staff objected to the end-of-period approach arguing that fluctuations in the sources of revenue and expenses preclude a proper matching of recorded revenues at a single point in time.[[34]](#footnote-34) The Commission once again upheld the historic test period over the end-of period approach agreeing with its Staff’s concerns that a “point-in-time” rate base is not reliable. The Commission elaborated that this unreliability “fosters overstatement or understatement” of the revenue requirement and that “distortion of the revenue requirement in either direction leads to results which are contrary to the statutory requirement that rates be just, reasonable and sufficient.”[[35]](#footnote-35) Of note, the Commission did express concern for the utilities concerning regulatory lag and attrition and indicated that they “will be receptive in dealing with future cases to well-reasoned, supportable mechanisms to address these concerns, recognizing that adoption of such mechanisms would require verifiable evidence of their validity and propriety.”[[36]](#footnote-36)

In 1981, an attrition adjustment was approved for Washington Water Power Company in Cause U-81-15. The Commission viewed the attrition adjustment as warranted because “the company’s commitment to its construction projects to 1985, and its present program for major projects has created an imbalance in its ability to raise necessary construction funds from internal sources. This in turn has adversely affected the company’s financial indices, upon which investors rely in examining the company’s financial structure.”[[37]](#footnote-37) The attrition adjustment was granted so that the company could preserve and maintain their financial integrity, allow it to generate cash flow for their construction projects, and to attract investors at a reasonable cost.[[38]](#footnote-38) Moreover, the Commission stated that attrition adjustments should be viewed on a case-by-case basis only and that the evidence to support an attrition adjustment “must be of such a character that will lead us to a firm conviction that not to do otherwise will jeopardize the company’s financial integrity and adversely affect the ability of the company to render required service to its customer at reasonable rates.”[[39]](#footnote-39) Lastly, granting the attrition adjustment, the Commission again explicitly rejected a projected test year in favor of the historical test year approach because, in comparison, the traditional approach was more reliable and more suited to intelligent examination and scrutiny upon which an informed judgment can be made.[[40]](#footnote-40)

Also in 1981, however, the Commission rejected Pacific Power and Light’s requested attrition adjustment in Cause U-81-17. The company again presented a future projection in an effort to mitigate the effects of attrition. This was rejected by the Commission because the historic rate base is a “reasonable approach to the problem while avoiding the potential for distortion and other infirmities inherent in the estimated future test period approach.”[[41]](#footnote-41) The Commission also restated that attrition adjustments should be evaluated on a case-by-case basis.[[42]](#footnote-42)

Puget Sound Power and Light Company’s request for an attrition adjustment in Cause U‑81-41 was rejected by the Commission because they found that the company’s actual results of operations demonstrated that they were keeping pace with recent levels of inflation, were improving their operating results, and because economic measures undertaken by the federal government helped to control inflation.[[43]](#footnote-43) In addition, the Commission indicated that Puget could make serious efforts at “improving efficiencies and at achieving economies in day-to-day operations” that could produce substantial results. In concluding the discussion of why the Commission rejected the company’s request for an attrition adjustment, the Commission declared, “we do believe that an attrition adjustment would tend to dampen management incentive to achieve efficiencies in staff and in use of other resources.”[[44]](#footnote-44)

The next year, in Cause U-82-10, the Commission authorized an attrition allowance for Washington Water Power Company. The reason given for the requested attrition allowance was that the company was experiencing “vastly different rates of change in revenues, expenses and rate base” and “that a refusal to recognize this problem . . . would amount to a refusal to allow the company a reasonable opportunity to earn its allowed rate of return.”[[45]](#footnote-45) Both People’s Organization for Washington Energy Resources and Public Counsel opposed the attrition adjustment with Public Counsel unsuccessfully arguing that the state of the economy at the time and the financial plight of the customers of the utility were reasons to reject the attrition allowance.[[46]](#footnote-46)

Pacific Power and Light Company was granted an attrition allowance in Cause U‑82‑12.[[47]](#footnote-47) The Commission Staff and the company both supported the attrition allowance. The Commission, for the first time, gave the following detailed description of how to determine an appropriate attrition allowance:

The first step is to calculate results of operations after rate relief from the balance of the proceeding. Then, the revenues and costs are projected to the end of the attrition year . . . by use of the appropriate growth factors as specified above. Then the company’s results of operations are calculated based on experience of the projected costs, and the attrition rate of return is subtracted from the authorized rate of return, as adjusted for weatherization allowances, producing a rate of return differential. The rate of return differential is multiplied by the attrition year rate base to produce the attrition net operating income required for the company to achieve its authorized rate of return. The net operating income requirement is converted to gross revenue by use of a conversion factor and then is discounted to the test year to account for the time value of money.[[48]](#footnote-48)

In Cause U-82-19, the Commission granted an attrition allowance to Pacific Northwest Bell Telephone. Interestingly, the Commission favored the future test year model proposed by the company over the pro forma adjustments supplied by Staff. The Commission stated, “The Commission finds that the future test year introduced by respondent is a useful tool for measuring the earnings/attrition phenomenon and determining the appropriate adjustment thereafter.”[[49]](#footnote-49) This is the only example found of a future test year being accepted by the Commission; there are no known electric or gas utility examples where a future test year was used to calculate an attrition adjustment.

Puget Sound Power and Light Company was granted an attrition adjustment in Cause U‑82-38. Puget had embarked on a massive construction project in the 1970s in order to meet projected load growth and replace hydropower purchase contracts that were set to expire.[[50]](#footnote-50) During this time, the Commission observed that regulatory change, high inflation, social and environmental concerns, and lack of capital impeded Puget’s ability to complete their construction program and all three nuclear projects they were involved with ran into significant problems.[[51]](#footnote-51) The Commission was faced with a company that needed a bond rating of BBB in order to be able to retain reasonable access to capital markets. The Commission concluded that the company was in a weakened financial condition with significant construction projects underway and the need for a high degree of investor confidence in order to raise the necessary construction funds.[[52]](#footnote-52) Based on these factors, the Commission authorized an attrition adjustment.[[53]](#footnote-53)

The Washington Water Power Company was granted an attrition allowance in Cause U‑83‑26. Public Counsel objected to the attrition adjustment because of concerns that it was potentially duplicative of the operations adjustments and that it failed to provide the company with sufficient incentives for more efficient operations.[[54]](#footnote-54) The Commission again affirmed its commitment to utilizing a historical test-year while explicitly rejecting the company’s Box‑Jenkins analysis and trended growth rates.[[55]](#footnote-55) A total additional attrition return of $821,000 was granted to the company.[[56]](#footnote-56) The Commission was explicit in its order that the decision was based on the Staff’s historical trend analysis.[[57]](#footnote-57) The Commission has consistently rejected future projections in determining attrition adjustments and, in fact, did so in Cause U-83-26 with the rejection of the predictive Box-Jenkins analysis.

In Cause U-83-27, the Commission approved a stipulation between Washington Natural Gas, Commission Staff and Public Counsel permitting an attrition allowance for the company.[[58]](#footnote-58) The attrition allowance was intended to offset projected irregularities and growth rates.[[59]](#footnote-59)

In Cause U-83-33, Pacific Power and Light Company proposed both an attrition adjustment and an alternate elasticity adjustment. The elasticity adjustment was based on a demand elasticity study to be used if the company’s load forecast were not used for an attrition adjustment. The company abandoned both their attrition and elasticity studies in favor of Commission Staff’s attrition analysis and adjustments of $4,262,000.[[60]](#footnote-60) This order did not explain why the company abandoned their attrition and elasticity adjustments. It may have been due to the fact that Staff’s proposed attrition adjustment was nearly two million dollars more than the company’s proposed adjustment. The Commission authorized the attrition allowance for $3,967,000.[[61]](#footnote-61)

In Cause U-84-28 the Commission rejected an attrition adjustment for the Washington Water Power Company. The Commission Staff opposed the attrition adjustment arguing it was not justified by the company’s rates of return.[[62]](#footnote-62) Public Counsel argued that an attrition allowance should be rejected because past Commission orders indicated that an attrition allowance was “an extraordinary measure to be used only when the absence of such an allowance would jeopardize the company’s financial integrity and adversely affect the ability of the company to render required service to its customers at reasonable rates.”[[63]](#footnote-63) The Commission rejected the company’s proposed attrition adjustment stating, “The company has the burden of proof to demonstrate that this extraordinary measure is necessary.”[[64]](#footnote-64) The Commission went on to state that the burden of proof was not met for an attrition adjustment because of the new climate of reduced inflation, the winding down of the company’s previous large construction program, and the company’s reduced debt financing and projections for revenue growth.[[65]](#footnote-65)

In addition to rejecting the company’s attrition request, the Commission rebuked the Commission Staff for not basing their opposition to the company’s attrition adjustment on an actual attrition analysis of its own. The Commission warned, “[w]hile the burden of proof does not rest with the Commission Staff, the Commission would expect the Commission Staff to perform its own analyses in the future in the process of arriving at its proposals.”[[66]](#footnote-66) The attrition request was ultimately rejected because disallowance was not seen to prevent the company from earning their authorized rate of return.[[67]](#footnote-67)

Pacific Power and Light was granted an attrition adjustment in Cause U-84-65 based on the testimony of Commission Staff witness Mr. Louiselle.[[68]](#footnote-68) The Commission indicated that an attrition allowance “is designed to improve the likelihood that a utility has a true opportunity to earn its allowed rate of return.”[[69]](#footnote-69) The company did propose an attrition study that combined “econometric forecasts, budgeted costs, and detailed function-by-function analyses.”[[70]](#footnote-70) The Commission found the company study unpersuasive because where particular expenses declined, budgeted increases were factored into the projections for reasons which were unclear to the Commission.[[71]](#footnote-71)

The negatives of an attrition adjustment were weighed against the positives with the Commission indicating that its “derivation requires a good deal of judgment” and “that the same reasons that cause the Commission to use a historic test year rather than a forecasted test year would weigh against the use of an attrition allowance.”[[72]](#footnote-72) The Commission qualified its statement by pointing out that “[t]he attrition allowance, however, tends to be smaller in scope than a forecasted test year, and thus more manageable. It is of a limited nature and more susceptible of knowledgeable evaluation.”[[73]](#footnote-73) The Commission again warned of the risk of double recovery due to “the extent that pro forma adjustments to historical data may be based in part on ‘estimates’ of future costs, and to the extent that inflation is already factored into the cost of equity . . . .”[[74]](#footnote-74) Thus, the Commission cautions that “sound regulatory practice requires that the attrition allowance be used sparingly . . . only when doing so is necessary to avoid setting rates so low as to be confiscatory under the *Hope* and *Bluefield* tests. The Commission believes that attrition is no more nor less subject to the *Hope* and *Bluefield* tests.”[[75]](#footnote-75) Ultimately, the Commission found that the attrition allowance was “reasonably required” even though the unusual levels of inflation previously experienced were no longer anticipated.[[76]](#footnote-76)

Puget Sound Power and Light was granted an attrition allowance of $11,409,000 in Cause U-85-53. This is the largest known attrition adjustment and was approved due to Puget’s plant and expense growth. Staff’s witness Mr. Louiselle criticized Puget’s attrition analysis as incomplete for failing to incorporate offsetting factors such as revenue growth.[[77]](#footnote-77) Additionally, Mr. Louiselle argued that the company’s nuclear power plant at Satsop, Washington (WNP 3) should not be included in the attrition analysis.[[78]](#footnote-78) The Commission accepted the Staff’s attrition adjustment and agreed that the WNP 3 costs should not be included as a part of the attrition adjustment.[[79]](#footnote-79)

Cause U-86-02, Pacific Power rate request, is the last known rate increase based on attrition, prior to Avista’s recent requests, discussed below. [[80]](#footnote-80) The company based its request on inflation, and fact that cost increases outpaced sales growth during the period that the rates would be in effect.[[81]](#footnote-81) Public Counsel argued that attrition allowances were no longer necessary under the economic conditions of the time and that the company’s failure to earn an allowed rate of return could be attributable to many factors other than those which would justify an attrition allowance.[[82]](#footnote-82) The Commission accepted the Staff’s attrition calculation, finding it more persuasive than the company’s because it took into account more recent changes in economic factors.[[83]](#footnote-83) The Commission found the company’s attrition study to be flawed because “the DRI forecasts upon which the company’s attrition analysis were based had changed substantially since the company ran the model. Despite those changes, the company did not rerun the model to reflect those changes.”[[84]](#footnote-84)

## Attrition Adjustments after the 1980s.

There are no known approved rate adjustments expressly tied to attrition in Washington State between 1986 and the 2012. The Commission rejected an attrition adjustment for Washington Natural Gas in cause UG-920840. The Commission Staff argued that the factors that may have justified an adjustment in the past such as declining gas sales, increasing gas prices, and high inflation no longer existed.[[85]](#footnote-85) The Commission concluded that no attrition adjustment should be given and reiterated that “[a]n adjustment for attrition is an extraordinary measure, not generally included in general rate relief. A request for such an adjustment should be based on extraordinary circumstances, not shown by the company to be present in this case.”[[86]](#footnote-86) Furthermore, the Commission noted that past attrition allowances were allowed “when the Commission found that, without such an adjustment, the company would have no reasonable opportunity to earn its authorized rate of return.”[[87]](#footnote-87) Moreover, attrition adjustments were found to be unnecessary because the company already had an approved tracker mechanism to pass through changes in its cost of gas which further reduced the risk that attrition would have had a negative impact on the company’s ability to earn its rate of return.[[88]](#footnote-88)

In Docket UE-060266, PSE proposed a new regulatory mechanism to track depreciation expenses for transmission and distribution investments between general rate cases. PSE argued that it needed the depreciation tracker to address regulatory lag.[[89]](#footnote-89) The Commission responded to this novel mechanism with a strong defense of fundamental ratemaking principles:

PSE undoubtedly recognizes regulatory lag is typical of rate base, rate of return ratemaking grounded in an historic test year adjusted for changes that are known and measurable at the end of that test year. Indeed, the circumstances of which PSE complains are simply an inherent part of the historic test period approach, which requires the application of certain fundamental ratemaking principles that we and many other regulators endeavor to apply consistently over time. In particular, we disfavor and typically avoid single-issue ratemaking and we are careful to preserve so far as reasonable the ‘matching principle’ that relies on our consideration of all revenues, costs, and adjustments in the context of a test year with an ending date . . . . It requires extraordinary circumstances to support a departure from fundamental ratemaking principles. In prior cases the Commission has required a clear and convincing showing that the company will be denied any reasonable opportunity to earn its authorized rate of return without extraordinary relief . . . . Our analysis of the evidence leaves us unpersuaded that PSE will suffer earnings attrition as a result of not recovering depreciation on infrastructure investments it makes between rate cases.[[90]](#footnote-90)

## Recent Commission decisions related to attrition.

In PSE’s 2011 GRC, in response to PSE’s claimed inability to earn its authorized rate of return in recent years, the Commission discussed attrition and reviewed a variety of mechanisms available to address under-earning, including: (1) pro-forma adjustments for post-test year expenses; (2) end-of-period rate base; (3) CWIP; (4) a comprehensive attrition adjustment for expenses, based on an attrition study; and (5) an upward adjustment to the equity share.[[91]](#footnote-91) Also in that case, Staff proposed an Expedited Rate Filing (ERF) as an additional mechanism to assist in addressing its attrition. Staff’s ERF proposal envisioned that a utility would be permitted to make a rate filing, within a reasonable time after a GRC, that adhered to cost of capital, restating adjustments and class cost of service rate spreads and rate design adopted by the Commission in its most recent decision addressing such topics.[[92]](#footnote-92) As there was no specific ERF proposal before it, however, the Commission made no specific determinations regarding the mechanism, but invited parties to give it further consideration.[[93]](#footnote-93)

In Avista’s 2012 GRC, the Company based its rate request on a significant attrition adjustment. All parties except Public Counsel entered into a “black box” settlement that expressly did not approve an attrition adjustment.[[94]](#footnote-94) While the Commission concluded the settlement included amounts for attrition, the Commission’s order specifically noted that it was not endorsing any specific attrition methodologies, assumptions or inputs.[[95]](#footnote-95)

In early 2013, in PSE filed requested Rate Plan that included an Expedited Rate Filing, combined with a decoupling request, and a type of attrition adjustment based on a “K-factor” automatic rate escalator. The Commission order approving the Rate Plan did not extensively address specific attrition methodologies, assumptions, or inputs.[[96]](#footnote-96)

In 2014, Avista based its 2014 General Rate Case on an attrition analysis which was contested by Public Counsel and Industrial Customers of NW Utilities (ICNU). The case resulted in a “black box” all-party settlement which did not include agreement on whether an attrition adjustment was included or appropriate. The parties did recommend that a separate forum be established to address attrition adjustments and related issues.[[97]](#footnote-97) The Commission approved the settlement, which led to the initiation of the instant docket. Avista’s 2015 General Rate Case, filed in February, is again based on an attrition analysis.[[98]](#footnote-98)

1. This memorandum is based on an internal Public Counsel research paper.

   Daniel Yergin, *Awaiting the Next Oil Crisis*, N.Y. Times, July 11, 1982, at 18. [↑](#footnote-ref-1)
2. Douglas Martin, *Energy Shortage Eases Materially; Basic Shifts in Consumption Cited*, N.Y. Times, March 8, 1982, at A1. [↑](#footnote-ref-2)
3. Yergin at 6. [↑](#footnote-ref-3)
4. Martin at 1. [↑](#footnote-ref-4)
5. Robert D. Hershey, *Power Industry’s Uncertainty*, N.Y. Times, May 22, 1984, at D1. [↑](#footnote-ref-5)
6. *Id.* at D1. [↑](#footnote-ref-6)
7. *Id.* at D1. [↑](#footnote-ref-7)
8. *WUTC v. Puget Sound Power & Light Co.*, Docket No. U-73-57, Order No. 04, 7 P.U.R.4th 44, 48. [↑](#footnote-ref-8)
9. *Id.* at 49. [↑](#footnote-ref-9)
10. *Id.* at 48. [↑](#footnote-ref-10)
11. *Id*. at 50. [↑](#footnote-ref-11)
12. *Id*. at 50. [↑](#footnote-ref-12)
13. *Id*. at 52. [↑](#footnote-ref-13)
14. *Id*. at 51. [↑](#footnote-ref-14)
15. *WUTC v. Wash. Water Power Co.*, Docket No. U-74-4, Order No. 02, 1974 Wash. UTC LEXIS, 53. [↑](#footnote-ref-15)
16. *Id.* at 54. [↑](#footnote-ref-16)
17. *WUTC v. Pac. Power & Light Co.*, Docket No. U-74-8, Order No. 3, 7 P.U.R.4th 470, 475. [↑](#footnote-ref-17)
18. *Id.* at 475-476. [↑](#footnote-ref-18)
19. *Id.* at 476. [↑](#footnote-ref-19)
20. *Id.* at 477. [↑](#footnote-ref-20)
21. *Id.* at 477. [↑](#footnote-ref-21)
22. *WUTC v. Pac. Northwest Bell Telephone Co.*, Docket No. U-74-14, Order No. 02, 1975 Wash. UTC LEXIS 12, 31. [↑](#footnote-ref-22)
23. *Id.* [↑](#footnote-ref-23)
24. *Id.* at 32. [↑](#footnote-ref-24)
25. *Id.* [↑](#footnote-ref-25)
26. While some members of the public argued that no increase should be granted, others stated that given the effects of high rates of inflation, the company should be given a justifiable increase. *WUTC v. Puget Sound Power & Light Co.*, Docket No. U-78-21, Order No. 02, 1979 Wash. UTC LEXIS 5, 15. [↑](#footnote-ref-26)
27. *Id.* at 16. [↑](#footnote-ref-27)
28. *Id.* at 32. [↑](#footnote-ref-28)
29. In 1980, the Commission authorized interim rate relief for Puget Sound Power and Light Company due to the company’s financial condition; Moody’s Investor Service downgraded Puget from a P-2 to P-3 company and Puget was having a difficult time obtaining funds for construction. Of note for purposes of attrition analysis is the Commission’s continued stance that, “in evaluating a petition for interim rate relief it will not consider or give weight to long-range economic projections but that it will accept evidence of existing and actual conditions and short-range projections, which are the least subject to volatile economic winds and are more conducive to credible reliability than long-range plans.” Furthermore, the Commission stressed that “[we] do not regard a deteriorated overall rate of return as justification for authorizing interim rates; the area is only one of many areas of inquiry as to overall financial stability.” The Commission’s continued support for historic test-year periods and refusal to look solely at the rate of return to assess the financial condition of the utility in the interim rate relief context is consistent with its decisions on attrition adjustments. *WUTC v. Puget Sound Power & Light Co.*, Docket No. U-80-10, Order No. 02, 1980 Wash. UTC LEXIS 5, 7. [↑](#footnote-ref-29)
30. *WUTC v. Wash. Natural Gas Co.*, Docket No. U-80-25, *et al*., Order No. 04, 14. [↑](#footnote-ref-30)
31. *Id.* at 3. [↑](#footnote-ref-31)
32. *Id.* at 4. [↑](#footnote-ref-32)
33. *Id.* at 5. [↑](#footnote-ref-33)
34. *Id.* at 6. [↑](#footnote-ref-34)
35. *Id.* [↑](#footnote-ref-35)
36. *Id.* [↑](#footnote-ref-36)
37. *WUTC v. Wash. Water Power Co.*, Docket No. U-81-15, *et al*., Order No. 02, 1981 Wash. UTC LEXIS 3, at 41-42. [↑](#footnote-ref-37)
38. *Id.* at 42. [↑](#footnote-ref-38)
39. *Id.* [↑](#footnote-ref-39)
40. *Id.* at 11-12. [↑](#footnote-ref-40)
41. *WUTC v. Pac. Power & Light Co.*, Docket No. U-81-17, Order No. 02, 1981 Wash. UTC LEXIS 1, 6-7. [↑](#footnote-ref-41)
42. *Id.* at 26. [↑](#footnote-ref-42)
43. *WUTC v. Puget Sound Power & Light Co.*, Docket No. U-81-41, Order No. 02, 45 P.U.R.4th 605, 642. [↑](#footnote-ref-43)
44. *Id.* [↑](#footnote-ref-44)
45. *WUTC v. Wash. Water Power Co.*, Docket No. U-82-10, *et al*., Order No. 02, 1982 Wash. UTC LEXIS 3, 54. [↑](#footnote-ref-45)
46. *Id.* [↑](#footnote-ref-46)
47. *WUTC v. Pac. Power & Light Co.*, Docket No. U-82-12, *et al*., Order No. 04, 1983 Wash UTC LEXIS 65, 64. [↑](#footnote-ref-47)
48. *Id.* at 63. [↑](#footnote-ref-48)
49. *WUTC v. Pac. Northwest Bell Telephone Co.*, Docket No. U-82-19, *et al*., Order No. 02, 1983 Wash. UTC LEXIS 64, 46. [↑](#footnote-ref-49)
50. *WUTC v. Puget Sound Power & Light Co.*, Docket No. U-82-38, Order No. 03, 1983 Wash. UTC LEXIS 39, 3. [↑](#footnote-ref-50)
51. *Id.* at 4. [↑](#footnote-ref-51)
52. *Id.* at 7. [↑](#footnote-ref-52)
53. *Id.* at 59. [↑](#footnote-ref-53)
54. *WUTC v. Wash. Water Power Co.*, Docket No. U-83-26, Order No. 05, 1984 Wash. UTC LEXIS 69, 47‑48. [↑](#footnote-ref-54)
55. *Id.* at 48. In time series analysis, the Box–Jenkins methodology, named after the statisticians George Box and Gwilym Jenkins, applies autoregressive moving average ARMA or ARIMA models to find the best fit of a time series to past values of this time series, in order to make forecasts. [↑](#footnote-ref-55)
56. *Id.* at 49. [↑](#footnote-ref-56)
57. *WUTC v. Wash. Water Power Co.*, Docket No. U-83-26, Order No. 05, 1984 Wash. UTC LEXIS 69, 49. [↑](#footnote-ref-57)
58. *WUTC v. Wash. Natural Gas Co.*, Docket No. U-83-27, Order No. 02, 1983 Wash. UTC LEXIS 21, 5. [↑](#footnote-ref-58)
59. *Id.* at 12. [↑](#footnote-ref-59)
60. *WUTC v. Pac. Power & Light Co.*, Docket No. U-83-33, Order No. 02, 1984 Wash. UTC LEXIS 64, 60‑61. [↑](#footnote-ref-60)
61. *Id.* at 76. [↑](#footnote-ref-61)
62. *WUTC v. Wash. Water Power Co.*, Docket No. U-84-28, Order No. 02, 1985 Wash. UTC LEXIS 88, 38. [↑](#footnote-ref-62)
63. *Id.* at 39. [↑](#footnote-ref-63)
64. *Id.* [↑](#footnote-ref-64)
65. *Id.* at 40. [↑](#footnote-ref-65)
66. *Id.* [↑](#footnote-ref-66)
67. *Id.* at 66. [↑](#footnote-ref-67)
68. *WUTC v. Pac. Power & Light Co.*, Docket No. U-84-65, Order No. 04, 68 P.U.R.4th 396, 425. [↑](#footnote-ref-68)
69. *Id.* at 426. [↑](#footnote-ref-69)
70. *Id.* [↑](#footnote-ref-70)
71. *Id.* [↑](#footnote-ref-71)
72. *Id.* [↑](#footnote-ref-72)
73. *Id.* [↑](#footnote-ref-73)
74. *Id.* [↑](#footnote-ref-74)
75. *Id.* [↑](#footnote-ref-75)
76. *Id.* at 427. [↑](#footnote-ref-76)
77. *WUTC v. Puget Sound Power & Light Co.*, Docket No. U-85-53, Order No. 02, 74 P.U.R.4th 536, 580. [↑](#footnote-ref-77)
78. *Id.* [↑](#footnote-ref-78)
79. *Id.* at 581. [↑](#footnote-ref-79)
80. 80 *WUTC v. Pac. Power & Light Co.*, Docket No. U-86-02, Order No. 02, 1986 Wash. UTC LEXIS 7, 73. [↑](#footnote-ref-80)
81. *Id.* [↑](#footnote-ref-81)
82. *Id.* at 49. [↑](#footnote-ref-82)
83. *Id.* [↑](#footnote-ref-83)
84. *Id.* [↑](#footnote-ref-84)
85. *WUTC v. Wash. Natural Gas Co.*, Docket No. UG-920840, Order No. 04, 1993 WL 500058, 20. [↑](#footnote-ref-85)
86. *Id.* [↑](#footnote-ref-86)
87. *Id.* [↑](#footnote-ref-87)
88. *Id.* [↑](#footnote-ref-88)
89. *WUTC v. Puget Sound Energy, Inc.*, Docket No. UE-060266, *et al.*, Order No. 08, 255 P.U.R.4th 287, 299. [↑](#footnote-ref-89)
90. *Id.* at 300. [↑](#footnote-ref-90)
91. *WUTC v. Puget Sound Energy,* Dockets UE-111048/UG-111049, Order 08 ¶ 491(May 7, 2011) (PSE 2011 GRC). [↑](#footnote-ref-91)
92. *WUTC v. Puget Sound Energy, Inc.,* Dockets UE-111048 & UG-111049, Order 08 ¶ 507 (May 7, 2012). [↑](#footnote-ref-92)
93. *WUTC v. Puget Sound Energy, Inc.,* Dockets UE-111048 & UG-111049, Order 08 ¶ 507 (May 7, 2012). [↑](#footnote-ref-93)
94. *WUTC v. Avista Corp*., Dockets UE-120436/UG-120437, *et al*., Order 09 ¶ 33 (December 26, 2012). [↑](#footnote-ref-94)
95. *Id.* ¶ 77. [↑](#footnote-ref-95)
96. *WUTC v. Puget Sound Energy*, Dockets UE-121697/ UG-121705 & UE-130137/UG-130138, Order 07 (June 25, 2013) (PSE Rate Plan). [↑](#footnote-ref-96)
97. *WUTC v. Avista Corp.*, Dockets UE-140188/UG-140189, Order 05 ¶¶ 48-51 (November 25, 2014). [↑](#footnote-ref-97)
98. *WUTC v. Avista Corp.,* Dockets UE-150204/UG-150205. [↑](#footnote-ref-98)