# IN THE MATTER OF the Utilities Commission Act S.B.C. 1980, c. 60, as amended

and

# IN THE MATTER OF an Application by West Kootenay Power and Light Company, Limited

## DECISION

April 3, 1987

Before:

J.D.V. Newlands, Deputy Chairman D.B. Kilpatrick, Commissioner N. Martin, Commissioner

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# APPEARANCES

J.W.M. WILSON	West Kootenay Power and Light Company, Limited		
R.L. SCHMIDT	Rossland-Trail NDP Constituency Association		
R.B. WALLACE	Cities of Kelowna; Penticton; Nelson; Grand Forks; District of Summerland; and Celgar Pulp		
W.H. PRICE	Southern Interior Stockmen's Association		
MS. J. VANCE	Consumers' Association of Canada; Federated Anti-Poverty Groups; B.C. Old Age Pensioners; Council of Senior Citizens Organizations; and Senior Citizens Associations		
J.M. McDONALD	His Own Behalf		
C. SANDERSON	Commission Counsel		

R.J. FLETCHER J.A. GREINER J. HAGUE B. MCKINLAY F.L. STROMOTICH	Commission Staff
W.R. HARPER	Hearing Officer
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### I INTRODUCTION

Late in 1985, West Kootenay Power and Light Company, Limited ("WKPL") applied for and received interim rate relief dependent on substantiation of their request before a Public Hearing. This is the Decision of the Division of the Commission which heard the Application during a Public Hearing in Rossland, B.C. from December 2, 1986 to December 11, 1986.

WKPL, incorporated in 1897, was purchased by Cominco Ltd. ("Cominco") in 1924. WKPL provides electric utility service in the West Kootenay/Boundary Region and the South Okanagan area of British Columbia. The major communities served by the Applicant are Creston in the East: Trail, Castlegar and Nelson in the West Kootenays; Grand Forks in the Boundary Region; Kelowna, Penticton, Oliver, Osoyoos in the South Okanagan; and Keremeos and Princeton in the West. WKPL supplies approximately 60,000 direct service customers and approximately 37,000 other customers indirectly through municipal utilities in Nelson, Grand Forks, Kelowna, Penticton and the District of Summerland, and an investor-owned utility supplying Princeton and environs. Of the wholesale customers only Nelson has its own generation plant and WKPL supplies additional electric power as and when required.

At the date of the subject Application Cominco itself was controlled by Canadian Pacific Ltd. In September 1986 a holding company, controlled by Teck Corporation, purchased control of Cominco from Canadian Pacific.

In July 1986 an offer for the purchase of WKPL by UtiliCorp Inc. of Kansas City, Missouri was received by Cominco. That matter became the subject of a public hearing by another Division of the Commission. As a consequence, this Division did not hear evidence with regard to the change in the ownership by Cominco and hence is unable to determine whether or not there will be a net impact on the costs of WKPL as a result of such a change if approved. These matters will be considered by the Division of the Commission hearing the UtiliCorp Application and, to the extent necessary as a result of that review, the appropriate action will be taken by that Division of the Commission with regard to WKPL's projected revenue requirement in the 1987 fiscal year. For the purposes of the subject Application, no acquisition assumptions are made with regard to 1987 or subsequent years.

The service area of WKPL was severely affected by the recent recession and, even though significant recovery has taken place elsewhere in the province, this area appears to be recovering at a slower rate.

The Application, encompassing the fiscal years 1986 and 1987, was well prepared and clearly presented, minimizing the need for additional information and expediting the hearing.

The following appeared as witnesses for the Applicant: Mr. S. McKay, Senior Vice-President, Operations, was chief policy witness for the Applicant, supported by Mr. J.S. Brook, Vice-President of Finance; Mr. R. Siddall, Superintendent, Resources and Systems Operations; Mr. R. Watson, Manager, Transmission and Distribution; and Mr. S. Ash, Manager, Commercial Affairs.

#### II THE APPLICATION

The Application by WKPL for interim and permanent rate relief was dated November 29, 1985 and, pursuant to Commission Order No. G-93-85, a 6% interim refundable increase in electric rates was granted effective January 1, 1986.

By supplementary Application dated October 23, 1986 WKPL provided material in support of its revenue requirements for 1987 but sought no additional relief in excess of the 6% interim increase to recover the approximately \$680,000 forecast revenue deficiency. This deficiency was subsequently reduced during the hearing to approximately \$400,000. During cross-examination WKPL testified that it would seek no increase in 1987. It was apparent, however, that if circumstances changed and the revenue deficiency increased significantly, the Applicant would probably seek to recover the existing deficiency plus the additional costs. In the alternative, if the Commission finds the 6% interim excessive for 1986, it is the Commission's understanding of the Application that the Applicant seeks to have the full 6% applicable in 1987 if justified.

The Application sought a rate increase that in the Company's eyes was justified. All the Intervenors objected in principle to the increase while some Intervenors took objection to specific items within the Application.

In his argument, Mr. R.B. Wallace compared the 1984 Decision to the current Application and stated as follows (Transcript p. 1213):

"A comparison of the current application with your July 1984 decision, shows the following increases in dollars. Total revenues are up 20.1 per cent, and that's found at page 32 of the transcript. West Kootenay's margins up 16.9 per cent, confirmed at page 33 of the transcript. Income before tax is up 28.6 per cent, confirmed at page 38 of the transcript. Earned return is up 19.7 per cent, confirmed at page 39 of the transcript, all of which numbers were

APPENDIX "I"

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# Reference

## Rate of Return

page 26 For 1986 the appropriate opportunity rate of return on book equity is 13.75% (within the range of 13.25% and 14%). For 1987, the appropriate opportunity rate of return on book equity is 13.20% (within the range of 12.75% and 13.5%). drawn from Exhibit 5, page 31. The increase in earned return of \$2,570,000 is, in fact, the single largest increase in the cost of service."

In her cross-examination, and to avoid unnecessary duplication, Ms. Vance left a number of financial matters to Mr. Wallace but did give emphasis to longer-term considerations (Transcript p. 1261A):

"We believe that long-term considerations are important. In our view, rate regulation is an ongoing process. We are concerned with specific rate applications and the immediate effect of the proposed increase. We are also concerned, however, with the future planning and development of West Kootenay, particularly its single emphasis on capital-intensive supply, its failure to develop active demand management and energy-conservation programs, its de-emphasis of various other options for meeting system requirements, and the effect that this has and will have over the longer term, not only on West Kootenay's rates but potentially upon the economic health of the service area itself.

Other matters which are of direct concern in the determination of the revenue requirement of the two test years are affected by long-term planning considerations and are at least in part dictated by these long-term considerations. Primarily these matters include West Kootenay's plans to achieve their requested rate of return and their ability and plans to raise future capital, their forecast versus actual capital expenditures and their access to short-term and long-term firm power purchases other than from B.C. Hydro.

While West Kootenay has not developed a statement of its corporate mandate and goals, its perception of its mandate and the assumptions underlying its concept of future development and financial requirements were developed though examination of Panel 1."

During her argument, at Transcript p. 1264, Ms. Vance further states:

"The emphasis of my argument will be on this goal and concept of least cost service, and the foregoing goals and objectives, and the corporate strategies and policies which flow from them, underlying West Kootenay's request for these rate increases." Mr. Ronald L. Schmidt, President, Rossland-Trail NDP Association, representing approximately 800 customers, opposed the increase on the basis of the cumulative impact of increases on the customers over the years and stated (Exhibit 25):

"Even with the recent increases in power rates, Cominco and Westar are still operating and the citizens are receiving power somewhat cheaper than those buying from B.C. Hydro, but if these increases continue then we will have nothing to offer new development in this area or the continuing operation of the plans and mills that are running now."

Mr. W.H. Price appearing on behalf of the Southern Interior Stockmen's Association, which consists of six affiliated stock associations with a total of approximately 300 producing cattle ranches, objected to the increase, testifying at Transcript pp. 594-595:

"The agricultural industry in B.C. has suffered severe financial losses in recent years. West Kootenay Power have a monopoly in a defined market area, selling a product which has to be purchased by the populace within that area.

Through judicious management they have the ability to exercise a large degree of control over the cost of producing that product. Farmers, on the other hand, are faced with producing for a competitive market. They work under conditions over which they have very little control. Their cost of production can fluctuate from year to year, always influenced by changing weather and market conditions."

Commission comments on the Application and issues follow hereafter.

#### III THE ISSUES

Issues discussed below must be viewed in the context of a company with sales of approximately 2 million Mwh and a net depreciated Rate Base of \$125 million. While the Commission substantially agrees with the position taken by the Applicant on many of the issues involved in this case, the Commission concludes that the following matters require further comment.

# 1. Capital Budget

It is apparent from the historical record, as well as from the adjustments made by the Applicant in this proceeding, that scope exists for the Applicant to improve its forecast of plant additions. Exhibit 31 (Appendix "A") demonstrates that over the past five years, including estimates for 1986, the Applicant, on average, has underspent its forecast by approximately 20% and, based on the assumptions made by the Applicant in Exhibit 34, the net result of the under-expenditure is that the revenue requirements are understated. Accordingly, it is more difficult for the shareholders to achieve the approved return. In the alternative, if different assumptions are made as to how plant additions are financed, the burden of the under-expenditure is borne by the customers of the utility.

It is the Commission's view that immediate steps must be taken to improve the accuracy of forecasting plant additions for the benefit of both the customers and the shareholders. Although the Applicant itself has made a provision of a deferral of 10% of gross budgeted plant addition, based on past experience, it is the Commission's view that a further 10% adjustment is required in 1987 to more accurately reflect anticipated results. This adjustment matches the average under-expenditure during the last five years. If senior management is unable to overcome the problem, additional action will be required by the Commission. This matter will be reviewed in the next proceeding.

#### 2. Okanagan Valley Bulk Power Transmission System

The Applicant's net plant in service at December 31, 1986 was approximately \$120 million. For the five-year period 1987 - 1991, the Applicant in its capital plan, forecasts capital expenditures of \$90 million (Exhibit 3, Tab 14, p. 3). This would mean that by 1991 WKPL's net plant would increase by 75% over current levels. WKPL testified that increases in that period would be driven 30% by plant-related items (Transcript p. 893), commensurate with its load growth assumptions.

Of the forecast capital expenditures of \$90 million, approximately \$22 million relates to distribution system expansion which would normally be reviewed on a year-to-year basis. A further \$22 million relates to major expenditures for the Okanagan Bulk Power Supply. The three components of this project are, the 500 kV Vaseux Lake Substation, the Oliver Terminal Substation and the Vaseux to R.G. Anderson 230 kV Line. All are described in Appendix B to this Decision which was filed as Exhibit 13 in the proceedings.

Intervenors were concerned that a project integral to the system as is the Okanagan Bulk Power Supply is irreversible, once it has been approved by the Board of Directors, committed to construction, and generally set in motion. Their concern centered on the need for, and rate impact of, the project.

In response to these concerns Mr. J.W.M. Wilson, Counsel for the Applicant, made a commitment that WKPL would be applying for a Certificate of Public Convenience and Necessity under Part 3 of the Act (Transcript p. 899). The Commission believes this to be appropriate and accordingly will require a Certificate Application from the Applicant for capital expenditures on the Okanagan Bulk Power Supply as described in Appendix B.

### 3. WKPL/Cominco Operating Agreements

During the proceeding, WKPL disclosed that the WKPL/Cominco operating agreements, the purpose of which was to clarify the responsibilities of each of the parties, were in the final stages of renegotiation. In so doing the Omnibus Agreement was to be disaggregated into three separate agreements, being the "Facilities Sharing Agreement", the "Management Agreement" and the "Interconnection Agreement". These aforementioned draft agreements were filed during the UtiliCorp/WKPL public hearing for consideration by the Division of the Commission responsible for the conduct of that proceeding. These agreements are subject to Commission approval, pursuant to the May 31, 1983 Decision of this Commission.

### 4. Power Purchases

The October 1986 Application (Exhibit 3) includes a 1987 forecast power purchase expense of \$11.6 million. In Exhibit 10 (Appendix C to this Decision) this was revised to \$11.3 million. Power purchases comprise the single largest component of the Applicant's costs, representing 18% of a revenue requirement of \$63 million and 26% of total expenses of \$42.6 million.

As in recent years, WKPL forecasts purchasing of energy and capacity from Cominco and B.C. Hydro. In its Application, pricing terms for power purchases from B.C. Hydro are in accord with the parameters determined as reasonable in the Commission's Decision of October 15, 1986 with respect to matters in dispute between B.C. Hydro and WKPL (the "Dispute Decision"). WKPL has provided for a demand ratchet of 10%; capacity at \$3,500 per MW month; and an energy charge per B.C. Hydro Schedules 1821 and 1899. No formal contract has yet been provided to the Commission for approval. The Commission, in its Dispute Decision, established a ratchet provision that, from a revenue requirement perspective, affords WKPL some flexibility in the possible substitution of Cominco capacity for B.C. Hydro capacity at a much lower cost, as WKPL is only obliged to pay B.C. Hydro for 10% of the nominated peak demand month for each of the subsequent 11 months. The potential for substitution was demonstrated by WKPL in the filing of Exhibit 10 which provided for a \$274,000 downward adjustment in forecast power purchase costs. This was in response to an opportunity to obtain a greater amount of Cominco capacity and a correspondingly reduced amount of B.C. Hydro capacity, because of a decrease in Cominco's own requirements.

WKPL is liable for 90% take-or-pay on energy nominations from B.C. Hydro in accordance with the terms of the Dispute Decision. Commission comment with respect to capacity applies equally in this case, although there is a lower potential impact on revenue requirement. WKPL's forecast of 1987 wheeling costs (Exhibit 3, Tab 8, p. 4,) is attached to this Decision as Appendix D and reflect WKPL's interpretation of the Dispute Decision.

The Commission concludes that while there may be some variance in the cost of purchased power with a resultant impact on revenue requirements, the Commission is not prepared to establish a deferral account at this time. The matter will, however, be considered at the next revenue requirements proceeding.

### 5. Power Purchase/Generation Studies

A related matter to the above is the long-term power purchase/generation studies, inclusive of third party purchases which the Applicant agreed at Transcript page 187 are not precluded, and which the Applicant has indicated to the Commission on several occassions have been underway and will be presented to the Commission shortly. However, even through the Applicant has indicated completion dates since the early 1980's, these studies have not materialized. The Applicant's most recent position is that their studies will be completed in 1987. The Commission is concerned that these studies have not been completed and to the extent that an adverse impact is experienced by the customer as a result of not having completed the studies in a timely manner, the disposition of the adverse impact between the customers and the shareholders must be considered. This matter will be considered at the next revenue requirements proceeding, assuming the studies have been completed. If the studies are not then completed the Commission will consider ordering the Applicant to complete them. In the alternative the Commission may engage consultants to undertake the study and assess the cost against the Applicant.

With regard to the above studies Ms. Vance argued that rate regulation is an ongoing process and is not only concerned with the immediate effect of proposed rate increases, especially since WKPL's letter at Exhibit 3, Tab 1, p. 2 stated that confirmation of the rates is necessary to maintain its ability to finance new plant and equipment required to provide adequate service to its customers. WKPL's responses to guestions led her to believe that:

"It appears that West Kootenay's perception is that its primary mandate is to build additional generation, substation and transmission capacity, and capability, to meet an infinitely growing load, and not to take any meaningful steps to influence the nature and extent of future load growth. It appears to see its mandate as simply meeting whatever load growth happens to develop. In our submission, this is contrary to good management principles, inconsistent with approaches that have been adopted in other jurisdictions, and not in the best interest of the customer.

Given the fact that virtually all of West Kootenay's projected future projects involve expenditures much greater than those contemplated for many years, and are in millions, or tens of millions of dollars, a corporate objective which stresses the building of large capital projects to meet future demand, without the additional flexibility and economic efficiency of demand management programs must be seriously questioned."

(Transcript p. 1265)

Mr. McKay did not expect to achieve big savings in such demand management techniques as Ms. Vance referred to in her cross-examination and stated it was an area they only applied when considering generation resources (Transcript p. 181). He stated later that:

"Up until now, we have not done this, and probably the main reason is that until we are able to foresee our new costs in resource generation, evaluate our cost of service, it is not possible to evaluate whether such things are economical or not."

(Transcript p. 246)

Ms. Vance did not agree that such practices require the results of a power supply study (Transcript p. 1269) and Mr. McKay appeared to agree that "they can go on their own strength" in an exchange with Commission Counsel at Transcript p. 312. In any case, WKPL testified that such considerations would be included in the generation resource study now underway. Ms. Vance wanted to ensure such considerations included "some genuine and meaningful analysis", (Transcript p. 1275) rather than simply a narrated description. Both Mr. Siddall (Transcript p. 775) and Mr. Ash (Transcript p. 777) confirmed that meaningful analysis would be provided. There is some question, however, as to what WKPL specifically plans to undertake by way of meaningful analysis, and which of the available options for demand management will be included. Mr. Siddall was somewhat vague, saying they intend to "review as many as we can" (Transcript p. 775). Mr. Ash stated that "time of use" or "seasonal" rates were not going to be included in the study as WKPL had applied to implement seasonal rates in their last rate design hearing and they were rejected. In fact, as brought out by Commission Counsel at Transcript p. 1118, WKPL made no such proposal and the Commission in its Decision had concluded that, depending on the generation study results, WKPL might be able to make a case for seasonal rates.

In her final argument, Ms. Vance submitted that the Commission should add the authority of a Commission directive to WKPL's assurance that load management would receive serious consideration, and that if it shows benefits have been foregone by consumers that a downward adjustment to Return on Equity ("ROE") should be made (Transcript p. 1276).

Mr. Wallace argued that WKPL's answers to Ms. Vance's questions on the content of the resource study were vague and inadequate (Transcript p. 1224) for such an important area. It was his submission that WKPL should be directed to file long-term load forecasts and a preliminary analysis of the alternatives available to WKPL (Transcript p. 1225). He suggested that this preliminary analysis should not be detailed but comprehensive, so the Commission and staff could review it and require any additional options that may have been missed, to be included in a more formal report to be filed subsequently.

The Commission shares the concerns expressed by Ms. Vance and Mr. Wallace and concludes that the Applicant must include, as an essential element in its forthcoming resource study, a careful assessment of the potential for load management as an alternative to either increased generating capacity or purchased power. Accordingly, the Commission directs the Applicant to include in its resource study an explicit and meaningful analysis for each of those alternative load management techniques deemed to be practical and potentially applicable in the Applicant's operations.

### 6. Property Taxes

Property taxes are forecast by the Applicant to increase by approximately \$1.4 million on account of estimated changes due to implementation of statutory assessment rates for transmission and distribution lines (Exhibit 3, Tab 10. p. 1).

Although this amount has been included in full in the Application, WKPL is intending to file an appeal to achieve a reduction in this cost. In argument, the Applicant proposed that the Commission implement an appropriate mechanism to ensure that neither the customer nor the shareholder would be unduly prejudiced, when the amount of the property tax increase is finally known (Transcript p. 1198).

The Commission concurs with this proposal and any variance from the amount forecast for Revenue Requirement purposes for fiscal 1987 shall be set up in a special deferral account in Rate Base, inclusive of costs, for future disposition.

# 7. Insurance, Injuries and Damage Reserves

The Applicant maintains reserves for self-insurance and liability for injuries and damages. Amounts set aside were not applied as a reduction to Rate Base in the filed Application. However, the Applicant agreed that such an offset would be appropriate (Transcript pp. 1158-1159) and subsequent to the hearing, by letter dated December 17, 1986, WKPL set out details of "Insurance Reserve and Worker's Compensation Board Reserve" that together make up the insurance reserve provisions utilized by the Applicant. The Commission concludes that it is reasonable to offset Rate Base with Insurance and Damage Reserves and has made the necessary adjustment.

In the same letter the Applicant explained that the working capital provision for the lag in revenue receipts required adjustment to compare with actual experience for 1986. An amendment for both 1986 and 1987 was therefore requested by the Applicant. The Commission accepts the Applicant's request as reasonable in these circumstances.

## 8. Operating and Maintenance Expenses

(a) 1984-1986 Record

Supporting material filed by the Applicant (Exhibit 5, pp. 41-42 and attached as Appendix E to this Decision) demonstrate the performance of the Applicant since the last Decision of July 5, 1984.

After taking inflation and increased activity into account, the Applicant made gains in productivity in 1985 and 1986 in comparison with the 1984 test year. Exhibit 20 (attached as Appendix F) provides a guide to WKPL's performance 1981 - 1987 and shows that the total work force declined from 403 in 1981 to 359 in 1985 despite a gain of 5,400 direct customers. Gains in productivity were made with no apparent decline in the quality of service to customers.

The Applicant's performance was addressed by a major intervenor, Counsel for the municipalities and Celgar Pulp, who in argument stated "...there is no question that over the years WKPL has a restraint record that I think would be envied by most utilities in this province. The overall increases have been limited." (Transcript p. 1227) The Commission concurs in that assessment.

#### (b) 1987 Increases

Intervenors were, however, concerned with the level of increases in the 1987 budget compared to 1985 and 1986 years (Appendix E, lines 26 and 27). Mr. R.B. Wallace argued:

"The difficulty that we have is that in 1987 there are suddenly significant changes in a trend of very constant and consistent restraint...I think (they) have generally done a very good job, these increases are not large... Our concern, however, is with the trend. The recession is still with us, particularly in the West Kootenay service area, and it would be wrong to take the lid off a program that has been working so well."

(Transcript p. 1228)

A prime area of focus was the recent benefit/cost record of spending on information services. During the hearing into the 1984 Revenue Requirement, the Applicant filed details of its "Financial Computer System" project, together with a copy of the Appropriation approved by the Applicant's Board of Directors in the amount of \$537,000 (Exhibit 5, p. 90, Item 16). The justification for the project was a planned reduction in WKPL's dependency upon Cominco for provision of information processing services, that would result in annual cost savings in the magnitude of \$300,000. A residual dependency upon Cominco for accounting, microfiche and other related services would remain at an annual cost of \$100,000. The two major areas of saving were specified as the billing system and the payroll system. Savings were to be achieved through in-house use of an IBM System 36 and extensive utilization of intelligent terminals/microcomputers.

In this hearing, from Exhibit 44 and explanations provided by the Applicant, it was adduced that expenditures on information systems development 1984 through 1987 would aggregate approximately \$1,300,000. About 50% of the amount is represented by centrally-located equipment, 25% by on-line equipment at district offices, and 25% by "personal computers".

The Commission is concerned that the original estimate of the project was for \$537,000 and the original estimate of savings was \$300,000 per year. Actual results to the end of 1986 and forecast 1987 shows spending of \$1,300,000 for essentially the same level of savings.

The Commission believes that spending in this area should reflect the same level of economy, effectiveness and efficiency that the Applicant has demonstrated in other areas of its operation. Inherent estimate risks involved with such projects are appreciated; the Commission finds that under the circumstances no adjustment will be made.

The Applicant was particularly innovative in its manner of introducing personal computers to its employees. Forty-two employee-owned machines were financed by the employees through a policy that allowed them to exchange vacation time for personal title to the computers, provided the machines remained in company use for the first three years. The Commission encourages the Applicant to continue to take innovative steps that benefit both its employees and its customers.

## (c) Salaries and Wages

WKPL testified that no salary or wage increases had been provided for management staff and that negotiations were commencing with unionized employees. The Commission recognizes the need to pay competitive salaries on the one hand but cautions the Applicant that, to the extent possible, they should avoid the danger of "circular reasoning" by defining competitive wages as those payable by utilities as opposed to industry at large for similar positions. Opportunities certainly exist for the Company to treat its employees fairly and equitably while at the same time encouraging improvements in productivity thereby reducing total overall labour costs and the resultant revenue requirements.

#### (d) Cost and Conduct of Hearing

A significant issue addressed by the Commission in its Decision of July 5, 1984 was the magnitude of the costs incurred by the Applicant during that Revenue Requirements hearing. On p. 4 of that Decision the Commission stated "...the Applicant could significantly improve the quality of its Applications." And on p. 16 "...the opportunity exists to significantly improve the quality of the Application which will reduce the costs for all parties." The Commission accordingly disallowed some of the Applicant's hearing costs entirely and reduced all other internal rate application costs by 25%.

The Commission has considered the cost incurred in this proceeding which encompasses two fiscal years and, in comparing these costs with those of the preceeding hearing, notes that an absolute reduction of approximately 50% has been achieved. A major reason for this substantial improvement has been the marked improvement in the composition, presentation and consistency of the Rate Application itself. The Commission is impressed with this productivity gain.

The Commission concurs with the costs for the 1986/87 Revenue Requirements hearing in the amount of approximately \$154,000. This amount is to be amortized equally over 1986 and 1987. The Applicant's costs of approximately \$300,000 for the 1986 Dispute hearing are also approved, with amortization to be over five years starting in 1987. The aforementioned adjustments have been made in the Schedules.

## 9. Quality of Service

The Company outlined its policy regarding investment in new or replacement plant and equipment in Exhibit 4, Tab 4, p. 4 as follows:

"The Company believes that it has an important responsibility to provide reliable service of high quality while maintaining reasonable rates. Increased reliability almost invariably has a higher cost associated with it and therefore satisfying this responsibility requires subjective judgment. The Company makes its adjustments in this regard through monitoring, on an ongoing basis, the perceived "satisfaction" of our customers with respect to the service we provide.

Additionally, we believe that our customers must be treated consistently throughout the service area with the same considerations being made for all customers who are under similar circumstances.

Our policy regarding investment in new or replacement plant therefore is that such investment should not occur until the point in time when not doing so would result in deterioration of the quality of service. Further, the degree of investment in a particular facility should be in tune with currently acceptable aesthetic standards under the circumstances, and limited to the degree necessary to satisfy minimum technical and operational needs."

In cross-examination both Ms. Vance and Commission Counsel focussed on that policy and the quality of service implied by it. In response to Mr. Sanderson, the witness for WKPL, Mr. McKay, confirmed that under that policy replacement of existing plant and equipment is not undertaken by WKPL until management deems it necessary. He further testified that WKPL does not strictly apply the same criteria to new projects, since there are occasions calling for increased quality of service to special customers or groups of customers (Transcript p. 274).

In further cross-examination by Commission Counsel, Mr. McKay was asked if WKPL's objective of not undertaking new investment until failure to do so would result in deterioration in the quality of service, was a valid statement of his objective for the future. The witness conceded only that "it might be", citing possible changes in public expectations for reliability of service (Transcript p. 276). In response to a question by the hearing Chairman, Mr. McKay conceded the possibility that new owners of the utility might have higher standards of service, requiring an upgrading by WKPL. He went on to agree with Mr. Sanderson, however, that until WKPL received expressions of dissatisfaction on the level of service being provided, investment in either new or replacement plant would not occur.

In further cross-examination by Mr. Sanderson, however, Mr. McKay appeared to contradict that position by acknowledging that, "to a degree", the 500 KV Vaseux Lake substation (involving over \$18 million in the utility's five-year capital plan) is intended to increase the reliability of service in the Okanagan, and was being undertaken even without receiving expressions of customer concern regarding reliability or quality of service (Transcript p. 278). Mr. McKay explained that, in that particular case, the large number of customers involved in the Okanagan, the size of the project, and the time required to respond with the required new facilities, made it imprudent to await sufficient complaint feedback from customers, since during that time the quality of service would further decline to unacceptable levels (Transcript p. 279).

Intervenors at the proceedings questioned the Applicant on its complaint record as an indicator of quality of service. In response, the Applicant stated that an ongoing complaint report was not prepared (Transcript p. 107). However, a summary of complaint activity for the year 1986 was prepared for the hearing and filed as Exhibit 32 (attached as Appendix G to this Decision) on which the Applicant was cross-examined. Of the some 150 complaints directed to Head Office, 106 customers complained of billing matters.

Mr. John MacDonald, retired Chief Electrical Engineer for Cominco and a customer resident in Rossland, made a useful and informative submission regarding his experience of the frequency and duration of outages at his particular location in the Rossland area (Transcript pp. 1016 - 1023, 1108 - 1115). In response, the Applicant supplied an "outage summary" which provided details of the 60 kV system in the Rossland area and a comparison of overall outage statistics for B.C. Hydro, WKPL in total, and Rossland (filed as Exhibit 37 and attached as Appendix H to this Decision). Mr. MacDonald's appearance and persistence has resulted in the resolution of his problem and a general improvement for other customers in Rossland.

The Commission agrees with the Company's observation in Exhibit 4 that public expectations with respect to reliability of service change but that WKPL's customers appear to be generally satisfied with the reliability and quality of service and would not wish to pay more for any slight improvements which might be achieved.

The Commission concludes that WKPL should give consideration to developing a qualitative set of standards for quality of service at the field or operating level. The Commission also directs that an ongoing outage/complaint report be prepared in consultation with Commission staff, and filed quarterly, commencing as soon as practicable.

#### IV RATE OF RETURN

Through an expert witness, Mr. Bolster, an economist and senior consultant with Foster Associates of Washington, D.C., West Kootenay gave evidence as to the appropriate cost of equity capital for the 1986 and 1987 test years. In arriving at his recommended returns of 15% and 14.25% for the two years respectively he used three approaches; namely, the comparable earnings method, the discounted cash flow ("DCF") method, and the equity risk premium method.

The comparable earnings approach as defined, is a method which assesses the return on equity a corporate or institutional investor needs in order to invest in either a regulated utility or comparable companies operating in a competitive market. The companies selected for this approach were chosen on the basis of comparability in investment risk. On the basis of such a test, Mr. Bolster concluded the appropriate return on equity for 1986 and 1987 was in the range of 14.75%-15.25%.

The DCF method, which considers the question of appropriate cost of equity from the point of view of an investor who is deciding to either purchase or retain a particular stock, enabled Mr. Bolster to conclude that the cost of equity for 1986 and 1987 should be in the range of 13.8-14.3%.

The third method Mr. Bolster used was the equity risk premium method which involves a three-phase approach to the appropriate cost of equity and assumes that the cost of equity capital is conceptually composed of three distinct components; namely, a risk-free rate of return, an inflation premium and an equity risk premium. He concluded that on this basis the cost of equity capital was between the range of 13.8% and 14.3% for 1986 and 1987.

In support of the foregoing, Mr. Bolster gave evidence on prospective rates of inflation, interest, and growth in GNP as essential background for the rate of return determination. He suggested that inflation may move up in the near future due to continuing high federal deficits and a possible reversal in the declining trend of commodity prices (Exhibit 2). He cited consensus forecasts, both in the U.S. and Canada, to suggest that a slight upward trend in interest rate movement is likely to come about in the near future. Mr. Bolster concluded that the long-running decline of interest rates has bottomed out (Exhibit 2, Vol. 3, p. 465). His evidence on the economy utilized consensus forecasts on both the U.S. and Canadian economy (Exhibit 2).

Mr. Bolster's testimony was valued and important to this hearing and the Commission is grateful for the opinion of this West Kootenay expert witness. In reviewing the evidence, the Commission considered the interrelated factors of inflation, interest rates and the economy responsible in arriving at an appropriate rate of return on common equity for West Kootenay in 1986 and 1987.

#### 1. Inflation

In the Commission's view, Mr. Bolster's contention that inflation may move up as a result of continuing high federal deficits and a reversal in the declining trend of commodity prices is an over-generalization. The Commission acknowledges that the linkage between inflation and high federal deficit is difficult to define or explain explicitly. U.S. federal deficits have been climbing since 1982 while during the same period both inflation and interest rates have been dropping. This in itself does not invalidate the proposition that ultimately, high government deficits usually lead to an increase in inflation. The Commission recognizes, however, that there are many intervening variables between deficits and inflation, and that any attempt to determine the linkage between the two requires consideration of those variables in the total picture. Mr. Bolster's suggestion of a reversal in the declining trend of commodity prices is tempered by the recent changes in pertinent macro-economic indicators. Statistics Canada's latest data on the first two quarters of 1986 versus 1985, indicates the following:

GNE Deflator	CPI	Industrial Products	Raw Material
+ 2.5%	+ 4.4%	+0.7%	- 17.6%

In the Commission's view the significant factor here is the continuing and deep decline in raw material prices. Those prices can be considered as a proxy for Mr. Bolster's commodity prices and the trend has been contrary to his expectation. In the Commission's view inflation can be expected to be driven largely by the level of domestic economic growth, barring external shocks such as the Iran-Iraq war closing the Strait of Hormuz, or a country-wide eruption of violence in South Africa. As is developed in Section 3 on the question of the economy and its growth prospects, economic activities are not expected to be buoyant. It then follows that there is unlikely to be any significant increase in inflation.

### 2. Interest Rates

While the Commission agrees with Mr. Bolster that the decline in interest rates has been ongoing for a long time and that there is evidence that it may "bottom out" somewhat in 1987, he did not address the magnitude of any further decline or the probable subsequent trend in interest rates.

With respect to the magnitude, the Commission believes that the decline in interest rates may well stop in 1987, and stabilize, and, if it were to increase, that the magnitude would be extremely small. This is particularly likely for Canada due to the current spread between the U.S. and Canada rates. The differentials between the U.S. and Canada rates have remained unprecedentedly high, as illustrated by the following data drawn from Bank of Canada and Federal Reserve Bank statistics:

	1985	October 1986	November 1986
Canada Bank Rate	8.98	8.54	8.47
U <b>.S.</b> Discount Rate Differential	7.5 1.48	5.5 3.04	5.5 2.97

Given such a high level of differential, all other factors being equal, Canadian interest rates could well continue to decline without any changes in the U.S. rates. Mr. Bolster acknowledged such a possibility, although he clearly did not take it into account (Transcript pp. 529-532).

With regard to interest rates, the witness stated at Transcript p. 522:

"However, what is interesting is that the range in the fourth quarter is from a low of 6%, one guy thinks that 30-year Treasury Bonds in the U.S. will be yielding 6% in the fourth quarter of '87, another fellow thinks that they will be yielding 14%, and that's quite a range. That's 800 basis points."

Under cross-examination the witness acknowledged that the record of forecasting accuracy achieved by experts in their forecasts of interest rates in both the U.S.A. and Canada, has been very poor. Specifically, Mr. Bolster testified that the consensus forecast of the U.S. experts which has been generally accepted as the basis or starting point for rate of return determination, has been "off by 150 basis points one year into the future on average over the past seven years" (Transcript p. 524). The Commission therefore concludes that the consensus forecast as adopted by Mr. Bolster reflects a high level of uncertainty.

The Commission further concludes that if, as Mr. Bolster suggests, interest rates tend to "bottom out" in 1987, any slight increase in interest rates that might develop in 1987, will be followed by a decline because of continuing weakness in the economy.

## 3. The Economy

Mr. Bolster's forecast of GNP growth is, in the Commission's view, more optimistic than is warranted. The Canadian economy in 1986 was in its fourth year of expansion. It has been losing momentum since the beginning of 1986. Domestic demand has been stagnant and exports and employment growth have been weak especially in Western Canada. There has been a significant accumulation of inventories which will require correction. Continuing growth will have to come from non-residential capital spending and stronger exports. The outlook in these areas, however, is somewhat uncertain. With respect to non-residential capital spending, a major trend in recent years has been the modernization of offices and plants. There is real uncertainty regarding how strongly this trend will continue and low oil prices have weakened capital spending in the primary sector.

With respect to exports, the Commission concludes that due to expected weak expansion in the U.S., the outlook is not optimistic for significant growth. Taking all of the foregoing considerations into account, Conference Board (October 1986) forecast the GNP growth in Canada in 1987 to be in the 2% range, as compared to Mr. Bolster's forecast of 2.8% to 3.6% (Exhibit 2).

Summarizing the Commission's view with respect to 1987 prospects for inflation, interest rates and economic growth, a significant increase in inflation is not anticipated and there is still room for Canadian interest rates to decline somewhat against the U.S. rates. Accordingly, while there may be a modest upward movement in the rate for long-term Government of Canada bonds in 1987, on the basis of the evidence, the Commission concludes that Mr. Bolster has made too strong a case for the higher interest rate scenario.

Mr. Bolster testified that, in retrospect, given the information now available, 14.25% is a fair return on common book equity for 1986 and 1987.

### 4. Return on Book Common Equity

In its last Decision dated July 1984, the Commission allowed WKPL a book common equity return of 15.75%. At that time, the long-term Government of Canada bond rate was forecast to be 11% to 13%, with the mid point of 12%, implying a risk premium of 375 basis points.

Mr. Wallace, Counsel for the municipalities and Celgar Pulp, argued for a lower return on equity. He stated that long-term interest rates at the time of the last hearing were at a level of 12.7%. He then took the decline in interest rates of 3.2% (12.7%-9.5%) and deducted this from the 15.7% awarded WKPL in its last Decision. On the basis of this calculation he submitted that 12.5% would be a fair return on the utility's book common equity. Mr. Wallace also performed a beta analysis. He submitted that WKPL's beta is .6 and therefore warrants a risk premium of 2.9% (which implies a market risk premium of 4.83%). Adding this to Mr. Bolster's range for the prospective long-term risk-free rate, results in a market return of 11.9% to 12.9%. In summary, Mr. Wallace suggested that the fair return for WKPL's book common equity is in the range of 12-1/4% to 12-3/4%.

The Commission concludes that for the 1986 test year the appropriate return on common equity is 13.75% within a range of 13.25% and 14.00%. For 1987 the appropriate rate of return is 13.20%, within the range of 12.75% and 13.50%.

#### **V** OTHER MATTERS

#### 1. Recovery of Costs Incurred in Future Hearings

With regard to the recovery of Applicant and Commission costs, for future hearings the Commission will consider an allocation of those costs between the customers and shareholders. One such method of allocation would be to permit the Applicant to recover the percentage of costs in relation to what was sought and what was granted. The Commission will seek suggestions from all interested parties at the next proceeding.

#### VI DECISION

The Commission confirms an average rate increase of 4.82% effective January 1, 1986 over firm rates in effect in 1985. The Commission will approve a further amendment January 1, 1987 bringing the average rate increase to 4.90% over firm rates in effect in 1985.

The Commission concludes that this Decision provides WKPL with an opportunity in fiscal 1987 to earn a rate of return on common equity of 13.20% within a range of 12.75% to 13.50%.

The interim rate increase in effect since January 1, 1986 of 6% will require partial refunding with interest in accordance with the terms of Commission Order No. G-93-85.

The Commission will accept revised rate schedules in accordance with this Decision supported by a reconciliation of rates, volumes and revenues showing also a calculation of amounts refundable.

DATED at the City of Vancouver, in the Province of British Columbia, this 3rd day of April, 1987.

J.D.V. NEWLANDS, Deputy Chairman

D. B. Kilpatrich

D.B. KILPATRICK, Commissioner

N. MARTIN, Commissioner



BRITISH COLUMBIA UTILITIES COMMISSION ORDER

NUMBER \_\_\_\_\_\_G-14-87

#### PROVINCE OF BRITISH COLUMBIA

#### BRITISH COLUMBIA UTILITIES COMMISSION

IN THE MATTER OF the Utilities Commission Act, S.B.C. 1980, c. 60, as amended

and

IN THE MATTER OF Applications by West Kootenay Power and Light Company, Limited

BEFORE:

J.D.V. Newlands, Deputy Chairman; D.B. Kilpatrick, Commissioner: and N. Martin, Commissioner

April 3, 1987

#### ORDER

WHEREAS a public hearing pertaining to West Kootenay Power and Light Company, Limited ("WKPL") proceeded before this Commission at Rossland, B.C. December 2 through 11, 1986 to hear, inter alia, an Application dated November 29, 1985, as supplemented October 23, 1986, for increases to its filed Tariff Rate Schedules; and

WHEREAS pursuant to Order No. G-93-85 WKPL was granted an interim refundable rate increase of 6.0% effective January 1, 1986; and

WHEREAS the Commission has considered the Applications and the evidence adduced thereon, all as set forth in a Decision issued concurrently with this Order.

NOW THEREFORE the Commission hereby orders West Kootenay Power and Light Company, Limited as follows:

> 1. The Rate Base and Revenue Requirement for the Test Years ended December 31, 1986 and 1987 are as set out in Schedules contained in the Decision.

> > .../2

10,000

	COLUMBIA Commission
ORDER	G-14-87

- 2. West Kootenay Power is to proceed with refunds to its customers of record in the period January 1, 1986 through April 30, 1987 as specified in the Decision of the Commission issued concurrently with this Order. Such refunds are to include interest calculated as specified in Order No. G-93-85. A reconciliation schedule is required to be filed concurrently.
- 3. The Commission will accept for filing, subject to timely filing thereof, amended Tariff Rate Schedules confirming as firm effective May 1, 1987, rates which conform to the terms of the Commission's April 3, 1987 Decision.
- 4. West Kootenay Power will comply with the several directions incorporated in the Commission Decision.

DATED at the City of Vancouver, in the Province of British Columbia, this  $10^{16}$  day of April, 1987.

BY ORDER Deputy Chairman

2

UTILITY RATE BASE	R								
SCHEDULE 1	E	1986	BCUC	REF.	DECISION	1987	BCUC RE		DECISION
\$000°S	F	TEST YEAR	ADJUST.		1986	TEST YEAR	ADJUST.		1987
PLANT IN SERVICE, Jan. 1		\$153,598			\$153,598	\$161,204			\$161,204
Additions to plant in service	β10	8,806			\$8,806	13,351	(1,336) S1	- 1	\$12,015
Disposals		(1,200)	1015 1011 1011 1010 1000 1000 1000 1000	en .	(\$1,200)	(709)	name name takin ang ang ang ang ang ang ang ang ang an		(\$709)
PLANT IN SERVICE, Dec. 31	00000000000000000000000000000000000000	161,204	\$0		161,204	173,846	(\$1,336)		172,510
Add: Work in progress	*****	790			790				547
Plant held for future use		239			239	1			239
Plant acquisition adjustment		11,912			11,912	11,912			11,912
Preliminary investigation		94			94				94
Other deferred charges		1,564					(764) S1		
		175,803			175,316		(\$2,100)		1
Less:									
Accum. Depreciation		(45,081)			(45,081)	(49,155)			(49,155)
Accum. Amortization		(802)			(802)	(990)			(990)
Contributions to construction		(10,283)			(10,283)	(10,462)			(10,462)
Gain on sale of bonds, H. O.		Utile Week Mont Inform uptics walk allered same some	1000 2009 4000 4000 1044 4000 1044 4000	86	Xolar tota, mill and one cont and total	100 200 JAN 100 000 000 000 000 000 000 000	alik mban raud biran mesh spore sapar ngar suray yanga		0
NET PLANT IN SERVICE, Dec. 31		119,637	(\$487)		119,150	127,228	(\$2,100)		125,128
NET PLANT IN SERVICE, Jan. 1		116,871	(411)	S1-2	116,460	119,150			119,150
NET PLANT IN SERVICE, Mid yr.		118,254	(\$449)	0	117,805	123,189	(\$1,050)		122,139
ALLOWANCE-WORKING CAPITAL		4,310	390	S1-4	4,700	3,824	476 S1-	-4	4,300
Adjustment-major additions		(161)	90 julie 1000 980 9844 9844 9844 9844 9844		(161)	eens man oogt maar dans were knik ont- oot oot	No 450 4000 1000 1000 2000 4000 4000 4000 400		57
UTILITY RATE BASE, MID YEAR	32,	\$122,403	(\$59)		\$122,344	\$127,070	(\$574)		\$126,496
CONSTRUCTION FOR AFUDC		\$1,284		Negyelőiktes	\$1,284	\$2,336			\$2,336

UTILITY INCOME & RETURN	R							
SCHEDULE 2	L	1986	BCUC REF.	DECISION	1987	BCUC	REF.	DECISION
\$000's	L.S.	TEST YEAR	ADJUST.	1986	TEST YEAR	ADJUST.		1987
SALES VOLUME (mWh)	β28	1,991,177		1,991,177	2,073,215			2,073,215
% Increase in average rate		6.01%	-1.19%	4.82%	6.59%	-1.698		4.90%
New Average Rate: mills/kWh	<u>þ2</u>	30.26	-0.34	29.92	30.30	-0.48		29.82
UTILITY REVENUE REQUIREMENT:								
-firm rates: 28.54('86); 28.43('8	(7)	\$56,838		\$56,838	\$58,935			\$58,935
-interim rates: 1.71('86) & ('87)		3,411		\$3,411	3,536			3,536
-adjustment to rates	A composition of a stability	0	(\$680)	(680)	355	(\$1,013)		(658)
MISCELLANEOUS REVENUE		965		965	888			888
TOTAL REVENUE	And the simulation considerate second	\$61,214	(\$680)	\$60,534	\$63,714	(\$1,013)	~	\$62,701
Power purchased ('87 per Ex.10)		11,322		11,322	11,342		Exto	11,342
Wheeling and rents		1,893		1,893	1,974			1,974
Water fees		6,110		6,110	6,003			6,003
MARGIN	ne na mangang ng mangan	\$41,889	(\$680)	\$41,209	\$44,395	(\$1,013)	v	\$43,382
0 & M Labour and Benefits	620	and that loss have and can easy and for the same	kadi dabo sidor vida kupyo ilan vidor dano apra sada	9,657	10,108	edda, sonig oddig, wiege IIII'r sydde Jyddin Iwyde angor oddi	8	10,108
0 & M Materials & Other	þ20	4,076		4,076	4,330			4,330
Property, capital tax		3,641		3,641	4,638			4,638
Depreciation & amortization		4,354	(18) 52-1	4,336	4,522	(3)	S2-1	4,519
Other income		(392)		(392)	(322)			(322)
OPERATING EXPENSES	No. of the second se	\$21,336	(\$18)	\$21,318	\$23,276	where sets there are are are sets $\left( \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$		\$23,273
Utility income before tax	Contraction of the second s	\$20,553	(\$662)	\$19,891	\$21,119	(\$1,010)		\$20,109
INCOME TAX EXPENSE	<b>S</b> 3		(\$383)	\$5,161	\$5,548	(\$391)		\$5,157
EARNED RETURN	53	\$15,009	(\$279)	\$14,730	\$15,571	(\$619)		\$14,952
UTILITY RATE BASE	S1	\$122,403	(\$59)	\$122,344	\$127,070	(\$574)	0004	\$126,496
RETURN ON RATE BASE	<u>S5</u>	12.26%	-0.22%	12.04%	12.25%	-0.43%	annati e Oradonna bertu e kiska i i u dama	11.82%

A state of the second s

MARKET & UNIT PRICES	R							adding and back the state	
SCHEDULE 2a	E	1986	BCUC	REF.	DECISION	1987	BCUC	REF.	DECISION
	F	TEST YEAR	ADJUST.	00000000000000000000000000000000000000	1986	TEST YEAR	ADJUST.		1987
SALES -mWh									
Residential-with electric heat		335,877		178	335,877	330,910		16%	330,910
Residential-no electric heat		373,682		19%	373,682	400,522		19%	400,522
Wholesale		643,721		32%	643,721	652,913		318	652,913
Industrial, Large general		283,768		14%	283,768	332,000		16%	332,000
General Service, Light, Irrig.		354,129		18%	354,129	356,870		17%	356,870
	S2	1,991,177		100%	1,991,177	2,073,215		100%	2,073,215
REVENUE-from rates \$000's									
Residential		\$22,451	(\$253)	37%	\$22,198	\$23,116	(\$243)	37%	\$22,873
Wholesale		15,117	(171)	25%	14,946	15,386	(162)	25%	15,224
Industrial, large general	o Menner can Anna	7,030	(79)	128	6,951	8,099	(85)	138	8,014
General Service, Light,Irrig.	and the second se	15,651	(177)	26%	15,474	provide and frank invation who will be stated on an graft the particular stated of Gapt have an all the regulation	(167)	258	15,703
	L.	\$60,249	(\$680)	100%	\$59,569	\$62,471	(\$658)	100%	\$61,813
CUSTOMERS (12 mo.avg.)									
Residential-with electric heat		17,248			17,248	17,778			17,778
Residential-no electric heat	Conception of the second	35,564			35,564	35,793			35,793
Wholesale		8			8	8			
Industrial, large general		31			31	33			33
General Service, Light, Irrig.	Restriction and Process	7,105	949445214584649921135463483145294875699483364622484569948889824446	Navinstances of the second strength of the second strength of the second strength of the second strength of the	7,105	7,223	\$	00001220000000000000000000000000000000	7,223
		59,956	Ú.		59,956	60,835	Û	altering and a second state of the second state	60,835
AVERAGE mills/kWh									the terr vooraat of page
**Residential		31.64	-0.36		31.28	31.60	-0.33		31.27
Wholesale		23.48	-0.26		23.22	23.57	-0.25		23.32
Industrial, large general		24.77	-0.27		24.50	24.39	-0.25		24.14
General Service, Light, Irrig.	NAPI A PROPERTY OF	44.20	-0.50	10000 Tablesi egyi <sup>mena</sup> da Ministeriye Tablesi	43.70	44.47	-0.47	ndarangu ayanin darin yangin in	44.00
	<u>S2</u>	nin and a state of the second interaction of the second fraction of the second second second second second second	-0.34	1930-Martonet Distance angebrication	29.92	30.13	-0.31	da tata yana ya ya ada ya ya ada ya ada da d	29.82
**kWh p.awith electric heat		19,473	0		19,473	18,613	0		18,613
-no electric heat		10,507	0		10,507	11,190	0		11,190
**Annual \$ -with electric heat		\$616.13	(\$7.01)		\$609.12	\$588.17	(\$6.14)		\$582.03
-no electric heat		\$332.44	(\$3.78)	New York and a first testing a second	\$328.66	\$353.60	(\$3.69)	1940 con a con a con terra da con a co	\$349.91

UNIT COSTS	R					90000000000000000000000000000000000000		1011-111-111-111-111-111-111-111-111-11	
SCHEDULE 2b	E	1986	BCUC	REF.	DECISION	1987	BCUC	REF.	DECISION
	F	TEST YEAR	ADJUST.	Malayanta and a Milana and a second	1986	TEST YEAR	ADJUST.		1987
MILLS PER kWh SOLD	Section reserves								
REVENUE FROM RATES	<u>ۇ</u> 28	30.26	-0.34		29.92	30.30	-0.48		29.82
Miscellaneous revenue	Table and the second	0.48	0.00		0.48	0.43	0.00		0.43
Power purchased		5.69	0.00		5.69	5.47	0.00		5.47
Wheeling and rents		0.95	0.00		0.95	0.95	0.00		0.95
Water fees		3.07	0.00		3.07	2.90	0.00		2.90
MARGIN		21.03	-0.34		20.69	21.41	-0.48		20.93
0 & M Labour and Benefits		4.85	0.00		4.85	4.88	0.00		4.88
0 & M Materials & Other		2.05	0.00		2.05	2.09	0.00		2.09
Depreciation & amortization	And and a second se	2.19	-0.01		2.18	2.18	0.00		2.18
Taxes of all kinds		4.61	-0.19		4.42	4.91	-0.19		4.72
Interest expense		4.21	0.02		4.23	4.11	0.00		4
Other income	Non-	-0.20	0.00		-0.20	-0.16	0.00		-0.16
ROE		3.33	-0.16	50.000.000.000000000000000000000000000	3.17	3.39	-0.29		3.10
COSTS "PER CUSTOMER" \$									
REVENUE FROM RATES		1,004.9	(11.4)		993.5	1,032.7	(16.6)		1,016.1
Miscellaneous revenue		16.1	0.0		and the second s	14.6	0.0		14.6
Power purchased		188.8	0.0		188.8	186.4	0.0		186.4
Wheeling and rents		×1.0	0.0		31.6	32.4	0.0		32.4
Water fees		101.9	0.0	-	101.9	98.7	0.0		98.7
MARGIN		698.7	(11.4)		687.3	729.8	(16.6)		713.2
0 & M Labour and Benefits		161.1	0.0		161.1	166.2	0.0		166.2
0 & M Materials & Other		68.0	0.0		68.0		0.0		71.2
Depreciation & amortization		72.6	(0.3)		72.3	74.3	0.0		74.3
Taxes of all kinds		153.2	(6.4)		146.8	167.4	(6.4)		161.0
Interest expense	di una di tetti interne	139.8	0.6		140.4	140.2	(0.1)		140.1
Other income		(6.5)	0.0		(6.5)	(5.3)	0.0		(5.3)
ROE		110.4	(5.1)		105.3	15.0	(9.9)		105.6
	ning the second	kan dang Pilot Angkat Canada Kanada Angkat Kanada Kanada Kanada Kanada Kanada Kanada Kanada Kanada Kanada Kanad			inadar dan Pila Silandianan Alika Ingelangkan di Pilangkan di Pilangkan di Pilangkan di Pilangkan di Pilangkan	charrier 1990 J. C. Martin M. G. Martin K. S. and P. Martin K. Samada H. 1990 (1997) A super-Materia	·	•	ingeneration for an and a second and a second se
AVERAGE CUSTOMERS	<u>52</u> 4	59,956			59,956	60,835	0	1997) Transportung Salpador Transportung Salpador Transportung Salpador Transportung Salpador Transportung Sal	60,835

INCOME TAXES SCHEDULE 3 \$000's	R	1986 TEST YEAR	BCUC ADJUST.	REF.	DECISION 1986	1987 TEST YEAR	BCUC ADJUST.	REF.	DECISION 1987
Earned return, after tax Deduct: interest on rate base Add: non-deductibles, etc. net	52	\$15,009 (8,475) 0	(\$279) \$58		\$14,730 (8,417) \$0	\$15,571 (8,689) 0			\$14,952 (8,526) \$0
Accounting income after tax Deduct: timing differences		6,534 (1,773)	(\$221) (108)		6,313 (1,881)	(1,860)		<u>9</u> 3-1	6,426 (1,758)
TAXABLE INCOME AFTER TAX-FOR TAX RETURN	Service and a service of the second service of the second s	\$4,761	(\$329)	Descanding of	\$4,432	\$5,022			\$4,668
Income tax rate Deferred tax rate	nentro con a canada e manumente por stata e na la tradeción de manuel e man	53.800% 0.0%			53.800% 0.0%				52.490% 0.0%
Taxable income before tax Deferred tax-grossed up		\$10,305 0	(\$712)		\$9,593 0	\$10,570 0	(\$745)		\$9,825 0
TAXABLE INCOME BEFORE TAX	na presidente de la constanción de la c	\$10,305	(\$712)	alveginnin	\$9,593	480 482 881 881 881 881 881 881 881 881 881 8	un unt mu mu un un un un un un (\$745)	lah Kananan	\$9,825
Income tax expense -payable on flow-through -payable on deferred -deferred	na na kao imperio na mandra da anticidade de constructiva de constructiva de constructiva de constructiva de c A de constructiva	\$5,544 0 0	(\$383)		\$5,161	\$5,548 0 0	(\$391)		\$5,157
INCOME TAX EXPENSE	S2	\$5,544	(\$383)	www.com	\$5,161	\$5,548	(\$391)		\$5,157

COMMON EQUITY	R								
SCHEDULE 4	E	1986	BCUC	REF.	DECISION	1987	BCUC	REF.	DECISION
\$000's	F	TEST YEAR	ADJUST.		1986	TEST YEAR	ADJUST.		1987
OPENING BALANCE		ann ann an Anna ann ann ann ann ann ann	neense naam gevonde staat die die die gebruik die die gebruik die die gebruik die die gebruik die die die die d	di na dan kati ya kutoko na politika na da animiz	yyyntalaunch felson ffarfarfarfa ffu ffu ffarfarfarfarfarfarfarfarfarfarfarfarfar	an un constant and in a second and a second a	erent kunn konn hör för son grund kunn kunn konn för som för som hör som hör som hör som hör som hör som hör s		
Share capital		\$26,112			\$26,112	\$26,112			\$26,112
Contributed Surplus Retained, opening		18,609			\$18,609	21,172			\$21,172
COMMON EQUITY-OPENING BAL.		44,721	1000 Cont and 2000 Dort and ange of a		44,721	47,284	and were and into the and the set		47,284
Net income (on Total Capital) Write offs Deduct:		6,694	(\$336)		6,358	7,150	(\$642)		6,508
Dividends Preferred Dividends Common		(35) (3,760)			(3,760)	(35) (2,972)			(35) (2,972)
Retained, closing		21,508	(\$336)			25,315			24,673
Shares issued	odpoord abaa or pasy studies the down weeks	المحرب المركب المحرب	card tame peep and made units taken taken		للموقع الإعلام الرواني المراقع المعالم المواقع الموقع الموقع الموقع الموقع الموقع الموقع الموقع الموقع الموقع ا	المحقد المحقق والأعد عليك البرولة المحقة الجوالة الأحقة	9990 0034 0035 2006 1203 0024 0031 2006		10-11 Divid gent later and were gena filter som were
COMMON EQUITY-CLOSING BAL.		\$47,620	(\$336)			\$51,427			\$50,785
COMMON EQUITY-Mid-Year Add:effect of 13 mo. average	a ann va e an meinn a trick a da e a va spann de VY X XV va et es el condecisió d	\$46,171				\$49,356	(\$321)		\$49,035 \$0
Less:mid-year non-util.	SALAN SA	\$0	\$0		\$0.	· · · · · ·	\$0		\$0
COMMON EQUITY UTILITY BALANCE	0	\$46,473	(\$470)			\$49,887	(\$852)		\$49,035

NB Decision schedules are on mid-year.

RETURN ON CAPITAL	R								
SCHEDULE 5	E	1986	BCUC	REF.	DECISION	1987	BCUC	REF.	DECISION
\$000's	F	TEST YEAR	ADJUST.		1986	TEST YEAR	ADJUST.	Amort Contract Million & Contract Contract Contract Contract Contract Contract Contract Contract Contract Contra	1987
						- Advice a merce you day			
Bank Loans		\$22,168			\$22,168	-	(\$334) 9	\$5-2	\$24,403
proportion	144499406666174630	17.92%	0.07%		17.99%	1	-0.08%		19.05%
embedded cost		9.93%			9.93%	9.92%			9.92%
return	Sama and the second	1.78%	0.01%		1.79%	1.90%	-0.01%		1.89%
Long-term debt	in the other water water	\$44,719			\$44,719	\$44,343			\$44,343
proportion		36.15%	0.14%		36.29%	34.30%	0.31%		34.61%
embedded cost	Science of Science	14.03%			14.030%	14.02%			14.020%
return	ridonia i i gitti midaanno	5.07%	0.02%		5.09%	4.81%	0.04%		4.85%
Deferred income taxes	nave a lower source and the	\$9,827			\$9,827	\$9,827			\$9,827
proportion	and the second second	7.95%	0.03%		7.98%	7.60%	0.07%		7.67%
embedded cost		0.00%			0.000%	0.00%			0.000%
return	In the second second second second	0.00%	0.00%		0.00%	0.00%	0.00%		0.00%
Preference shares	No. of Concession, Name	\$500			\$500	\$500			\$500
proportion	area any solution of the	0.40%	0.01%		0.41%	0.39%	0.00%		0.39%
embedded cost		7.00%			7.000%	7.00%			7.000%
return		0.03%	0.00%		0.03%	0.03%	0.00%		0.03%
Common equity	S4	\$46,473	(\$470)		\$46,003	\$49,887	(\$852)		\$49,035
proportion		37.57%	-0.24%		37.33%	38.58%	-0.30%		38.28%
ROE	and a state of the	14.33%	-0.580% 9	35-1	13.750%	14.25%	-1.050% S	5-1	13.200%
return	наның бағ белімден жүреден	5.38%	-0.25%		5.138	5.50%	-0.45%		5.05%
TOTAL CAPITAL	New Manufacture and Participants And Andreas And Andreas Andreas	\$123,687	(\$470)		\$123,217	\$129,294	(\$1,186)		\$128,108
RETURN ON RATE BASE	<u> </u> S2	12.26%	0.228	ar C au CHR 75000000000000000000000000000000000000	12.04%	12.258	-0.438	adiatisti (2005) 1997 - San Statisti (1997) 1997 - San Statisti (1997)	11.828
UTILITY RATE BASE, MID YEAR	S 1	\$122,403	(\$59)		\$122,344	\$127,070	(\$574)		\$126,496

Page 1 of 5 West Kootenay Power and Light Company, Limited

	1986 Test Year	1987 Test Year
Total Revenue Impact Of Commission Adjustments	<u>(\$680,000)</u>	<u>(\$1,011,000)*</u>
Rate increase (on current firm rates) becomes	<u>4.82%</u>	<u>4.90%</u>
* <u>For 1987</u> : Total revenue requirement impact of Commission adjustments: (a) Carry - Forward effect of 1986 adjustments	\$51,000	
(b) 1987 adjustment Less the balance of the 1987 review deficiency	960,000	1,011,000
(\$680 less \$274 lower power purchase cost)		406,000
Net reduction in 1987 interim		<u>\$605,000</u>

## Page 2 of 5 West Kootenay Power and Light Company, Limited

	1986 Test Year	1987 Test Year
Rate Base (Schedule 1)		
<ol> <li>Reduce Rate Base additions by 10% for forecasting error: (Also see Adjustments S3-1 and S5-2)</li> </ol>		(\$1,336,000)
<ol> <li>Set up insurance, injuries and damages reserves</li> </ol>	(\$ 595,000)	(\$720,000)
Opening entry, January I	( 411,000)	
<ol> <li>Adjust Deferred Regulatory expenses Exhibit 3, Tab 3, p. 15 (Also see Adjustments S2-1 and S3-2</li> </ol>	<u>\$ 108,000</u>	<u>(\$ 44,000)</u>
Additions Accumulated Amortization	\$    90,000 \$    18,000	(\$ 65,000) \$ 21,000
	\$ 108,000	(\$ 44,000)
<ol> <li>Increase Allowance for Working Capital because of receipts lag</li> </ol>	<u>\$390,000</u>	<u>\$476,000</u>

# Page 3 of 5 West Kootenay Power and Light Company, Limited

	1986 Test Year	1987 Test Year
Income and Earned Return (Schedule 2)		
Memo: Reduce Power Purchases per Exhibit 10 - <u>Note</u> this adjustment is made directly to the 1987 test year as an Applicant's adjustment		<u>(\$274,000)</u>
<ol> <li>Decrease amortization of <u>Regulatory Costs to actual</u></li> <li>See Schedule 3, Adjustment 2 for detail (See also Adjustment S1-3)</li> </ol>	(\$ 18,000)	(\$ 3,000)

#### Page 4 of 5 West Kootenay Power and Light Company, Limited

#### NOTES TO SCHEDULES

1986 Test Year 1987 Test Year

\$40,080

#### Income Taxes (Schedule 3)

1. Reduce timing differences on Rate Base reductions:

1987: 1/2 of \$1,336,000 x 6%

#### Revenue impact included in Rate Base Adjustment #1

 Adjust timing differences for costs of the Dispute Hearing and costs of the Revenue Requirements Hearing decrease, (increase) timing differences
 (\$108,000)
 (\$62,000)

	As Estin <u>Ex. 3,Tab</u>		As Adju	sted	Adjustment			
	1986	1987	1986	1987	1986	1987		
Expense	90,000	140,000	72,000	137,000	(18,000)	( 3,000)		
For Tax	270,000	151,000	360,000	86,000	90,000	(65,000)		
Timing	(180,000)	(11,000)	(288,000)		(108,000)	62,000		

# Page 5 of 5 West Kootenay Power and Light Company, Limited

		1986 Test Year	1987 Test Year
<u>Ca</u>	pital Structure (Schedule 5)		
۱.	Reduce ROE to:	13.75%	13.20%
2.	Reductions in Rate Base according to Exhibit #3, Tab 14, p. 3.		50% from internal funds 50% Bank Loans
	(Reduce) Mid Year Bank Loans by		(\$334,000)

#### WEST KOOTENAY POWER AND LIGHT COMPANY, LIMITED

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#### Analysis of Gross Capital Expenditures and Plant in Service 1982–1986

	1982 Forecast	(1) <u>Actual</u>	g Diff.	1983 Forecast	(2) <u>Actual</u>	≴ Diff.	1984 Forecast	(3) <u>Actual</u>	\$ Diff.	1985 Forecast	(4) <u>Actual</u>	\$ Diff.	1986 Forecast Nov. 29, 1985	1986 Forecast Oct. 24, 1986
Gross Expenditures (\$000s)	18,503	10,635	(42,5)	16,105	9,874	(39,7)	18,162	12,996	(29,5)	14,668	14,188	(3.3)	12,448	10,393
Plant In Service (\$000s)	114,559	108,905	( 4,9)	133,376	127,280	(4.6)	140,651	138,195	( 1.7)	153,907	153,598	(0.2)	164,962	161,204
Additions to Plant in Service	14,065	11,323	(19,5)	16,360	10,287	(37.1)	13,035	10,915	(16.3)	15,711	15,403	(2,0)	11,055	8806

Notes: (1) Forecast dated August 25, 1981. Actuals adjusted for the impact of the purchase of Plants 2, 3 and 4.

- (2) Forecast dated November 15, 1982.
- (3) Forecast dated August 22, 1983.
- (4) Forecast dated November 29, 1985.

BRITISH COLUMBIA UTILITIES COMMISSION								
EXHIBIT 3/								
HEARING No.	ENTERED BY	PLATE 9/8/						

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#### PROJECT 2 - OKANAGAN VALLEY BULK POWER TRANSMISSION SYSTEM

The project encompasses the completion of a 230 kV main transmission system running north and south in the Okanagan Valley from Vernon to Oliver. As well as the transmission lines, it includes considerable work at terminal substations in Kelowna, Penticton and Oliver. As the loads in this area grow. individual segments of the system are required for both reliability purposes and for load carrying capability.

To date, work has been completed on the 230 kV transmission line from Lee terminal in Kelowna to R.G.A. terminal in Penticton and on the required substation changes at Lee and R.G.A. The remaining work in this project is described briefly as follows.

#### PROJECT 2A - 500 kV Vaseux Lake Substation

In order to provide the reliability necessary for the major loads in the Okanagan area, an additional high capacity source must be established either in the South Okanagan by connecting a substation to B.C. Hydro's 500 kV line or in the North Okanagan by building lines to Vernon. The least costly overall solution still is under investigation but appears to be the former. The establishment of the South Okanagan substation is estimated to cost \$21,750,000. Negotiations are continuing with B.C. Hydro; however, it is expected that we will be successful in achieving a splitting of the costs which would apportion \$8,750,000 of this to B.C. Hydro, leaving a net cost to West Kootenay of \$13,000,000.

The substation is expected to require four years to complete.

Total estimated cost to West Kootenay Power \$13,000,000.

#### PROJECT 2B - Oliver Terminal Station

UTILITIES COMMISSION Currently we have one terminal station transformer converting from 170 kV UMBIA to 60 kV in the Oliver area. Backup for this transformer in the event of a failure is available from R.G.A. Terminal. By 1989, the loads will be to a point where sufficient backup cannot be provided. As well, the 60 k 50 breakers in this station and the associated disconnects, which are over years old, will not have sufficient load and interrupting rating for our BRITISH system. It is proposed to rebuild this station in 1988, installing a second large transformer (relocated from Kelowna's Bell substation) and ten new high voltage circuit breakers with the associated disconnects and bus work.

Total estimated cost \$3,770,000

#### PROJECT 2C - Vaseux to R.G.A 230 kV Line

This project requires the establishment of a 230 kV transmission line from Vaseux Lake 500 kV substation to the R.G.A. 230 kV terminal station in Penticton. It is intended to convert the existing 27 kilometer section of 170 kV line in this area for 230 kV operation. Switching and termination equipment estimated to cost \$1,057,000 are included in the project as well as \$900,000 for right of way costs.

Total estimated cost \$5,770,000.

LINE No.

APPENDIX "C"

n						RE	/ESED							
				í							BCHYDRO I		tab 8 pae -BCUC DEC	
	) 5 ENERGY 5	Jan	FEB	Mar	APR	MAY	JI NE	JULY	AUG	SEPT	DCT	NOV	DEC	TOTAL
3 2 2	7 Quantity(Bwh) 8 -WKP 9 -Comineo 0 -BCH	160 92 9	189 94 8	113 95 1	107 70	127 36	⇒21 35	135 23	136 26	143 20	120 65 1	114 95 6	119 115 8	1523 767 33
1.	2 Total Resource 3	261	230	209	177	163	:57	158	162	163	186	215	242	2323
1 1 1 1 1 1	5 RATE(Mills) 6 -Cominco 7 -BCH		10.748 22.33				10. 148 22. <b>3</b> 9		10,748 22,33		10.748 22.39		10.748 22.39	
	9 EXFENSE(\$000) 0 -Cosinco	505 583	1010 179	1021 22	<b>75</b> 2 0	<b>387</b> 0	387 0	247 0	279 0	215 0	693 22	1021 134	1235 179	8244 739
2	3	1190	1189	1043	752	387	387	247	279	215	721	1155	1415	8983
2	5 CAPRCITY(MW) 5	•	4 <del>-</del>		4 10 1	155	. / D	4 ~ 2	4.00	150	150			551 /
	8Domineo 9 % -RCM	181 185 135	178 185 124	149 197 45	161 197 13	155 169	143 179	154 158	188 141 1	189 121 14	153 200 28	169 193 95	179 184 121	2014 2118 <b>57</b> 6
3	1 Total Resource 2	501	487	391	371	323	327	322	330	334	381	457	484	4708
2	4 RATE(\$/Mw) 5 -BCH 6 -BCH Ratchet(%) 7 Billed Demand-BCH 8 1988 Demend	3500 10 135 175	3500 10 124 153	3500 10 45 79	3500 10 14 27	3500 10 14	3500 10 14 4	3500 10 14	3500 10 14 13	3500 10 14 35	3500 10 28 43	3500 10 95 105	3500 10 121 133	630 771
4 4 4	0 EXPENSE(\$000) 1 -BCH 2	473	434	158	47	47	47	47	47	49	93	333	424	2203
4	3 :4 :5 TOTAL COST(\$000) :5 :7 -Comineo	983	1010	1021	752	387	387	247	279	215	633	1021	1238	8244
4	-BCH 9 -Spillage Amort.	674 13	613 13	180 13	47	47 13	47 13	47	47 13	49 13	120 13	467	603 13	2942 155
BRITIS		ITIES	COMM	IISSIO	813	447 =====	.447 == :==	307 =====	340 =====	277 =====	832 =====	1501 =====	1852 =====	11342
EXH		)			1									
HEARING	NO. ENTERE	DBY	Pla	ATE 2/8/										

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62	bch873807 wheel	ANALYSIS OF FORECAST WHEELING EXPENSE FOR THE YEAR ENDING DECEMBER 31, 1987								BCHYDRO		tab 6 pak -BCUC Dec		
63	NOMINATION (Mw)	Jan	FEB	Mar	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
65	-Koch Creek	30	30	30	30	30	30	3021	30	30	30	30	30	360
66	-Vernon	55	55	55	55	55	55	55	55	55	70	70	70	705
67	-Creston	15	15	15	15	15	15	15	15	15	15	15	15	180
68												• -		
	RATE(\$/Mw/Month)													
70	-Koch Creek	850	850	850	850	850	850	850	850	850	850	850	850	10200
71	-Vernon	1583	1583	1583	1583	1583	1583	1583	1583	1583	1583	1583	1583	19000
72	-Creston	917	917	917	917	917	917	917	917	917	917	917	917	11000
73														
74	CDST (\$000)													
75	-Koch Creek	25.500	25.500	25.500	25.500	25,500	25.500	25.500	25.500	25.500	25.500	25.500	25.500	305
76	-Vernon	87.083	87.083	87.083	87.083	87.083	87.083	87.083	87.083	87.083	110.833	110.833	110.833	1116
77	-Creston	13.750	13.750	13.750	13.750	13.750	13.750	13.750	13.750	13.750	13.750	13.750	13.750	165
- 75			<del></del>	······			·····	<del></del>		<del></del>				
79		126	126	126	125	126	126	125	126	126	150	150	150	1587
80								·····	<del></del>					
81														
82	EXCESS COST (\$000)													
83	-Koch Creek	32	30	19	15	9	10	9	10	11	14	22	26	207
84		1	1	1	1	1	1	1	1	1	1	1	1	12
85			400-400 (BOARD 40)				-		0 <del>1.02.07.07.07.07</del>					-
86		33	31	20	16	10	11	10	11	12	15	23	27	219
87		-			-					-		<b>.</b>		
88														
89														
90														
91	TUTAL WHEELING (\$000)													
92		58	56	45	41	35	36	35	36	37	40	48	52	513
93		87	87	87	87	87	87	87	87	87 14		111	111	1116
94		14	14	14	14	14	14	14	14 1	14	14 1	14 1	14	165 12
95 00	-Ad Hoc	1	1	1	1	1	1	1	1	1	1	1	1	12
96 97	J.	159	157	146	142	136	137	136	137	138	165	173	177	1806
98 98			121		146			130	121	001		1/3		1000
	PLUS													
	Power Purchase	1697	1844	1249	815	449	449	310	342	277	832	1501	1852	11515
101		107/	1044	1643		C FF	C ***		J#C	<u> </u>	505	1001	1075	11010
	TOTAL	1856	2001	1395	957	586	587	445	479	416	997	1674	2029	13423
103		1000		1020				0FF				1014		10460
104														
103														

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## WEST KOOTEMMY POWER AND LIGHT, COMPANY LINITED

#### APPENDIX A

		1982 1983		5	1984		1985		1986		1987	
Line Nu.	Particulars	Recorded	I Change R	ecorded	I Change No	rmalized	I Change Ko	realized	1 Change I	orsalized	I Change	Morsalized
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	SALES VOLUMES											
2	Residential	715,405	-3.197	692,589	3.992	720,249	0.85%	726,406	-0.792	720,637	1.50%	
3	Wholesale	632,548	-3.307	611,654	5.087	642,738	2.861	661,140	-1.292	652,640	0.047	•
5	Industrial	268,288	1.117	271,279	-2.647	264,128	3.537	273,445	7.411	293,719	13.031	
<b>5</b>	Other	322,154	-0.987	319,004	6.921	341,086	2.962	351,170	1.087	354,968	0.541	356,870
7	Total SALES REVENUE	1,938,395	-2.261	1,894,526		1,968,201		2,012,161		2,021,964		2,073,215
		A4 /A7	A 304	20 / 45	7 104	A. 747		a. 000	7 704	~~ 757		
16	Residential	20,483	0.791	20,645	3,197	21,303	2.94X 2.34X	21,929	3.782	22,757	1.587	
nii 12 13	Wholesale	12,413	-1.112 4.041	12,275	12.371 -0.471	13,796 5,096	5.151	14,119	8.30Z 12.64Z	15,291	0.621	•
	Industrial	5,887		6,125		•		6,410			12.17	4
B <u>i</u> 3 14	Other	12,191	4.171	12,699	9.621	13,921	6.432	14,816	5.881	15,687	1.177	15,870
	Revenue - Total	50,974	1.517	51,744	6.521	55,116	3.921	57,274	6.437	60,955	2.497	62,47
15 16 17	Revenue - \$/auh COST OF ENERGY	\$26.30	<b>2.86</b> Z	\$27.31	2.531	\$28.00	1.651	\$28.46	5.911		-0.057	
18		19,559	-21.021	15,448	4.621	16,162	15.017	18,588	6.117	19,723	-0.667	19,593
5.0	\$/amin Sold	\$10.09	-19.192	\$8,15	0.711	\$8.21	12.491	\$9.24	5.591	\$9.75	-3.11	
21	GROSS MARGIN									*********		• ••••••
22	Total	38,561	2.351	39,469	4.69%	41,320	4.447	43,155	5.817	45,664	3.11	47,08
23	Slawe Sold	\$16.21	18.211	\$19,16	3.311	\$19.79	-2.86%	\$19.23	6.061	\$20.39	1.42	
24	OPERATING EXPENSES											
26		62	62	9,333	3.217	9,633	-0.341	9,600	0.597	9,657	4.67	I 10,10
27	•	13,033	Ră	3,488	27.061	4,432	-18.821	3,598	13.291		6.23	•
		2,740	11.357		18.581	3,618	9.071	3,946	10.347	•	3.86	
28 29	Property Taxes	3,676	7.701	•	3.181	4,085	-12.442	3,577	-2.91	•	32.34	1
<b>1</b> 30	Corporation Capital Tax	128	21.881	,	-30.131	109	46.791	160	5,007		-75.00	
31	• • • • • •	(1,223)	40.561			(1,064)	15.417	(1,228)			39.43	
112	Income Tax	3,270	89.451	•	-15.931	5,208	-6.071	4,892	16.72	•	-2.21	
л И К			******	********			*****	******		• •••••••		
7	5	21,624	13.132	24,463	6.371	26,021	-5.67%	24,545	6.26	26,081	4.64	27,29
Y.	6 EARGED RETURN 7 Interest 8 Raturn on Equity											
۳. ۱	/ Interest	7022	-11.672		10.407	\$6,846	17.061		5.75		2.35	
		3020	91.427	5,781	8.802	6,290	4,421	6,568	4.10	L 6,837	5.24	2 7,19
	e Total	\$10,042	19.321	\$11,992	9.632	\$13,136	11.017	\$14,582	5.01	z \$15,312	3.64	1 \$15,86
	2 3 BATE BASE	\$70,796	35.717	\$96,079	7.821	\$103,597	6.871	\$110,730	10.54	£ \$122,403	4.01	1 \$127,31
		•						********				
調々	S CAPITAL STRUCTURE											
<b>.</b>	6 Dest	\$49,122	4.443	\$51,303	6.201	\$54,482	10.001	\$59,929	11.61	1 \$66,887	3.21	52 \$69,0
Ę	7 Equity	16,921	121.767		8,851	40,844	8.281	44,226	6.21		8.02	
8	# Total	\$66,043	34.50	L \$88,827	7.321	\$95,326	9.261	\$104,155	9.32	1 \$113,860	5.2	42 \$119,8

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#### WEST KOOTENAY POWER AND LIGHT, COMPANY LIMITED

## Compariative Operational Ratios for the Years 1982 - 1987

#### APPENDIX B

6		1982	1	983	1'	784	19	185	1	986	19	87	
Line No.	Particulars	Recorded	1 Change	Recorded	1 Change	Normalized	% Change	Normalized	% Change	Normalized	X Change	Normalized	
1 C( 2	(1) DNSUMER PRICE INDEX	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
3 4 5	Consumer Price Index Increase in Index	252.8	7.56	271.9 19.1	4.711	284.7 12.8	3.442	294.5 9.8	3.197	( 303.9 9.4	4.007	316.1 12.2	
6 DF 7	PERATION AND MAINTENANCE												
6 9	D & M Cost per MWH	\$11.16	15,757	\$12.91	2.397	\$13.22	-7.731	\$12.20	5.37)	\$12.85	2.417	\$13.16	
10 11 12	0 & M Cost per Ave. N of Cust.	\$386.31	9.357	\$422.41	4.817	\$442.71	-6.76%	\$412.78	5.017	\$433.47	3.49%	\$448.59	
	TE BASE												
14 15 16	Rate base per MWH	\$36.52	38.857	\$50.71	3.79%	\$52,64	4.55%	\$55.03	10.017	\$60.54	1.44%	\$61.41	
17 18 19	Rate Base per Ave 4 of Cust.	\$1,264.76	31.17%	\$1,659.02	6.24%	\$1,762.54	-0.62%	\$1,751.62	8.42%	\$1,899.06	3.721	\$1,969.62	
20 21 12 22	Mo. Ave. # of Cust.	55,976	3.461	57,913	1.492	58,777	1.17%	59,462	0.83%	59,956	1.47%	60,835	

WEST KO	OTENAY POWER A	ND LIGHT C	OMPANY,	LIMITED, FOR	THE YEAR	SENDING DE	CEMBER 31.		]	1
YEARS	ALLOWED	ROE ACHIEVED	NORMAL	YIELD L-T CANADA'S	COMMON EQUITY	RATE BASE \$ 000'S	MWh SOLD	TEMP +% warm	LABOUR	CUSTOMER (direct)
	/illonilo	Nomered	HUITINE	LIGHTO	LQUIII	<u> </u>			1 OILOE	(011000)
198 1	15.78% (no range)	10.48%	10.35%	15.22%	21.42%	\$62,596	1,837,844	N/A	403	54,050
1982	17.50%	17.91%	17.61%	14.26%	22.53%	\$70,796	1,938,395	-2.20%	368	55,976
1983	15.40% (15%-16%)	15.52%	16.06%	11.79%	38.09%	\$96,079	1,894,526	6.00%	388	57,913
1984	15.75% (15.5%-16.5%)	15.44%	15.50%	12.75%	38.44%	\$103,597	1,968,201	-4.70%	371	58,777
1985	N/C	15.24%	14.94%	11.04%	38.24%	\$110,730	2,012,161	-13.40%	359	59,462
1986 Test Yr.	15.00% (applied for)	14.33%	14.64%	9.49 <b>%</b>	37.57%	\$122,403	1,991,177	milder	?	59,956
1987 Test Yr.	14.25% (applied for)				38.75%	\$127,313	2,073,215	normal	?	60,835

NOTES

- All WKPL information (prior to 1986) is from the Utility's annual report to the BCUC. 1986 and 1987 Test Years from Ex. 5 Q#13 1
- 2 3
- 1986 L-T Canada Bond Yield from Ex 4, T3, Schedule 3, average for 1st three quarters of 1986

BRITISH COL	umbia uti	LITIES (	COMMISSION
EXHIBI	r 2	0	
HEARING NO.	ENTER BCUC	EDBY	DATE Dec 4/8A

## WEST KOOTENAY POWER AND LIGHT COMPANY, LIMITED

## 1986 Quality of Service Complaints

District	Customer	Problem (Complaint)	Action Taken to Resolve
South Slocan	Morris Wadds	Light voltage - Claimed expenses for past 5 years	Regulator found faulty - corrected - disallowed claim.
Creston	Nothing		
Crawford Bay	Nothing		
\$almo	Malcolm Paskaruk Norm Negrey Fran Troyan	Power outage Voltage problem - U/G service Outage	Caused by vehicle accident - disallowed claim. Found open neutral - corrected - WKP paid claim. Vehicle accident.
Trail	Eric O'Dell Paul Turner	Secondary Wires burnt off Voltage problem	WKP accepted claim. Voltage meter installed.
Grand F <b>orks</b>	Skelton	Appliances burnt out a) numerous complaints regarding North Fork minor outages - customers pumps go off and must be restarted - new terminal will solve problem.	Faulty transformer - WKP replaced and paid claim.
		b) various complaints regarding outages due to storm	s
Greenwood	Bill Gunther	Cost of service	WKP removed idle service - CPC upon reconnection.
	Dolomite Mines	Outages	Faulty lightning arrestor on transformer bad - replaced.
Oliver	Walker	Outage - loss of freezer food	Not WKP fault (lightning) - no claim allowed.
Kerem <b>eos</b>	Erickson	Voltage problem - appliance loss	Faulty neutral - WKP corrected and paid claim.
Kelowna	Nothing		1
Kaslo	Nothing		BRITISH COLUMBIA UTILITIES COMMISSION
Penticton	Nothing		EXHIBIT 32
€astlegar	·	or appliance repair costs due to voltage problems.	HEARING NO. ENTERED BY DATE
December 10, 19	86	· · ·	

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#### APPENDIX "H"

## WEST KOOTENAY POWER AND LIGHT COMPANY, LIMITED

## ROSSLAND AREA - OUTAGE SUMMARY

## I. 60 kV System

Year	Number of Outages	Total Duration (Minutes)	Average Duration/Outage (Minutes)
1983	19	424	22
1984	13	235	18
1985	13	58	5
1986	11	77	7

## II. Overall Outage Statistics

	N 	umber of Outages/ Customer	Total Duration/ Customer (Hours)	Average Duration/Outage (Hours)
1984	B.C. Hydro	1.51	2.86	1.89
	WKP	4.73	3.43	0.73
	Rossland	13.61	4.22	0.31
. 1985	B.C. Hydro	1.39	3.16	2.27
	WKP	2.85	2.12	0.75
	Rossland	13.49	1.27	0.09

BRITISH COLUMBIA UTILITIES COMMISSION		
EXHIBIT 37		
HEARING No.	ENTERED BY WKPL	DATE Dec 10/8/9

December 9, 1986

APPENDIX "I"

Page 1 of 2

#### SUMMARY OF COMMISSION FINDINGS CONTAINED IN THIS DECISION

#### Reference

#### Capital Budget

page 6 The capital budget for 1987 has been reduced by 10%.

Okanagan Valley Bulk Power Transmission System

- page 7 A Certificate of Public Convenience and Necessity is required for capital expenditures proposed to be incurred on this project.
- page 13 Power Purchase/Generation Studies

The Applicant is directed to include in its resource study an explicit and meaningful analysis for each of those alternative load management techniques deemed to be practical and potentially applicable in the Applicant's operations.

#### Property Taxes

page 13 A special deferral account is to be set up to account for 1987 assessment year.

#### Insurance, Injuries and Damages Reserves

page 14 The Reserve is to be applied as a reduction to Rate Base. Cash working capital has been adjusted.

#### Hearing Costs

page 17 Hearing costs of approximately \$154,000 are to be amortized equally over 1986 and 1987. 1986 Dispute Hearing costs of \$300,000 are to be amortized over five years commencing in 1987.

#### Quality of Service

page 20 WKPL is to give consideration to developing a qualitative set of standards at the field or operating level. An outage/complaint report is to be prepared in consultation with Commission staff, to be filed quarterly.