

1989-4

YUKON UTILITIES BOARD  
DECISION 1989-4

YUKON ENERGY CORPORATION

DECISION 1989-4

DATED OCTOBER 20, 1989

YUKON UTILITIES BOARD

DECISION 1989-4

FRIDAY, THE 20TH DAY OF OCTOBER, A.D. 1989.

IN THE MATTER OF the "Public Utilities Act",  
being Chapter 143 of the Revised Statutes of  
Yukon, as amended;

AND IN THE MATTER OF an application by  
Yukon Energy Corporation to the Yukon  
Utilities Board for an Order or Orders  
approving changes in existing rates, tolls or  
charges for electric light, power or energy  
and related services supplied to its customers  
within Yukon.

BEFORE:

THE YUKON UTILITIES BOARD

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APPEARANCES

For Yukon Energy Corporation	:	M.D. Romanow
For The Yukon Electrical Company Limited	:	C.K. Sheard
For the City of Whitehorse	:	E.J. Walter, Q.C.
For Yukon Chamber of Mines	:	Randy Clarkson
For NEW ERA Hydro Corporation	:	Randy Clarkson
For United Keno Hill Mines Limited	:	Ken Watson
For Peter W. Percival	:	Robert Laking
For Yukon Chamber of Commerce	:	Robert Laking

WITNESSES

For Yukon Energy Corporation	:	Dave Joe Shakir Alwarid Grant Lake Gary Bauer Harold Lewis Cameron Osler
For United Keno Hill Mines Limited	:	Ken Watson Robert Stirling Larry Crowther
For Yukon Chamber of Mines	:	Randy Clarkson
For NEW ERA Hydro Corporation	:	Randy Clarkson
For the Town of Dawson City	:	Mayor Peter Jenkins
For Yukon Chamber of Commerce	:	Robert Laking

## DECISION

### 1. INTRODUCTION

Yukon Energy Corporation (YEC, the Company) filed an Application dated December 30, 1988 with the Yukon Utilities Board (the Board) for an Order or Orders of the Board fixing and approving just and reasonable rates, charges or schedules thereof, for electric light, power or energy and related services to be supplied by YEC, including terms and conditions of service.

In its Application, YEC described its mandate as follows:

" The Yukon Energy Corporation (YEC) was established as a wholly-owned subsidiary of the Yukon Development Corporation (YDC) under the Business Corporations Act (Yukon) on March 12, 1987. It is intended to carry out YDC's mandate and exercise those of YDC's powers related to the management and operations of energy facilities. These are:

1. Acquisition of the undertakings and assets of the Northern Canada Power Commission (NCPC) in the Yukon and the entering of agreements with other electrical utilities to promote the efficiency and cost effectiveness of electric power utility planning and operations in Yukon.
2. Development and promotion of energy systems and the generation, production, transmission and distribution of energy in all its forms.

On March 31, 1987, YEC acquired the Yukon assets and undertakings of NCPC according to the terms of an Agreement among the federal and Yukon governments, NCPC and YEC. ... Also on March 31, 1987, YEC entered into an Agreement providing for the management of its assets by the Yukon Electrical Company Limited (YECL) and Canadian Utilities Limited (CUL). ... It is important to note here, however, that while YECL and CUL have responsibilities and receive remuneration for a wide range of planning, management and day to day administration activities with respect to the assets and operations of YEC, this relationship has been entered into to facilitate economy and co-operation in these activities. Ownership and broad policy and direction responsibilities remain with the people of the Yukon and are exercised through the Crown corporation, YDC, and its wholly-owned subsidiary, YEC." (Pages 2-2 to 2-3)

In its Application, YEC's objectives are described as follows:

" YEC's broad, overall mandate gives rise to a number of objectives which YEC has pursued since March 31, 1987 and will continue to pursue. These are:

1. To provide power and energy to Yukon customers at a acceptable level of reliability. This implies maintenance of sufficient capacity and development of new capacity in time to meet new needs.
2. To provide power and energy to existing Yukon customers on YEC's existing system in the most efficient possible manner and to develop new resources as required at the least possible cost.
3. To promote economy and efficiency in the use of electricity.
4. To ensure equitable pricing of power to wholesale, retail and industrial customers.
5. To maintain viability as a fiscally responsible and self-financing commercial entity providing power at reasonable and stable rates.
6. To act as a tool to promote economic development in Yukon.
7. To make decisions in the operation and expansion of Yukon's bulk electric energy assets which are responsive to the needs of public policy.
8. To administer power subsidy programs approved by the Yukon Government.



Some of these responsibilities are similar to those of YECL (and are shared with YECL); others are similar to those of Yukon Territorial Government (YTG) departments. However, YEC's overall mandate and objectives are separate and distinct from those of YECL and YTG. YEC is accountable to the people of the Yukon in carrying out its mandate, not as a department of government, but through its Board of Directors who are, in turn, responsible through the Member of the Executive Council to the Legislature. The Boards of Directors of YDC and YEC are made up of individuals appointed by the Executive Council on the basis of their knowledge, experience and responsiveness to important constituencies of public interest. YEC is charged to operate as a profitable enterprise where earnings can be used to finance its own necessary expansion and other capital investment and, via YDC, to pursue other development opportunities in the Yukon."

(Pages 2-3 to 2-4)

YEC explained that the Agreement under which the assets of YEC were acquired established a sales price of \$95 million, being the net book cost as at March 31, 1987 of used and useful power assets acquired by YEC.

The Agreement specified that the purchase price for the NCP assets was to be paid by YEC by way of a cash payment of \$19.5 million, a Demand Promissory Note of \$19.5 million, a Term Note of \$16.0 million and a Flexible Term Note of \$40.0 million. YEC received \$39.0 million of equity by way of share capital purchased by YDC for a total cash consideration of \$19.5 million and a promissory note for \$19.5 million. YDC also guaranteed, with the approval of the Yukon Government, the Term Note and the Flexible Term Note. The Demand Promissory Note under the Agreement was assigned to YDC. On the basis of the above, YEC's equity of \$39 million constituted 41% of the total purchase price under the Agreement.

The Transfer Agreement contained a section which effectively froze the base electrical rates of all Yukon residents for two years.

Under the Agreement, NCPC surrendered and Yukon granted to YEC all franchises held by NCPC in connection with operation of YEC's power system.

YEC made the following comments in its Application with respect to subsidies:

"Pursuant to Section 9.02 of the Agreement, Canada ended its funding of the Federal Power Support Program (FPSP) which automatically subsidized consumption under 700 kW.h/month by Residential consumers to Whitehorse rates and its funding of the Commercial Power Rate Relief Program (CPRRP) which provided similar subsidies to qualifying General Service customers, upon application, with respect to the first 1,000 kW.h/month of consumption.

Since March 31, 1987 YEC has assumed responsibility for power subsidies and has utilized its earnings to fund subsidies in exactly the same manner as the FPSP and the CPRRP. Yukon intends to continue utilizing earnings of YEC to subsidize consumption by retail, non-government customers but proposes a much different structure for these subsidies".

(Page 2-14)

YEC requested that the Board approve the proposed rates for bills issued on and after April 1, 1989 for consumption on and after March 1, 1989.

Notice of an Interim Hearing was published in the Yukon News and the Whitehorse Star on January 27, 1989. Both papers are regularly circulated throughout the Territory. Pursuant to the public notice an Interim Hearing and Pre-Hearing Conference were held on March 10, 1989 in Whitehorse.

As a consequence of the Interim Hearing the Board issued Interim Order 1989-2 on March 17, 1989 wherein the Board fixed and approved the requested rates as interim rates to be effective for billings issued on and after April 1, 1989 for consumption on and after March 31, 1989. The Electric Service Regulations contained in the Application were also approved on an interim basis effective April 1, 1989. The Board ordered that the interim rates, tolls or charges and Electric Service Regulations were subject to further review by the Board and may be changed as the Board may direct.

At the hearing of the interim application, YEC filed its general rate application, including its proposed rate schedules and proposed Electric Service Regulations, as Exhibit 3. Various other documents in support of the general rate application were filed at the hearing of the interim application and subsequently at the hearing of the main application. Intervenors were provided with an opportunity to make written information requests of YEC and these requests elicited written responses which were made available to all parties prior to the hearing of the main application. Written information requests by the Board, together with responses thereto, were also made available to all parties prior to the hearing of the main application.

The hearing of the main application was held in Whitehorse June 6 - 9, 1989. Subsequent to the Hearing, the Applicant and Intervenors were provided with the opportunity to submit written Argument and Reply Argument. During the course of the Hearing, members of the public who were not registered as Intervenors were invited to participate in the proceeding.

The Board wishes to express its appreciation to the Companies and Intervenors for their contribution to the regulatory process by participating in the hearing.

The Board in this Decision will determine the Company's rate base, fair return on rate base, and total electric utility revenue requirement for the approved test years and will provide reasons with respect to the Board's Decision on these matters. The Board will deal with the matters of rates and Electric Service Regulations in Decision 1989-5.

2. TEST YEARS

The Board approves the forecast years 1989 and 1990 as the test years for the application as requested by the Company.

3. RATE BASE

3.1 General

The determination of a rate base for the purpose of fixing just and reasonable rates, tolls or charges is governed by the provisions of Section 32 of the Public Utilities Act which provides as follows:

"32.(1) The board, by order, shall determine a rate base for the property of a public utility used or required to be used to provide service to the public, and may include a rate base for property under construction, or constructed or acquired, and intended to be used in the future to provide service to the public.

(2) The board, by order, shall fix a fair return on the rate base.

(3) In determining a rate base the board shall give due consideration to the cost of the property when first devoted to public utility use; to prudent acquisition cost less depreciation, amortization or depletion, and to necessary working capital.

(4) In fixing the fair return that the public utility is entitled to earn on the rate base, the board shall give due consideration to all those facts that in the opinion of the board are relevant.

(5) Notwithstanding the other provisions of this section, the board may adopt any just and reasonable basis for determining a method of calculating a fair return on property that is being constructed or that has been constructed or acquired but is not yet being used to provide service to the public."

Pursuant to Section 32 the Board has determined a rate base for the 1989 and 1990 test years as shown in Schedule "A" attached hereto.

### 3.2 Gross Plant In Service

YEC sets out its calculation of Gross Plant In Service in Section 5, Schedule 3, of Exhibit 3. A summary of capital expenditures forecast for the test years 1989 and 1990 is contained in Schedule 3(c). The Company expects to make capital expenditures of \$9,684,000 and \$11,179,000 in the years 1989 and 1990, respectively. After deducting customer contributions to these projects, the total capital investment by the Company is forecast to be \$9,641,000 and \$11,162,000 for the years 1989 and 1990, respectively.

During the course of cross-examination, YEC acknowledged that a number of the projects originally scheduled for 1989 and 1990 would not likely be completed on time and some projects were expected to cost more than originally estimated. Accordingly, pursuant to an undertaking, YEC filed a revised Schedule 3(c) which showed total forecast capital expenditures of \$8,729,000 and \$4,643,000 for 1989 and 1990, respectively.

The projects for which capital expenditure adjustments have been made are for hydro and coal studies on the Whitehorse-Aishihik-Faro System, construction of the Mayo/Elsa Transmission Line, construction of the Mayo standby diesel unit, construction of the Klondike Northfork Hydro project, construction of the spare unit transformer at the Aishihik Plant, and expenditures for leakage control, trashrack modifications and diesel fire suppression at the Whitehorse plant.

The adjustments contained in Schedule 3 do not all reflect on the forecast rate base, inasmuch as certain of the projects were initially included in Construction Work In Progress. The rate base increases and reductions arising from these adjustments noted by YEC are a reduction of \$179,000 for 1989 and an increase of \$235,000 for 1990. YEC proposed that no adjustment to rate base was merited at this time.

The Board accepts YEC's forecast of capital expenditures for the years 1989 and 1990 for the purpose of this Decision.

### 3.3 Accumulated Depreciation

YEC explained in its Application that its ledger balances for Property, Plant and Equipment at March 31, 1987 were recorded at the original cost less accumulated depreciation rather than original cost, due to the acquisition of the property, plant and equipment from NCPC. Accordingly, YEC recommended that depreciation be calculated for pre-1988 balances using a method by which the balances would be amortized over the remaining life of the Property, Plant and Equipment.

Depreciation rates were based on asset lives of 65 years for all hydro plants, except the Mayo Plant for which a 40 year life was deemed suitable. YEC considered that its installations of diesel production plant exhibit a similar pattern in time to those for The Yukon Electrical Company Limited (YECL), and it was considered reasonable for the purpose of this proceeding to use the remaining life for YECL diesel plant as the basis for depreciating pre-1988 net book values of YEC diesel plant. Fifteen years was selected as the remaining life for this plant. Additions in 1988 and subsequent years were depreciated in a conventional manner using the unit summation method.

YEC also proposed to depreciate transmission assets on the basis of a remaining life of 25 years with a net salvage factor of minus 35%; distribution assets on the basis of a remaining life of 25 years with a net salvage salvage factor of minus 40%; and general plant on the basis of a remaining life of 33 years with a net salvage value of plus 20%. Additions to transmission, distribution and general plant in 1988 and subsequent years were depreciated in a conventional manner using the unit summation method.

The Board holds the view that depreciation rates should be based on detailed depreciation studies carried out by utilities on a regular basis. Having examined the evidence on depreciation, and noting in particular that depreciation rates adopted by YEC are not based on an analysis of plant lives, the Board directs YEC to prepare a depreciation study which should be available at the time of the Company's next general rate application. Having examined the evidence on depreciation, and recognizing the unusual circumstances of the case, the Board accepts YEC's calculation of depreciation rates and accumulated depreciation for the purpose of this Decision.

#### 3.4 Necessary Working Capital

The inclusion of necessary working capital in rate base is in recognition of the investment generally required by a utility due to the time lag that occurs between the payment of expenditures and the receipt of revenue related thereto. There may also be included in necessary working capital an amount to reflect the utility's investment in inventories of materials and supplies necessary for the operation and maintenance of its system.

YEC calculated its necessary working capital by reference to the lead/lag study performed by YECL for 1985. That study indicated that the average lag in revenue was 52 days and that the average lag in the payment of operating expenses was 27 days, resulting in a net lag of 25 days.



In response to an undertaking given during the course of the Hearing, YEC prepared a revised calculation of its revenue lag giving due consideration to lags on industrial and wholesale revenue. This calculation indicated that a more appropriate revenue lag for YEC would be 37 days. The deduction of an expense lag of 27 days from this amount results in a net lag of 10 days.

The Board approves a net lag of 10 days for the purpose of this Decision, and accordingly has adjusted the Company's working capital requirement for cash operating expenses from \$495,000 and \$522,000 in 1989 and 1990, respectively, to \$198,000 and \$209,000 for 1989 and 1990, respectively.

### 3.5 Electric Utility Rate Base

After having given consideration to the relevant evidence, the Board has determined the electric utility rate base for YEC for the two test years to be as follows and as shown on Schedule "A" attached:

1989	\$95,446,000
1990	\$98,882,500

#### 4. FAIR RETURN ON RATE BASE

##### 4.1 General

Having determined the rate base for YEC, the Board is also required pursuant to Section 32(2) of the Public Utilities Act to "fix a fair return on the rate base". In fixing the fair return on rate base, the Board considers it appropriate to take into consideration the rate of return applicable to each component of the Company's capital structure which it considers to be financing the rate base

Generally, the Board considers that a fair return on rate base is a return that will result in providing the customers of the utility with the lowest utility rates practicable consistent with the utility's duty to furnish safe, adequate and proper service on an ongoing basis. The return should be sufficient to enable the utility to maintain its property, plant and equipment in effective and efficient operating condition, and at the same time enable the utility to maintain its financial integrity and thus enable it to obtain necessary capital on reasonable terms.

YEC forecast a return requirement of \$9,522,000 for 1989 and \$10,024,000 for 1990.

#### 4.2 Capital Structure

Paragraph 2 of Order-In-Council 1988/150 states:

"The Board shall deem the equity of Yukon Energy Corporation as at March 31, 1987, to be the sum of \$39,000,000.00, and shall include in the rates of Yukon Energy Corporation provision to recover a normal commercial return on Yukon Energy Corporation's equity as such equity may vary from time to time."

The Board notes that on the basis of this amount of common equity, the capital structure as at March 31, 1987 consists of 59% long-term debt and 41% common equity. In its Application YEC shows the common equity ratio to be 42.09% for 1988, 40.10% for 1989 and 39.77% for 1990. Over the period from March 31, 1987 this ratio is expected to vary as a consequence of earnings retained by the Company in 1988 and a further issue of \$4 million of common equity forecast to occur in 1990. The Application also includes issues of long-term debt to the Company's parent, YDC, of \$1,500,000 in 1988, \$5,500,000 in 1989 and \$5,000,000 in 1990.

During each of the years 1988, 1989 and 1990, the capital structure as shown in the Application includes a contingency reserve of \$2,250,000 which was created by an allocation of retained earnings in 1987.

In fixing a fair return, the Board has first considered whether the capital structures proposed by YEC for the test years 1989 and 1990 are appropriate for determining the cost of capital to YEC. The Board has accepted the proposed capital structures to be appropriate for the purpose of fixing a fair return on rate base. The capital structures calculated by YEC for 1989 and 1990 are outlined on Schedule "B" attached.

#### 4.3 Cost of Debt

In its evidence filed in advance of the proceeding, YEC indicated that it would receive advances from its parent of \$5,500,000 in 1989 and \$5,000,000 in 1990. These loans are forecast to bear interest at the rate of 11.5% and 10.75% respectively.

The Board is not satisfied that the incremental borrowing costs of 11.5% for 1989 and 10.75% for 1990 are reasonable in the circumstances. The Board does not consider it reasonable that YEC's forecast borrowing costs should exceed the cost rates of 10.75% for 1989 and 10.25% for 1990 forecast by YECL and accepted by the Board in Decision 1989-3. The Board therefore approves a mid-year cost rate for long-term debt of 7.83% for 1989 and 8.07% for 1990 as shown on Schedule "B" attached.

#### 4.4 Fair Rate of Return on Common Equity

##### 4.4.1. Requested Rate of Return on Common Equity

In its evidence filed in advance of the proceeding, YEC requested a rate of return of 13.5% on common equity. As stated by the Company, this rate "is the minimum required to maintain financial independence, finance capital expenditures, attract investment capital to the organization and maintain viability within its particular risk environment."

During the course of the Hearing, YEC witnesses explained that the 13.5% was not derived from any empirical studies performed by the Company or by experts on its behalf. Rather, the 13.5% was arrived at by determining the amount in excess of the cost of current long-term government borrowing rates which, if applied to the portion of rate base financed by common equity, would be sufficient to produce the amount of \$1.2 million, being the Company's estimate of the annual amount required to subsidize consumer rates within Yukon.

In its Argument the City of Whitehorse expressed concern with the Company's methodology and stated:

"We do not believe that a fair rate of return for YEC can be determined based on the above policy due to the arbitrary nature of the computation. We recommend that the Board direct YEC in future to use empirical studies as a guide to determining a fair and reasonable rate of return."

The Board is concerned that YEC's proposal conflicts with Paragraph 2 of Order-In-Council 1988/150, which states:

"The Board shall deem the equity of Yukon Energy Corporation as at March 31, 1987, to be the sum of \$39,000,000.00, and shall include in the rates of Yukon Energy Corporation provision to recover a normal commercial return on Yukon Energy Corporation's equity as such equity may vary from time to time." (Emphasis added)

4.4.2. Dividend Policy

The Board notes that considerable confusion arose during the course of the Hearing with respect to the dividend policy of YEC and the inter-relationship between dividends paid by YEC and the subsidy program being embarked upon by the Government of the Yukon. As discussed previously, the schedules contained in the Company's Application clearly show that all of YEC's earnings will be paid out as dividends in the year of the earnings. Consequently, no retained earnings are shown to exist at the end of each of the years 1988, 1989 and 1990. On the other hand, the audited financial statements of YEC for the year ended December 31, 1988 show retained earnings of \$3,223,000 at December 31, 1988. At Page 2-29 of its evidence YEC states that "YEC dividends set aside for such subsidy will be maintained in a separate 'Subsidy Fund'." Further, at Page 2-27, the evidence states "YEC will retain all declared dividends, except as otherwise explicitly provided below, and shall credit to YDC any interest earned on such retained dividends."

After extensive cross-examination on the subject of YEC's dividend policy and its inter-relationship with the subsidy program, YEC's witnesses were unable to explain the policies in a clear and unambiguous fashion. Consequently the Board directs that prior to the time of its next general rate application YEC present a clear explanation of this matter.

4.4.3. Reserve for Contingencies

During the course of the proceeding, Company witnesses explained that a reserve of \$2,250,000 was established out of retained earnings in 1987. Of this amount, \$250,000 was established to protect against injury and property claims and \$2,000,000 was established to protect against increased costs to produce electricity by diesel generation at times of low water conditions and shutdowns of hydro facilities. The reserve of \$2,000,000 would enable the Company to cushion the impact of low water conditions before having to ask the Board for an increase in consumer rates.

Company witnesses explained that in the event that the reserves were drawn down as a result of such events, it would be the Company's intention to replenish the reserve. It was also explained that the reserve would be replenished, either by charges against retained earnings, the inclusion of the amount required to replenish the reserve as a portion of YEC's revenue requirement at a general rate application, or by an application to the Board for a special surcharge rider. As shown in Section 5, Schedule 4, the balance of \$2,250,000

is shown as "No Cost Capital", and accordingly no return on this amount is provided for in the Company's revenue requirement. As explained by Company witnesses at page 402 of the transcript:

"The provision has been made that the owners of the utility, who are in the end the people, have set aside from retained earnings before regulation a healthy sum so that the owners are in fact taking the first crack at the reserve fund. Based on the NCPC experience and experiences in other jurisdictions, though, it would be appropriate in the long run for the consumers of the utilities to be paying for their own contingencies."

Company witnesses also agreed that if the risk of low water conditions of a utility is borne by the customers of the utility, then the compensation to investors in the utility should be less than it would otherwise be.

#### 4.4.4 Position of the Board

In its Decision 1989-3 the Board found a fair rate of return for common equity capital of YECL to be 13.5% for 1989 and 1990. After considering all of the evidence presented at the Hearing, together with Arguments and Replies of the parties, and taking into consideration its finding of a fair return for common equity capital of YECL and the existence of the reserve fund of YEC, the Board finds a fair rate of return for common equity capital of YEC to be 13.25% for 1989 and 1990.



Having considered the forecast capital structure submitted by YEC to be appropriate for the fixing of the fair return on rate base, and having considered the cost rates of the components of the capital structure for YEC which are assumed to be financing the forecast rate base, the Board hereby fixes for the test years the fair return on rate base for YEC as follows and as set out in Schedule "B" attached:

1989 Forecast	\$9,375,104
1990 Forecast	\$9,842,592

## 5. ELECTRIC UTILITY REVENUE REQUIREMENT

### 5.1 Control Over Operating and Maintenance Expenses

Company witnesses explained that control over the operating expenses of YEC is exercised by its Board of Directors. In response to a question on this matter, Mr. Alwarid stated:

"Mr. Chairman, the budget is set by the Board of Directors, certain operating expenses are recommended by the manager [YECL] as to the operation of the utility, the other operating expenses related to YEC's office are recommended by the executive director to the Board, and in turn the Board has to approve them."

(Transcript Page 427)

Mr. Alwarid further explained that there is an annual budget which is submitted to the Board for its approval, and also quarterly variance reports which are examined by the Board. In addition, the manager submits monthly reports to the monthly meetings of the Board of Directors of YEC. With respect to the forecasting process, the Board of Directors determines forecast operating expenses after receiving the advice of the manager.

Witnesses for YECL (the manager) advised the Board that the reasonableness of YEC's operating expenses was measured by the manager on the basis of its experience and recognizing that the two companies, YEC and YECL, are being operated essentially as a single operation using the same standards of operation.

During the course of the proceeding, witnesses were requested to prepare a comparison of the operating expenses of YEC and YECL to the extent that management considered such comparison to be possible. In response to an undertaking given during the proceeding, a comparison was made between the operating costs of YECL and YEC. The companies emphasized that due to the fact that there was little history, comparisons should be made with care. The Board appreciates the efforts made by the companies to compare their operating results, and urges them to continue with such comparisons in future years.

## 5.2 Fuel Cost

The fuel requirements of YEC are combined with those of Alberta Power Limited, Northland Utilities Limited and Canadian Utilities Limited, and comparative bids are sought for the supply of fuel. Savings due to the combined purchasing activities of these companies are passed on to the consuming utilities and accordingly to their customers. YEC's current fuel purchase contract became effective March 1, 1989 and extends for a period of one year. During this time, the transportation component of the price remains fixed and the commodity component is pegged to the world oil price. Under this mechanism variations in world oil price from those of November 1988 are reflected in YEC's cost of fuel.

YEC forecast its average cost of fuel to be 26.4 cents per litre for 1989 and 26.9 cents per litre for 1990.

### 5.3 Operating and Maintenance Expense

Considerable cross-examination took place during the course of the Hearing with respect to the level of expenditure by YEC on operating and maintenance expense in the test years 1989 and 1990, as compared with those of prior years. Company witnesses explained that the principal reason for the increases was that operating and maintenance standards adopted by YEC commencing in the 1988-1989 period were considerably higher than those which appeared to have been used by NCPC and YEC immediately after devolution. Company witnesses assured the Board that no expenditures of any significance are forecast by YEC for the 1989 and 1990 test years for the purpose of remedying any sub-standard levels of maintenance that existed prior to that time.

The Board accepts the Company's explanation of these expense increases for the purpose of this Decision. However, the Board expects that at the time of the Company's next general rate application it will be in a position to explain variances in operating expenses from year to year in more detail.

#### 5.4 Inter-Company Charges

Company witnesses explained that YEC has very few direct employees. Most individuals serving the Company are employed by YECL and devote a portion of their time to the activities of YEC. In response to an undertaking given at the Hearing, the Company advised that of a total of 93 permanent and probationary employees of YECL the position equivalents charged to YEC are forecast to be 44.5 for 1989. The cost associated with these positions is allocated to YECL and YEC in accordance with the Agreement between YECL and YEC (Schedule 1.01 at Page 37). Under these provisions the costs of servicemen and linemen are allocated on the basis of timesheets, and the costs associated with the engineering department are allocated on the basis of capital.

Services are also provided to YEC by Canadian Utilities Limited, either directly or through its subsidiary YECL. The basic fee for these services was established in the March 31, 1987 Agreement between YECL and YEC at a level of \$54,000 per month, subject to escalation at the rate of 80% of the percentage change in the consumer price index from year to year. Under the Agreement, YECL and Canadian Utilities Limited undertake to operate, maintain, manage, plan, design for and carry out the capital development of the YEC operations in the best interests of YEC and in accordance with prudent electric power industry practices and standards.

In response to cross-examination, Company witnesses explained that the Management Agreement does not cover costs associated with district employees of YECL. Only Company personnel not resident in the Yukon Territory are covered under the Agreement.

The Board accepts YEC's calculation of inter-company charges for the purpose of this Decision.

### 5.5 Depreciation

As discussed under Section 3.3, depreciation was calculated using depreciation rates developed in 1985. YEC considers such depreciation rates to be conservative in that net salvage percentages used to calculate depreciation rates are either zero or positive, and the Company expects that the cost of retiring much of its depreciable plant will exceed the gross salvage realized. Customer contributions are amortized at the same rates as depreciation for the respective plant accounts.

Further comments respecting depreciation expense are contained in Section 3.3 of this Decision.

### 5.6 Interest Income on Short-Term Investments

An item of Other Income in the amount of \$300,000 in each of the years 1989 and 1990 is shown on Schedule 12 of Section 5 of the Company's evidence. On cross-examination, Company witnesses explained that this amount represents interest income on short-term investments forecast to be earned in each of the years 1989 and 1990. The Board notes from Schedule 12 that the forecast return on mid-year common equity of YEC is 13.96% and 14.3% for the 1989 and 1990 test years, respectively. In each year, approximately .75% of that return is attributable to interest on short-term investments. As explained by a Company witness, YEC could have dividended the amount invested out to YDC, in which case the interest income would not exist.

Inasmuch as the Company's Application assumes that all earnings of YEC are dividended out to its shareholder in the year they are earned, and due to the apparent uncertainty as to the dividend policy of the Company as discussed in Section 4.4.2 of this Decision, the Board directs that the amount of \$300,000 be deducted from YEC's revenue requirement for each of the test years 1989 and 1990.

#### 5.7 Total Revenue Requirement

The Board has determined the total utility revenue requirement for the test years to be as follows and as shown on Schedule "C" attached:

1989	\$18,529,104
1990	\$19,885,592

FOLLOWING ARE

SCHEDULES "A", "B" AND "C"

(Consisting of 6 Pages)

ATTACHED TO AND FORMING PART OF

YUKON UTILITIES BOARD

DECISION 1989-4

DATED OCTOBER 20, 1989

YUKON UTILITIES BOARD

A handwritten signature in black ink, appearing to read "H. M. P.", is written over the printed name of the Chairman.

CHAIRMAN

YUKON ENERGY CORPORATION  
RATE BASE

	1989 AS FILED	1989 AS ALLOWED
PROPERTY PLANT AND EQUIPMENT	\$	\$
Balance, beginning of year (Net of Highland Power Plant)	96,320,000	96,320,000
Balance, end of year	105,218,000	105,218,000
Balance, mid-year	100,769,000	100,769,000
ACCUMULATED DEPRECIATION		
Balance, beginning of year	(3,433,000)	(3,433,000)
Balance, end of year	(5,385,000)	(5,385,000)
Balance, mid-year	(4,409,000)	(4,409,000)
MID-YEAR CONSTRUCTION IN PROGRESS	(1,647,500)	(1,647,500)
MID-YEAR CONTRIBUTIONS FOR EXTENSIONS	(51,500)	(51,500)
NECESSARY WORKING CAPITAL	1,082,000	785,000
MID-YEAR RATE BASE	95,743,000	95,446,000



YUKON ENERGY CORPORATION  
RATE BASE

	1990 AS FILED	1990 AS ALLOWED
PROPERTY PLANT AND EQUIPMENT	\$	\$
Balance, beginning of year (Net of Highland Power Plant)	105,218,000	105,218,000
Balance, end of year	115,512,000	115,512,000
Balance, mid-year	110,365,000	110,365,000
ACCUMULATED DEPRECIATION		
Balance, beginning of year	(5,385,000)	(5,385,000)
Balance, end of year	(7,782,000)	(7,782,000)
Balance, mid-year	(6,583,500)	(6,583,500)
MID-YEAR CONSTRUCTION IN PROGRESS	(5,618,000)	(5,618,000)
MID-YEAR CONTRIBUTIONS FOR EXTENSIONS	(77,000)	(77,000)
NECESSARY WORKING CAPITAL	1,109,000	796,000
MID-YEAR RATE BASE	99,195,500	98,882,500

YUKON ENERGY CORPORATION  
COST OF CAPITAL

AS FILED  
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	1989 MID-YEAR BALANCE	1989 CAPITAL RATIOS	1989 MID-YEAR RATE BASE	1989 COST RATE	1989 RETURN
	\$	%	\$	%	\$
Long term debt	56,000,000	57.58	55,132,216	7.870	4,338,905
Common stock	39,000,000	40.10	38,395,650	13.500	5,183,413
No cost capital	2,250,000	2.31	2,215,134		
	97,250,000	100.00	95,743,000	9.946	9,522,318
	=====	=====	=====	=====	=====

AS ALLOWED  
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	1989 MID-YEAR BALANCE	1989 CAPITAL RATIOS	1989 MID-YEAR RATE BASE	1989 COST RATE	1989 RETURN
	\$	%	\$	%	\$
Long term debt	56,000,000	57.58	54,961,193	7.830	4,303,461
Common stock	39,000,000	40.10	38,276,545	13.250	5,071,642
No cost capital	2,250,000	2.31	2,208,262		
	97,250,000	100.00	95,446,000	9.822	9,375,104
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YUKON ENERGY CORPORATION  
COST OF CAPITAL

AS FILED  
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	1990 MID-YEAR BALANCE	1990 CAPITAL RATIOS	1990 MID-YEAR RATE BASE	1990 COST RATE	1990 RETURN
	\$	%	\$	%	\$
Long term debt	59,850,000	58.05	57,583,421	8.160	4,698,807
Common stock	41,000,000	39.77	39,447,289	13.500	5,325,384
No cost capital	2,250,000	2.18	2,164,790		
	103,100,000	100.00	99,195,500	10.105	10,024,191
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AS ALLOWED  
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	1990 MID-YEAR BALANCE	1990 CAPITAL RATIOS	1990 MID-YEAR RATE BASE	1990 COST RATE	1990 RETURN
	\$	%	\$	%	\$
Long term debt	59,850,000	58.05	57,401,723	8.070	4,632,319
Common stock	41,000,000	39.77	39,322,818	13.250	5,210,273
No cost capital	2,250,000	2.18	2,157,960		
	103,100,000	100.00	98,882,500	9.954	9,842,592
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YUKON ENERGY CORPORATION  
REVENUE REQUIREMENT

	1989 AS FILED	1989 AS ALLOWED
	\$	\$
RETURN Schedule B	9,522,318	9,375,104
UTILITY EXPENSES		
Operating and maintenance	7,054,000	7,054,000
Taxes - other than income	174,000	174,000
Depreciation, net	2,226,000	2,226,000
TOTAL UTILITY EXPENSES	9,454,000	9,454,000
TOTAL RETURN AND UTILITY EXPENSES	18,976,318	18,829,104
SHORT TERM INVESTMENT INCOME		(300,000)
REVENUE REQUIREMENT	18,976,318	18,529,104

YUKON ENERGY CORPORATION  
REVENUE REQUIREMENT

	1990 AS FILED	1990 AS ALLOWED
	\$	\$
RETURN Schedule B	10,024,191	9,842,592
UTILITY EXPENSES		
Operating and maintenance	7,444,000	7,444,000
Taxes - other than income	181,000	181,000
Depreciation, net	2,718,000	2,718,000
TOTAL UTILITY EXPENSES	10,343,000	10,343,000
TOTAL RETURN AND UTILITY EXPENSES	20,367,191	20,185,592
SHORT TERM INVESTMENT INCOME		(300,000)
REVENUE REQUIREMENT	20,367,191	19,885,592