1993-8

YUKON UTILITIES BOARD

DECISION 1993-8

NOVEMBER 23, 1993

RE

YUKON ENERGY CORPORATION AND
THE YUKON ELECTRICAL COMPANY LIMITED

YUKON UTILITIES BOARD

DECISION 1993-8

TUESDAY, THE 23RD DAY OF NOVEMBER, 1993.

IN THE MATTER OF the *Public Utilities Act*, being Chapter 143 of the Revised Statutes of Yukon, 1986, as amended;

AND IN THE MATTER OF a joint application by Yukon Energy Corporation and The Yukon Electrical Company Limited to the Yukon Utilities Board for Orders approving changes in the 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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BOARD MEMBERS

Edith Walters	Chair
Doug Row	Vice-Chair
Vi Campbell	
Robert Laking	
Gordon Duncan	

BOARD STAFF

Jim Slater	Executive Secretary
Bruce L. Willis, Q.C.	Board Counsel
Stephen Johnson, Chartered Accountants	Board Consultants

APPEARANCES

For Yukon Energy Corporation:	P.J. Landry
For The Yukon Electrical Company Limited:	D.O. Sabey, Q.C.
For the City of Whitehorse:	P.G. Sully, Q.C.
For Curragh Inc.:	I. Blue, Q.C. J.W.R. Day
For Superior Indoor Climate Engineering:	R. Ellwood
For Friends of Aishihik:	G. McRobb
For the Whitehorse Chamber of Commerce:	P. Duncan

WITNESSES

For Yukon Energy Corporation and The Yukon Electrical Company Limited:	C.F. Osler W.E. Byers C. Lawson C.H. Kerslake K.C. McShane D.A. Baer W. Wright O.G. Edmondson R.A. Stout L. Lambert
For Curragh Inc.:	M. Pelley D.C. Parcell M.J. Ileo

1. INTRODUCTION AND BACKGROUND

This Decision sets out the reasons for the Yukon Utilities Board (the "Board") Order 1993-1-6 issued September 17, 1993 which dealt with a General Rate Application ("GRA") filed March 12, 1993 by the Yukon Energy Corporation ("YEC") and The Yukon Electrical Company Limited ("YECL") (the "Companies"). In this GRA the Companies requested revenues for expenses and a return on investment for 1993 and 1994. The GRA was presented at a public hearing where anyone interested could comment or "intervene".

The Board, in rendering this Decision, has the responsibility to balance protection of the Yukon consumer while at the same time ensuring that the power companies have adequate funds to operate, and to receive a fair return on investment. The Board must also ensure that any decision made must comply with the *Public Utilities Act* (the "Act") and Orders-in-Council which specify how the Board is to balance the interest of the consumer and that of the power companies.

The Companies filed their application for a general rate increase on March 12, 1993 ("the original application"). Among other things, this application assumed that Curragh Inc. ("Curragh") would be a power consumer during 1993 and 1994. Since Curragh was the largest industrial user of power and accounted for over 40% of the total power consumed in Yukon, this assumption was fundamental to rate setting.

The legal and financial difficulties of Curragh and the very real potential for Curragh to be shutdown at least temporarily during 1993 and 1994 were public knowledge at the time the Companies prepared and filed their original application. The Board found that it would not be in the public interest to proceed with an application based upon conditions that were known not to pertain. For this reason, the Board found the original application deficient and ordered the Companies to refile their application taking the economic situation in Yukon into account.

The Companies refiled their GRA on June 2, 1993 ("the revised application"). The public hearing into the application began on July 13, 1993. During the hearing the revised application continued to be amended by the Companies in many significant ways. The Board has adjusted the Companies' revised application to reflect these amendments. Further complicating the hearing were the divergent views presented regarding the future of Curragh. Much time was spent sorting out the effect of Curragh alternatives on power rates.

The necessity of ordering a refiling of the GRA and the resulting delay of the start of the hearing until July 13, 1993, resulted in applications by the Companies for interim rate increases. For these reasons, the Board dealt with several applications for interim rate increases apart from the GRA.

The largest single factor affecting the rate increases for 1993 and 1994 is the loss of the Curragh load. The loss of Curragh revenues required that the Companies recover a greater portion of their costs from customers remaining on the system.

The combined increase requested by the Companies for 1993 was $8,111,000 and for 1994 was $10,728,000 (total for both years $18,839,000) which represented increases over what previously had been charged to consumers at 1992 rates.

The Companies requested an increase of $8,111,000 for 1993, the Board approved $3,176,000, a reduction of $4,935,000.

The increase requested by the Companies for 1994 was $10,728,000, the Board approved $6,289,000, a reduction of $4,439,000.

For 1993 and 1994 the Companies requested a total increase in revenue over 1992 rates of $18,839,000. The Board approved a total increase of $9,465,000 for 1993 and 1994, just over 50% of the requested increase.

To achieve the requested increases in revenue, the Companies proposed in their revised application to increase rates by 6.75% as at June 1, 1993, by a further 20% as at July 1, 1993, by an additional 10.3% as at October 1, 1993, and by an additional 12.3% as at January 1, 1994. In aggregate, the Companies' proposed successive rate increases from June 1, 1993 to January 1, 1994 would have resulted in an increase in rates over 1992 rates of 58.67%.

The Board approved an interim increase of 6.75% effective June 1, 1993 in Interim Decision 1993-2. As a result of Orders 1993-1-6 and 1993-7 the Board approved a further increase of 21.8% effective November 1, 1993. As a result of the current Decision the Board has approved a further increase of approximately 0.6% to be effective January 1, 1994. The approved successive rate increases from June 1, 1993 to January 1, 1994, result in a total increase over 1992 rates of 31%, a reduction of almost one-half of the 58.67% requested by the Companies. None of these amounts include subsidies.

The Board in this Decision sets a rate of return on rate base. The Board finds that a return on common equity deemed to be financing the rate base of YECL to be 11%. In accordance with Order-In-Council 1991/62, YEC is allowed a return of 10.5%.

The increase granted by this Decision is sufficient to ensure an adequate level of safety and service to customers served by the applicants.

1.1 THE APPLICATION

The Companies filed their original application on March 12, 1993 with the Board for approval to set rates and charges for power, energy, and related services to be charged to Yukon power users for 1993 and 1994.

The original application included a request for the implementation of interim refundable rates effective May 1, 1993 for all bills issued on and after that date. The Companies proposed interim increases in the industrial rate of 33.3%, the amount required to recover the cost of service in accordance with Order-in-Council 1991/62. The Companies also proposed increases in rates to other customer classes averaging 8.4%.

The Companies further proposed varying run-out block rates to reflect the differing incremental costs of energy supplied in each of the basic rate zones: hydro, large diesel, small diesel and Old Crow. Increases were requested for monthly service charges to bring these rates closer to the fixed customer cost of service.

In accordance with Order-in-Council 1991/62, rates for government, residential and general service classes were proposed to be increased by the same overall percentage as rates for the other retail classes.

The Board heard the Companies' application for interim refundable rates at a public hearing held in the City of Whitehorse on April 28, 1993.

The Board rendered Interim Decision 1993-2 on May 14, 1993 wherein it approved revised rate schedules to be effective June 1, 1993 reflecting the following:

(a) a Rider of 20% on all rates and charges made by the Companies to customers served under Rate Schedule 39 - Industrial Primary;

(b) a Rider of 6.75% on all rates and charges made by the Companies to all other customers served by the Companies, except for wholesale customers; and

(c) a revised wholesale rate to reflect the impact of the Riders set forth in Items (a) and (b) above.

During the April 28, 1993 interim hearing there was considerable discussion regarding the Companies' largest customer, Curragh. At the time, Curragh was under the protection of the *Companies Creditors Arrangement Act* and the Faro mine, which is owned and operated by Curragh, had shutdown indefinitely. There was significant uncertainty surrounding the probability and timing of the reopening of the Faro mine. The Companies, in their original application, had assumed that Curragh would be on the system and purchasing power during the test years 1993 and 1994. The Board determined that this assumption was unrealistic. The Board, therefore, directed the Companies to refile their GRA by June 4, 1993 to reflect the impact on their capital expenditures, operating expenses and other relevant cost factors and customer rates under conditions which the Companies considered to be most realistic at that time.

The failure by the Companies in their original application to account for the possibility that Curragh might not be on the system for all or a portion of 1993 or 1994 caused considerable delay and costs to the hearing process.

Pursuant to the Board's order in Interim Decision 1993-2, the Companies filed a revised GRA dated June 2, 1993. The Companies described their revised application as follows:

> "The Revised GRA adjusts capital expenditures, operating expenses and the relevant cost factors, as well as proposed customers' rates, to reflect the following conditions and assumptions which the Companies consider to be realistic at the present time:
>
> - shutdown of the Faro mine is assumed to continue through at least the balance of 1993 and 1994
> - Curragh Inc. (Curragh) is assumed to continue in its failure to pay YEC's invoices for March and subsequent months

- Curragh is assumed to continue not being a customer of YEC, and to take no power from YEC or YECL, after May 12, 1993 (when Curragh requested that YEC cease to provide electricity to the Faro mine)

- actual results for 1992 and, where readily available, for the initial months of 1993 are included in the GRA

- other revised conditions and forecasts are included which materially affect the GRA, including new Yukon Corporate income tax rates, the Board's interim rate decision, the latest information on Company costs to purchase fuel, and other factors noted in this submission."

(Revised Application, Page 1-2)

Included in the June 2, 1993 revised application was an application for a further interim increase of 20% across-the-board, effective for bills rendered on and after July 1, 1993. The Companies also proposed that 1994 rates, including rate redesign measures, be effective for bills rendered on and after October 1, 1993 resulting in a further average rate increase of approximately 10.3%. Along with the interim rate increase of 6.75% approved in Interim Decision 1993-2, these rate increases would collectively result in a 41.3% increase in rates during 1993. In addition, the Companies proposed to collect the forecast deficiency from 1993 through a temporary surcharge of 12.3% applied to all bills rendered during the calendar year 1994.

Curragh made an application to the Board that it is precluded by Section 28 of the *Public Utilities Act* from awarding the interim rate application sought June 4, 1993 with an effective date prior to September 3, 1993. The Board reviewed the materials and heard submissions from YEC, YECL, Board counsel and Curragh.

On June 29, 1993 the Board rendered a decision, without reasons, that it had jurisdiction to make interim orders, including interim refundable rate increases such as those requested by the Companies. Reasons for the Board's Decision on June 29, 1993 are contained in Interim Decision 1993-5.

In its Interim Decision 1993-5 the Board adjourned the application for interim refundable increases pending further evidence at the full hearing set for July 13, 1993. At the conclusion of the main GRA hearing the Board heard submissions regarding the further interim refundable rate increase of 20%. The Board's decision denying this 20% increase is contained at Section 10 of this Decision.

The Board issued Orders 1993-1-6 and 1993-7 wherein the Board gave interim approval to a rate increase of 15.70% effective November 1, 1993 and a rider of 5.263% applicable to the period November 1, 1993 to December 31, 1994.

1.2 PUBLIC HEARING

The Board held pre-hearing conferences on April 28, June 4 and June 29, 1993 to establish the hearing schedule, to resolve matters relating to responses to Information Requests and to resolve other issues relating to the conduct of the hearing.

During the proceedings, intervenors were provided with two opportunities to make written Information Requests to the Companies. These requests elicited written responses which were made available to all parties prior to the hearing of the application. Written Information Requests by the Board, together with responses were made available to all parties prior to the hearing of the main application.

The hearing of the main application was held in the City of Whitehorse on July 13 to 17th, and July 19, 1993. Subsequent to the hearing, the Companies and the 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. Bill Klassen appeared on behalf of the Technical Advisory Group on the Aishihik Relicensing Study. Piers McDonald, MLA for McIntyre-Takhini, also appeared. The Board also received a presentation from Bob Vandijken for the Yukon Conservation Society. In addition, the following interested parties filed written submissions: the Watson Lake Hotel; Campground Services Ltd.; Yukon Conservation Society; Kwanlin Dun First Nation; the residents of the Village of Mayo; Delicatessen Centre Ltd.; Association of Yukon Communities; Liard Indian Band; and Sophie Partridge, a Yukon resident. All of these parties expressed concern with regard to the magnitude of the rate increase proposed by the Companies. The Board has reviewed all submissions from the applicants, registered intervenors and interested parties.

1.3 INTERIM DECISIONS

On May 14, 1993, the Board issued Interim Decision 1993-2 approving interim increases in rates effective June 1, 1993 of 20% for the industrial class and 6.75% for all other classes of customers.

On September 17, 1993, the Board issued Order 1993-1-6 wherein it approved revenue requirements for each of YEC and YECL for the years 1993 and 1994.

The Board directed the Companies to submit proposed rate schedules by October 12, 1993, to be effective November 1, 1993 to reflect Board Order 1993-1-6. After Board Order 1993-1-6 was issued on September 17, 1993, YEC/YECL were contacted by Board staff to ascertain if they could calculate and submit the proposed rate schedule by October 12, 1993. The applicants were advised that if they had difficulty with compliance with Board Order 1993-1-6 that an immediate application should be made on notice to all parties. The Board was informed that the Companies believed that they could calculate the proposed rates and did not request the reopening of the hearing on notice to all parties.

This Decision provides reasons for the Board's determinations with respect to the rate base, the fair return on rate base and the total electric utility expenses as summarized in Board Order 1993-1-6. The total electric utility expenses and return approved in Board Order 1993-1-6 have been amended and finalized in this Decision. The Board will direct the Companies to prepare and present for Board approval revised calculations of individual company revenue requirements in accordance with this Decision, together with final rates to recover the revenue requirements.

1.4 JURISDICTION

The Board has been given the following powers under Section 27 of the *Public Utilities Act*:

"(a) fixing rates of a public utility,

(b) prohibiting or limiting any proposed rate change,

(c) fixing proper and adequate rates and methods of depreciation, amortization or depletion in respect of the property of any public utility,

(d) fixing just and reasonable standards, classifications, regulations, practices, measurements or services to be observed, provided or followed by a public utility,

(e) determining the areas to which a public utility shall provide service, and requiring the public utility to establish, construct, maintain and operate any reasonable expansion of its existing services, and

(f) determining the conditions that may be imposed by a public utility to establish, construct, maintain or operate an expansion of its existing services."

The Board, under Section 29 of the Act, considers the following factors:

> "(a) the board may consider the revenues and costs of the public utility in the fiscal year in which the proceedings for fixing the rates and charges commenced or in any period immediately following, without considering the allocation of those revenues and costs to any part of such period,
>
> (b) the board may give effect to that part of any excess of revenue received or deficiency incurred that is in the opinion of the board applicable to the whole of the fiscal year of the public utility in which the proceeding was initiated as the board considers just and reasonable,
>
> (c) the board may give effect to such part of any excess revenue received or deficiency incurred after the commencement of the proceeding as the board determines has been due to undue delay in the hearing and determining of the matter, and
>
> (d) the board shall by order approve the method by which and the period during which any excess revenue received or deficiency incurred is to be used or dealt with."

Section 32 of the Act gives certain powers to the Board to deal with a rate base. Section 32 of the Act states:

> "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."

The Commissioner in Executive Council, pursuant to Sections 17 and 18 of the Act, passed Order-in-Council 1991/62 (the "OIC"). Section 2 of the OIC states that "The Board must include in the rates of Yukon Energy Corporation provision to recover a normal commercial return on Yukon Energy Corporation's equity, less one-half of one percent (.5%)."

The OIC states at Section 4 that "Except to the extent otherwise stated by this Directive or the Act, the Board must review and approve rates in accordance with normal principles applicable in Canada for similar utilities."

The Board, in determining the rates of a public utility, must fix a fair return on rate base and in approving and reviewing rates it must do so in accordance with normal principles applicable in Canada for similar utilities.

Section 52 of the Act states that, subject to the other provisions of the Act and the Regulations (including the OIC) and to the need to abide by the fundamental principles of justice, the Board has the exclusive jurisdiction and authority to determine any question of fact, law, or mixed fact and law.

Law includes both statute law and common law. However, since the legislature has made it clear what principles the Board should follow, these will override any common law principles.

Under the OIC the Board must approve rates in accordance with normal principles applicable in Canada for similar utilities. There really are no similar utilities that the Board can look to as a basis for comparison.

The Board sees nothing in the wording of the Act nor the OIC that stipulates that it must follow Canadian precedents. For instance, if there was a decision of the New Brunswick Queen's Bench or the Alberta Court of Appeal, this Board could consider such decision. However, such decision is not binding on the Board and the Board does not accept the proposition put forth by the applicants that if a Canadian precedent exists with respect to rates that this Board is mandated to follow that decision by the authority of Section 4 of the OIC. That is not what the OIC stipulates. This Board acknowledges that if there is a decision of the Supreme Court of Canada or the Yukon Court of Appeal that this Board must follow such decision.

This Board has not heard any submissions with respect to decisions of the Yukon Court of Appeal or the Supreme Court of Canada. This Board, however, can review other decisions for guidance including decisions of utility boards and courts if the Board so chooses.

1.5 RELATED COMPANIES

Based on the evidence, the Board finds that Yukon Development Corporation ("YDC") and YEC are related companies and that YECL, Yukon Hydro Company Limited, Alberta Power Limited ("APL"), and CU Power Canada Limited are related companies.

1.6 ADJUSTMENTS TO THE REVISED APPLICATION

During the course of the hearing the Companies made a number of revisions to the forecast operating expenses and rate base contained in the revised application of June 2, 1993. Because the Companies did not refile their financial schedules to reflect these revisions, the Board has reflected the following changes in the "ADJUSTED FILING" columns of the Schedules attached to this Decision in order to present its understanding of the Companies' position set forth at the hearing.

YECL REVENUE REQUIREMENT

	1993 ($,000)	1994 ($,000)
Revised Application, June 2, 1993	33,372	34,308
Pre-1993 O&M DSM Costs	90	-
1994 O&M DSM Costs	-	6
Impact of Amendments to Rate Base and Cost of Capital	(3)	(1)
Impact of Changes on Income Taxes	(2)	(1)
ADJUSTED FILING	33,457	34,312

YECL RATE BASE

	1993 ($,000)	1994 ($,000)
Revised Application, June 2, 1993	27,960	31,003
Reduction in Pre-1993 and 1993 Rate Base DSM	(136)	(151)
Impact of 1993 Adjustments	-	(136)
	(136)	(287)
One-Half of Above Changes	(68)	(143)
Increase in Mid-Year Deferred Rate Case Expenses	38	153
Increase in Working Capital	5	-
Increase/Decrease in Mid-Year Rate Base	(25)	10
ADJUSTED FILING	27,935	31,013

YEC REVENUE REQUIREMENT

	1993 ($,000)	1994 ($,000)
Revised Application, June 2, 1993	28,547	24,592
Pre-1993 O&M DSM Costs	271	-
1993 and 1994 O&M DSM Costs	-	20
Amortization of Deferred Regulatory Costs	7	8
Impact of Amendments to Rate Base	110	95
Curragh Bad Debt	(1,117)	-
Salaries Allocated by YDC	(213)	(235)
Amortization of Deferred Study Costs	(17)	(220)
ADJUSTED FILING	27,588	24,260

YEC RATE BASE

		1993 ($,000)	1994 ($,000)
Revised Application, June 2, 1993		112,744	115,525
Transfer of Faro Plant to Rate Base in 1992		1,715	-
Reduction in Low Water Reserve		400	1,800
Increase in Deferred Study Costs	- 1992	512	-
	- 1993	529	-
	- 1994	-	749
Reduction in Pre-1993 and 1993 Rate Base DSM		(946)	(946)
Reduction in 1994 Rate Base DSM		-	(46)
Impact of 1993 Adjustments		-	(17)
		2,210	1,540
One-Half of Above Changes		1,105	770
Increase in Mid-Year Deferred Rate Case Expenses		73	293
Reduction in Working Capital		(44)	(8)
Increase in Mid-Year Rate Base		1,134	1,055
ADJUSTED FILING		113,878	116,580

2. TEST YEARS

The Board approves the forecast test years 1993 and 1994 as the Test Years for this application as requested by the Companies.

3. RATE BASE

3.1 GENERAL

The determination of rate base for the purpose of fixing just and reasonable rates, tolls or charges is governed by the provisions of Section 32(1) of the Act.

Pursuant to Section 32, the Board has determined a rate base for each of YEC and YECL for the 1993 and 1994 Test Years as shown in Schedule "A" attached hereto.

In their revised application, the Companies forecast total capital expenditures of $13,383,000 and $10,543,000 on a combined basis for the Test Years 1993 and 1994, respectively, and requested approval for transfers to rate base of $18,345,000 and $10,388,000 on a combined basis for the Test Years 1993 and 1994, respectively.

3.2 GENERAL PROPERTY AND EQUIPMENT

Included in the total rate base expenditures are forecast expenditures on General Property and Equipment of $753,000 and $1,090,000 in 1993 and 1994, respectively.

3.2.1 CITY POSITION

In its Evidence at Exhibit 77, the City expressed concern that expenditures on General Property and Equipment in the revised application had only decreased by 4.8% from the original application wherein Curragh was assumed to be on the system. The City recommended that expenditures on General Property and Equipment be further reduced by 20% over the two Test Years.

In its Argument, the City outlined a number of examples where reductions in capital expenditures could be made, including the deferral of $84,000 of office furniture and equipment in 1994 and some of the $85,000 in 1994 capitalized computer costs. The City considered that these cuts were necessary in order to spread the burden of the Curragh closure over a period of years. The City further expressed the desire for a 25% reduction in 1994 capital expenditures in the event that the Board allows all General Property and Equipment expenditures as filed for 1993.

3.2.2 YEC/YECL POSITION

The Companies submitted in their Argument that further capital reductions would result in reduced reliability and service. The Companies noted more specifically in their Reply Argument that the expenditures on office furniture and equipment are:

> "... part of a concerted effort over a period of years to improve service point offices and make them more customer friendly." (YEC/YECL Reply Argument, Page 30)

The Companies also outlined reasons for including $85,000 of computer equipment in 1994, and indicated that, in total, these capital expenditures are required to maintain an adequate level of safety and service to customers.

3.2.3 BOARD FINDINGS

The Board notes the City's concern relating to the level of capital expenditures on General Property and Equipment in the revised application relative to the original application. The Board notes, however, in response to Information Request WHSE-YEC/YECL-31(b) that the Companies consider that none of the expenditures are related to Curragh and, therefore, remain necessary. After having reviewed the evidence, the Board finds that it would not be appropriate to require a percentage reduction to General Property and Equipment expenditures.

The Board also notes in response to WHSE-YEC/YECL-31(a) the Companies, upon further review of their computer expenditures related to the purchase of a CAD system, could reduce expenditures by $10,000. The Board is also concerned about the expenditures on office furniture and equipment of $84,000 forecast for 1994. The Board is not persuaded that these expenditures are critical to the provision of an adequate level of safety and service to customers.

The Board directs that General Property and Equipment expenditures for 1994 be reduced by $50,000 for each of YEC and YECL.

3.3 PHASE-IN OF FARO AND TESLIN DIESEL UNITS

YEC added a new diesel peaking unit at Faro and YECL added a new stand-by and peaking unit at Teslin. The Faro unit was placed in service towards the end of 1992 at a final cost of $2.5 million. The Teslin unit was forecast to be completed and in service during 1993 at a cost of $735,000.

3.3.1 CITY POSITION

The City proposed in Exhibit 187 that both of the units be phased-in over a period of five years commencing in 1994 and that the Companies be allowed to earn an Allowance for Funds Used During Construction ("AFUDC") on the unphased-in balances. In its Argument, the City described the phase-in process as a means of reducing rate shock and noted that phase-ins have been adopted by a number of U.S. regulatory bodies for nuclear plants.

3.3.2 SICE POSITION

In its Reply Argument, Superior Indoor Climate Engineering ("SICE") did not specifically disagree with the City's proposal for phase-in. However, SICE did raise the concern over shifting significant amounts of current dollar expenditures to future consumers.

3.3.3 YEC/YECL POSITION

The Companies argued that there was no relevant Canadian electric power precedent in support of the City's proposal. Further, in Reply Argument, the Companies noted that:

> "... any such measure simply acts to increase the level of future Yukon rates throughout the service life of these plants." (YEC/YECL Reply Argument, Page 28)

The Companies submitted that their preference was to:

> "... retain normal principles for bringing plant into rate base and address near term rate shock concerns through other measures, e.g., rate relief subsidies and temporary rate riders designed to recover test year revenue shortfalls over a specified time period." (YEC/YECL Reply Argument, Page 29)

3.3.4 BOARD FINDINGS

The Board recognizes that a phase-in approach can, in the near term, have a mitigating effect on rates. However, the Board is concerned that adoption of a phase-in for the Faro and Teslin diesel units does not minimize the overall cost to ratepayers. The Board notes that, under the City's phase-in proposal, the Companies would receive a full rate of return on amounts not phased-in which would result in an overall higher cost to the consumer over the long-run. Under such a plan, the consumers will not benefit from a phase-in as they will ultimately pay for costs deferred plus a full return thereon. The Board finds that any rate smoothing effects would be minimal.

The evidence presented at the hearing with respect to the diesel unit acquired from Cassiar, for use at Faro, indicated that the decision to purchase the unit would not have been undertaken but for the low acquisition cost when compared with new diesel units of comparable size. The Board finds the final cost was much higher than anticipated and that the project would not have been undertaken except for the low projected cost. However, the evidence at the hearing was that the total cost was not unreasonable when compared to the cost of new diesel units of similar size and, therefore, no reduction in rate base has been attributed to this purchase. Future capital expenditures and their prudency will continue to be reviewed.

3.4 SCADA SYSTEM

The Companies have requested approval of the installation of a new Supervisory Control and Data Acquisition ("SCADA") system at a cost of $2,010,000. The new system was installed to replace an older one which was considered obsolete and difficult to maintain. The Companies submitted that:

> "The new system will result in higher operating efficiencies, improved system reliability and a sound data base (e.g.: water availability, hydrology, economic dispatching, etc.) which is required for further system management improvements." (Revised Application, Page 2-33)

According to the revised application the SCADA system project was forecast to cost $1.8 million, with $1,468,000 being added to rate base in 1992 and $296,000 being added in 1993.

In response to Undertaking 55, the Companies indicated that the original budgeted cost of the SCADA project which was approved by the Board of Directors of YEC was $882,000. The total dollar amount approved by YEC's Board of Directors was increased to $1.3 million on October 28, 1991. YEC's Board of Directors again increased the approved total to $1.75 million on July 22, 1992. The final cost of the system was $2,010,000 compared with the original budgeted cost of $882,000.

The Companies indicated the following:

> "The significant cost increases were due to scope of work changes in the engineering, design, installation and commissioning areas required to overcome major deficiencies in NCPC's original SCADA system and documentation uncovered during the detailed design phase." (Undertaking 55)

3.4.1 CITY POSITION

The City submitted the following with respect to the SCADA system installation:

> "The cost of the SCADA system installed by YEC/YECL nearly doubled between the original estimate (just under $900,000) and the final cost (over $1.7 million). We are quite dismayed by these cost overruns and see them as but one more example of the problems arising because of the poor condition of the system transferred from NCPC. However, we do not see any imprudence in the actions of YECL in managing the project given the age and condition of the original equipment." (City Argument, Page 28)

The City proposed that $245,000 of SCADA related expenditures earmarked for the Faro area should be deleted from the 1993 year-end rate base. The City submitted that costs of $132,000 relate to expenditures that witnesses for the Companies identified as not being required. In addition, design and installation work costing $113,000 had been completed for Faro before work had stopped as a result of the Curragh shutdown. The City contended that the plant related to the $113,000 is not "used or required to be used" as a result of the deferral of the entire SCADA installation in the Faro area.

3.4.2 CURRAGH POSITION

Curragh expressed a concern in its Argument that YEC/YECL did not perform a cost benefit analysis of the SCADA system prior to undertaking the project. Curragh did not dispute the potential benefits of a new SCADA system. However, it expressed a concern that:

> "By implementing the new Scada system, ratepayers should see the annual savings for parts and labour. There is, however, nothing in the YEC/YECL GRA reflecting the savings in costs for parts and labour associated with the new Scada system corresponding to the capital expenditure of $2,100,000." (Curragh Argument, Page 28)

3.4.3 YEC/YECL POSITION

The Companies submitted in their Argument that:

> "... the problems encountered in this program reflect specific circumstances related to the status of the previous NCPC system and the problems associated with new management taking over and modifying such a system." (YEC/YECL Argument, Page 61)

In response to the City's proposal to remove $245,000 from 1993 year-end rate base, the Companies submitted that a:

> "... further review of accounting records and filing documents indicates a critical need to proceed with $63,200 of the $132,000; this amount relates to the Faro substation and is required, particularly in light of reduced utility staff in the Faro area, to allow the Companies to monitor and control the Faro substation as well as an extensive part of the WAF transmission line. The Companies note that this substation serves Ross River as well as the town of Faro." (YEC/YECL Reply Argument, Page 51)

With regard to the $113,000 already incurred for design costs:

> "The Companies note, however, that only about $11,000 of the $113,000 of expenditures to date for the Faro/Curragh SCADA system relate specifically to the Curragh substation. The balance relates to the Faro substation and plant, and it is incorrect to suggest that the Faro portion of the system is neither used nor required to be used." (YEC/YECL Reply Argument, Page 52)

In response to Curragh's concern regarding the lack of a cost benefit analysis, the Companies noted that future savings have been reflected in the GRA wherever feasible and that it is difficult to isolate specific saving estimates related to the wide ranging SCADA investment.

In addition, the Companies noted in Undertaking 55 and in Argument that the difficulties with respect to the cost overruns caused the Companies to review and improve their capital project process.

3.4.4 BOARD FINDINGS

The Board notes the Companies' endeavours to improve their capital project process. However, the Board is concerned that the management of the SCADA related expenditures was not adequately controlled. The Board notes the following exchange during Mr. Blue's (Curragh counsel) cross-examination:

> "Q Mr. Kerslake, just before we leave this system, for a $2 million odd expenditure, do you agree that it's possible for someone who is evaluating it to do a study of costs and benefits? ... It's a fairly common practice for expenditures of that nature; would you agree with that?
>
> A MR. KERSLAKE: Yes.
>
> Q Why didn't you do one here?
>
> A MR. KERSLAKE: I'll have to undertake as [to] the reasons why."
>
> (Tr.830)

The Board notes from the response to that undertaking that the Companies failed to explain why a cost benefit study for the SCADA system was not undertaken. Furthermore, in reviewing the evidence, there is no quantification of the savings expected as a result of the installation of the SCADA system.

During cross-examination, witnesses for the Companies indicated that the purchase of the original equipment of $370,000 was tendered. However, the contract for installation was awarded without tender to a former employee of APL. When asked whether the Companies could demonstrate to the Board that they had obtained the optimum price for the installation of the SCADA equipment, a company witness responded that it is very difficult to get a firm quote from a contractor to do this type of work.

The Board has the following concerns with respect to the installation of the SCADA system:

1. A cost benefit study was not carried out prior to undertaking construction of the SCADA project, although the Companies agreed that it is normal for a cost benefit study to be undertaken for such a project.
2. The Companies failed to adequately respond to an undertaking to determine why a cost benefit study was not undertaken.
3. There were recurring cost overruns with respect to the installation of the SCADA equipment which were not satisfactorily explained.
4. The installation contract was not tendered to ensure that the optimal price was obtained. The contract was awarded to a former employee of a company related to YECL.
5. There is no evidence of project management or cost controls.
6. The Companies should have been aware of the costs and installation requirements of the SCADA system through a similar undertaking in the Northwest Territories.

The Board finds that, with respect to the proposed SCADA expenditures at Faro, a total of $80,000 is not required.

The Board approves the original forecast equipment costs of $370,000 plus installation costs of $1,220,000 and disallows the rest. It is the Board's view that any deficiencies with regard to the existing system should have been identified prior to the October 28, 1991 YEC Board of Directors meeting. The Board will continue to monitor project management cost controls relating to future capital expenditures.

The Board has addressed the matter of cost benefit studies in Section 3.12 of this Decision.

3.5 HAECKEL HILL WIND TURBINE

During the 1992 Capital Hearing, YEC recommended that development work continue to allow Yukon to take advantage of wind generation if economically feasible. In its Report to Commissioner in Executive Council, the Board recommended that research and development work continue to be pursued with respect to wind generation, including the monitoring of technology in progress in other jurisdictions. The Companies have identified wind generated electricity as a potential alternative to diesel generated power and have undertaken a pilot project at Haeckel Hill. The proposed project includes the purchase and installation of a 150 kW wind turbine on Haeckel Hill overlooking Whitehorse to assess the impacts of colder temperatures and icing conditions. The Companies have forecast an expenditure of $716,000 in 1993, $300,000 of which will be provided by a grant from the Yukon and federal governments.

3.5.1 FOA POSITION

The Friends of the Aishihik ("FOA") recommended that the Board should recommend to the Minister that YDC should assume all responsibilities related to wind projects. During cross-examination, FOA discussed a Bill introduced in the Yukon Legislature to amend the *Yukon Development Corporation Act*. FOA indicated that the Minister responsible for YEC and YDC suggested that future YDC projects could include:

> "Continued development of the Yukon Energy Corporation wind program, partial support of the wind turbine project in 1993, and ongoing wind monitoring throughout the Yukon." (Tr.1069)

Witnesses for YEC indicated that the wind project remained with YEC because:

> "... in our judgment it was a proper project for the energy corporation to be involved in." (Tr.1070)

When asked whether any consideration had been given to moving the site of the wind turbine, if Curragh remains closed, to a diesel zone in order to displace diesel generated energy, company witnesses indicated that the current site had been carefully selected for pilot project conditions.

3.5.2 CITY POSITION

The following submission was made by the City in its Reply Argument:

> "The City supports the proposals of the Friends of Aishihik that YDC assume all responsibility for wind turbine development and that the existing wind turbine be deferred until the feasibility of constructing this unit in a diesel zone is fully explored." (City Reply Argument, Page 11)

3.5.3 YEC/YECL POSITION

The Companies expressed concern in their Reply Argument that:

> "... if YDC assumes all responsibilities related to wind projects, it would not be appropriate for the Board to direct the Companies on any specific wind projects." (YEC/YECL Reply Argument, Page 60)

The Companies noted that the selection of the Haeckel Hill location for a pilot project was made after considering factors such as road access, power line access and proximity to technical staff and services to ensure proper monitoring of the project including icing conditions.

Relocation at this point would cause further delay of the monitoring and the results of the pilot project. However, pending successful completion of the research at Haeckel Hill, the Companies proposed to consider relocating the turbine to a diesel community if the Whitehorse-Aishihik-Faro ("WAF") diesel requirements continue to be relatively minimal.

3.5.4 BOARD FINDINGS

The Board considers that prudent research and development of cost effective generation from alternative means should be undertaken by the utility. The Board finds that it should be the responsibility of YEC management to determine whether YEC should undertake a research project or whether the project should be undertaken by its parent, YDC.

The Board approves the forecast expenditures related to the Haeckel Hill wind turbine project. The Board finds that an immediate relocation of the project to a diesel community is not appropriate.

3.6 DEFERRED REGULATORY COSTS

In response to Information Request BD-YEC/YECL-124, the Companies provided a breakdown of unamortized regulatory hearing costs as follows:

UNAMORTIZED REGULATORY HEARING COSTS

	Dec.31/92	Dec.31/93	Dec.31/94	Proposed Amortization
Rate Design/ COS Hearing	$120,000	$ 96,000	$ 72,000	5 years
Capital Hearing	512,000	410,000	308,000	5 years
1991/92 GRA	22,000	11,000	0	2 years
1993/94 GRA	26,000	252,000	0	2 years
1995/96 GRA	0	0	502,000	2 years
Waterboard	28,000	97,000	91,000	Duration of licence and renewal periods
TOTAL	$708,000	$866,000	$973,000	

3.6.1 CITY POSITION

In its Evidence at Exhibit 77 and Exhibit 187, the City recommended amortizing the costs of the Capital Hearing over ten years compared to the five years proposed by the Companies. The City outlined its rationale in response to an Information Request YEC/YECL-WHSE-5(a) as follows:

> "The general policy of YEC/YECL is to 'amortize these costs over the term covered by a specific hearing.' (refiling page 2-37). In the absence of Curragh, 'the term covered by' the capital hearing will be approximately ten years, as no new hearing will be needed in that time frame."

The effect of the City's recommendation would be to reduce amortization expense by $47,000 in each of 1993 and 1994 and increase rate base by $24,000 in 1993 and $70,000 in 1994.

3.6.2 SICE POSITION

SICE again recognized the intent of reducing rate shock but expressed a concern over shifting significant amounts of recovery to future customers.

3.6.3 YEC/YECL POSITION

The Companies also expressed concern that the extension of the amortization period adds additional costs to future ratepayers who may not receive the corresponding benefits. Further, the Companies expect that general capital spending will be discussed in future GRA's as opposed to special capital hearings which should generally be reserved for approval of specific projects.

3.6.4 BOARD FINDINGS

The Board finds that deferred costs should be amortized over the period during which customers are expected to benefit from the costs. In the case of the costs of the Capital Hearing, the Board finds that the Companies provided their best estimate for an amortization time frame. The Board is not persuaded that the period covered by the 1992 Capital Hearing will be approximately ten years in the absence of Curragh or any other similar industrial load on the system. No evidence was adduced to indicate that the ten year time frame is superior to the five years that was proposed by the Companies. Accordingly, the Board finds that the amortization period for the deferred capital hearing costs should be five years.

As noted above, the Companies have included approximately $502,000 for the 1995/96 GRA in Deferred Regulatory Costs as part of the 1994 rate base. Exhibit 184, in response to Undertaking 15, indicates that the Companies believe that they will incur these costs and that it is appropriate to earn a return on them until they can be recovered from ratepayers in 1995 and 1996. No amortization was forecast for 1994. Based on an examination of such costs incurred by the Companies in the past, it does not appear likely that the Companies will incur the full amount of the $502,000 in 1994. It has been common regulatory practice for the costs of preparing a GRA to be included with other regulatory costs, and deferred and amortized over a period beginning with the first test year. The Board notes that inclusion of these costs in the 1994 year-end rate base would create a cash return of approximately $25,000. The Board orders that the forecast costs related to the 1995/96 GRA be removed from the 1994 rate base. The Board will address the reasonableness of hearing costs incurred by the Companies and intervenors at a later date.

3.7 DEFERRED PLANNING AND STUDY COSTS

The Companies provided forecast amounts for Deferred Planning and Study Costs in their original application.. These amounts were subsequently changed in the revised application, and again revised in the response to Information Request BD-YEC/YECL-124 as follows:

DEFERRED PLANNING AND STUDY COSTS
(Combined)

	1992	1993	1994
Original Application	$2,335,000	$1,867,000	$1,399,000
Revised Application	$2,313,000	$2,325,000	$2,032,000
BD-YEC/YECL-124	$2,825,000	$2,852,000	$2,777,000

The Companies' policy is to capitalize the cost of studies which lead to a specific project as part of the cost of that project. Study costs related to projects which are not pursued, or are abandoned, are written off over a period of years after the decision to discontinue the project. The costs were generally incurred to study possibilities for new hydro generating plants and transmission lines. The Companies undertook the studies in order to review options to mitigate their dependence on diesel generation. As a result of the preparation of their submissions for the 1992 Capital Hearing, the Companies found that many of the projects studied would be uneconomic or too risky given the uncertainty of the Curragh load. As a result, the Companies transferred study costs from Construction Work in Progress ("CWIP") to Deferred Planning and Study Costs, and proposed that they be amortized over a five year period.

Accordingly, the Companies propose to include amortization costs of $553,000 and $462,000 in the revenue requirements for the Test Years 1993 and 1994, respectively. This amortization, together with a return on unamortized study costs, amounts to $818,000 in 1993 and $898,000 in 1994.

3.7.1 CITY POSITION

The City expressed concern regarding the magnitude of study costs for a utility system of the size of that operated by YEC and YECL. The City submitted that the revenue requirement impact of the Companies' proposal is over 3% of the approximately $27 million in revenue at current rates. The City notes that it is the Companies' understanding that the risk of incurring study costs should be entirely borne by the ratepayers, and point to the following exchange at Tr.1014:

> "Q Would you agree that this method of recovery means that ratepayers take all of the risks associated with abandoned projects or deferred projects and shareholders bear none of the risk?
>
> A MR. OSLER: I think it's a fair generalization, yes.
>
> Q Would you like to explain why you believe that it's appropriate for ratepayers to bear all of this risk?
>
> A MR. OSLER: Well, they bear all of the cost, therefore all of the risk. The short answer is because it's assumed that we have concluded, together, this was a prudent set of activities on the part of the business being conducted to try and achieve the lowest possible rates for the ratepayers."

The City then points to another exchange during Mr. McRobb's cross-examination where it was noted that YECL shareholders bore the full cost for the first round of studies on McIntyre #3 before it was cancelled due to the Cyprus Anvil mine closure. At Tr.1021 the following exchange took place:

> "Q MR. MCROBB: Why did you change your policy now and try to collect these project study costs from your customers, especially in these tough times?

A MR. KERSLAKE: Well, it was never a regulatory practice, and if you look at it we're talking something back in 1986, and since then we have reviewed our practice and we've come out with policy as we have stated it now."

The City acknowledges that there was pressure by government and other interests to construct projects to reduce the reliance on diesel generation at the time these studies were undertaken. This was noted in the following exchange beginning at Tr.651:

"A MR. OSLER ... There has been considerable pressure from various, no matter who one is dealing with, to try and get off diesel, build something major, and not necessarily appreciating until we have had a lot [of] discussion about it through a lot of these hearings, which is a very key element of the process of bringing everything up to speed here, understanding the full implications if somebody builds a transmission line here or a development there.

THE CHAIRPERSON: Can you indicate who the pressure was coming from for the record, Mr. Osler.

...

A MR. OSLER: Well, through the political process whoever the leaders of the day are, the ministers, et cetera, ...

THE CHAIRPERSON: So political leaders?

A MR. OSLER: Political leaders and business leaders and others. I mean people have consistently said why do we get this instrument if we don't use it to get rid of diesel, and that's legitimate, I'm not quarrelling with that, but there is a cost implication and a risk to it, and the hearing process, frankly, was the one vehicle that one could use to have a full public discussion, through capital hearings, and develop a Yukon consensus that would reflect something that might survive different political points of view from time to time, ..."

The City noted that YEC claims to operate in an arm's length relationship with the government as outlined by the Companies' witness in the following exchange commencing at Tr.453:

> "A MR. BYERS: Yes, the government's position is that the Yukon Energy Corporation is, for all intents and purposes, an independent corporation and operates without any direct direction, as it were, from the government.
>
> ...
>
> Q And would the resolutions of the Board, would they be restricted to policy matters?
>
> A MR. BYERS: Essentially, yes.
>
> Q And the day-to-day running of the affairs of YEC is left to yourself, the vice-president of finance and administration and the senior utility engineer; is that correct?
>
> A MR. BYERS: Yes, sir."

The City further pointed out that YEC itself recognized in its Strategic Plan that feasibility studies were costly and should not be undertaken lightly. The City submitted the following in its Argument:

> "It took the hard look at reality of the capital hearings to fully throw cold water on the dream of significant hydro development because of the market risks which hydro development poses.
>
> We submit that the end result was that the utilities spent far too much with virtually no benefit to ratepayers. As the City Panel pointed out:
>
> > '[We] are concerned that a cost-plus view of the world can lead utilities to spend too much money on studies, if they believe that they can ultimately be reimbursed with a full return even if no project is built. Specifically, we are further concerned that the utilities essentially reviewed

> too many projects at the same time, rather than focusing their efforts, and spent considerable sums of money with little result. (Ex. 187, p. 26)'"
>
> (City Argument, Page 10)

The City outlined three alternatives for handling the Deferred Planning and Study Costs:

1. Charge all study costs to shareholders;
2. Defer and amortize prudent study costs with no rate of return; or
3. Defer and amortize prudent study costs with the unamortized balance earning a return.

The City recommended that the Board adopt the first alternative of charging all study costs to shareholders so that management would have an economic incentive to select only those projects that are reasonably likely to succeed.

3.7.2 CURRAGH POSITION

In its Argument, Curragh submitted that:

> "... it is unreasonable to request customers to pay for studie s that produce no apparent benefits for them as power consumers. Curragh again notes YEC and YECL in putting forward their GRA 1993/94 provided no evidence whatsoever to justify these increases and expenditures. ... The companies, instead, simply filed the numbers to let them speak for themselves, which in this instance the numbers fail to do. Curragh again submits that YEC/YECL have the onus of proving that their cost increases are justified." (Curragh Argument, Page 29)

Curragh referred to the following exchange during its cross-examination of the Companies' witnesses:

"Q ... can you show me anywhere in the GRA, Mr. Kerslake or Mr. Osler, where the benefits of those studies are listed? What is the product of those studies and how has the product of those studies kept costs down and kept the rate increase down? Is there some place you address that in the GRA?

...

A MR. KERSLAKE: ... These [study] costs were incurred, again, as I say, from our attempts at looking at options, other than diesel, to attempt to get off of diesel and look for a lesser cost alternative. We brought this in front of the Board during the capital hearing to show that we could not find the projects that would allow us to do that.

Q MR. BLUE: I understand that, now would you answer my question. The electricity consumers in the Yukon are being asked to pay for about 1.3 to $1.4 million of costs that have produced no more efficiencies in the system and have not resulted in the lowering of power costs, is that not a fact, that's what you're asking the Board to do?

A MR. KERSLAKE: Stating, in consideration of what I have just finished saying, yes, that is true."

(Tr.904-907)

<u>3.7.3 SICE POSITION</u>

SICE raised the concern in its Argument that YEC and YECL have an incentive to incur study costs, as long as cost recovery and return on their investment is assured. Further, SICE suggested that YECL has an additional incentive for directing study work to an affiliate for the benefit of that affiliate's shareholders. SICE also submitted that:

> "Absent Board or other legal directives, decisions to incur study costs are made by management taking risks to earn a return for shareholders. When the decisions result in enhanced or expanded service the utilities should receive the full reward. Otherwise, the costs should be shared between ratepayer and shareholder unless, of course, the expenditure was imprudently incurred." (SICE Argument, Page 14)

It was SICE's submission that the Board should allow the Companies to recover study costs of abandoned projects over a period of years without a return on capital.

3.7.4 FOA POSITION

In Argument, FOA referred to YECL's write-off of deferred study costs relating to the McIntyre #3 project as a shareholder expense as a critical reference point in determining the appropriate accounting for deferred study costs on abandoned projects. FOA submitted that the Board should direct the Companies to remove the entire $2.1 million of study costs from rate base until such time as they become useful to the public.

3.7.5 BOARD FINDINGS

The Companies should be permitted to recover prudently incurred planning and study costs. Expenditures on research relative to new sources of generation should not be discouraged. However, the Board does not believe that all costs of unsuccessful projects should automatically be included in rates, with no part of the burden borne by shareholders.

The Board finds that not all Deferred Planning and Study costs were prudently incurred and disallows costs in the amount of $531,000.

3.8 SURPRISE LAKE AND MOON LAKE STUDY COSTS

With respect to the Surprise Lake study, the Companies examined a possible hydro project to serve the Town of Atlin in northern British Columbia. According to the Companies' 1992 Resource Plan:

> "The output of the hydro plants would be used to serve the Atlin load with the remainder delivered to the WAF grid through a 34.5 kV transmission line to Jakes Corner. ...
>
> Since the project is located in BC it will be subject to BC taxes and water rentals. These costs are considerably higher than the equivalent cost in the Yukon. Due to the magnitude of the differential these costs make the project less desirable than if it were located in the Yukon."
>
> (Page 71 of Resource Plan filed as Exhibit 1 in 1992 Capital Hearing)

With respect to the Moon Lake study, the Companies filed the following in its 1992 Resource Plan:

> "The Moon Lake project is located in BC and would be subject to BC taxes, water rentals, and regulations. It has become apparent that the cost associated with BC taxes and water fees are higher than they would be for a similar project located in the Yukon. These costs make the project uneconomic regardless of whether the output of the plant is useful." (Page 67 of Resource Plan filed as Exhibit 1 in 1992 Capital Hearing)

3.8.1 CITY POSITION

The City expressed concern regarding the prudence of the Surprise Lake study in that:

> "1. The pace of expenditures was essentially dictated by BC Hydro's RFP for serving the town of Atlin rather than a prudent development pace for the Yukon, causing the rapidity of expenditures on the studies.

2. The utilities made imprudent surmises regarding the regime of BC water rentals and taxes and spent significant amounts of money under the unreasonable assumption that such taxes would be reduced or abated for this project without discussing such abatement with the BC government in a timely fashion. YEC/YECL thus did not adequately understand the risk of an unfavourable decision by the BC government on taxes and rentals, and because they did not understand its importance, did far too little to address this risk early in the process."

(City Argument, Page 12)

The City referred to Exhibit 134 wherein the Companies indicated the following:

> "Originally the joint venture parties believed these O&M expenses [taxes and water rentals] could be reduced through negotiations with the B.C. Government given the net benefits accruing to Atlin and British Columbia. ... Thus it is obvious that a project which benefits B.C. Hydro and B.C. generally would be most likely to receive favourable treatment by the B.C. Government and regulators. Thus the issue of tax and water rental were not 'show stoppers' in the early stages of this project." (Page 20)

The City notes that a prudent developer should resolve this type of issue in the very early stages of its analysis and:

> "By not resolving it early, the developer is placing its money (or in this case, that of its ratepayers) at too much risk and is therefore not acting prudently." (City Argument, Page 14)

The City noted that the study costs were undertaken in conjunction with other parties from the private sector, and expressed concerns regarding the fair allocation of costs among the partners. The City also noted that during the Capital Hearing the total expenditures related to Surprise Lake were $408,000 and that the remaining $178,000 was not explained by the Companies.

3.8.2 YEC/YECL POSITION

With respect to the issue of taxes and water rentals in British Columbia the Companies indicated that:

> "... the Companies' initial Surprise Lake proposals set out (as a condition for proceeding) the need for tax relief from the BC authorities in recognition of the benefits provided to Atlin and this northern part of BC, and it was only after considerable discussions and negotiations that it was determined that such relief was not likely to be provided. The ultimate decision not to proceed with the Surprise Lake project reflected several additional factors, including significant escalation (from $30 M to $40 M) in estimated capital cost as higher level studies were completed, no significant increase in diesel prices, and a decision that mitigation for the Curragh load risk would necessitate Yukon Government guarantees and undertakings (as explained in the Capital Submission)." (YEC/YECL Argument, Page 29)

Further, during cross-examination on the Surprise Lake study costs, the Companies indicated that:

> "... it [the Atlin project] could only proceed in Yukon with this big an investment if they had a relief from the B.C. water revenue, they came to the conclusion that they weren't likely to get it as a result of discussions and reviews of B.C. Hydro. And a series of other factors that are there.
>
> The conclusion was then reached, before filing of the capital documents, this project did not make sense to go forward."
>
> (Tr.1263)

The Companies argued that the project was attractive because all of the feasibility work had been completed by others in the 1980's. The Companies concluded that, with regard to the Surprise Lake study costs, they had undertaken a prudent course of action.

3.8.3 BOARD FINDINGS

The Companies discovered, after commencing the Surprise Lake study, a number of factors that led to the discontinuance of the Surprise Lake study, including additional capital costs of $10 million identified during the study, the lack of tax and water rental relief from the B.C. Government and the load risk associated with the Curragh shutdown.

The Board finds that two of the three negative factors should have been identified before undertaking the studies related to Surprise Lake. The Board disallows the study costs in the amount of $502,000 related to Surprise Lake and directs that revenue requirements be reduced by the amount of the amortization of $101,000 for each of the Test Years 1993 and 1994.

The Board also finds that the negative factors related to the Moon Lake project should have been identified before undertaking the related studies. The Board disallows the study costs in the amount of $163,000 related to Moon Lake, and directs that revenue requirements be reduced by the amount of the amortization of $33,000 for each of the Test Years 1993 and 1994.

3.9 CURRENT CAPITAL EXPENDITURES - DEMAND SIDE MANAGEMENT

The Board has examined the capital Demand Side Management ("DSM") costs in conjunction with the Operation & Maintenance ("O&M") DSM costs. The discussion and related Board findings regarding current O&M and rate base DSM expenditures are contained in Section 5.1.12 of this Decision.

3.10 ACCUMULATED DEPRECIATION

The Companies requested approval by the Board to calculate their depreciation rates and depreciation reserve requirements for each Test Year based on the service life and net salvage characteristics as set out in their application. Witnesses for the Companies acknowledged during cross-examination that the Companies had not conducted a depreciation study since the time of the last GRA and confirmed that there have been no changes to the depreciation parameters. However, the witnesses noted that the Companies expect to carry out their next depreciation study for the 1995/96 GRA.

3.10.1 DIESEL DEPRECIATION

3.10.1.1 CITY POSITION

The City proposed in its Evidence that the depreciation on the WAF diesel plant be reduced by 75% in 1993 and 100% in 1994 from the current depreciation rate of 5.38%, based on the assumption that the plant's life is likely to be longer as a result of the reduced load due to the Curragh shutdown. The City made an exception for the CAT 3516 unit, which is a peaking unit, for which they recommended a reduction of 50% in each year. The City based its proposal on the fact that hours of operation for diesel generators will be substantially reduced if Curragh remains off the system during the Test Years. The City submitted the following in Argument:

> "We know that the Yukon utilities have already proposed to defer diesel retirements due to the Curragh closure, a phenomenon which is known now but would only be captured in a future depreciation study. We also suggest that further deferrals of retirements are highly likely given the reduction in hours of use. The utilities also suggested that plants could be rented or sold, but there is no evidence for and no revenue from such rentals or sales in the test period. (City Argument, Page 25)

3.10.1.2 YEC/YECL POSITION

The Companies contended that the determinant of the depreciation curve is age of a plant not hours of operation, and submitted that:

> "The only appropriate basis for adjustment of depreciation rates would be on the basis of a new depreciation study, which the Companies expect to prepare for the next GRA." (YEC/YECL Reply Argument, Page 25)

Witnesses for the Companies indicated that, consistent with the assumption of Curragh not being on the system, the units at Faro, Ross River, Carmacks and Teslin will be shutdown to a status referred to as "cold standby". Those units will be used for emergency purposes. Witnesses for the Companies further noted that additional units in Whitehorse could be shutdown while Curragh is off the system.

3.10.1.3 BOARD FINDINGS

The purpose of depreciation is to allocate the depreciable costs of an asset as evenly as possible over the service life of that asset to ensure equity among customers. The Board observes that the service life and net salvage characteristics proposed by the Companies in the current proceeding were approved by this Board in Decisions 1992-1 and 1992-2.

The Board notes the City's concerns regarding the charging of depreciation during the two Test Years for which the hours of operation of diesel units on the WAF system will be substantially reduced. The selected depreciation curve is based upon historical life characteristics and reflects the aged survivor pattern which diesel plants have exhibited in the past. The Board considers that depreciation is the reflection of wear and tear and technological obsolescence, both in terms of time and usage. To eliminate 100% of the depreciation expense for an asset, as suggested by the City, would not recognize the depreciation factors relative to time.

During the Test Years 1993 and 1994 the diesel units will not operate as originally intended, because of surplus diesel capacity. Consequently the service life of these diesel units will be extended. The Board directs that the depreciation expense for the WAF diesel units be reduced by 50% to reflect probable extension of their service lives.

The Board finds that the units on "cold standby" are not generating as originally intended. The Board, therefore, directs that the depreciation expense for the Faro and Teslin units be reduced by 50% to reflect probable extension of the service life of these units.

3.10.2 MAYO HYDRO DAM DEPRECIATION

The Mayo hydro electric plant was constructed over the period 1951 to 1957. Witnesses for the Companies testified:

> "In 1988 and '89, the Mayo Lake dam was rebuilt at a cost of $4.8 million, using the least-cost option, which was a wood crib construction. This extended the life of this part of the facility to an estimated 2005 date." (Tr.1089)

The current Mayo hydro depreciation rate is 7.2849%. This rate reflects the estimated remaining life in the plant to the year 2005.

3.10.2.1 CITY POSITION

In its Evidence in Exhibit 77 the City proposed that the Mayo hydro depreciation rate should be reduced to 2.5% in an effort to minimize the near term rate shock. The City based its proposal on an expectation of service beyond 2005. However, in its Argument the City amended its position and agreed with the Companies' estimate of the service life for the Mayo hydro project.

3.10.2.2 YEC/YECL POSITION

The Companies maintain that it is not relevant to assess the service life based on hours of operation.

3.10.2.3 BOARD FINDINGS

The Board approves the depreciation rate used by the Companies for the Mayo hydro project.

The Board directs the Companies to provide evidence of the appropriateness of their depreciation for the Mayo hydro project at their next GRA.

3.10.3 DEPRECIATION GENERAL

Except as otherwise stated in this Decision, the Board approves depreciation rates proposed by the Companies for 1993 and 1994. The Board orders that the Companies provide an updated depreciation study at the time of their next GRA.

3.11 NECESSARY WORKING CAPITAL

3.11.1 INVENTORY IN NECESSARY WORKING CAPITAL

The necessary working capital for each of the Companies includes a provision for inventory which is based on a 3-year average of inventory levels.

3.11.1.1 CITY POSITION

The City argued that inventories increased dramatically in the revised application from the original application, and requested the Board to reduce the forecast year-end inventories for 1993 and 1994.

3.11.1.2 YEC/YECL POSITION

The Companies submitted that the inventory levels filed with the original GRA were too low, and that the revised inventory levels for 1993 and 1994 were more in line with historical levels.

3.11.1.3 BOARD FINDINGS

The Board finds that the inventory levels filed with the revised application are appropriate for 1993 and 1994 and should not be adjusted.

3.11.2 INCOME TAX INSTALMENTS

During cross-examination it was acknowledged by a company witness that, in calculating the working capital related to income tax instalments, the Companies used financial statement income tax as its base whereas it should have used utility income tax in making that calculation.

3.11.2.1 BOARD FINDINGS

The Board directs that utility income tax be used in calculating working capital related to income tax instalments.

3.11.3 TOTAL NECESSARY WORKING CAPITAL

After having given consideration to the evidence, the Board has determined the total necessary working capital for the Companies to be as follows and as shown on Schedule "B" attached:

TOTAL NECESSARY WORKING CAPITAL

	1993	1994
YEC	$1,189,000	$1,136,000
YECL	$2,660,000	$2,642,000

3.12 COST BENEFIT STUDIES

It became apparent during the course of the hearing that the Companies did not prepare cost benefit studies for all capital expenditures and no evidence was presented by the Companies that they had a policy setting forth explicitly the type and size of projects for which such studies should be prepared.

3.12.1 BOARD FINDINGS

The Board directs that, prior to March 31, 1994, the Companies file with the Board for approval a written statement setting forth their policy with respect to the preparation and use of cost benefit studies for capital and operating projects.

3.13 ELECTRIC UTILITY RATE BASE

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

ELECTRIC UTILITY RATE BASE

	1993	1994
YEC	$113,958,000	$116,775,000
YECL	$ 27,651,000	$ 30,548,000

4. FAIR RETURN ON RATE BASE

4.1 GENERAL

Having determined the rate bases for YEC and YECL, the Board is also required pursuant to Section 32(2) of the Act to "fix a fair return on the rate base".

> "(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."

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 each of the company's capital structures 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 a 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 an 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. This approach is consistent with YEC's financial mandate described in its Strategic Plan as follows:

> "... to function as a fiscally responsible and self-financing commercial entity, earning a normal commercial return on YDC equity and charging stable and predictable long term power rates." (Exhibit 176, YEC Strategic Plan, Page 44)

4.2 CAPITAL STRUCTURE

The Companies set out each of their capital structures in the revised application as follows:

CAPITAL STRUCTURES

YEC

	1993 Mid-Year Balance ($,000)	1993 Ratio (%)	1994 Mid-Year Balance ($,000)	1994 Ratio (%)
Long Term Debt	68,378	60.00	69,213	59.90
Common Equity	45,578	40.00	46,334	40.10
No Cost Capital	0	0.00	0	0.00
	113,956	100.00	115,547	100.00

YECL

	1993 Mid-Year Balance ($,000)	1993 Ratio (%)	1994 Mid-Year Balance ($,000)	1994 Ratio (%)
Long Term Debt	12,011	40.13	13,261	40.40
Preferred Equity	7,190	24.02	7,940	24.18
Common Equity	10,517	35.14	11,344	34.55
No Cost Capital	211	0.71	286	0.87
	29,929	100.00	32,831	100.00

4.3 YEC DEBT TO YDC

During the 1991/92 GRA, YEC filed financial statements which showed long term debt outstanding to YDC of $5.5 million bearing interest at 11.375% and no specific repayment terms. The testimony in that proceeding indicated that the loan was payable on demand, but that YDC had no intention of demanding payment in the short term. In Decision 1992-1, the Board urged YEC to renegotiate the interest rate on the debt to a level consistent with "current interest rates".

YEC proposed in the current GRA that the interest rate on the debt to YDC be established every two years at a rate which is 120 basis points above the Government of Canada long term bond rate. A company witness stated that YEC's Board of Directors considered the debt to be long term.

4.3.1 CITY POSITION

The City expressed concern in Argument that the method used by YEC in determining the interest rate based on long term bonds is inconsistent with YEC updating the interest rate every two years.

The City also noted the following:

> "Longer term bond rates theoretically are based on the expected value of future short-term rates, plus a risk premium for the fact that future short-term interest rates may be higher than was forecast at the time when the long-term security is issued. Thus, YDC's bonds overcharge YEC because they have frequent (two-year) rate changes, thus reducing the risk to YDC (and increasing the risk to ratepayers) of interest rate fluctuations. At the same time, by being indexed to a long-term bond rate, they cover YDC for the interest rate risk (at the expense of ratepayers) even though that risk is already reduced through the two-year interest rate adjustment mechanism." (City Argument, Page 40)

In response to an Information Request, the Companies indicated that yields on two year Government of Canada bonds at September 30, 1992 were 6.93%. The City recommended that the 120 basis points should be added to the two year bond yields instead of the yields on long term bonds. The City concluded that the appropriate rate of interest on the debt from YDC should be 8.13% for 1993 and 1994.

4.3.2 YEC/YECL POSITION

The Companies noted that the City agreed that YEC's debt to YDC is long term and the City also agreed with YEC's assumption of a 120 basis point spread over the relevant bond rate. In Reply Argument, the Companies submitted that the City's concern regarding the variable interest rate used for the debt issued by YDC:

> "... has been resolved by YEC's revised proposal, as stated in the hearing and in the YEC/YECL Argument, to lock in the interest rate on long term debt from YDC." (YEC/YECL Reply Argument, Page 38)

In summary, the Companies have argued that the debt is considered to be long term and should be accompanied by a long term rate to avoid the risk of fluctuation in short term rates.

4.3.3 BOARD FINDINGS

During cross-examination, a company witness acknowledged that the Companies' attempt to comply with the Board direction in Decision 1992-1 was not successful and that:

> "The policy suggested in the initial application, of revising it every two years, on reflection, is not desirable. It is better to lock it in." (Tr.1212)

At no time did the Companies contact the Board for direction on this issue.

The Board directs that, until the debt is locked in to a long term rate, it should reflect the conditions under which it was negotiated, specifically that the interest rate be redetermined every two years. The Board finds that a rate of 120 basis points above the two year Government of Canada bond rate or 8.13% is the appropriate rate for the debt owing to YDC. The Board directs that the interest rate be fixed at 8.13% and the difference between this rate and the proposed rate be used to decrease the embedded cost of debt.

4.4 FLEXIBLE TERM NOTE

According to the response to Information Request WHSE-YEC/YECL-13:

> "Payments of principal and interest on the Flexible Term Note due to the Federal Government will be deferred and abated respectively when sales on the WAF system are less than 310 GW.h per year."

Given that Curragh is not expected to return to the system during the test period, the forecast sales on the WAF system are 281.9 GWh for 1993 and 234.4 GWh for 1994. As a result, principal payments are expected to be reduced by $255,000 in 1993 and $687,000 in 1994, and interest payments are expected to be reduced by $613,000 in 1993 and $1,594,000 in 1994.

4.4.1 CURRAGH POSITION

Curragh presented a legal argument stating that, under the terms of the Flexible Term Note executed by the Yukon Power Corporation in 1987, the federal government would not be required to provide the aid contemplated by the agreement. Curragh submitted in Argument that Curragh takes electric service at the 138 kV level, which is generally considered to be a transmission voltage level. Curragh argued that, if Curragh is off the system, it would not constitute a reduction in distribution sales on the WAF system as contemplated by the agreement to invoke aid from the federal government. Curragh submitted that:

> "... it is sales on the distribution system that is the test for invoking the terms of the Flexible Term Note." (Curragh Argument, Page 13)

Curragh also noted that:

> "... if the Flexible Term Note cannot be invoked then rate increases to other customers will be substantially higher than 32% without Curragh." (Curragh Argument, Page 14)

4.4.2 CITY POSITION

In Reply Argument the City suggests that, if Curragh's argument were to be accepted, the appropriate conclusion to be drawn from the logic that Curragh presented is that:

> "... YEC would have been within its rights to have been receiving payment from the Federal government in each and every year since 1987." (City Reply Argument, Page 10)

The City noted that the distribution loads were less than 310 GWh in each of those years if Curragh was excluded from the distribution load because it was served at a transmission voltage. The City also noted that YEC did not request relief from the federal government during those years. The City, therefore, concluded that both YEC and the federal government have acted as if the term "distribution" were defined in layman's terms meaning sale and delivery. The City submitted that the Board should rely on the conventional interpretation of the Flexible Term Note.

4.4.3 YEC/YECL POSITION

The Companies also disagreed with Curragh's interpretation of the Flexible Term Note, and pointed out similar arguments to those of the City regarding the intended meaning of the term "distribution" in the Flexible Term Note agreement between YEC and the federal government.

4.4.4 BOARD FINDINGS

The Board agrees with the arguments put forth by the City and the Companies. The Board finds that no adjustment is required to either the principal payments or the interest payments as forecast by the Companies.

4.5 RATE OF RETURN ON COMMON EQUITY

4.5.1 REQUESTED RATE - FAIR RATE OF RETURN

In their revised application, the Companies requested a rate of return on rate base, deemed to be financed by equity, of 13.125% for each of the years 1993 and 1994 for YECL. Paragraph 2 of Order-in-Council 1991/62 states that:

> "The Board must include in the rates of Yukon Energy Corporation provision to recover a normal commercial return on Yukon Energy Corporation's equity, less one half of one percent (.5%)."

Accordingly, the Companies have requested a rate of return of 12.625% for YEC.

Two witnesses appeared on the matter of a fair rate of return. The applicants presented Ms. K.C. McShane, a vice-president with the Washington based consulting firm of Foster Associates, Inc. Curragh presented Mr. D.C. Parcell, a vice-president with the Virginia based firm of Technical Associates Incorporated.

4.5.2 EVIDENCE OF MS. MCSHANE

Ms. McShane, YECL's expert witness, recommended a fair rate of return on common equity in the range of 13.0% to 13.9% for each of the Test Years 1993 and 1994.

Ms. McShane relied on three tests in developing her rate of return recommendations: the comparable earnings test, the discounted cash flow ("DCF") and equity risk premium.

In her comparable earnings test, Ms. McShane analyzed realized returns of low risk industrials over the past business cycle and then estimated a likely range of returns for these companies in the next cycle. She concluded that the returns for low risk industrials would fall within the range of 12.5% to 13.5%. She then applied a downward adjustment of 30 basis points to estimate a return on common equity for a high grade utility which resulted in a range of 12.25% to 13.25%. A further adjustment of 50 to 75 basis points was added to her estimate for local risk. Ms. McShane's comparable earnings test resulted in a risk adjusted return of 13.0% to 13.75%.

In her DCF test, Ms. McShane used the same group of low risk industrial companies as were selected for her comparable earnings test. She estimated that the average dividend yield and average long term growth rates over the last business cycle were 2.8% and 9.0%, respectively. This resulted in a "bare bones" cost estimate of 11.8%. Ms. McShane adjusted this "bare bones" estimate by the same 30 basis points and 50 to 75 basis points, referred to above, to raise the "bare bones" cost estimate for the Companies to 12.0% to 12.25%. Ms. McShane then increased the 12.0% to 12.25% for financing flexibility, to achieve a market-to-book ratio of 115%, raising the DCF return requirement for the Companies to 13.1% to 13.4%.

In her risk premium analysis, Ms. McShane projected that the average yield on long term Government of Canada bonds (30 year) for 1993 and 1994 would range from 8.0% to 8.5%. She concluded that the risk premium for a high grade utility would be in the range of 3.5% to 4.0%. Her "bare bones" cost of capital resulted in a range of 11.75% to 12.25%. To this, she added 50 to 75 basis points for local risk for the Companies. A further adjustment for financing flexibility to achieve a market-to-book ratio of 115% was made, resulting in an adjusted return for the Companies of 13.7% to 13.9% based on her risk premium test.

4.5.3 EVIDENCE OF MR. PARCELL

Mr. Parcell, appearing on behalf of Curragh, presented the following four analyses: comparable earnings, risk premium, discounted cash flow, and a capital asset pricing model ("CAPM").

In Mr. Parcell's comparable earnings analysis he noted that the expected earnings of low risk industrials are 11.5% to 13.5%. He concluded that:

> "... the risks of YECL and YEC should be the same as those faced by Alberta Power ('APL') and Canadian Utilities ('CU'), since all the capital of YECL is provided by its parent companies. Both APL and CU are regarded as low-risk utilities." (Page 16, Curragh Argument)

Mr. Parcell indicated that interest rates and inflation declined during the last business cycle (1983-1991), resulting in cost of capital for the current business cycle which is lower than the previous business cycle and, further, he expected lower profits in this cycle than in the previous business cycle. Mr. Parcell then made two downward adjustments to the expected returns for low risk industrial: (1) 100 basis points for the low risk of utilities; and (2) 100 basis points for high market-to-book ratio, which accompanied the industrial return on equity ("ROE").

Mr. Parcell's comparable earnings test resulted in a required return on equity of 11.5%.

In his risk premium test, Mr. Parcell compared the ROE levels of high grade utilities with annual yields on long term Government of Canada bonds and determined that a risk premium of 1.5% to 2.5% was appropriate for high grade utilities. Using an 8.3% yield on the long term Canada bonds, the average of the first 5 months of 1993, Mr. Parcell's risk premium test resulted in a cost of equity in the range of 9.8% to 10.8%.

In Mr. Parcell's DCF test he analyzed a group of 25 low risk Canadian industrials and a group of 5 Canadian utilities. He concluded that the DCF cost of capital is in the range of 11.0% to 11.5%.

Mr. Parcell employed the same two groups of companies as in his DCF analysis. In his CAPM analysis Mr. Parcell used, as the risk-free rate, the long term Government of Canada bond yield average for January to May 1993 of 8.3%. He determined a return on the market as a whole of 14%, based on an analysis of certain Toronto stock exchange indices and the returns on 25 industrials and 5 utilities. He used a Beta for Canadian utilities from a U.S. edition of Value Line to conclude that the cost of equity for Canadian utilities is 11.8%.

On the basis of his analyses, Mr. Parcell concluded that the cost of equity for YECL is 11% to 12%.

4.5.4 CITY POSITION

The City submitted that an appropriate rate of return for YECL for the test period is 10.75%, although the City did not provide any evidence to support this position. The City submitted that Ms. McShane's recommendations are in excess of what is required for the Companies as a fair rate of return on common equity. The City made reference to Canadian Utilities Limited's ("CUL") market-to-book ratio in 1992 of about 140%.

In Argument, the City stated the following:

> "The High Market-to-Book Ratio on CU Stock Strongly Suggests That Ms. McShane's Risk Premium and Discounted Cash Flow Tests Are Biased Upwards ..." (City Argument, Page 31)

The City expressed concern that Ms. McShane added an allowance of 105 to 120 basis points to her YEC/YECL "bare bones" cost of capital to:

> "... achieve a market-to-book ratio of 1.15 to permit the utilities to defray flotation costs, attract capital and maintain a reasonable degree of financing flexibility." (YEC/YECL Argument, Schedule A, Page 10)

The City noted that CUL has consistently maintained market-to-book ratios higher than 115% even though its affiliates were awarded rates of return on equity less than that recommended by Ms. McShane.

The City noted concerns regarding the reliability of the comparable earnings test and submitted that this test should be accorded little weight. The City expressed a concern with regard to a change in Ms. McShane's sample of low risk industrials from that of her Evidence in the APL proceedings. The City noted that:

> "... the three companies she added had a rate of return averaging 18% for 1983-91, while the six she subtracted had a lower rate of return of 15%." (City Argument, Page 34)

With respect to Ms. McShane's risk premium test, the City expressed concern with her analysis, which indicates that risk premiums rise significantly as interest rates fall, noting that the:

> "... last ten years show much lower levels of risk premiums than the first seven in her data." (City Argument, Page 37)

The City disagreed with YECL's proposal that the company's rate of return should be developed on a stand-alone basis. The City noted that YECL is financed through CUL for its debt and equity. The City also noted that YECL does not:

> "... transact business with CU on an arm's length stand-alone basis, as is shown by its transfer of the Fish Lake property by gift to an unregulated CU company." (City Argument, Page 39)

The Companies submitted that Ms. McShane's economic forecast is overly optimistic and further suggests that:

> "... the current business cycle is not like the last one and is likely to be characterized by lower profits." (City Argument, Page 34)

The City concluded that an appropriate rate of return for YECL is 10.75% and, based on the requirements of the Order-In-Council, the appropriate rate of return for YEC would be 10.25%.

4.5.5 CURRAGH POSITION

Curragh noted that the rate of return awarded to YECL, in its previous GRA proceeding, was 12.75%. Curragh submitted that the cost of capital has decreased since that time.

Curragh noted that Mr. Parcell made a 1% adjustment for the high levels of market-to-book ratios and that Mr. Parcell testified that:

> "... a market to book adjustment is proper because, with a higher market to book ratio, a comparable cost of capital is less than with a lower market to book ratio." (Curragh Argument, Page 21)

With respect to the risk premium test, Mr. Parcell used a risk premium of 1.5% to 2.5%, whereas Ms. McShane used 3.5% to 4.0%. Curragh submitted that Ms. McShane's risk premium does not recognize the decline in risk premiums in recent years.

In Mr. Parcell's DCF test, Curragh noted that he did not include an adjustment for financing flexibility:

> "... since the DCF costs approximate the earned ROE and the achieved M/B already exceeds 125 percent." (Curragh Argument, Page 23)

Curragh submitted that it would be inappropriate to assess YECL as a stand-alone company. Curragh noted that Mr. Parcell explained that the cost of capital of YECL is tied to the cost of capital for APL and CUL. Curragh submitted that this, in turn, reduces YECL's financial risk. Curragh further submitted that YEC's and YECL's business risk:

> "... is further reduced by being able to request the YUB to award rates retroactively to guarantee a fair return for the first year of a two year test period for rate making (1993-1994)." (Curragh's Argument, Page 24)

Curragh submitted that, based on the Evidence of Mr. Parcell, the appropriate rates of return for YECL and YEC are 11.0% and 10.5%, respectively.

4.5.6 FOA POSITION

FOA submitted that YECL and YEC should be awarded rates of return of 10.5% and 10.0%, respectively, although FOA did not provide evidence to support this position.

4.5.7 YEC/YECL POSITION

The Companies disagreed with the City and Curragh that YECL should not be assessed on a stand-alone basis. The Companies suggest that this approach:

> "... neglects both financial theory and the empirical evidence of CU's and YECL's risks." (YEC/YECL Reply Argument, Page A1)

The Companies noted that the risks of the Yukon utilities are greater than those of CUL.

In Reply Argument, the Companies opposed the City's criticism of Ms. McShane's selection criteria in her comparable earnings test. The Companies noted that Ms. McShane based her selection, in this case, on the criterion of industrials which have not decreased their dividend by more than 25% and explained that such a reduction is a sign of significant financial distress and, therefore, a risk.

With respect to the equity risk premium test, the Companies noted that the City disagreed with Ms. McShane's estimated risk premium for high grade utilities of 3.5% to 4.0%. The Companies submit that the risk premium is 70% of the risk premium for the aggregate stock market, which was supported by Mr. Parcell's CAPM test. The Companies indicated that:

> "While the City asserts that the downward adjustments of both experts are inadequate, they provide no evidence to support this claim." (YEC/YECL Reply Argument, Page A4)

The Companies noted the City's criticism of Ms. McShane's evidence where she stated that the risk premium rises rapidly as interest rates fall. The Companies also noted that risk premiums fell rapidly when interest rates rose dramatically in the early 1980's.

The Companies support the City's conclusion that, due to the difficulties with the application of the CAPM test, Mr. Parcell's results from the test should be given little weight. The Companies expressed concern regarding the intervenors' contention that the consistent high market-to-book ratios of CUL suggests that Ms. McShane's recommendation for a rate of return is overstated. The Companies submitted that:

> "... there is no connection between allowed or achieved rates of return and market-to-book ratios due to deficiencies inherent in these ratios." (YEC/YECL Reply Argument, Page A7)

The Companies expressed a concern that the City was relying on the evidence of an expert in the Alberta PUB hearings for APL. The Companies submitted that the Board, in the current Yukon proceeding, ruled that this hearing would rely on the review of new expert testimony and, therefore, it would be inappropriate to:

> "... re-argue the evidence from the earlier Alberta case." (YEC/YECL Reply Argument, Page A9)

4.5.8 BOARD FINDINGS

Having considered all the evidence and argument of the parties, and recognizing the forecast economic condition for 1993 and 1994, the Board finds that a return on common equity deemed to be financing the rate base of YECL of 11% is fair and equitable. In accordance with Order-In-Council 1991/62 YEC is allowed a return of 10.5%.

5. REVENUE REQUIREMENT

5.1 OPERATION AND MAINTENANCE EXPENSE

5.1.1 GENERAL

The Companies' O&M expense forecasts from the applications are summarized as follows:

OPERATION AND MAINTENANCE EXPENSE

	YEC 1993	YEC 1994	YECL 1993	YECL 1994
Original Application	$12,414,000	$16,282,000	$20,528,000	$21,672,000
Revised Application	$13,807,000	$ 9,985,000	$27,067,000	$26,852,000

During the hearing, the Companies provided Exhibit 134, wherein they discussed a number of suggestions for cost reductions suggested by the City. One of the recommendations by the City was to reduce non-fuel O&M expenses by 4% to 6%. In Exhibit 134, the Companies proposed reductions of certain costs. The Board will address each of the Companies' proposals on an individual basis in subsequent sections of this Decision.

5.1.1.1 CITY POSITION

In Argument, the City noted the reductions proposed by the Companies. However, it submitted that additional cuts to expenses are required. The City also submitted the following in Argument:

> "... the City does not believe that every dollar spent by the utilities is vital to reliability or that the only cuts that could possibly be made affect the reliability of utility service. There are clearly operating expenses which are of vital importance (preserving reliability, mailing out bills) and others of somewhat lesser importance which can be deferred or cut. But we and the Board are not being given this information by the utilities." (City Argument, Page 21)

The City called on the Board to reduce O&M expenses by approximately $1 million over 1993 and 1994 combined, and to ask management of the Companies to implement the reductions in the most reasonable way.

5.1.1.2 SICE POSITION

SICE also made an appeal for a general cutback in O&M expenses. This request was based on an evaluation of certain O&M expenses discounted back to 1988. Based on its analysis, SICE requested that 1994 O&M expenses be reduced by $1,282,000:

> "... except to the extent the applicants, by reply, show essential amounts in the test years that were not present in 1988." (SICE Argument, Page 11)

5.1.1.3 YEC/YECL POSITION

The Companies were opposed to additional cuts in non-fuel O&M expenses during the Test Years. They indicated that:

> "The cuts would impact staffing levels and system maintenance levels. These reductions will cause longer and more frequent system outages as well as a reduction in customer service levels in the office which will lead to longer payment lines and the reduction of school safety eduction and other similar programs." (YEC/YECL Argument, Page 21)

5.1.1.4 BOARD FINDINGS

The Board recognizes that certain cost components of the utilities' day-to-day operations will not be directly or immediately impacted by the shutdown of Curragh.

After having reviewed all of the evidence, the Board is not persuaded that a reduction in overall O&M expenses by a particular percentage is appropriate. However, the Board agrees with the City that not every dollar spent by the Companies is vital to system reliability. The Board has examined specific areas of O&M expenses and its findings are reflected later in this decision.

5.1.2 AISHIHIK OVERHAULS

In response to Information Request WHSE-YEC/YECL-30, the Companies indicated that they had forecast overhauls at Aishihik Units 1 and 2 at a total cost of $548,000. The overhauls were forecast to take place in 1993. A company witness indicated that there have not been overhauls on these units since 1975, and there are not likely to be any required for another 5 to 10 years.

5.1.2.1 CITY POSITION

The City argued that since expenditures on overhauls are cyclical in nature, and presumably are significant in magnitude, they should be amortized over five years.

5.1.2.2 YEC/YECL POSITION

The Companies submitted that:

> "The overhauls at Aishihik, though significant, do not extend the life or capabilities of the Aishihik plant and thus are in the nature of maintenance expenses." (YEC/YECL Reply Argument, Page 56)

The Companies argue that under their capitalization policy these costs should not, therefore, be capitalized.

5.1.2.3 BOARD FINDINGS

The Board is aware that overhauls, while not capital in nature, are significant in magnitude and are not a recurring annual expense. For these reasons, it is a common regulatory practice to defer and amortize such costs. The Board finds that production O&M expense should be reduced by $548,000. The Board directs YEC to defer and amortize the Aishihik overhaul expenditures over five years, during which time the Board will allow a return on the unamortized balance.

5.1.3 CURRAGH BAD DEBT

The revised application included an amount of $1,932,000 related to unpaid amounts for service delivered to Curragh. In Exhibit 134, YEC revised this amount to $815,000 based on payments made pursuant to a June 21, 1993 agreement between Curragh and the Yukon Territorial Government. This agreement provided for up to $2.4 million of financing directly related to electricity billings. The agreement, however, does not include coverage for the unsecured amount of $815,000 which has been treated by YEC as a doubtful account and, therefore, included in O&M expense.

5.1.3.1 CITY POSITION

The City, in its Evidence and in Argument, takes the position that YEC should write-off the Curragh bad debt of $815,000 without collecting the amount in future rates. The City considers the amount to be a nonrecurring and extraordinary expense which should not be charged to ratepayers. In the alternative, the City suggests that the amount should be collected over five years or longer.

5.1.3.2 YEC/YECL POSITION

The Companies submitted in Exhibit 134 that the Curragh bad debt does not qualify as an extraordinary item and should be included as a legitimate cost in the year incurred. The Companies, in their Argument, requested that the Curragh bad debt be included as a 1993 expense or amortized over five years beginning in 1993.

5.1.3.3 BOARD FINDINGS

The Board directs that the Curragh bad debt of $815,000 be removed from O&M expense in 1993 and amortized over five years commencing in 1993, during which time the Board will allow a return on the unamortized balance.

The Companies indicated that the proposed rate design will allow for a reduction to the 1994 rates charged to customers should amounts related to the Curragh bad debt be recovered. The Board directs that in the event that any portion of the Curragh bad debt is recovered at any time, then that amount shall be applied to the benefit of YEC's and YECL'S customers.

5.1.4 LOW WATER RESERVE

As explained in previous Decisions, the Low Water Reserve was established by YEC out of retained earnings to protect against increased costs to produce electricity by diesel generation at times of low water conditions and shutdowns of hydro facilities. As at December 31, 1992, the balance in YEC's Low Water Reserve account was approximately $2.3 million. In the revised application, the Companies had proposed not to add to or draw on the reserve during the Test Years 1993 and 1994.

5.1.4.1 CITY POSITION

The City in its Evidence noted that, if Curragh were to remain off the system during the Test Years, little diesel power would be required. Therefore, the level of the Low Water Reserve could be reduced without significant risks to ratepayers. The City's witness recommended that the Low Water Reserve be reduced by $1 million over the period July 1, 1993 to December 31, 1994 in order to help mitigate the proposed 1993/94 rate increases.

5.1.4.2 YEC/YECL POSITION

In response to the City's request, YEC reviewed the possibility of reducing the Low Water Reserve. Under the assumption that the Faro mine does not reopen, YEC determined that the existing level of the reserve at $2.3 million can be reduced to $500,000 over the Test Years. The $1.8 million reduction reflects the estimate of increased diesel generation that could occur over two years of low water conditions. YEC submitted that, under the reduced load conditions, a future ceiling for this reserve should be $1 million to reflect load growth through to the year 2000. If, however, increases in the load required significant diesel generation, the ceiling of the reserve should return to the $4 million level. The Companies recommended that the requirements for the Low Water Reserve should continue to be reviewed at least every two years.

The Companies proposed to reflect the reserve reduction directly in the form of rate relief to non-government residential and commercial customers. The Companies did not propose a reduction in revenue requirement. Witnesses for YEC indicated that this proposal had received the approval of YEC's Board of Directors on the presumption that the Faro mine remains closed. The Companies proposed to allocate $400,000 and $1,400,000 of the total reduction to the reserve to 1993 and 1994, respectively. The rate relief as proposed by the Companies would entail a one-time reduction in bill increases of approximately 14 to 16 percentage points for eligible sales.

5.1.4.3 BOARD FINDINGS

The Board agrees with the parties that, under the present circumstances, a reasonable drawdown of the Low Water Reserve can be effected to reduce rates in the current Test Years without creating undue risk for future customers. The Board accepts the Companies' proposal to reduce the Low Water Reserve by $400,000 in 1993 and $1,400,000 in 1994. However, the Board does not agree with the Companies' proposal to use the drawdown directly in the form of rate relief. The Board directs that the reduction in the Low Water Reserve be applied as a reduction to the revenue requirement.

5.1.5 RESERVE FOR INJURIES AND DAMAGES

During cross-examination, a company witness indicated that the Companies intend to increase the reserve for each of YEC and YECL by $51,500 and $53,000 in 1993 and 1994, respectively. The witness also explained that the Companies are targeting for reserves of $250,000 for YEC and $100,000 to $150,000 for YECL based on experience and insurance deductibles.

5.1.5.1 CITY POSITION

The City submitted that in light of the fact that diesel generation will be significantly reduced during the closure of the Curragh operations, the number of plant operating hours, and thus the propensity for equipment failures, will be reduced. The City concluded that the charges to replenish the reserve could, therefore, be reduced by $20,000 in each of 1993 and 1994. The City also recommended reducing the expected claims by $20,000 in each year, thereby leaving the Companies' forecast reserve balance unchanged.

5.1.5.2 YEC/YECL POSITION

In reply to the City's recommendations, the Companies submitted the following:

> "The Companies consider that the suggested adjustment could be adopted for the test years, assuming that the matter would be reviewed again at the next GRA." (YEC/YECL Reply Argument, Page 56)

5.1.5.3 BOARD FINDINGS

The Board finds the City's proposal to be reasonable and directs that the insurance expense for each company be reduced by $20,000 for each Test Year.

5.1.6 FUEL EFFICIENCIES AT WHITEHORSE AND OLD CROW

5.1.6.1 CITY POSITION

The City proposed that the forecast fuel costs related to diesel units at Whitehorse and Old Crow be reduced to reflect recently installed higher fuel efficiencies. The City claims that the improved efficiency would result in a fuel saving of $9,400.

With respect to the diesel units in Old Crow the City cited a calculation error in Exhibit 182 and claimed, based on recalculations, that there are potential savings in the order of $17,500 in 1993 and $16,500 in 1994.

5.1.6.2 YEC/YECL POSITION

In their Reply Argument, the Companies accepted the recalculation performed by the City. However, they noted that a similar recalculation for the Watson Lake and Dawson diesel units resulted in cost increases which offset the savings.

5.1.6.3 BOARD FINDINGS

The Board finds that the adjustment to the revenue requirement for fuel efficiencies described by the City is not appropriate. However, the Board notes from Pages 5.0-5a and 5b of the revised application that there are new diesel units with higher fuel efficiency ratings being added in 1993 and 1994. The Board expects that these improved efficiencies will be reflected in future forecasts of operating costs.

5.1.7 INFLATION

The Companies used inflation rates of 3% and 2.5% for the purpose of forecasting O&M expenses for the Test Years 1993 and 1994, respectively. In her Evidence on fair rate of return, Ms. McShane assumed a forecast inflation rate of 2.2% for both Test Years. During cross-examination a company witness acknowledged that the June Consensus Forecast showed a forecast increase in the Consumer Price Index ("CPI") of 2.2% for each year. In addition, evidence was provided that the CPI for Yukon averaged just slightly over 1% for the first four months of 1993.

5.1.7.1 CITY POSITION

The City recommends that O&M expenses, excluding labour and fuel, could be reduced by up to $132,000 over the two Test Years if the forecast inflation factors were adjusted downwards to reflect the inflation rates assumed by Ms. McShane.

5.1.7.2 YEC/YECL POSITION

The Companies indicated that they used Canada-wide inflation rates to forecast all non-labour O&M expenses which, along with the capital expenditures, involve purchases of industrial and electrical products from suppliers located throughout North America. The Companies, therefore, submitted that consideration of only a Whitehorse inflation factor would not be appropriate for forecasting the inflationary impact on non-labour O&M expenses. In response to Information Request BD-YEC/YECL-3 and in their Argument at Page 59 the Companies indicated that the inflation assumptions used in the revised application were based on the 1992 Canadian Macroeconomic Forecast produced by WEFA Canada.

5.1.7.3 BOARD FINDINGS

Attached to Information Request BD-YEC/YECL-3 is a table which provides, among other things, four price indices: the raw materials price index, the industry price index, the GDP deflator and the CPI. On the basis that the Companies used inflation factors of 3.0% and 2.5%, it appears that the Companies relied on the WEFA forecast for percentage changes in the CPI of 3.0% and 2.3% for 1993 and 1994, respectively.

From a review of Information Request BD-YEC/YECL-3 and Exhibit 181, Pages 3 to 5, the Board concludes that the "Other" O&M expenses in Information Request BD-YEC/YECL-3 are greater than those in Exhibit 181. The Board finds that the Companies have included non-inflationary items, including the Curragh bad debt of $1.9 million and amortization costs of approximately $550,000, in their analysis in Information Request BD-YEC/YECL-3. As a result, the 1993 inflation factor implicit in "Other" O&M costs shown in Information Request BD-YEC/YECL-3 is greater than the indicated 3.0%.

The Board finds that the forecast inflation rates used by the Companies of 3.0% for 1993 and 2.5% for 1994 are not appropriate. The Board finds that an appropriate inflation factor for forecasting "Other" O&M cost is 1.75% for each of the Test Years. The Board directs that O&M expenses be reduced as follows:

	1993	1994
YEC	$78,000	$39,000
YECL	$50,000	$79,000

5.1.8 YEC SALARY ALLOCATIONS AND CORPORATE POSITIONS

In response to Information Request BD-YEC/YECL-95, the Companies provided a breakdown of YDC head office cost allocations to YEC. The allocation resulted in a forecast of YEC's head office salaries and benefits of $470,000 and $505,000 for 1993 and 1994, respectively. The response to Information Request BD-YEC/YECL-95 indicated that 100% of the salaries and benefits of the Senior Utility Engineering, the Utility Engineer and the Policy Manager would be allocated to YEC. In Exhibit 134, the Companies proposed to decrease salaries and benefits allocated from YDC to YEC by $213,000 in 1993 and $235,000 in 1994. The Companies' response to Undertaking 51 showed the revised allocations from YDC to YEC to derive the Companies' proposed reductions. The allocations for President and Vice-President of Finance remained unchanged, while the Senior Utility Engineer allocation was reduced to 75%, the Utility Engineer was reduced to 25% and the Policy Manager was reduced to 0%. These changes were approved by the Boards of Directors of both YEC and YDC.

5.1.8.1 CITY POSITION

The City noted in its Argument the reallocation of $448,000 over the two Test Years to YDC and indicated:

> "Nevertheless, the City still questions the value of the remaining YEC head office expenses (approximately $1.4 million) given the level of management and issues of duplication of function between YEC and YECL. We expect that these costs could be reduced significantly." (City Argument, Page 22)

5.1.8.2 SICE POSITION

In Argument, SICE noted that YEC staff costs have increased significantly since 1988 and that during that time:

> "... YEC expanded to manage DSM but now has transferred that to YECL." (SICE Argument, Page 12)

SICE submitted that there is no evidence that YEC staff are expected to have more responsibilities in the Test Years than they did in 1988.

5.1.8.3 YEC/YECL POSITION

In Argument, the Companies made note of their reallocation of employee salary costs to YDC and, in Reply Argument, they submitted that there is no reasonable basis for proposing additional cuts to YEC head office costs.

5.1.8.4 BOARD FINDINGS

The Board notes the reductions to the salaries and benefits allocated to YEC from YDC shown in Exhibit 134. The Board finds a potential overlap of duties and functions between YEC head office staff and employees of YECL.

During cross-examination, a company witness acknowledged that duplication is present with regard to the YEC position of Vice-President of Finance and Administration, and that the position can likely be eliminated. The witness also noted that YEC intends to reassess the need for the Utility Engineer position, but pointed out that YEC will continue to require engineering services to monitor the service contract with YECL.

The Board notes that the Companies, in Reply Argument, indicated that they will examine options for further cost reductions based on possible integration of YEC and YECL offices during the next year.

The Board agrees with the intent of the reductions in the allocation of YDC head office salaries and benefits to YEC. The Board finds that the maximum allocation for 1994 should be $200,000, and directs that YEC's revenue requirement be reduced by $70,000.

5.1.9 FUEL PRICE

5.1.9.1 SICE POSITION

In Argument, SICE noted that the actual fuel prices were less than those forecast by the Companies in their 1991/92 GRA. SICE made reference to testimony by a company witness who noted that fuel price variances have no impact because of the effect of the fuel price rider. In Reply Argument, SICE recommended that the Board set a lower fuel price and then allow the fuel price rider to "guarantee fairness to the utilities" (SICE Reply Argument, Page 6).

5.1.9.2 YEC/YECL POSITION

The Companies indicated that they had used the forecast CPI as an inflation factor for fuel and, in their submission, this treatment is appropriate.

5.1.9.3 BOARD FINDINGS

The Board notes that the Companies have tendered fuel contracts. In the revised application, the Companies indicated that they have shortened the contract supply period from one year to 90 days, which resulted in greater competition among ten potential suppliers. The Companies did not consider longer term arrangements due to the uncertainty of fuel requirements related to the Faro mine power load. The Board is not persuaded that there should be a specific adjustment to the fuel price forecast. The Board directs the Companies to provide a monthly fuel price report, that will include contract costs and price changes, commencing January 1, 1993 on a monthly basis, until further order of the Board.

5.1.10 TENDERING OF PURCHASE CONTRACTS

During cross-examination a company witness indicated that the Companies tend not to rely on open public tendering for the procurement of goods and services but, rather, they primarily use a selective bidding process under which approved suppliers are invited to bid. The Companies maintain a list of approved suppliers in both Edmonton and Whitehorse.

5.1.10.1 SICE POSITION

In Argument, SICE expressed concern regarding a number of major contracts which were awarded without tender. SICE raised a further concern that the untendered business was being provided to affiliate companies of YECL.

5.1.10.2 BOARD FINDINGS

The Board notes that company witnesses were unable to demonstrate that the Companies performed tests to ensure that the selective bidding process produced the optimal price and value for the Companies. The Board has no doubt that certain affiliates of YECL have expertise in various service areas required by the Companies. The Board considers it important to be able to measure the economic benefits of relying on affiliates for services compared with other potential suppliers.

The Board orders, pursuant to Subsection 27(d) of the *Public Utilities Act*, the Companies to submit to the Board for its approval detailed procedures to be followed by the Companies in awarding contracts for the supply of goods or services. These guidelines shall be instituted by March 31, 1994.

The Board finds that the renewal of the Management Contract between YEC and YECL did not appear to have appropriate scrutiny.

5.1.11 PRE-1993 DEMAND SIDE MANAGEMENT COSTS

In Decision 1992-1 the Board directed that all DSM expenditures for 1991 and 1992 be placed in CWIP. This action was required because complete information was not provided by the Companies at the 1992 hearing. During the current proceedings, the Companies filed the following information:

PRE-1993 DEMAND SIDE MANAGEMENT COSTS

	O&M	Rate Base	Total
Revised Application	$ 418,000	$1,085,000	$1,503,000
BD-YEC/YECL-125	$ 779,000	$ 363,000	$1,142,000

The Board understands that the Companies' adjusted filing is based on the update provided in BD-YEC/YECL-125. The Companies have requested that the pre-1993 O&M DSM costs be included in O&M expenses for 1993. The Companies proposed to amortize the pre-1993 rate base DSM, along with the forecast 1993 rate base DSM expenditures, over five years beginning in 1993. During the 1992 Capital Hearing, the Board recommended to the Commissioner in Council that $24,000 of 1991 DSM expenditures be disallowed and the Companies remove the amount from their revenue requirement, which was done prior to this GRA.

5.1.11.1 CITY POSITION

The City in its Evidence proposed that the pre-1993 O&M expenses should be deferred and amortized over a period of five years and that a return should be provided on unamortized balance. The City submitted that if customers will be required to absorb all of these costs in one year it would contribute to rate shock. The City recommended that, should the Board agree with its proposal, the Board should indicate that the ruling does not diminish its support for DSM programs which reduce diesel fuel consumption.

5.1.11.2 YEC/YECL POSITION

In Argument the Companies took the position that if the Board determined that pre-1993 O&M DSM costs should be deferred and amortized, the Companies should be entitled to a fair return on the unamortized portion.

5.1.11.3 BOARD FINDINGS

The Board is concerned with the number of changes and updates to the pre-1993 DSM figures in the current GRA. The Board considers that the Companies should be entitled to full recovery of its pre-1993 DSM costs and that those costs should be deferred and amortized. The Board directs that $779,000 of pre-1993 DSM expenses be removed from 1993 O&M DSM, and that the Companies defer and amortize that amount over five years commencing in 1993. The Board is not persuaded that all pre-1993 DSM expenditures were prudently incurred. The Board will not allow a return on the unamortized balance of the deferred pre-1993 DSM costs.

5.1.12 DEMAND SIDE MANAGEMENT - EXPENDITURES

5.1.12.1 CURRENT O&M DEMAND SIDE MANAGEMENT EXPENSES

The Companies forecast DSM expense amounts of $357,000 for 1993 and $256,000 for 1994.

The City, in its Evidence, proposed that the Companies reduce their DSM expenses by 20% in each of 1993 and 1994.

In response the Companies described areas where DSM expenses could be reduced for each of the Test Years and indicated possible reductions of $77,000 in 1993 and $69,000 in 1994.

5.1.12.1.1 CITY POSITION

In Argument, the City recommended that the Board adopt the Companies' proposal as a reasonable resolution of this issue.

5.1.12.1.2 SICE POSITION

In Argument, SICE supported the curtailment of many DSM activities as a result of the loss of the Curragh load.

5.1.12.1.3 FOA POSITION

FOA submitted that the Board should recommend to the Minister that YDC be directed to assume YEC's DSM responsibilities.

5.1.12.1.4 YEC/YECL POSITION

The Companies submit that their revisions in Exhibit 134 are reasonable.

5.1.12.2 CURRENT CAPITAL EXPENDITURES - DEMAND SIDE MANAGEMENT

In its Evidence at Exhibit 77 the City recommended that the forecast rate base additions for DSM expenditures should be reduced by 20% in 1993 by scaling back promotions and reducing wage and consultants' expenditures. The City also proposed that the entire amount forecast for 1994 be disallowed.

In Exhibit 134, the Companies outlined "the items that would have to be deleted to meet the City's suggestions" (Tr.382). The Companies noted that they do not agree with the removal of the *ex post* evaluation as it would prevent them from getting a proper evaluation of certain DSM programs. The Companies further indicated that they would prefer not to eliminate the entire 1994 budget for capital DSM, but rather retain some expenditures for that year which would enable them to conduct pilots in fuel switching and a review of load management in that "it might be 50 or $100,000 that we should be spending to at least maintain something in these areas as distinct from just deleting 250." (Tr.383).

5.1.12.2.1 CITY POSITION

In Argument, the City notes that after hearing the evidence it revised its recommendations for DSM reductions. For 1993, the City recommended that the capital DSM should be reduced to $40,000 which would allow $15,000 for Smart Home Product subsidies and $25,000 for Commercial Lighting subsidies. The City noted, however, that the Companies should be required to undertake these initiatives. For 1994, the City recommended a reduction of $175,000 leaving $25,000 for Energy Efficiency Programs on the non-WAF system and $50,000 available for other pilot programs on the WAF system.

5.1.12.2.2 SICE POSITION

SICE also expressed support for expenditures as high as $50,000 for non-WAF system initiatives in 1994. SICE recommended that 1993 *ex post* evaluation continue at a maximum cost of $30,000.

5.1.12.2.3 YEC/YECL POSITION

In Argument, the Companies indicated that the reduction to the 1993 DSM capital budget of $70,000 proposed by the City was excessive. They indicated that $30,000 of that amount should be retained for *ex post* evaluation work. With respect to 1994, the Companies appear to agree with the testimony of the City's witness who indicated:

> "... an amount of money similar to that put forward by Mr. Osler, perhaps 75,000 in capital, with 25,000 allocated towards the isolated systems and 50,000 for the pilot projects you are talking about, might be a reasonable level of capital expenditures together with your expense levels." (Tr.1434)

5.1.12.3 BOARD FINDINGS

The Board notes that the capital DSM expenditures were reduced once it was assumed that Curragh would not be on the system for the remainder of the Test Years.

The Board also notes the reductions in forecast capital DSM expenditures as a result of discussions during the hearing. The Board continues to encourage cost-effective expenditures on DSM. The Board finds that with Curragh off the system, DSM expenditures directed at reducing diesel generation on the WAF system will have little impact. The Board finds that expenditures in excess of $200,000 in 1993 and $100,000 in 1994 would not be cost effective.

The Board finds that the Companies will have adequate opportunity to promote efficient consumption with a $100,000 expenditure in 1994. The Board directs that the $100,000 expenditure in 1994 should be used by the Companies for public information purposes. The Board directs that total O&M and capital expenditures on DSM be reduced to $200,000 in 1993 and $100,000 in 1994 by making the following reductions:

	1993		1994	
	YEC	YECL	YEC	YECL
Current O&M	$188,000	$ 63,000	$117,000	$ 39,000
Current Rate Base	$188,000	$ 63,000	$192,000	$ 64,000

5.1.13 AMORTIZATION OF DEFERRED REGULATORY COSTS AND DOWNSIZING COSTS IN CASH WORKING CAPITAL

In their application the Companies have included amounts for amortization of deferred regulatory costs and amortization of downsizing costs in the administrative and general expense. Administration and general expense is included in sum total of O&M costs which are used in the determination of cash working capital.

5.1.13.1 BOARD FINDINGS

The Board notes that depreciation and amortization, being non cash items, are not typically included in the calculation of cash working capital. The Board directs that O&M expenses be reduced by the amounts of amortization of deferred regulatory costs and downsizing costs for the purpose of calculating cash working capital.

5.1.14 YECL HUMAN RESOURCES SUPERVISOR

During the 1991/92 GRA, YECL noted that it introduced the position of Human Resources Manager. In Decision 1992-2 which followed, $50,000 of costs related to this position were disallowed as the Board found that this additional person was not necessary.

5.1.14.1 BOARD FINDINGS

The Board notes that in the current proceeding a company witness indicated that the "Supervisor of Human Resources" was a new position. The Board finds that there is less need for additional personnel now than there was at the time of the 1991/92 GRA. The Board directs that YECL's operating expenses be reduced by $50,000.

5.1.15 LABOUR PRODUCTIVITY

5.1.15.1 SICE POSITION

During the hearing SICE submitted Exhibit 149. The exhibit contained a comparison of SICE's estimate of various performance indicators based on the Companies' current GRA, with the performance indicators from the 1991 Canadian Utility Composite Performance and Productivity Results report of the Canadian Electrical Association dated June 1992.

In Argument, SICE submitted that:

> "The productivity indicators for the applicants show their performance to have been worse than other utilities and without a significant cost cutting the trend is decidedly negative with the loss of sales to Curragh [Ex.149]. The Companies must be compelled to restore productivity." (SICE Argument, Page 11)

5.1.15.2 YEC/YECL POSITION

The Companies expressed concern regarding SICE's interpretation of the data without analyzing a number of underlying factors, including fixed costs, loss of load, inflation and income taxes. The Companies noted that Exhibit 149 shows productivity improvements during 1992, prior to the Faro mine shutdown. The Companies submitted that SICE's conclusion is not consistent with Exhibit 149.

In their revised application the Companies stated:

> "The companies have experienced difficulties in determining appropriate measures of labor productivity. Unlike most other utilities the unit cost of electricity in Yukon can increase as the sales increase, due to the fact that diesel generation has been used for the margin. Productivity measurements can also show increases when Curragh is closed and only hydro generation is used. Historical reviews can be meaningless in light of these factors." (Page 5.0-6)

5.1.15.3 BOARD FINDINGS

In Decision 1992-1 the Board expressed a concern that labour costs had been steadily increasing since 1988 and directed the Companies to provide appropriate measures of labour productivity. The Companies' response, as provided at Page 5.0-6 of the revised application, failed to provide the information.

The Companies have not complied with Board directions with respect to this matter. The Board directs the Companies to provide the data with respect to productivity measures for the period 1988 through 1992 by March 31, 1994, and for the years 1993 through 1996 at the time of the next GRA.

5.2 LINE LOSSES

The following data were provided by the Companies with respect to line losses:

LINE LOSS PERCENTAGES

	YEC			YECL		
	1992	1993	1994	1992	1993	1994
Original Application	10.3%	9.2%	9.1%	13.5%	12.4%	12.2%
Revised Application	9.6%	9.3%	9.2%	7.2%	7.9%	8.5%
BD-YEC/YECL-119	9.6%	9.3%	9.2%	6.9%	7.8%	7.8%

In response to Information Request BD-YEC/YECL-119, the Companies noted that the line losses for YECL were overstated in the original and revised applications due to the use of incorrect amounts for energy sent out. The Companies also noted in that response that, due to the significant decrease in the Curragh load, it was expected that the line losses would be lower than described in the revised application. However, the evidence shows that because of significantly reduced diesel generation in 1993 and 1994, there would be virtually no impact on revenue requirement because any decrease in line losses would correspond to lower hydro energy.

5.2.1 CURRAGH POSITION

Dr. Ileo, in his Evidence presented on behalf of Curragh, suggested that the line losses of industrial customers were abnormally high. In Exhibit 186, Curragh filed a calculation of industrial customer line losses based on a Report by the National Energy Board entitled In the Matter of a Public Inquiry into Matters Relating to the Northern Canada Power Commission dated June 1985. A company witness testified that Curragh's proposed reduction in transmission losses assigned to the industrial class would reduce costs assigned to Curragh for 1994 by approximately $512,000.

Curragh noted that the company witness also indicated that YECL estimated losses from historical data and computes them taking load flows into account. Curragh also noted that no studies of actual line losses were available. Curragh concluded that Dr. Ileo's approach is in line with that suggested by the National Energy Board in its Report and is "the one that is reasonable for most utilities, absent any studies of line losses" (Curragh Argument, Page 36).

5.2.2 SICE POSITION

In Argument, SICE submitted that the Companies' energy loss forecasts were overstated. SICE based its conclusion on a statement by a company witness that losses increase with the square of the current. SICE submitted that the loss forecast should be revised for YECL to 7.28% and 7.15% for 1993 and 1994, respectively.

With respect to transmission losses, SICE submitted that the:

> "Fair determination of the losses attributable to the industrial class is important to Curragh but the evidence is not sufficiently persuasive to make a definitive determination of what that should be." (SICE Argument, Page 22)

SICE, therefore, submitted that the Board should choose the mid-point between Dr. Ileo's estimate and the Companies' estimate for transmission losses.

5.2.3 CITY POSITION

The City supported SICE's proposal in its Reply Argument, and recommended that the Board adopt an overall line loss percentage of 7.2% for each of 1993 and 1994.

5.2.4 YEC/YECL POSITION

The Companies noted that Dr. Ileo, in his analysis, used a transmission line loss of 4%, compared to the 11% for industrial customers used by the Companies. The Companies also noted that Dr. Ileo confirmed that he had performed no studies to support the adjustment of the estimated energy loss for the industrial customer class.

A company witness explained that the transmission losses being attributed to Curragh resulted from approximately two-thirds of the total transmission system being assigned to Curragh. The Companies submitted that this approach is in accordance with that used by the National Energy Board Report.

The Companies contended that a 4% transmission loss for Curragh presumes a distribution loss assumption in excess of 20%, which the Companies also submit is unreasonable. The Companies concluded that their approach to estimating transmission line losses for the industrial class is consistent with the National Energy Board findings in 1985 and should be accepted.

In response to SICE's Argument, the Companies identified a number of complexities that were not apparent in the considerations of SICE's analysis. The Companies also noted that they have consistently used a 5-year average loss percentage in determining the loss forecast periods whereas only a single year was used by SICE.

5.2.5 BOARD FINDINGS

The Board finds that transmission line losses for industrial customers should not be adjusted at this time.

5.3 LAND SALES

In response to Information Request WHSE-YEC/YECL-32, the Companies provided information regarding the sale of three parcels of land during 1992. In addition, during cross-examination company witnesses provided details regarding a fourth land transaction in 1992. The following is a summary of these transactions as described by witnesses for YECL:

LAND TRANSACTIONS

	Proceeds	Original Cost	Gain on Sale
Land re Company House #1	$ 25,000	$ 11,400	$ 13,600
Two Parcels of Land re Warehouse	$527,835	$ 8,674	$519,161
Fish Lake Properties	0	0	0

5.3.1 WAREHOUSE LAND

The warehouse land was originally purchased by YECL in 1969 and was placed in rate base at that time. The land was subdivided into four lots, two of which were sold in 1992 and the remaining two are still for sale. The two lots were sold for $527,835 in 1992, resulting in a gain of $519,161. No gain on sale was included in the Companies' forecast filed as part of its 1991/92 GRA. The gain, however, was recorded in YECL's financial statements for 1992. During cross-examination a company witness indicated that, under YECL's accounting policy, when a depreciable asset is sold, the cost of the asset is removed from rate base and any gain (or loss) on sale flows to the benefit (or cost) of ratepayers in the form of decreased (increased) future depreciation. The witness explained that, in contrast, customers do not benefit from gains or pay for the losses on the disposal of land.

5.3.1.1 CITY POSITION

The City referred to YECL's position on the accounting treatment as provided by a company witness:

> "Now, in the case of land, there is no return of rate base, if you will. There's no potential due to -- we have to remember that depreciation is an accounting convention. What it's really designed to do is try and estimate as accurately as possible the decline in the asset value during the current fiscal period, or the current year. But in the case of land, there is no accounting convention to recognize the change in asset value from year to year, it's just -- there is no convention to do it. So in the case of land, the shareholder only receives from the customer a return on rate base. They do not receive a return of rate base. So that's why therefore any gain or loss goes to the owner of the property, which is the shareholder." (Tr.839)

The City did not accept the Companies' position and argued that the shareholders would receive their return of capital when the land is sold. The City submitted that the gain or loss arising on the sale of the land should flow to the account of the customers, consistent with the treatment of depreciable property.

The City recommended that actual utility land sale gains or losses should be included in the calculation of necessary working capital and amortized treatment to be over a period of time. The City considers this appropriate given that, most often, the parcels of property are small and gains or losses are difficult to forecast.

In response to YECL's submission that the shareholders should receive all capital gains to ensure that the shareholders receive both a return on investment and a return of the original investment, the City submitted the following:

> "Assuming that the utility's rate of return equals its cost of capital, stockholders are indifferent to receiving the return of capital as a lump sum or a periodic payment coupled with a declining rate base. On a net present value basis, both streams of dollars are identical. ... There is clearly no penalty to shareholders from getting the money back later in the case of land, since land does not physically depreciate, and the net present value of dollars received is the same as for a depreciable asset. Thus there is no need to give shareholders any extra bonus in the form of capital gains on land." (City Reply Argument, Page 7)

5.3.1.2 SICE POSITION

SICE expressed the concern that, during the time the warehouse land was held in rate base, customers of YECL effectively paid the related property taxes, return and income taxes through rates. SICE submitted that the gain realized on the sale should be credited to the original cost of the land in rate base. SICE further recommended that the Board obtain a listing of all landholdings of both Companies, and that the Companies be ordered to advise the Board and all intervenors of changes within 30 days.

5.3.1.3 FOA POSITION

FOA supported the positions taken by other intervenors.

5.3.1.4 YEC/YECL POSITION

The Companies submitted that between the time of acquisition and disposition of land the shareholder does not receive any return of its investment, "... but merely receives the accumulation of many years return of investment in one lump sum." (YEC/YECL Argument, Page 66). The Companies also pointed out that "... the shareholder assumes all of the risk that the gain on the sale of land does not meet the investor's required return of investment." (YEC/YECL Argument, Page 66). The Companies further submitted that the shareholders have taken either depreciation or capital gains as their entitlement to returns of investment, but never both.

In Reply Argument the Companies stated:

> "Not only does the City advocate that the shareholder not receive the gain or loss on sale of land, but that it be adjusted retroactively. To record the retroactive gains as working capital and amortize them over five years is to propose an unrealistic change to current accepted utility practice." (YEC/YECL Reply Argument, Page 70)

The Companies disagree with SICE's argument that since the customers paid carrying costs on the land, they are therefore entitled to the gains on disposition.

5.3.1.5 BOARD FINDINGS

The Board notes that a utility is entitled to both a return <u>of</u> and a return <u>on</u> its investments in utility assets. During the time that land is included in rate base, the utility earns a return on its investment.

In the case of depreciable assets, the return of investment is in the form of annual charges for depreciation over the service life of the assets. In the case of land, the return of investment occurs when the land is sold. In both cases the utility's entitlement to return of investment is limited to the amount of its original investment.

Under the regulatory process, a utility is given the opportunity to earn a return on its investment in land and depreciable assets at a rate deemed by its regulator to be appropriate. The fair rate of return typically awarded to utilities includes an allowance for inflation in order to remove the risk of loss of purchasing power.

The Board finds that for a utility to receive anything more than a return of its original investment would result in it receiving a windfall gain at the time of the sale in addition to the fair return it received during the period the asset was owned.

The Board finds that any gain (or loss) on the sale of land recorded in the accounts should flow to the benefit (or cost) of the Companies' customers. The Board directs that the gains on the sales of the warehouse land and the land related to Company House #1 should be deferred and amortized over five years. In addition, the Board directs that the unamortized gains on these sales reduce rate base for the 1993 and 1994 Test Years and subsequent years.

5.3.2 FISH LAKE PROPERTIES

During the mid-1940's, Yukon Hydro Company Limited ("Yukon Hydro"), a 100% owned subsidiary of YECL, owned and operated hydro facilities at Fish Lake ("the facilities") referred to as the Fish Lake properties. Yukon Hydro, at the time, leased a property from Hudson Bay Oil & Gas ("HBOG") to accommodate the facilities. The purpose of acquiring this property by long term lease was for power generation only and for no other purpose. The facilities are still in place. During the term of the lease it became apparent that HBOG had also leased the property to a company called Polar Seas Fisheries Ltd. ("Polar Seas"). When Polar Seas discovered that the property was double-leased, they took legal action against HBOG. The dispute was eventually settled by the three parties. HBOG transferred the property for $1.00 to Polar Seas and YECL. The latter two parties divided the land between them. In the result, YECL treated the transfer in the words of it's witness as having no value on the books of YECL. The reason was that the original cost of acquiring the lease was one dollar based on a transaction between related companies. In 1992, YECL transferred a portion of that property to an affiliate, CU Power Canada Limited ("CUPCAN") by way of gift. At the time of disposition the appraised value of the lands transferred to CUPCAN was in the range of $100,000 to $140,000. With respect to the property transferred to

CUPCAN there are two documents included in Exhibit 196, each an Affidavit of Value sworn, indicating a total value of $300,000. A witness for YECL confirmed that an agent for YECL swore an Affidavit of Value stating that the amount of $300,000 was the number contained in the Affidavit of Value. The evidence before the Board showed for the actual value of this property that there were four possible values. First, a company witness indicated that, for the purposes of its 1992 income tax filing, YECL recorded a gain of $100,000. However, no accounting entry was made on the books of YECL for the transfer of the property to CUPCAN. Second, YECL had the property appraised as open space, the existing zoning within the City of Whitehorse. The appraised value for these 8 lots was $100,000 (Tr.862). Third, the sworn Affidavit attached to the transfers of land filed in the Land Titles Office in Whitehorse showed a total value for the 8 lots of $300,000. Fourth, the lots according to the evidence of the chief Administrative Officer for the City of Whitehorse, Mr. Walt, were designated by the Official Community Plan for the City as country residential although zoned open space. If the lots could be rezoned they would be worth between one and two million dollars less the costs of development.

5.3.2.1 CITY POSITION

The City submitted the following with respect to the Fish Lake properties:

> "While this property was never in the utility's rate base after its acquisition, ratepayers paid carrying costs (lease payments, property taxes and some return) over the years. Accordingly, it should be treated as utility property." (City Argument, Page 8)

The City raised a concern with respect to the valuation of the property, and suggested that it may be appropriate for the Board to direct YECL to obtain an independent valuation of the Fish Lake properties and submit it at the time of the next GRA. The City submitted that, for the purposes of regulatory accounting, the disposition of the lands should reflect a gain of $300,000, the value shown by the

Affidavit of Value sworn. The City further recommended that the $300,000 gain, together with the sales of the warehouse land and the land related to Company House #1, should be included in necessary working capital and amortized over five years.

5.3.2.2 SICE POSITION

SICE noted that the transfer of the Fish Lake properties took place three days prior to the beginning of the current test period. SICE submitted that lands surplus to the needs of the utility operation should be transferred at fair market value, and the Board should appoint an appraiser to determine that value.

5.3.2.3 YEC/YECL POSITION

The Companies argued that the properties transferred to CUPCAN have not been used for utility purposes. The Companies also referred to their response to Undertaking 57 and indicate that:

> "... the market value of this property may be equal to the cost of servicing the property and therefore no future profits or development may occur." (YEC/YECL Argument, Page 65)

The Companies also note that they have given an undertaking to provide information with respect to any dealings CUPCAN may undertake with the properties. The Companies argue that CUPCAN has not made any sale of the Fish Lake properties, and it is therefore speculative to argue whether such a sale might realize a profit for CUPCAN. The Companies conclude that:

> "... the Board cannot consider proposals that would see any gain or loss on disposition of utility land being assigned to the account of ratepayers." (YEC/YECL Reply Argument, Page 72)

5.3.2.4 BOARD FINDINGS

The Board finds that YECL transferred the Fish Lake properties by way of gift to CUPCAN. The Board finds that the effect of this transaction was that YECL acquired the properties at a cost of $1.00 and transferred the properties by way of gift which had a value of $300,000 as shown by the Affidavits of Value sworn. In deciding to accept the value of the 8 lots within the City, the Board finds that at the time of the swearing of the Affidavits of Value the agent of YECL believed the total amount as stated to be true. The Board finds that the transaction between YECL and CUPCAN was not at arm's length.

The appraisal makes no allowance for the possibility of rezoning to country residential as permitted by the Official Community Plan. The Board accepts the undertaking of CUPCAN to advise the Board of future dealings with the property. The Board accepts that, until an application is made to rezone the property, its value remains as open space.

The Board directs that the effect of this transfer will be to defer and amortize the gain of $300,000 net of the impact of related income taxes over a period of five years commencing in 1993. The Board directs that the unamortized gain be deducted from the rate base for the 1993 and 1994 Test Years. The Board, in doing so, relies on CUPCAN's undertaking and will examine any further development with this property. To maintain jurisdiction, the Board adjourns this issue sine die.

5.4 YEC SHORT TERM INVESTMENT INCOME

In response to Undertaking #43 provided after the conclusion of the hearing, YEC provided monthly details of cash balances and short term investments, and related income. Forecast interest income on these balances are $45,000 for 1993 and $326,000 for 1994, after deducting short term interest expense.

5.4.1 YEC/YECL POSITION

In Argument the Companies made reference to their Argument in the 1991/92 GRA hearing wherein they stated that interest expense on funds of a utility not used to finance rate base or CWIP, but rather used to invest in short term investments will not ever be recovered from customers. It may be recovered in part in the form of interest on short term investments. On the basis of their 1991/92 Argument, the Companies submitted that it is inappropriate to deduct projected corporate short term investment income from regulated expenses when determining revenue requirement.

5.4.2 BOARD FINDINGS

The Board notes that the balances of YEC's cash and short term investments at the beginning and the end of the 1993 and 1994 Test Years are minimal, and thus a minimal portion of YEC's capital can be considered to be financing these balances. The Board finds that essentially all of YEC's capital is financing rate base and CWIP. The Board notes that YEC does not carry on any non-utility operations.

Given these circumstances the Board is not persuaded that YEC's interest income should be treated as non-utility income. The Board directs that YEC's revenue requirement be reduced by $45,000 and $326,000 for the 1993 and 1994 Test Years, respectively.

5.5 YECL INVESTMENT INCOME AND SHORT TERM INTEREST EXPENSE

In response to Undertaking #43, YECL provided details of its short term debt and related interest expense, but failed to provide details of its short term investments and related income as requested.

5.5.1 BOARD FINDINGS

The Board notes that the following amounts have been recorded in YECL's revised application:

	1993	1994	
Investment Income	$104,000	$ 84,000	(YECL Schedule 6)
Short Term Interest Expense	$ 59,000	$ 75,000	(Undertaking #43)

The Board reserves the right to examine these items of income and expense, and related asset and liability accounts, at the time of the Companies' next GRA and to amend their treatment at that time. The Board adjourns this matter sine die and reserves the right to deal with this issue at a later date.

6. COST OF SERVICE AND RATE DESIGN

According to the revised application, the proposed 1994 rates were designed to recover the combined YEC/YECL revenue requirement within the calendar year 1994. During the proceedings the Companies also proposed various rate increase scenarios, all of which included the collection of any 1993 deficiency, by way of a rider, over the calendar year 1994. The Companies also indicated that the rates were designed in accordance with Order-in-Council 1991/62. Further, the Companies noted that the:

> "Costs of service for each rate class have been determined using a methodology reviewed and approved by the Board during the 1992 Cost of Service and Rate Design hearing." (YEC/YECL 1993/94 Revised GRA, Page 3-3)

Curragh submitted the Evidence of Dr. Michael Ileo, who commented on the cost allocations used by the Companies and provided recommendations regarding the cost allocations as they related to Curragh. Dr. Ileo's Evidence assumes that the Faro mine is operating throughout 1994. His Evidence emphasizes marginal cost principles which require costs to be assigned to energy in peak and off-peak periods equivalent to those costs of the last units used to meet joint production needs in each period.

6.1 BOARD FINDINGS

The Board notes that, in determining the cost of electric service and rates charged to electricity customers in Yukon, the Board is guided by the Order-in-Council 1991/62. Pursuant to that OIC, the Board conducted a comprehensive review of cost of service and rate design and submitted a report to the Yukon Government dated June 1, 1992. In that report, the Board noted that:

> "... it is not appropriate to cast cost of service studies and rate design principles in stone. The Board recommends that it be provided with the flexibility to react to future changes in circumstances, and to determine the appropriate cost of service and rate design practices to be used in Yukon." (Review of Cost of Service To And Rates Charged To Electricity Customers in Yukon, Executive Summary, Page 3 of 3)

The Board has determined that there are no changes in circumstances that warrant changes to the cost of service or rate design principles from those established in the 1992 Cost of Service hearing. The Board finds that the cost of service methodology and rate design proposed by the Companies is appropriate at this time.

7. OTHER

7.1 PRUDENCY OF ASSUMPTION REGARDING CURRAGH NOT ON THE SYSTEM

The basis of the Companies' revised application was an assumption that Curragh would not be a customer after September 1, 1993.

7.1.1 CURRAGH POSITION

Curragh argued that:

> "This assumption would be read as a message that the Board, and hence Yukoners and possibly their Government, does not believe that the Curragh-Korean deal should or will take place." (Curragh Reply Argument, Page 6)

7.1.2 YEC/YECL POSITION

The Companies noted that for Curragh to survive it must complete the following: debt restructuring with its creditors, negotiations with potential equity investors, and negotiations with Yukon Territorial Government regarding the loan guarantee related to the stripping of the Grum deposit. The Companies also noted that Mr. Pelley indicated during the hearing that the mine requires a zinc price of 48 cents U.S. per pound to reopen, and that the world price was below that at the time of argument.

7.1.3 BOARD FINDINGS

In Interim Decision 1993-2 dated May 14, 1993, the Board observed that great uncertainty existed with respect to the probability and timing of the reopening of the Faro mine, and what effect this would have on rates to be charged to customers. In that Interim Decision the Board directed the Companies to refile material, in support of their GRA, to reflect the impact of the conditions facing the Companies at that time. The Companies' original application had assumed that the mine at Faro would continue during 1993 and 1994 and left no option for the Board to consider the possibility of the Faro mine not being on the system as a user of power during that period. Pursuant to Board direction, the Companies filed their revised GRA in June 1993 on the basis that Curragh would not be a customer after September 1, 1993.

The Board finds that the assumption made by the Companies in their revised application with respect to Curragh's operation is prudent.

8. CURRAGH'S SUBMISSIONS FOR $.05/kWh POWER

Considerable time was spent on information requests, pre-hearing conferences, and in the public hearing itself with respect to Curragh's submissions that it should receive $.05/kWh power. In order for Curragh to receive power at $.05/kWh, customers, other than major industrial customers, would be required to subsidize the costs of providing power to Curragh.

The Board rejected this argument. The Board is required by Order-In-Council 1991/62 to ensure that the rates charged to major industrial customers, are sufficient to recover the costs of service to that customer class. These costs must be determined by treating the whole Yukon as a single rate zone, and the rates charged by both Companies must be the same. For the Board to make an Order that Curragh be charged $.05/kWh, the Board would be required to ignore Section 8(1) of Order-In-Council 1991/62. The submission for $.05/kWh power by Curragh should have been made by Curragh to the government for a subsidy. Curragh knew that the Board's powers were limited under Section 8(1) of the Order-In-Council but made the submissions anyway, thus extending the length of the hearing and time spent on this issue.

9. YEC MANAGEMENT

Since the creation of YEC in 1987, the company has had a very large turnover of its Board of Directors and Presidents. In the six year period YEC has had over 20 Directors, a large number whom remained Directors for 15 months or less. Similarly, YEC has had at least seven Presidents. YEC appears to rely, to a very large extent, on the expertise and knowledge of YECL. The Board is concerned that this large turnover hampers the ability of YEC to scrutinize and monitor its relationship with YECL.

Few, if any, of the Presidents or Directors have had experience in the power business. Throughout this Decision the Board has provided instances which relate to the prudency of YEC management practices.

10. INTERIM APPLICATION FOR A 20% INTERIM INCREASE

The Companies applied for a 20% interim refundable increase on June 2, 1993. The Board adjourned that request. The 20% interim increase is denied.

11. HEARING TIME

The Board conducted hearings, pre-hearing conferences and the public hearing with respect to the GRA totalling nine days. A number of witnesses and participants appeared. The Board reviewed thousands of pages of exhibits and extensive transcripts covering nine days of hearings. The hearing was not concluded until August 13, 1993, when reply arguments were submitted.

12. COSTS

The Board directs the Companies to file with the Board a summary of their external expenses including those of consultants hired to prepare for and attend the hearings, all transportation, hotel and meal costs for participants in the hearing process, and other costs outside of the Companies' day-to-day overhead costs within twenty (20) days of the date of this Decision. All intervenors requesting costs must submit, within twenty (20) days of the date of this Decision, an application for intervenor costs if those intervenors are seeking costs in accordance with the Board's policy and forms.

13. HEARING PROCESS

The Board continues to be interested in improving the hearing process. The Board believes that in doing so it must ensure public participation is maintained while at the same time scrutinizing in a fair fashion the Companies' expenditures.

The Board invites all interested parties to submit comments on the hearing process in writing.

The active participation of all interested parties has been of great assistance to the Board. The Board appreciates and thanks the participants for the time and effort they put into the hearing process and the contribution they made.

14. ORDER

THE BOARD HEREBY ORDERS THAT Yukon Energy Corporation and The Yukon Electrical Company Limited shall prepare and file with the Board within fifteen (15) days of the date of this Order:

1. A revised calculation of revenue requirement of each of the Companies for the Test Years 1993 and 1994 in accordance with this Decision.

2. A schedule of just and reasonable rates and/or riders to be effective for consumption on and after January 1, 1994 to reflect the findings in this Decision and its impact, if any, on inter-company sales and growth in unbilled revenue.

DATED at the City of Whitehorse in the Yukon Territory this 23rd day of November, 1993.

Edith Walters, Chair
Yukon Utilities Board

THE FOLLOWING ARE

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

FOR EACH OF

YUKON ENERGY CORPORATION AND

THE YUKON ELECTRICAL COMPANY LIMITED

(Consisting of 16 Pages)

ATTACHED TO AND FORMING PART OF

YUKON UTILITIES BOARD

DECISION 1993-8

DATED NOVEMBER 23, 1993

Edith Walters, Chair
Yukon Utilities Board

RATE BASE

($,000)

	ADJUSTED FILING	AS AMENDED	Section References
PROPERTY, PLANT AND EQUIPMENT			
Year–end balance	133,333	132,744	3.4.4, 5.1.12.3
Deduct:			
Accumulated depreciation	18,243	17,895	3.4.4, 3.10.1.3
Construction–in–progress	742	742	
Disallowed assets	200	200	
Miscellaneous reserves	216	216	
Low water reserve	1,905	1,905	5.1.4.3
	21,306	20,958	
Add:			
Deferred study costs	2,602	1,647	3.7.5, 3.8.3
Other deferred costs	478	478	
Accumulated disallowed depreciation	11	11	
	3,091	2,136	
NET PLANT IN SERVICE			
Current year end balance	115,118	113,923	
Previous year end balance	110,544	110,544	
Total	225,662	224,467	
Mid–year balance	112,831	112,233	
Mid year defered rate case expense	699	699	
Unamortized deferred bad debt expense		326	5.1.3.3
Unamortized pre '93 DSM		234	5.1.11.3
Unamortized deferred overhaul costs		219	5.1.2.3
Add: Working Capital	1,290	1,189	Schedule B 1 of 2
	114,820	114,899	
Deduct:			
Contributions in aid of construction			
Current year end balance	1,153	1,153	
Previous year end balance	730	730	
Total	1,883	1,883	
Mid–year balance	942	942	
Rate base	**113,878**	**113,958**	

RATE BASE

($,000)

	ADJUSTED FILING	AS ALLOWED	Section References
PROPERTY, PLANT AND EQUIPMENT			
Year–end balance	137,739	136,966	5.1.12.3, 3.4.4, 3.2.3
Deduct:			
Accumulated depreciation	22,434	21,723	3.10.1.3, 3.4.4
Construction–in–progress	897	897	
Disallowed assets	200	200	
Miscellaneous reserves	216	216	
Low water reserve	505	505	5.1.4.3
	24,252	23,541	
Add:			
Deferred study costs	2,589	1,875	3.7.5, 3.8.3
Other deferred costs	434	434	
Accumulated disallowed depreciation	15	15	
	3,038	2,324	
NET PLANT IN SERVICE			
Current year end balance	116,525	115,749	
Previous year end balance	115,118	113,923	Schedule A 1 of 2
Total	231,643	229,672	
Mid–year balance	115,822	114,836	
Mid year rate case expense	756	597	3.6.4
Unamortized deferred bad expense		571	5.1.3.3
Unamortized pre '93 DSM		409	5.1.11.3
Unamortized deferred overhaul costs		384	5.1.2.3
Working Capital	1,159	1,136	Schedule B 1 of 2
GROSS RATE BASE	117,736	117,932	
Deduct:			
Contributions in aid of construction			
Current year end balance	1,161	1,161	
Previous year end balance	1,153	1,153	
Total	2,314	2,314	
Mid–year balance	1,157	1,157	
Rate base	**116,579**	**116,775**	

WORKING CAPITAL ALLOWANCE

($,000)

	ADJUSTED FILING	AS ALLOWED	Section Reference
Operating and maintenance	11,992	9,518	Schedule D 1 of 2
Taxes – other than income	255	255	
Cash operating expenses	12,247	9,773	
15/365 thereof	503	402	
Inventory (three year average)	835	835	
GST impact on working capital	(48)	(48)	
Working capital	**1,290**	**1,189**	

WORKING CAPITAL ALLOWANCE

($,000)

	ADJUSTED FILING	AS ALLOWED	Section Reference
Operating and maintenance	8,893	8,352	Schedule D 1 of 2
Taxes – other than income	265	265	
Cash operating expenses	9,158	8,617	
15/365 thereof	376	354	
Inventory (three year average)	844	844	
GST impact on working capital	(62)	(62)	
Working capital	**1,159**	**1,136**	

CAPITAL STRUCTURE AND COST OF CAPITAL

($,000)

ADJUSTED FILING

	MID YEAR BALANCE	CAPITAL RATIOS %	MID-YEAR RATE BASE	COST RATE %	RETURN
Long term debt	68,378	60.004	68,331	7.733	5,284
Common equity	45,578	39.996	45,547	12.625	5,750
No cost capital	0	0.000	0	0.000	0
	113,956	100.000	113,878	9.690	11,034

AS ALLOWED

	MID YEAR BALANCE	CAPITAL RATIOS %	MID-YEAR RATE BASE	COST RATE %	RETURN	Section References
Long term debt	68,378	60.004	68,379	7.467	5,106	4.3.3
Common equity	45,578	39.996	45,579	10.500	4,786	4.5.8
No cost capital	0	0.000	0	0.000	0	
	113,956	100.000	113,958	8.680	9,891	

CAPITAL STRUCTURE AND COST OF CAPITAL

($,000)

ADJUSTED FILING

	MID YEAR BALANCE	CAPITAL RATIOS %	MID-YEAR RATE BASE	COST RATE %	RETURN
Long term debt	69,213	59.900	69,831	6.526	4,557
Common equity	46,334	40.100	46,748	12.625	5,902
No cost capital	0	0.000	0	0.000	0
	115,547	100.000	116,579	8.972	10,459

AS ALLOWED

	MID YEAR BALANCE	CAPITAL RATIOS %	MID-YEAR RATE BASE	COST RATE %	RETURN	Section References
Long term debt	69,213	59.900	69,949	5.999	4,196	4.3.3
Common equity	46,334	40.100	46,827	10.500	4,917	4.5.8
No cost capital	0	0.000	0	0.000	0	
	115,547	100.000	116,775	7.804	9,113	

UTILITY EXPENSES AND RETURN

($,000)

	ADJUSTED FILING	AS ALLOWED	Section References
Production	3,570	3,032	5.1.2.3
Transmission and distribution	931	931	
General	136	136	
Public information	866	94	5.1.11.3, 5.1.12
Commercial	270	270	
Administration and general	1,883	739	5.1.3.3, 5.1.13.
Insurance	589	569	5.1.5.3
Subtotal	8,245	5,771	
YEC corporate expenses	678	678	
Support services	766	766	
Board expenses	45	45	
Subtotal	1,489	1,489	
O&M not including fuel and purchased power	9,734	7,260	
Fuel expense	2,249	2,249	
Total operation and maintenance expense *	11,983	9,509	
Interest income		(45)	5.4.2
Adjustment for inflation		(78)	5.1.7.3
Property taxes	255	255	
Depreciation	3,847	3,499	3.10.1.3
Low water reserve		(400)	5.1.4.3
Amortization of deferred planning & study costs	491	250	3.7.5, 3.8.3
Amortization of deferred regulatory and downsizing		329	5.1.13.1
Amortization of deferred bad debt expense		163	5.1.3.3
Amortization of pre '93 DSM		117	5.1.11.3
Remove amortization of disallowed '93 & '94 rate base DSM		(19)	5.1.12.3
Amortization of deferred overhaul costs		110	5.1.2.3
Remove return on mid year deferred pre '93 DSM		(20)	5.1.11.3
Amortization of contributions	(31)	(31)	
Total utility expenses	16,545	13,639	
Return	11,034	9,891	Schedule C 1 of
Total utility expenses and return	27,579	23,530	

* Purchased power is excluded

UTILITY EXPENSES AND RETURN

($,000)

	ADJUSTED FILING	AS ALLOWED	Section References
Production	2,843	2,843	
Transmission and distribution	970	970	
General	124	124	
Public information	207	90	5.1.12.3
Commercial	299	299	
Administration and general	1,048	714	5.1.13.1
Insurance	648	628	5.1.5.3
Subtotal	6,139	5,668	
YEC corporate expenses	610	540	5.1.8.4
Support services	771	771	
Board expenses	52	52	
Subtotal	1,433	1,363	
O&M not including fuel and purchased power	7,572	7,031	
Fuel expense	1,312	1,312	
Total operating and maintenance expense *	8,884	8,343	
'nterest income		(326)	5.4.2
ıjustment for inflation		(39)	5.1.7.3
.axes – other than income	265	265	
Low water reserve		(1,400)	5.1.4.3
Depreciation	4,294	3,931	3.10.1.3
Disallowed depreciation	(4)	(4)	
Amortization of deferred study costs	400	159	3.7.5, 3.8.3
Amortization of regulatory and downsizing costs		334	5.1.13.1
Amortization of deferred bad debt expense		163	5.1.3.3
Amortization of pre '93 DSM		117	5.1.11.3
Remove amortization of disallowed '93 & '94 rate base DSM		(57)	5.1.12.3
Amortization of deferred overhaul costs		110	5.1.2.3
Remove return on mid year deferred pre '93 DSM		(32)	5.1.11.3
Amortizatioin of contributions	(48)	(48)	
Total utility expenses	13,791	11,514	
Return	10,459	9,113	Schedule C 1 o
Total utility expenses and return	24,250	20,627	

* Purchased power excluded

RATE BASE

($,000)

	ADJUSTED FILING	AS ALLOWED	
PROPERTY, PLANT AND EQUIPMENT			
Year–end balance	53,775	53,718	5.1.12.3
Deduct:			
Accumulated depreciation	16,772	16,764	3.10.1.3
Construction–in–progress	0	0	
	16,772	16,764	
Add:			
Deferred study costs	252	252	
Deferred retirement costs	114	114	
Deferred severence costs	56	56	
	422	422	
NET PLANT IN SERVICE			
Current year end balance	37,425	37,376	
Previous year end balance	31,635	31,635	
Total	69,060	69,011	
id–year balance	34,530	34,506	
Mid–year rate case expense	89	89	
Unamortized deferred gain on land sales		(259)	5.3.1.5, 5.3.2.4
Unamortized deferred pre '93 DSM costs		78	5.1.11.3
Working Capital	2,739	2,661	Schedule B 1 of
	37,358	37,074	
Deduct:			
Contributions in aid of construction			
Current year end balance	10,250	10,250	
Previous year end balance	8,596	8,596	
Total	18,846	18,846	
Mid–year balance	9,423	9,423	
Rate base	27,935	27,651	

RATE BASE

($,000)

	ADJUSTED FILING	AS ALLOWED	
PROPERTY, PLANT AND EQUIPMENT			
Year–end balance	59,045	58,894	3.2.3, 5.1.12.3
Deduct:			
Accumulated depreciation	18,952	18,928	3.10.1.3
Construction–in–progress	0	0	
	18,952	18,928	
Add:			
Deferred study costs	192	192	
Deferred retirement costs	106	106	
Deferred severence costs	47	47	
	345	345	
NET PLANT IN SERVICE			
Current year end balance	40,438	40,311	
Previous year end balance	37,425	37,376	Schedule A 2 of
Total	77,863	77,687	
'id–year balance	38,932	38,844	
Mid–year rate case expense	164	72	3.6.4
Unamortized gain on land sales		(454)	5.3.1.5, 5.3.2.4
Unamortized deferred pre '93 DSM costs		137	5.1.11.3
Working Capital	2,609	2,642	Schedule B 2 of
	41,704	41,239	
Deduct:			
Contributions in aid of construction			
Current year end balance	11,132	11,132	
Previous year end balance	10,250	10,250	
Total	21,382	21,382	
Mid year contributions	10,691	10,691	
Rate base	**31,013**	**30,548**	

WORKING CAPITAL ALLOWANCE

($,000)

	ADJUSTED FILING	AS ALLOWED	Section References
Operating and maintenance	26,938	26,489	Schedule D 1 of
Taxes – other than income	218	218	
Cash operating expenses	27,156	26,707	
21/365 thereof	1,562	1,537	
Prior year income tax provision	1,031	790	3.11.2.1
33/365 thereof	93	71	
Final income tax payment		542	3.11.2.1
–193/365 thereof	(256)	(286)	
Inventory (three year average)	1,268	1,268	
GST impact on working capital	72	72	
Working capital	2,739	2,661	

WORKING CAPITAL ALLOWANCE

($,000)

	ADJUSTED FILING	AS ALLOWED	Section References
Operating and maintenance	26,631	26,400	Schedule D 2 of
Taxes – other than income	228	228	
Cash operating expenses	26,859	26,628	
21/365 thereof	1,545	1,532	
Prior year income tax provision	1,518	1,332	3.11.2.1
33/365 thereof	137	119	
Final income tax payment		505	3.11.2.1
193/365 thereof	(331)	(267)	
Inventory (three year average)	1,197	1,197	
GST impact on working capital	60	60	
Working capital	**2,609**	**2,642**	

CAPITAL STRUCTURE AND COST OF CAPITAL

($,000)

ADJUSTED FILING

	MID YEAR BALANCE	CAPITAL RATIOS %	MID-YEAR RATE BASE	COST RATE %	RETURN
Long term debt	12,011	40.132	11,211	11.006	1,234
Preferred shares	7,190	24.024	6,711	8.345	560
Common equity	10,517	35.140	9,816	13.140	1,290
No cost capital	211	0.705	197		
	29,929	100.000	27,935	11.039	3,084

AS ALLOWED

	MID YEAR BALANCE	CAPITAL RATIOS %	MID-YEAR RATE BASE	COST RATE %	RETURN	Section Reference
Long term debt	12,011	40.132	11,097	11.006	1,221	
Preferred shares	7,190	24.024	6,643	8.345	554	
Common equity	10,517	35.140	9,717	11.000	1,069	4.5.8
No cost capital	211	0.705	195			
	29,929	100.000	27,651	10.287	2,845	

CAPITAL STRUCTURE AND COST OF CAPITAL

($,000)

ADJUSTED FILING

	MID YEAR BALANCE	CAPITAL RATIOS %	MID-YEAR RATE BASE	COST RATE %	RETURN
Long term debt	13,261	40.392	12,527	10.853	1,360
Preferred shares	7,940	24.184	7,500	8.212	616
Common equity	11,344	34.553	10,716	13.125	1,406
No cost capital	286	0.871	270		
	32,831	**100.000**	**31,013**	**10.906**	**3,382**

AS ALLOWED

	MID YEAR BALANCE	CAPITAL RATIOS %	MID-YEAR RATE BASE	COST RATE %	RETURN	Section Reference
Long term debt	13,261	40.392	12,339	10.853	1,339	
Preferred shares	7,940	24.184	7,388	8.212	607	
Common equity	11,344	34.553	10,555	11.000	1,161	4.5.8
No cost capital	286	0.871	266			
	32,831	**100.000**	**30,548**	**10.171**	**3,107**	

UTILITY EXPENSES AND RETURN

($,000)

	ADJUSTED FILING	AS ALLOWED	Section References
Production	931	931	
Transmission and distribution	1,272	1,272	
General	162	162	
Public information	381	123	5.1.11.3, 5.1.12.
Commercial	705	705	
Administration and general	882	711	5.1.13.1, 5.1.14.
Parent allocations	385	385	
Insurance	78	58	5.1.5.3
O&M not including fuel and purchased power	4,796	4,347	
Fuel expense	1,705	1,705	
Total operation and maintenance expense *	6,501	6,052	
Adjustment for inflation		(50)	5.1.7.3
Property tax	218	218	
Depreciation, net	1,730	1,722	3.10.1.3
Amortization of deferred gains on land sales (net of tax)		(130)	5.3.1.5, 5.3.2.4
Amortization of deferred regulatory and downsizing		121	5.1.13.1
Amortization of deferred pre '93 DSM		39	5.1.11.3
Remove amortization of disallowed Rate Base DSM		(6)	5.1.12.3
emove return on mid year deferred pre '93 DSM		(8)	5.1.11.3
come taxes	1,486	1,332	Recalculation
Total utility expenses	9,935	9,289	
Return	3,084	2,845	Schedule C 1 of
Total utility expenses and return	**13,019**	**12,134**	

* Purchased power is excluded

UTILITY EXPENSES AND RETURN

($,000)

	ADJUSTED FILING	AS ALLOWED	
Production	1,037	1,037	
Transmission and distribution	1,281	1,281	
General	172	172	
Public information	161	122	5.1.12.3
Commercial	718	718	
Administration and general	838	666	5.1.13.1, 5.1.14.
Parent allocations	399	399	
Insurance	86	66	5.1.5.3
O&M not incl'g fuel and purchased power	4,692	4,461	
Fuel expense	1,710	1,710	
Total operation and maintenance expense *	6,402	6,171	
Taxes – other than income	228	228	
Adjustment for inflation		(79)	5.1.7.3
Depreciation, net	2,022	2,006	3.10.1.3
Amortization of deferred gain on land sales		(130)	5.3.1.5, 5.3.2.4
Amortization of deferred regulatory and downsizing		122	5.1.13.1
Amortization of deferred pre '93 DSM costs		39	5.1.11.3
– Remove amortization of disallowed Rate Base DSM		(19)	5.1.12.3
·emove return on mid year deferred pre '93 DSM		(14)	5.1.11.3
·come taxes	2,048	1,837	Recalculation
Total utility expenses	10,700	10,160	
Return	3,382	3,107	Schedule C 2 of :
Total utility expenses and return	**14,083**	**13,267**	

* Purchased power is excluded