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

and

IN THE MATTER OF an Application by Central Heat Distribution Limited

# DECISION

February 22, 1988

Before:

J.G. McIntyre, Chairman J.D.V. Newlands, Deputy Chairman The Application of Central Heat Distribution Limited for authorization to amend its filed basic Steam Tariff was heard in public in Vancouver, British Columbia on Tuesday, February 9, 1988.

The Division of the Commission which heard the Application was comprised of J.G. McIntyre, Chairman and J.D.V. Newlands, Deputy Chairman.

# TABLE OF CONTENTS

	Page No.
APPEARANCES	(i)
LIST OF EXHIBITS	(ii)
INTRODUCTION	1
TEST PERIOD/RATE BASE/COST OF SERVICE	2
CAPITAL STRUCTURE/COST OF CAPITAL	2
DECISION	7

ORDER NO. G-16-88

SCHEDULE I	Utility Rate Base for 1988
SCHEDULE II	Utility Income and Earned Return for 1988
SCHEDULE III	Calculation of Income Tax for 1988
SCHEDULE IV	Utility Common Equity for 1988
SCHEDULE V	Return on Capital for 1988
APPENDIX A	Map of Distribution System
APPENDIX B	Capital Structure and Return on Equity Since Inception
APPENDIX C	Capital Structure Ratios of Selected Major Canadian Utilities
APPENDIX D	Allowed Returns on Common Equity for British Columbia
	Utilities for 1986 and 1987

# APPEARANCES

C.B. JOHNSON

for Central Heat Distribution Limited

G.A. FULTON

Commission Counsel

Hearing Officer Commission Staff

Court Reporter

R.D. GODFREY R.J. FLETCHER ALLWEST REPORTING LTD.

# LIST OF EXHIBITS

1. 1. 1.

	Exhibit No.
Application by Central Heat Distribution Limited, November 26, 1987	1
Responses of Information Request by Commission Staff and Summary of Evidence of J.S. Barnes, January 1988	2
Response to Question 4	3
Response to Question 5	4
Commission Order No. G-89-87, December 22, 1987	5
Common Equity Component Allowed by the Commission	6
Common Equity Component	7
Capital Structure Ratios of Selected Major Canadian Utilities	8
Memorandum of Agreement between City of Vancouver and Central Heat Distribution Limited	9
Competitive position of Central Heat Distribution Limited Steam and Natural Gas – B.C. Hydro Schedule 220B	10
Interest Coverage Test 1986-1988	11
Calculation of Non-utility Deduction from Central Heat Distribution Limited Rate Base	12

#### INTRODUCTION

This hearing involves an Application by Central Heat Distribution Limited ("Central Heat", "the Applicant") dated November 26, 1987 to amend its Basic Steam Tariffs in order to increase the rates charged to its customers by an average of 3.7% effective January 1, 1988. The Applicant sought both interim and permanent relief.

From a customer perspective this increase is offset by a reduction in the fuel costs with the net result, that, if the Application is approved the customers' cost of steam will increase by approximately 1%.

The Commission, by Order No. G-89-87 dated December 22, 1987, approved an interim rate increase of 3.7% effective January 1, 1988 subject to refund with interest.

Central Heat commenced operations in 1968 with TransMountain Pipeline Co. Ltd. being the principle owner. In 1973 their equity position was sold to the minority shareholders. A map setting forth Central Heat's distribution system is attached as Appendix A.

The Applicant's system provides steam service to approximately 100 customers, the smallest of which is a tailor shop and the largest being B.C. Place Stadium. All of the the Applicant's customers were advised of the increase by letter from Central Heat and no comments were received. Central Heat has lost only one customer from its system since inception and this resulted from poor advice being provided to the owner thereof (Transcript p. 19).

In its Application Central Heat is estimating capital expenditures of up to approximately \$2,200,000 over the next several years. The largest expenditure being an additional boiler with an estimated cost of \$1,500,000. This boiler will be required if significant load growth occurs and Mr. Barnes, President of Central Heat estimates this as a 50% probability.

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#### TEST PERIOD/RATE BASE/COST OF SERVICE

The Test Period adopted by the Applicant is its forecast fiscal year ending December 31, 1988.

The Commission has reviewed the proposed capital additions as well as the estimated Cost of Service and accepts the estimate provided by the Applicant.

The Commission has reviewed the treatment of rental income and the cost associated therewith and accepts the method adopted by the Applicant in these circumstances. This aspect of the Applicant's operations must be reviewed annually to ensure that cost and revenues are fairly allocated between ratepayers and shareholders.

### CAPITAL STRUCTURE/COST OF CAPITAL

The dominant issue in this proceeding was how the capital structure and return on equity should be determined.

The Applicant gave evidence that in the past its rates and, therefore, its capital structure and return on equity had been determined not by regulation but by competitive market forces. Accordingly, the distribution system had been operated as a business as opposed to a utility. In support of this contention the Applicant in Exhibit 2, Tab 2, page 15 set out its capital structure and return on equity from inception to December 31, 1987 (Appendix B). In his direct evidence, Mr. Barnes stated:

"Throughout its history the rates of Central Heat have been determined by the cost of alternative energy sources available to its customers. There has been, and is, no need for regulation to set the rates for Central Heat. Competitive forces will ensure that Central Heat's rates continue to be reasonable.

The rates of Central Heat are reasonable when compared with competitive pressures. The rates of Central Heat should not be arbitrarily set by reference or by formulistic calculations. Central Heat is not a utility of the nature of other companies commonly considered utilities. Central Heat operates a business in a competitive environment and should not have its rates limited by the application of formulas, particularly when in the past competitive pressures have caused the investors in Central Heat to earn no, or very little return on their investment.

And further, in Exhibit 2, Tab 3, page 2, paragraph 8, Mr. Barnes stated:

"If the rates of Central Heat are set by formulistic approaches then Central Heat will not be operating in a prudent businesslike manner."

Practical examples in support of the Applicant's position are stated by the Applicant at Transcript p. 53:

"Well, there have been a number of systems shut down. And because they --- I hate to keep going back to the same old theme, but because they were operated as a utility. Spokane was one, it was a smaller system but it was in the --- it's been in operation of a successful, for something like 70 or 80 years but it was part of a large utility and it was treated that way. Things changed within the City of Spokane and the people that were running the district system, the district heating system were not able to respond the way they might have if that had been their only responsibility.

Another case was in Tacoma. And one, I guess the most current one that would relate closest to our company would be San Fransisco and it's a system that is somewhat smaller than ours but has the potential to be bigger really, right now. But it was part of a larger utility that --- and it was let go and there was no real drive to market it, it was in competition with it's own parent company in effect, to the extent that they were losing, they lost sufficient customers that the parent utility wanted to abandon the system.

The regulatory agency in San Fransisco denied them the right to abandon the system and told them they're going to have to operate it. So, the management of the parent company took a look around at other operating district heating systems, and ours was one of them, and said, okay, what is it going to take to make this thing work? And what they ended up doing was just had created a separate profit centre and it's own operating entity and put a general manager, permanent general manager in charge of it. And there's a central heat in Seattle and some of the other successful district heating systems provided advice on operating structures and people and approach to marketing and this kind of thing, and they've actually turned it around in a matter of two years and it looks like it's enjoying considerable growth...

Well, I guess to use an example would be one that I'm familiar with is was Spokane, which is a system that failed, oh, ten years or so ago. And that was quite an old system but at one time it had been ---- I'm sorry I said Spokane, I should have said Tacoma on this one. But it had been in operation quite a number of years and it was privately held but there is the shareholders had taken a fair bit out of the company in the way of dividends and they got to a point where the electricity became very cheap in Spokane ---

I'm sorry, Tacoma. Became very cheap and the actual electric utility was negotiating favourable rates with customers that were on the district heating system.

Coupled with that some of the older systems started to need replacement and it was the start of the down hill slide that I mentioned before. They had no reserve in the way of cash or or line of credit at the bank to to finance what they needed to do by debt and it just got to the point finally that they had to abandon the system and customers that were left, the figure that was told me that it cost those customers collectively six million dollars to convert over off this district heating system to either electric heat or other boilers. And that was the kind of example that I've seen and I certainly don't want our company to be faced with."

With regard to the capital structure the Applicant gave evidence that its proposed equity component of approximately 80 was reasonable due to potential risk faced by Central Heat. The risk primarily related to the need to have a capital structure which would permit Central Heat to be able to operate through a severe economic downturn, as well as having sufficient funds on hand to repair a major line break. In the Applicant's view the equity component assured continuity of steam service if either of these eventualities were to occur. As practical examples of the above, Mr. Barnes made reference to a system in London, Ontario which is at the point of failure due to not having a sufficient reserve to deal with unforseen circumstances and, in Vancouver, the inability of the Applicant to attach buildings associated with Hyland Turnkey due to their perception of the risk associated with a steam system. Mr. Barnes (Transcript p. 137) acknowledged that Central Heat was a utility but reiterated that they had only survived due to the business approach adopted to running the business.

"I think we certainly realize we're a utility, but a business approach to running the company has allowed us to survive and to get to this point. And we don't really see the advantage of changing that approach.

I guess, at this time in the economic situation, both myself and the Board of Directors, a number of the Board of Directors have got some real concerns about the possibility of either inflation or recession or even depression and/or maybe a combination of both over the next few years. And when I talk about a business approach, it's only prudent to minimize your debt entering into a phase where you have some concerns along those lines."

With specific regard to the return on equity, in response to a question from the Chairman, Mr. Barnes stated:

I think generally speaking, yes. As I said before and, you know, without going and making any kind of a commitment that the Board has said, you know, this is as far as we can go or as far as we want to go, I think what we can say is that we have reached our long-term goal to getting a good viable going concern and with a reasonable return to the shareholders."

Through Counsel, Commission staff raised the issue of the Applicant being a utility as opposed to a business and, accordingly, the rates should be determined on the basis of costs being consistent with the risk. Costs, in this instance, are defined as the debt/equity structure and the return thereon.

Mr. Fulton also presented Exhibit 11 which showed an interest coverage of 6.19 in 1986, 6.354 in 1987 and an estimated interest coverage of 8.878 in 1988 if the proposed rate increase is approved.

It is apparent from the evidence that a further cost saving would be achieved by the customers if the common equity component was reduced, replacing equity with debt. The customers would benefit from the lower cost of debt as well as the tax saving achieved through the substitution of debt for equity.

In the alternative, it must also be recognized that six of the 10 utilities cited as examples are subsidiaries of larger utilities and, hence, the customers receive the benefit of a capital structure which the utility may not have been able to achieve if it were independent. In addition, the presence of the parent company provides access to a capital market which would not otherwise exist.

With specific regard to Central Heat and assuming the indicated expansion takes place, market forces; namely, the need for additional capital, will start to reduce the current imbalance between debt and equity. It can also be argued that the current debt/equity structure at this point in time is a "security" for the customers to ensure the continuation and expansion of the Applicant's utility operation.

In addition to the above the Commission has considered the earning history of the Company, the efficient business-like manner in which it has been operated and the allowed return on equity for other jurisdictional utilities in 1986 and 1987.

Accordingly, the Commission finds the capital structure and return on common equity proposed by the Applicant results in just and reasonable rates at this time.

With regard to the future, the Commission accepts regulation by market forces if circumstances remain unchanged and the capital expansion plan proceeds. However, if the utility wishes to seek increased rates resulting from an increase in return on equity or a larger equity component, on the basis of the evidence in this proceeding it would appear that this would result in unjust and unreasonable rates. In the alternative, if significant reduction in interest rates were to occur with a general decline in allowed return on equity, the Commission, on its own motion, would consider a hearing with a view to lowering the return on equity. The Commission will be guided on this consideration by returns on common equity allowed to other utilities in British Columbia.

#### DECISION

The Commission confirms the interim increase which became effective January 1, 1988 pursuant to Commission Order No. G-89-87.

DATED in the City of Vancouver, the Province of British Columbia, this  $22 \wedge c^2$ . day of February, 1988.

J.G. McIntyre, Chairman J.D.V. Newlands, Deputy Chairman

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BRITISH COLUMBIA UTILITIES COMMISSION ORDER NUMBER \_\_\_\_\_\_G-16-88\_\_\_\_

PROVINCE OF BRITISH COLUMBIA

#### BRITISH COLUMBIA UTILITIES COMMISSION

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

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and

IN THE MATTER OF an Application by Central Heat Distribution Limited

BEFORE:

J.G. McIntyre, Chairman; and J.D.V. Newlands, Deputy Chairman

February 22, 1988

#### ORDER

WHEREAS Central Heat Distribution Limited ("Central Heat") applied November 24, 1987 for an average increase of 3.7% to the Basic Steam Tariff, on an interim and permanent basis to become effective January 1, 1988; and

WHEREAS the Commission issued Order No. G-89-87 granting Central Heat an interim increase in the Basic Steam Tariff of 3.7% effective January 1, 1988 and set down the Application for public hearing to commence February 9, 1988 in Vancouver; and

WHEREAS the Commission considered the Application and the evidence adduced during the public hearing all as set forth in a Decision issued concurrently with this Order.

NOW THEREFORE the Commission hereby orders Central Heat Distribution Limited as follows:

- The Rate Base and Earned Return for the 1988 Test Year are as set out in Schedules 1 and 2 of the Decision.
- The interim increase of 3.7% to the Basic Steam Tariff effective January 1, 1988 is confirmed.
- The Commission will accept for timely filing, a revision to the Basic Steam Tariff BCUC No. 1 Rate Schedule confirming as permanent, a 3.7% increase in rates, effective January 1, 1988.

DATED at the City of Vancouver, in the Province of British Columbia, this 22nd day of February, 1988.

BY ORDER bohn G. McIntyłe Chairman

FOURTH FLOOP. 800 SMITHE STREET, VANCOUVER, 8 C. V62 2E1 CANADA

FEAT'88Dec'nSched CENTRAL HEAT DISTRIBUTION LIMITED 1988 TestYear-BCUC DECISION SCHEDULES

UTIL TY RATEBASE	APPLICATION	BCJC	ADJUS TED	BCUC	DECISION
SCHEDULE 1	1988	TECHNICAL	1988	DECISION	1988
<u>S'S</u>	TESTYEAR	ADJUSTMENT	TESTYEAR	ADJUSTMENT	TESTYEAR
		• •	4.0	• •	• •
PLANT IN SERVICE, Jan. 1	\$0	<b>\$</b> 0	<b>\$</b> 0	\$0	\$0
Additionstoplant in service	0	0	0	0	0
Disposals	0	0	0	0	0
PLANT IN SERVICE, Dec. 31	0	0	0	0	0
Add: Work in progress	0	0	0	0	0
Plant held for future use	0	0	0	0	0
Plant acquisitionad justment	0	0	0	0	0
Preliminary investigation	0	0	0	0	0
Other deferredcharges	0	0	0	0	0
	0	0	0	0	0
Less:		-	0		0
Accum.Depreciation	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	6,016,590	0	6,016,590	0	6,016,590
NET PLANT IN SERVICE, Dec. 31	6,016,590	0	6,016,590	0	6,016,590
			0		0
NET PLANT IN SERVICE, Jan. 1	6,004,630	0	6,004,630	0	6,004,630
NET PLANT IN SERVICE. Mid vr.	6.010.610	0	6.010.6 <b>1</b> 0	0	6.010.610
Non-Utility Plant	(51,479)	-	(51,479)		(51,479)
ALLOWANCE-WORKING CAPITAL	22.666	0	22.666	0	22.666
Mean Contributionsand Grants	(120,000)	0	(120,000)	0	(120,000)
UTILITY RATE BASE, MID YEAR	<b>\$</b> 5,861,797	<b>\$</b> 0	<b>\$</b> 5,861,797	\$0	<b>\$</b> 5,861,797
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UTILITY INCOME & RETURN	APPLICATION	BCUC	ADJUS FED	BCUC	DICISION
SCHEDULE 2	1988	IECHNICAL	1988	DECISION	1988
\$`s	TESTYEAR	ADJUSTMENT	TESTYEAR	ADJUSTMENT	<u>IESTYEAR</u>
SALES VOLUI1E (I1#)	755,237	0	755,237	0	755,237
% Increasein averageprice	1.99%	0.01%	2.00%	-0.01%	1.99%
Averagerevenue: ¢ per M#	778.58	0.0743	778.66	-0.0748	778.58
UTILITY REVENUE:RATES + MISC.					
SteamSales	\$3,101,345	<b>\$</b> 0	\$3,101,345	\$0	\$3,101,345
-Interim rates	\$114,750	<b>\$</b> 0	\$114,750	\$0	\$114,750
Fuel CostRecovery	2,663,981	0	2,663,981	0	2,663,981
BCUC ADJUSTMENTS	59	561	620	(565)	55
TOTALREVENUE	<b>\$</b> 5,880,135	\$561	\$5,880,696	(\$565)	\$5,880,131
Less:Energy, chemicals,etc	3,266,378	0	3,266,378	0	3,266,378
GROSS MARGIN	\$2,613,757	\$561	\$2,614,318	(\$565)	\$2,613,753
l abour costs	704,368	0	704,368	0	704,368
General admin and office	347,999	0	347,999	0	347,999
Other Operatingexpense	70,800	0	70,800	6,196	76,996
Taxesother than incometax	173.125	0	173,125	0	173,125
Depreciation	191,140	0	191,140	0	191,140
Other income	(5,500)	0	(5,500)	0	(5,500)
OPERAT INGEXPENSES	\$1,481,932	\$0	\$1,481,932	\$6,196	\$1,488,128
  Utility incomebeforetax	\$1,131,825	\$561	\$1,132,386	(\$6,761)	\$1,125,625
INCOME TAXEXPENSE	\$340,973	\$11,208	\$352,181	(\$3,244)	\$348,937
EARNED RETURN	\$790,852	(\$10,647)	\$780,205	(\$3,517)	<b>\$</b> 776,688
UTILITY RATE BASE	<b>\$</b> 5,861,797	<b>\$</b> 0	<b>\$5,861,797</b>	\$0	\$5,861,797
RETURN ON RATE BASE	13.49%	-0.18%	13.31%	-0.06%	13.25%



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HEAT'88Dec'nSched

CENTRAL HEAT DISTRIBUTION LIMITED 1988 TestYear BCUC DECISION SCHEDULES

INCOME TAXES SCHEDULE 3 \$'s	APPLICATION 1988 TESTYEAR	BCUC TECHNICAL ADJUSTMENT	ADJUSTED 1988 TESTYEAR	BCUC DECISION ADJUSTMENT	DECISION 1988 TESTYEAR
Earnedreturn, aftertax Deduct:interest	\$790,852 (150,000)	(\$10,647) 22,799	\$780,205 (127,201)	(\$3,517) 0	\$776,688 (127,201)
Accountingincomeaftertax Deduct:timingdifferences	640,852 (170,877)	12,152 0	653,004 (170,877)	(3,517) 0	649,487 (170,877)
TAXABLEINCOME AFTER TAX-FOR TAXRETURN	<b>\$</b> 469,975	\$12,152	\$482,127	(\$3,517)	\$478,610
Incometaxrate-to\$200,000 Incometaxrate-above\$200,000	23.92 <b>%</b> 47.98%	0.00% 0.00%	23.92% 47.98%	0.00% 0.00%	23.92% 47.98%
Taxableincomebeforetax Deferredtax-grossedup	\$810,948	<b>\$</b> 23,360	<b>\$8</b> 34,308	(\$6,761)	<b>\$</b> 827 <b>,</b> 547
TAXABLEINCOME BEFORE TAX	\$810,948	\$23,360	\$834,308	(\$6,761)	\$827,547
Incometax expense -payable on flow-through -DIFFERENCE WITH APPLICANT	\$340,973	\$11,208	\$352,181	(\$3,244)	\$348,937
INCOME TAXEXPENSE	\$340,973	\$11,208	<b>\$</b> 352,181	(\$3,244)	<b>\$</b> 348,937



**FEAT'88Dec**'nSched **CENTRALHE**ATDISTRIBUTIONLIMITED 1988 TestYear-BCUC DECISIONSCHEDULES

SCHEDULE 4	1988 TESTYEAR	TECHNICAL ADJUSTMENT	1988 Testvear	DECISION	1988
<b>\$</b> 's	TESTYEAR	ADJUSTMENT	TESTVEAR	AD ILICTMENT	***
				ADJUSTIENT	TESTYEAR
OPENING BALANCE					
Share capital	\$0	<b>\$3,8</b> 00	\$3,800	<b>\$</b> 0	\$3,800
ContributedSurplus	0	0	0	0	0
Retained,opening	4,662,831	0	4,662,831	0	4,662,831
COMMON EQUITY-OPENING BAL.	4,662,831	3,800	4,666,631 0	0	4,666,631 0
Net Income on Tot. Capital	640,852	12,152	653,004	(3,517)	649,487
			0	0	0
Deduct:					
DividendsCommon	(600,000)	0	(600,000)	0	(600,000)
	4,703,683	15,952	4,719,635 0	(3,517)	4,716,118 0
Sharesissued	0	0	0	0	0
COMMON EQUITY-CLOSINGBAL.	\$4,703,683	\$15,952	<b>\$</b> 4,719,635	(\$3,517)	\$4,716,118
COMMON EQUITY	\$4,683,257	\$9,876	\$4,693,133	(\$1,758)	\$4,691,375
Mid-year average		- •	· , ·		
Less: deemedL-T Debt	\$0	0	0	0	0
COMMON EQUITY	\$4,683,257	9,876	<b>\$</b> 4,693,133	(\$1,758)	\$4,691,375
UTILITY BALANCE	********	*****	*******		

HEAT'83Dec'nSched CENTRALHEATDISTRIBUTIONLIMITED 1988 TestYear-BCUC DECISIONSCHEDULES

RETURN ON CAPITAL	APPLICATION	BCJC	ADJUSTED	BCUC	DECISION
SCHEDULE 5	1988	TECHNICAL	1988	DECISION	1988
\$'s	TESTYEAR	ADJUSTMENT	TESTYEAR	ADJUSTMENT	TESTYEAR
NotesPayable(notional)	\$174,740	(\$6,076)	\$168,664	1,758	\$170,422
proportion	2.980%	-0.100%	2.880%	0.030%	2.910%
embeddedcost	10.000%	0.000%	10.000%	0.000%	10.000%
return	0.300%	-0.010%	0.290%	0.000%	0.290%
Long-term debt	\$1,000,000	\$0	\$1,000,000	0	\$1,000,000
proportion	17.060%	0.000%	17.060%	0.000%	17.060%
embeddectost	11.000%	0.000%	11.000%	0.000%	11.000%
return	1.880%	0.000%	1.880%	0.000%	1.880%
  Shareholderadvances	\$0	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0
proportion	0.000%	0.000%	0.000%	0.000%	0.000%
embeddedcost	0.000%	0.000%	0.000%	0.000%	0.000%
return	0.000%	0.000%	0.000%	0.000%	0.000%
CommonShares	\$3,800	(\$3,800)	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0
proportion	0.060%	-0.060%	0.000%	0.000%	0.000%
embeddectost	0.000%	0.000%	0.000%	0.000%	0.000%
return	0.000%	0.000%	0.000%	0.000%	0.000%
Commonequity	\$4,683,257	9,876	\$4,693,133	(1,758)	\$4,691,375
proportion	79.890%	0.170%	80.060%	-0.030%	80.030%
ROE	14.153%	-0.240%	13.913%	-0.07 <b>3%</b>	13.840%
return	11.310%	-0.170%	11.140%	-0.060%	11.080%
TOTAL CAPITAL	<b>\$</b> 5,861,797	\$0	<b>\$</b> 5,861,797	\$0	\$5,861,797
RETURN ON RATE BASE	13.49%	-0.18%	13.31%	-0.06%	13.25 <b>%</b>
UTILITY RATE BASE, MID YEAR	\$5,861,797	<b>\$</b> 0	<b>\$</b> 5,861,797	<b>\$</b> 0	<b>\$5,861,797</b>



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#### CENTRAL HEAT DISTRIBUTION LIMITED

FORECAST

	RATE BASE	EARNED	PERCENT	EQUITY	PERCENT	DEBT EQUITY	RTN BASE	RTN EQUITY
1969	3,570,248	( 228,968)	( 6.41)					
1970	4,516,808	( 108,906)	( 2.41)					
1971	4,790,940	( 120,319)	( 2.51)			*		
19 <b>72</b>	4,920,973	( 19,877)	( 0.40)					
1973	5,111,585	87,549	1.71					
1974	5,363,166	( 8,663)	( 0.16)					
1975	5,528,690	162,189	2.9					
1976	5,371,107	199,651	3.72				ta porta de la composición de la compos La composición de la c	
1977	5,370,507	170,193	3.2				and the second sec	
1978	5,401,117	269,869	5.0					
1979	5,550,102	68,675	1.23	2,913,987	-	56/44	6.42	N/A
08 <del>0</del> 1	6,304,450	14,435	0.23	2,928,422		51/49	7.51	5.4
1981	6,006,655	399,806	6.66	2,986,630	0.8	50/50	6.60	2.10
1982	6,349,868	427,662	6.73	3,258,671	1.42	51/49	9.00	5.25
1983	6,568,963	405,047	6.16	3,466,811	2.94	53/47	8.47	7.63
1984	6,087,314	559,177	9.18	3,936,568	8.83	65/35	9.18	8.51
1985	6,085,607	663,415	10.40	4,195,803	10.89	69/31	9.61	9.63
1986	5,054,235	677,478	11.19	4,321,499	11.81	71/29	10.14	10.09
1987	6,069,065	645,433	10.63	4,552,768	11.05	75/25	11.68	12.56
	105,021,400	4,223,846	4.03					

NOTE: Figures for the first six columns were derived from the Annual Reports except for 1986 and 1987.

Figures for the two "Forecasts" columns come from the Rate Application filed for each year.

### APPENDIX C

# Capital Structure Ratios of Selected Major Canadian Utilities

Company	Date	Debt %	Common/Preferred Deferred Taxes
Pacific Northern Gas	12/83	52.8	47.2
Gas Distributors Canadian Utilities Ltd. Consumers' Gas Gaz Metropolitain Inland Natural Gas Union Gas	12/83 9/83 12/83 6/84 3/84	37.5 50.4 50.3 65.4 41.3	62.5 49.6 49.7 34.6 58.7
Gas Pipelines Alberta Natural Gas Nova, An Alberta Corp. TransCanada PipeLines Westcoast Transmission	12/83 12/83 12/83 12/83	34.3 56.3 58.6 50.2	65.7 43.7 41.4 49.8
Electrics Maritime Electric Newfoundland Light & Power TransAlta Utilities West Kootenay Power & Light	12/83 12/83 12/83 12/83	45.2 45.5 39.3 53.2	54.8 54.5 60.7 46.8
Telephones Bell Enterprises B.C. Telephone Island Telephone Maritime Tel. & Tel. New Brunswick Telephone Newfoundland Telephone Quebec Telephone	12/83 12/83 12/83 12/83 12/83 12/83 12/83	36.4 44.8 40.9 40.6 39.4 42.7 34.2	63.6 55.2 59.1 59.4 60.6 57.3 65.8
Central Heat Distribution	12/83	20.0	80.0

### APPENDIX D

### Allowed Returns on Equity for British Columbia Utilities for 1986 and 1987

	Date of Decision	Rate Base (\$000)	Common Equity <u>%</u>	Common Equity Range %	Common Equity <u>Allowed %</u>
Pacific Northern Gas Ltd.	Jan 29/86	88,873	26.64	14.75-15.25	15.00
Columbia Natural Gas Limited	Mar 18/86	13,125	39.24	14.25-15.25	14.75
Princeton Light and Power Company, Limited	Mar 27/86	2,045	40.00	14.00-15.00	14.50
Columbia Natural Gas Limited	Jan 21/87	14,067	41.19	13.50-14.25	14.00
West Kootenay Power and Light Company, Limited	Apr 3/87	126,496	38.28	12.75-13.50	13.20
Inland Natural Gas Co. Ltd.	Aug 6/87	141,949	32.57	13.25-13.75	13.50



















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

and

IN THE MATTER OF an Application by Central Heat Distribution Limited

### DECISION

February 22, 1988

Before:

J.G. McIntyre, Chairman J.D.V. Newlands, Deputy Chairman The Application of Central Heat Distribution Limited for authorization to amend its filed basic Steam Tariff was heard in public in Vancouver, British Columbia on Tuesday, February 9, 1988.

The Division of the Commission which heard the Application was comprised of J.G. McIntyre, Chairman and J.D.V. Newlands, Deputy Chairman.

# TABLE OF CONTENTS

	Page No.
APPEARANCES	(i)
LIST OF EXHIBITS	(ii)
INTRODUCTION	l
TEST PERIOD/RATE BASE/COST OF SERVICE	2
CAPITAL STRUCTURE/COST OF CAPITAL	2
DECISION	7

ORDER NO. G-16-88

SCHEDULE I	Utility Rate Base for 1988
SCHEDULE II	Utility Income and Earned Return for 1988
SCHEDULE III	Calculation of Income Tax for 1988
SCHEDULE IV	Utility Common Equity for 1988
SCHEDULE V	Return on Capital for 1988
APPENDIX A	Map of Distribution System
APPENDIX B	Capital Structure and Return on Equity Since Inception
APPENDIX C	Capital Structure Ratios of Selected Major Canadian Utilities
APPENDIX D	Allowed Returns on Common Equity for British Columbia
	Utilities for 1986 and 1987

### APPEARANCES

C.B. JOHNSON

for Central Heat Distribution Limited

G.A. FULTON

Commission Counsel

Hearing Officer Commission Staff Court Reporter R.D. GODFREY R.J. FLETCHER ALLWEST REPORTING LTD.

# LIST OF EXHIBITS

	Exhibit No.
Application by Central Heat Distribution Limited, November 26, 1987	l
Responses of Information Request by Commission Staff and Summary of Evidence of J.S. Barnes, January 1988	2
Response to Question 4	3
Response to Question 5	4
Commission Order No. G-89-87, December 22, 1987	5
Common Equity Component Allowed by the Commission	6
Common Equity Component	7
Capital Structure Ratios of Selected Major Canadian Utilities	8
Memorandum of Agreement between City of Vancouver and Central Heat Distribution Limited	9
Competitive position of Central Heat Distribution Limited Steam and Natural Gas - B.C. Hydro Schedule 220B	10
Interest Coverage Test 1986-1988	11
Calculation of Non-utility Deduction from Central Heat Distribution Limited Rate Base	12
#### INTRODUCTION

This hearing involves an Application by Central Heat Distribution Limited ("Central Heat", "the Applicant") dated November 26, 1987 to amend its Basic Steam Tariffs in order to increase the rates charged to its customers by an average of 3.7% effective January 1, 1988. The Applicant sought both interim and permanent relief.

From a customer perspective this increase is offset by a reduction in the fuel costs with the net result, that, if the Application is approved the customers' cost of steam will increase by approximately 1%.

The Commission, by Order No. G-89-87 dated December 22, 1987, approved an interim rate increase of 3.7% effective January 1, 1988 subject to refund with interest.

Central Heat commenced operations in 1968 with TransMountain Pipeline Co. Ltd. being the principle owner. In 1973 their equity position was sold to the minority shareholders. A map setting forth Central Heat's distribution system is attached as Appendix A.

The Applicant's system provides steam service to approximately 100 customers, the smallest of which is a tailor shop and the largest being B.C. Place Stadium. All of the the Applicant's customers were advised of the increase by letter from Central Heat and no comments were received. Central Heat has lost only one customer from its system since inception and this resulted from poor advice being provided to the owner thereof (Transcript p. 19).

In its Application Central Heat is estimating capital expenditures of up to approximately \$2,200,000 over the next several years. The largest expenditure being an additional boiler with an estimated cost of \$1,500,000. This boiler will be required if significant load growth occurs and Mr. Barnes, President of Central Heat estimates this as a 50% probability.



#### TEST PERIOD/RATE BASE/COST OF SERVICE

The Test Period adopted by the Applicant is its forecast fiscal year ending December 31, 1988.

The Commission has reviewed the proposed capital additions as well as the estimated Cost of Service and accepts the estimate provided by the Applicant.

The Commission has reviewed the treatment of rental income and the cost associated therewith and accepts the method adopted by the Applicant in these circumstances. This aspect of the Applicant's operations must be reviewed annually to ensure that cost and revenues are fairly allocated between ratepayers and shareholders.

#### CAPITAL STRUCTURE/COST OF CAPITAL

The dominant issue in this proceeding was how the capital structure and return on equity should be determined.

The Applicant gave evidence that in the past its rates and, therefore, its capital structure and return on equity had been determined not by regulation but by competitive market forces. Accordingly, the distribution system had been operated as a business as opposed to a utility. In support of this contention the Applicant in Exhibit 2, Tab 2, page 15 set out its capital structure and return on equity from inception to December 31, 1987 (Appendix B). In his direct evidence, Mr. Barnes stated:

"Throughout its history the rates of Central Heat have been determined by the cost of alternative energy sources available to its customers. There has been, and is, no need for regulation to set the rates for Central Heat. Competitive forces will ensure that Central Heat's rates continue to be reasonable.

The rates of Central Heat are reasonable when compared with competitive pressures. The rates of Central Heat should not be arbitrarily set by reference or by formulistic calculations. Central Heat is not a utility of the nature of other companies commonly considered utilities. Central Heat operates a business in a competitive environment and should not have its rates limited by the application of formulas, particularly when in the past competitive pressures have caused the investors in Central Heat to earn no, or very little return on their investment.

And further, in Exhibit 2, Tab 3, page 2, paragraph 8, Mr. Barnes stated:

"If the rates of Central Heat are set by formulistic approaches then Central Heat will not be operating in a prudent businesslike manner."

Practical examples in support of the Applicant's position are stated by the Applicant at Transcript p. 53:

"Well, there have been a number of systems shut down. And because they --- I hate to keep going back to the same old theme, but because they were operated as a utility. Spokane was one, it was a smaller system but it was in the --- it's been in operation of a successful, for something like 70 or 80 years but it was part of a large utility and it was treated that way. Things changed within the City of Spokane and the people that were running the district system, the district heating system were not able to respond the way they might have if that had been their only responsibility.

Another case was in Tacoma. And one, I guess the most current one that would relate closest to our company would be San Fransisco and it's a system that is somewhat smaller than ours but has the potential to be bigger really, right now. But it was part of a larger utility that --- and it was let go and there was no real drive to market it, it was in competition with it's own parent company in effect, to the extent that they were losing, they lost sufficient customers that the parent utility wanted to abandon the system.

The regulatory agency in San Fransisco denied them the right to abandon the system and told them they're going to have to operate it. So, the management of the parent company took a look around at other operating district heating systems, and ours was one of them, and said, okay, what is it going to take to make this thing work? And what they ended up doing was just had created a separate profit centre and it's own operating entity and put a general manager, permanent general manager in charge of it. And there's a central heat in Seattle and some of the other successful district heating systems provided advice on operating structures and people and approach to marketing and this kind of thing, and they've actually turned it around in a matter of two years and it looks like it's enjoying considerable growth...

Well, I guess to use an example would be one that I'm familiar with is was Spokane, which is a system that failed, oh, ten years or so ago. And that was quite an old system but at one time it had been --- I'm sorry I said Spokane, I should have said Tacoma on this one. But it had been in operation quite a number of years and it was privately held but there is the shareholders had taken a fair bit out of the company in the way of dividends and they got to a point where the electricity became very cheap in Spokane ---

I'm sorry, Tacoma. Became very cheap and the actual electric utility was negotiating favourable rates with customers that were on the district heating system.

Coupled with that some of the older systems started to need replacement and it was the start of the down hill slide that I mentioned before. They had no reserve in the way of cash or or line of credit at the bank to to finance what they needed to do by debt and it just got to the point finally that they had to abandon the system and customers that were left, the figure that was told me that it cost those customers collectively six million dollars to convert over off this district heating system to either electric heat or other boilers. And that was the kind of example that I've seen and I certainly don't want our company to be faced with."

With regard to the capital structure the Applicant gave evidence that its proposed equity component of approximately 80 was reasonable due to potential risk faced by Central Heat. The risk primarily related to the need to have a capital structure which would permit Central Heat to be able to operate through a severe economic downturn, as well as having sufficient funds on hand to repair a major line break. In the Applicant's view the equity component assured continuity of steam service if either of these eventualities were to occur. As practical examples of the above, Mr. Barnes made reference to a system in London, Ontario which is at the point of failure due to not having a sufficient reserve to deal with unforseen circumstances and, in Vancouver, the inability of the Applicant to attach buildings associated with Hyland Turnkey due to their perception of the risk associated with a steam system. Mr. Barnes (Transcript p. 137) acknowledged that Central Heat was a utility but reiterated that they had only survived due to the business approach adopted to running the business.

"I think we certainly realize we're a utility, but a business approach to running the company has allowed us to survive and to get to this point. And we don't really see the advantage of changing that approach.

I guess, at this time in the economic situation, both myself and the Board of Directors, a number of the Board of Directors have got some real concerns about the possibility of either inflation or recession or even depression and/or maybe a combination of both over the next few years. And when I talk about a business approach, it's only prudent to minimize your debt entering into a phase where you have some concerns along those lines."

With specific regard to the return on equity, in response to a question from the Chairman, Mr. Barnes stated:

I think generally speaking, yes. As I said before and, you know, without going and making any kind of a commitment that the Board has said, you know, this is as far as we can go or as far as we want to go, I think what we can say is that we have reached our long-term goal to getting a good viable going concern and with a reasonable return to the shareholders."

Through Counsel, Commission staff raised the issue of the Applicant being a utility as opposed to a business and, accordingly, the rates should be determined on the basis of costs being consistent with the risk. Costs, in this instance, are defined as the debt/equity structure and the return thereon.

Mr. Fulton also presented Exhibit 11 which showed an interest coverage of 6.19 in 1986, 6.354 in 1987 and an estimated interest coverage of 8.878 in 1988 if the proposed rate increase is approved.

It is apparent from the evidence that a further cost saving would be achieved by the customers if the common equity component was reduced, replacing equity with debt. The customers would benefit from the lower cost of debt as well as the tax saving achieved through the substitution of debt for equity.

In the alternative, it must also be recognized that six of the 10 utilities cited as examples are subsidiaries of larger utilities and, hence, the customers receive the benefit of a capital structure which the utility may not have been able to achieve if it were independent. In addition, the presence of the parent company provides access to a capital market which would not otherwise exist.

With specific regard to Central Heat and assuming the indicated expansion takes place, market forces; namely, the need for additional capital, will start to reduce the current imbalance between debt and equity. It can also be argued that the current debt/equity structure at this point in time is a "security" for the customers to ensure the continuation and expansion of the Applicant's utility operation.

In addition to the above the Commission has considered the earning history of the Company, the efficient business-like manner in which it has been operated and the allowed return on equity for other jurisdictional utilities in 1986 and 1987.

Accordingly, the Commission finds the capital structure and return on common equity proposed by the Applicant results in just and reasonable rates at this time.

With regard to the future, the Commission accepts regulation by market forces if circumstances remain unchanged and the capital expansion plan proceeds. However, if the utility wishes to seek increased rates resulting from an increase in return on equity or a larger equity component, on the basis of the evidence in this proceeding it would appear that this would result in unjust and unreasonable rates. In the alternative, if significant reduction in interest rates were to occur with a general decline in allowed return on equity, the Commission, on its own motion, would consider a hearing with a view to lowering the return on equity. The Commission will be guided on this consideration by returns on common equity allowed to other utilities in British Columbia.

#### DECISION

The Commission confirms the interim increase which became effective January 1, 1988 pursuant to Commission Order No. G-89-87.

DATED in the City of Vancouver, the Province of British Columbia, this 22 ncl. day of February, 1988.

J.G. McIntyre, Chairman J.D.V. Newlands, Deputy Chairman



BRITISH COLUMBIA UTILITIES COMMISSION

ORDER	
NUMBER	<u>G-16-88</u>

### BRITISH COLUMBIA UTILITIES COMMISSION

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

)

)

and

IN THE MATTER OF an Application by Central Heat Distribution Limited

BEFORE:

J.G. McIntyre, Chairman; and J.D.V. Newlands, Deputy Chairman

February 22, 1988

#### ORDER

WHEREAS Central Heat Distribution Limited ("Central Heat") applied November 24, 1987 for an average increase of 3.7% to the Basic Steam Tariff, on an interim and permanent basis to become effective January 1, 1988; and

WHEREAS the Commission issued Order No. G-89-87 granting Central Heat an interim increase in the Basic Steam Tariff of 3.7% effective January 1, 1988 and set down the Application for public hearing to commence February 9, 1988 in Vancouver; and

WHEREAS the Commission considered the Application and the evidence adduced during the public hearing all as set forth in a Decision issued concurrently with this Order.

NOW THEREFORE the Commission hereby orders Central Heat Distribution Limited as follows:

- The Rate Base and Earned Return for the 1988 Test Year are as set out in Schedules 1 and 2 of the Decision.
- The interim increase of 3.7% to the Basic Steam Tariff effective January 1, 1988 is confirmed.
- The Commission will accept for timely filing, a revision to the Basic Steam Tariff BCUC No. 1 Rate Schedule confirming as permanent, a 3.7% increase in rates, effective January 1, 1988.

DATED at the City of Vancouver, in the Province of British Columbia, this 22nd day of February, 1988.

bohn G. McIntyfe Chairman

FOURTH FLOOR, BOO SMITHE STREET, VANCOUVER, B.C. VRZ 2E1 CANADA

HEAT'88Dec'nSched CENTRALHEAT DISTRIBUTION LIMITED 1988 TestYear-BCUC DECISION SCHEDULES

UTIL. TY RATE BASE	APPLICATION	BCUC	ADJUSTED	BCUC	DECISION
SCHEDULE 1	1988	TECHNICAL	1988	DECISION	1988
S'S	TESTYEAR	ADJUSTMENT	TESTYEAR	ADJUSTMENT	TESTYEAR
PLANT IN SERVICE, Jan. 1	\$0	\$0	\$0	\$0	\$0
Additionstoplant in service	0	0	0	0	0
Disposals	0	0	0	0	
PLANT IN SERVICE, Dec. 31	0	0	0	0	0
Add: Work in progress	0	0	0	0	0
Plant held for future use	0	0	0	0	0
Plant acquisitionadjustment	0	0	0	0	0
Preliminary investigation	, 0	0	0	0	0
Other deferredcharges	0	0	0	0	0
	0	0	0	0	0
Less:			0		0
Accum.Depreciation	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	6,016,590	0	6,016,590	0	6,016,590
NET PLANT IN SERVICE, Dec. 31	6,016,590	0	6,016,590	0	6,016,590
			0		0
NET PLANT IN SERVICE, Jan. 1	6,004,630	0	6,004,630	0	6,004,630
NET PLANT IN SERVICE. Mid yr.	6.010.610		6,010,610	0	6,010,610
Non-Utility Plant	(51,479)		(51,479)		(51,479)
ALLOWANCE-WORKING CAPITAL	22,666	0	22,666	0	22,666
Mean Contributionsand Grants	(120,000)	0	(120,000)	0	(120,000)
UTILITY RATE BASE, MID YEAR	\$5,861,797	\$0	\$5,861,797	\$0	\$5,861,797
CONSTRUCTIONFOR AFUDC	\$0	********	======== \$0	=============	======== \$0

HEAT'88Dec'nSched CENTRAL HEAT DISTRIBUTION LIMITED 1988 TestYear-BCUC DECISION SCHEDULES

UTILITY INCOME & RETURN	APPLICATION	BCUC	ADJUSTED	BCUC	DECISION
SCHEDULE 2	1988	TECHNICAL	1988	DECISION	1988
\$'s	TESTYEAR	ADJUSTMENT	TESTYEAR	ADJUSTMENT	TESTYEAR
SALESVOLUME (M#)	755,237	0	755,237	0	755,237
% Increasein averageprice	1.99%	0.01%	2.00%	-0.01%	1.99%
Averagerevenue: ¢ per M#	778.58	0.0743	778.66	-0.0748	778.58
UTILITY REVENUE:RATES + MISC.					
SteamSales	\$3,101,345	\$0	\$3,101,345	\$0	\$3,101,345
-Interim rates	\$114,750	\$0	\$114,750	\$0	\$114,750
Fuel CostRecovery	2,663,981	0	2,663,981	0	2,663,981
BCUC ADJUSTMENTS	59	561	620	(565)	55
TOTALREVENUE	\$5.880.135	\$561	\$5.880.696	(\$565)	\$5.880.131
Less:Energy, chemicals,etc	3,266,378	0	3,266,378	0	3,266,378
GROSS MARGIN	\$2,613,757	\$561	\$2,614,318	(\$565)	\$2,613,753
Labour costs	704,368		704,368		704,368
Generaladminandoffice	347,999	0	347,999	0	347,999
Other Operatingexpense	70,800	0	70,800	6,196	76,996
Taxesother than incometax	173,125	0	173,125	0	173,125
Depreciation	191,140	0	191,140	0	191,140
Other income	(5,500)	0	(5,500)	0	(5,500)
OPERATINGEXPENSES	\$1,481,932	\$0	\$1,481,932	\$6,196	\$1,488,128
Utility incomebeforetax	\$1.131.825	\$561	\$1.132.386	(\$6,761)	\$1.125.625
INCOME TAXEXPENSE	\$340,973	\$11,208	\$352,181	(\$3,244)	\$348,937
EARNED RETURN	\$790,852	(\$10,647)	\$780,205	(\$3,517)	\$776,688
UTILITY RATE BASE	\$5,861,797		\$5,861,797	\$0	\$5,861,797
RETURN ON RATE BASE	13.49%	-0.18%	13.31%	-0.06%	13.25%



HEAT'88Dec'nSched CENTRAL HEAT DISTRIBUTION LIMITED 1988 TestYear-BCUC DECISION SCHEDULES

INCOME TAXES SCHEDULE 3 \$'s	APPLICATION 1988 TESTYEAR	BCUC TECHNICAL ADJUSTMENT	ADJUSTED 1988 TESTYEAR	BCUC DECISION ADJUSTMENT	DECISION 1988 TESTYEAR
Earnedreturn, aftertax Deduct:interest	\$790,852 (150,000)	(\$10,647) 22,799	\$780,205 (127,201)	(\$3,517) 0	\$776,688 (127,201)
Accountingincomeaftertax Deduct:timingdifferences	640,852 (170,877)	12,152 0	653,004 (170,877)	(3,517) 0	649,487 (170,877)
TAXABLEINCOME AFTER TAX-FOR TAXRETURN	\$469,975	\$12,152	\$482,127	(\$3,517)	\$478,610
Incometaxrate-to\$200,000 Incometaxrate-above\$200,000	23.92% 47.98%	0.00% 0.00%	23.92% 47.98%	0.00% 0.00%	23.92% 47.98%
Taxableincomebeforetax Deferredtax-grossedup	\$810,948	\$23,360	\$834,308	(\$6,761)	\$827,547
TAXABLEINCOME BEFORE TAX	\$810,948	\$23,360	\$834,308	(\$6,761)	\$827,547
Incometaxexpense -payable on flow-through -DIFFERENCE WITH APPLICANT	\$340,973 ¢	\$11,208	\$352,181	(\$3,244)	\$348,937
INCOME TAXEXPENSE	\$340,973	\$11,208	\$352,181	(\$3,244)	\$348,937



HEAT'88Dec'nSched CENTRALHEAT DISTRIBUTION LIMITED 1988 TestYear-BCUC DECISION SCHEDULES

COMMON EQUITY	APPLICATION	BCUC	ADJUSTED	BCUC	DECISION
SCHEDULE 4	1988	TECHNICAL	1988	DECISION	1988
\$'s	TESTYEAR	ADJUSTMENT	TESTYEAR	ADJUSTMENT	TESTYEAR
OPENING BALANCE					
Share capital	\$0	\$3,800	\$3,800	\$0	\$3,800
ContributedSurplus	0	0	0	0	0
Retained, opening	4,662,831	0	4,662,831	0	4,662,831
COMMON EQUITY-OPENING BAL.	4,662,831	3,800	4,666,631	0	4,666,631
Net Income on Tot. Capital	640,852	12,152	653,004	(3,517)	649,487
			0	0	0
Deduct:					
DividendsCommon	(600,000)	0	(600,000)	0	(600,000)
	4,703,683	15,952	4,719,635	(3,517)	4,716,118
Sharesissued	0	0	ŏ	0	õ
COMMON EQUITY-CLOSINGBAL.	\$4,703,683	\$15,952	\$4,719,635	(\$3,517)	\$4,716,118
COMMON EQUITY	\$4,683.257	\$9.876	\$4.693.133	(\$1,758)	\$4.691.375
Mid-year average			• , ,		• • • • • • • • •
Less:deemedL-T Debt	\$0	0	0	0	0
COMMON EQUITY	\$4,683,257	9,876	\$4,693,133	(\$1,758)	\$4,691,375
UTILITY BALANCE	where were after the same series and there were the	which make static oper static data often and when	- The second sec		المحمد المعلم المعلم المحمد المحمد المحمد المحمد المحمد المحمد وهوه المعلم المحمد المحمد المحمد المحمد المحمد المحمد
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HEAT'83Dec'nSched CENTRALHEATDISTRIBUTION LIMITED 1988 TestYear-BCUC DECISION SCHEDULES

RETURN ON CAPITAL	APPLICATION	BCJC	ADJUSTED	BCUC	DECISION
SCHEDULE 5	1988	TEC-INICAL	1988	DECISION	1988
\$'5	TESTYEAR	ADJUSTMENT	TESTYEAR	ADJUSTMENT	TESTYEAR
	-				
NotesPayable(notional)	\$174,740	(\$6,076)	\$168,664	1,758	\$170,422
proportion	2.980%	-0.100%	2.880%	0.030%	2.910%
embeddectost	10.000%	0.000%	10.000%	0.000%	10.000%
return	0.300%	-0.010%	0.290%	0.000%	0.290%
Long-term debt	\$1,000,000	\$0	\$1,000,000	0	\$1,000,000
proportion	17.060%	0.000%	17.060%	0.000%	17.060%
embeddedcost	11.000%	0.000%	11.000%	0.000%	11.000%
return	1.880%	0.000%	1.880%	0.000%	1.880%
Shareholderadvances	\$0	\$0	\$0	\$0	\$0
proportion	0.000%	0.000%	0.000%	0.000%	0.000%
embeddectost	0.000%	0.000%	0.000%	0.000%	0.000%
return	0.000%	0.000%	0.000%	0.000%	0.000%
Common Shares	\$3,800	(\$3,800)	\$0	\$0	\$0
proportion	0.060%	-0.060%	0.000%	0.000%	0.000%
embeddedcost	0.000%	0.000%	0.000%	0.000%	0.000%
return	0.000%	0.000%	0.000%	0.000%	0.000%
Commonequity	\$4,683,257	9,876	\$4,693,133	(1,758)	\$4,691,375
proportion	79.890%	0.170%	80.060%	-0.030%	80.030%
ROE	14.153%	-0.240%	13.913%	-0.073%	13.840%
return	11.310%	-0.170%	11.140%	-0.060%	11.080%
TOTAL CAPITAL	\$5,861,797	\$0	\$5,861,797	\$0	\$5,861,797
RETURN ON RATE BASE	13.49%	-0.18%	13.31%	-0.06%	13.25%
UTILITY RATE BASE, MID YEAR	\$5,861,797	\$0	\$5,861,797	\$0	\$5,861,797



APPENDIX B 000015

#### 2 (b) & (c)

### CENTRAL HEAT DISTRIBUTION LIMITED

							FORE	CAST
	RATE BASE	EARNED RETURN	PERCENT	EQUITY	PERCENT	DEBT EQUITY	RTN BASE	RTN EQUITY
1969	3,570,248	( 228,968)	( 6.41)					
1970	4,516,808	( 108,906)	( 2.41)					
1971	4,790,940	( 120,319)	( 2.51)					
1972	4,920,973	( 19,877)	( 0.40)	;				
1973	5,111,585	87,549	1.71					
1974	5,363,166	( 8,663)	( 0.16)					
1975	5,528,690	162,189	2.9					
1976	5,371,107	199,651	3.72				n ann an Staire ann an Staire 1917 - Staire ann an Staire 1917 - Staire ann an Staire	
1977	5,370,507	170,193	3.2					
1978	5,401,117	269,869	5.0					
1979	5,550,102	, <b>68,675</b>	1.23	2,913,987	-	56/44	6.42	N/A
08 <del>6</del> 1	6,304,450	14,435	0.23	2,928,422	829	51/49	7.51	5.4
1981	6,006,655	399,806	6.66	2,986,630	0.8	50/50	6.60	2.10
1982	6,349,868	427,662	6.73	3,258,671	1.42	51/49	9.00	5.25
1983	6,568,963	405,047	6.16	3,466,811	2.94	53/47	8.47	7.63
1984	6,087,314	559,177	9.18	3,936,568	8.83	65/35	9.18	8.51
1985	6,085,607	663,415	10.40	4,195,803	10.89	69/31	9.61	9.63
1986	8,054,235	677,478	11,19	4,321,499	11.81	71/29	10.14	10.09
1987	6,069,065	645,433	10.63	4,552,768	11.05	75/25	11.68	12.56
	105,021,400	4,223,846	4.03					

NOTE: Figures for the first six columns were derived from the Annual Reports except for 1986 and 1987.

Figures for the two "Forecasts" columns come from the Rate Application filed for each year.

\*Source: Exhibit 2, Tab 3, page 15

# APPENDIX C

# Capital Structure Ratios of Selected Major Canadian Utilities

Company	Date	Debt %	Common/Preferred Deferred Taxes
Pacific Northern Gas	12/83	52.8	47.2
Gas Distributors Canadian Utilities Ltd. Consumers' Gas Gaz Metropolitain Inland Natural Gas Union Gas	12/83 9/83 12/83 6/84 3/84	37.5 50.4 50.3 65.4 41.3	62.5 49.6 49.7 34.6 58.7
Gas Pipelines Alberta Natural Gas Nova, An Alberta Corp. TransCanada PipeLines Westcoast Transmission	12/83 12/83 12/83 12/83 12/83	34.3 56.3 58.6 50.2	65.7 43.7 41.4 49.8
Electrics Maritime Electric Newfoundland Light & Power TransAlta Utilities West Kootenay Power & Light	12/83 12/83 12/83 12/83	45.2 45.5 39.3 53.2	54.8 54.5 60.7 46.8
Telephones Bell Enterprises B.C. Telephone Island Telephone Maritime Tel. & Tel. New Brunswick Telephone Newfoundland Telephone Quebec Telephone	12/83 12/83 12/83 12/83 12/83 12/83 12/83	36.4 44.8 40.9 40.6 39.4 42.7 34.2	63.6 55.2 59.1 59.4 60.6 57.3 65.8
Central Heat Distribution	12/83	20.0	80.0

## APPENDIX D

## Allowed Returns on Equity for British Columbia Utilities for 1986 and 1987

	Date of Decision	Rate Base (\$000)	Common Equity	Common Equity Range %	Common Equity Allowed %
Pacific Northern Gas Ltd.	Jan 29/86	88,873	26.64	14.75-15.25	15.00
Columbia Natural Gas Limited	Mar 18/86	13,125	39.24	14.25-15.25	14.75
Princeton Light and Power Company, Limited	Mar 27/86	2,045	40.00	14.00-15.00	14.50
Columbia Natural Gas Limited	Jan 21/87	14,067	41.19	13.50-14.25	14.00
West Kootenay Power and Light Company, Limited	Apr 3/87	126,496	38.28	12.75-13.50	13.20
Inland Natural Gas Co. Ltd.	Aug 6/87	141,949	32,57	13.25-13.75	13.50





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