

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

and

IN THE MATTER OF  
an Application for Rate Relief  
by Pacific Northern Gas Ltd.

DECISION

January 29, 1986

M. Taylor, Chairman;  
J.D.V. Newlands, Deputy Chairman; and  
D.B. Kilpatrick, Commissioner

The December 21, 1984 Application by Pacific Northern Gas Ltd. to amend its filed tariffs, was heard in public in Prince Rupert, B.C. May 13 through 17, 1985 inclusive and continued May 22 through 23 in Vancouver where it concluded with Final Argument on May 27, 1985.

The Division of the Commission conducting the public hearing comprised Mrs. Marie Taylor, Chairman; J.D.V. Newlands, Deputy Chairman; and D.B. Kilpatrick, Commissioner.

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## I BACKGROUND

This Decision deals with an Application for interim and permanent rate relief by Pacific Northern Gas Ltd. ("PNG" or the "Applicant") dated December 21, 1984, as supplemented on March 15, 1985.

Commission Order No. G-5-85 dated January 28, 1985 granted an interim rate increase of 1.88% effective February 1, 1985 with the interim increase subject to refund with interest at the average prime rate of the principal bank with which PNG conducts its business. The Commission, pursuant to that Order set the matters of both interim and permanent rate relief for hearing in public at Prince Rupert, British Columbia commencing on May 14, 1985.

Copies of Applications and supporting material were made available for inspection at the offices of PNG and in the office of the Commission, with copies provided to the major industrial clients of the Applicant and to all Municipal Offices located in PNG's service area at the time the Applications were made.

Interventions were received from Westar Timber Ltd., Eurocan Pulp and Paper Co. Ltd., Ocelot Industries Ltd., Aluminum Company of Canada Ltd., Atco Forest Products Ltd. (all represented by R.B. Wallace), British Columbia Gas Corporation ("BCGC") (represented by J.M. Pelrine), International Brotherhood of Electrical Workers, Local 213 and Inland Natural Gas Co. Ltd. All appeared at the hearing with the exception of Inland Natural Gas Co. Ltd.

The business of the Company is the transmission and distribution of natural gas in west central British Columbia, with the system commencing at Summit Lake, near Prince George and terminating in the deep water ports of Kitimat and Prince Rupert.

Since the last appearance of PNG before the Commission in 1983, the number of residential and small commercial customers has increased from approximately 9,800 to 10,800. The rate base has increased from \$89 million to \$91 million and gas sales revenues have increased from approximately \$76 million to \$89 million. The latter two increases are primarily the result of the construction of additional facilities and increased sales of gas to the Ocelot methanol plant located at Kitimat.

The Applicant's Class B common shares (voting) are held 100% by Westcoast Transmission Company Limited ("Westcoast") with approximately 45% of the Class A non-voting shares also held by Westcoast. Petro Canada Exploration Inc. holds approximately 19% of the non-voting common shares.

Evidence for the Applicant was given by Mr. R.F. O'Shaughnessy, President; Mr. R.G. Dyce, Vice President, Government and Regulatory Affairs; Mr. T.W. Weaver, Comptroller; Mr. J.W. Kruet, Manager of Field Operations; and Dr. S.F. Sherwin.

The intervenors presented evidence with respect to conditions in the forest industry through Mr. L.J. Smith, Executive Vice-President and Chief Operating Officer, B.C. Resources Investment Corporation and Chairman, Westar Timber Ltd. and, with respect to appropriate rate of return, through Dr. W.T. Cannon.

## II RATE BASE

### (a) Propane-Air Plant

Subsequent to filing of the Application and arising from their consideration at the hearing, a number of adjustments to PNG's proposed 1985 Gas Plant Additions are required.

Based on the testimony of the regional inspector from the Ministry of Labour, Gas Safety Branch, and an on-site inspection of the existing propane-air plant by the Commission panel members, the Commission concluded that the plant

was unsafe and required extensive modification and upgrading to render it satisfactory for continued operation. Moreover, the existing plant was undersized for the requirements of Prince Rupert and its location undesirable for safety reasons. The Commission further concluded that the location of Prince Rupert at the end of a single pipeline traversing remote and rugged terrain made mandatory the provision of an alternative or standby source of fuel to cover emergencies.

Accordingly, by Order No. C-2-85 dated June 6, 1985, the Commission issued a Certificate of Public Convenience and Necessity for the construction, operation and maintenance of a new propane-air plant with a daily capacity of 4.8 million cubic feet at a cost of approximately \$531,000 (excluding overhead). By letter dated August 22, 1985 the Applicant advised the Commission that completion was expected by November 15, 1985. The new propane-air plant will also provide additional support for the utility as a peak-shaving facility, allowing it to reduce its nomination from Westcoast Transmission. The Commission expects to see a saving in demand charges resulting from PNG optimizing the use of the new plant.

(b) Spare Turbine

The Applicant has a total of seven compressors in operation and while scheduled maintenance of these units can normally be undertaken in the summer months, the PNG system has no protection in the event of an emergency during the coldest winter period, when all seven compressors are required to meet peak loads. All practical alternatives having been explored by the Applicant without success, the Commission by Order No. C-7-85 dated June 27, 1985 issued a Certificate of Public Convenience and Necessity for the purchase of a new turbine and spare rotor at a cost of approximately \$983,000 (excluding overhead). This spare unit provides emergency security. It can be used to augment interruptible sales during peak periods, and can be incorporated into normal service as demand increases.

(c) DSEP Adjustment

The latest federal budget terminated federal commitments to DSEP projects in the 1985/86 fiscal year. As a consequence, previously planned project costs amounting to approximately \$200,000 were eliminated by PNG from rate base.

(d) Refund of Federal Sales Tax

Following the hearing of the Application, PNG received a federal sales tax refund of \$800,936 plus interest on the purchase of compressor equipment made in 1982. On June 13, 1985, the utility submitted amendments to its Application reflecting this refund.

The Commission accepts the need for an amendment to the Application as reasonable and appropriate to this Decision, but concludes the correct treatment is to deduct the full amount of the refund from the opening balance of 1985 Plant in Service, and accordingly has made the necessary adjustments.

The foregoing adjustments result in a rate base totalling \$90,696,000 as indicated in Schedule I attached to this Decision.

### III COST OF SERVICE EXCLUDING RETURN

(a) Test Period

The Application for interim relief was based upon a forecast test year ending December 31, 1985.

(b) Excess Insurance Proceeds

Arising from settlement of an insurance claim for revenues lost as a result of a temporary shutdown of the Ocelot methanol operation, the Applicant has credited its shareholders with "Insurance proceeds in excess of contract

minimum" in the amount of \$586,335 before income taxes. In cross-examination at the hearing the Applicant acknowledged that the utility customers paid the premiums for the insurance coverage, through their rates.

The 1983 Commission Decision on rates was based upon an operating forecast that contained insurance expense which included protection against a major loss of load from the Ocelot plant. In 1983 such a loss occurred and the Applicant successfully negotiated compensation that resulted in a "paid for" load factor for the year of about 91% (Exhibit 35). The forecast load factor was 80%. The Applicant identified the pre-tax value of the excess to be \$586,335. In its filing of the Annual Report to the Commission, the Applicant designated this excess as a "non-recurring gain". The result of this treatment was that the shareholders received the after-tax benefit of this windfall. The actual unadjusted return on equity for 1983 was 17.52% and the return on equity, after excluding both the insurance excess and a "gain on gas account" of \$554,030 before tax, was 14.99%.

Under cross-examination (Transcript pp. 1329-1336) the Applicant's witnesses confirmed that :

- the utility's customers paid in their rates 100% of the insurance premiums which insured the Applicant from loss of load attributable to force majeure under the BCGC/Ocelot contract.
- the insurance coverage was intended to protect the shareholders from loss of load not otherwise protected by the 80% take-or-pay provision in the BCGC/Ocelot contract.
- the Applicant took the position that "if there had been a shortfall on this particular event, that also would have been borne by the shareholders" (Applicant's testimony, Transcript p. 1331).

- the Applicant views the level of risk involved in negotiating a satisfactory loss of load insurance settlement of this sort as similar to the risk incurred in making a sales forecast.

The Commission concludes that since 1983 rates were based on sales yielding a load factor of 80%, the shareholders did not face any downside risk. The only risk to the shareholders in this instance was potential failure to recover sales in excess of those in the forecast. The customers paid the insurance premiums required to insure against this.

The Commission therefore concludes that the excess insurance proceeds should accrue to the sole benefit of the customers, and directs the Applicant to partially offset increased insurance costs by establishing a Deferred Revenue Account of \$586,000, to be amortized over three years commencing in 1985, as reflected in the Schedules. Corresponding entries are to be made in the Deferred Tax Account and opening Retained Earnings. In future, where windfall profits of a material nature occur, the Applicant should apply to the Commission for an accounting order prior to closing its accounts for the fiscal year involved.

(c) Unaccounted for (Lost) Gas

In the period 1980 through 1984 the Applicant has experienced significant fluctuations in unaccounted for gas. In 1983 the Applicant incurred an unexpected gas gain of 0.546% of volumes purchased that year. The pre-tax unexpected income that resulted was \$554,030 (Exhibit 34). The Applicant chose to recognize this as a "non-recurring gain" for regulatory purposes and credited that amount to shareholders after providing for income taxes. This was not reported as an extraordinary item on the Applicant's external financial statements for the year because the income arose in the ordinary course of the Applicant's business.



During 1984 the Applicant experienced gas losses at the level of 0.9% of volumes purchased. The resulting pre-tax unexpected loss was \$326,515 (Exhibit 41). This loss was recognized by the Applicant as "normal" for regulatory purposes and was charged to shareholders after providing for income taxes. The Applicant achieved a 16.45% Return on Equity during 1984 despite the unexpected gas loss. The net gain before tax over the two years was approximately \$225,000 or about 0.2% of volumes purchased. The Commission recognizes the inherent difficulties in forecasting the amount lost or unaccounted for and accepts in principle that estimation errors, both positive and negative, should accrue to the shareholder in all but the most unusual circumstances.

The Commission concludes from the evidence that some fluctuation in the account can continue to be expected and that this should be considered "normal" for the Applicant at this time. The Commission further concludes that, under these circumstances, equitable treatment requires that fluctuations within a specified range should be charged to the shareholders but that fluctuations outside that range should be charged to the customers.

Accordingly, the Commission directs that in future, if such fluctuations in the gas account are outside the range of 0.2% loss to 0.7% loss, the Applicant will apply for an accounting order for the treatment of unusual fluctuations prior to closing of its accounts for the fiscal year.

(d) Applicability of the 1%  
Utility Tax to Kitimat

On June 28, 1985 the Applicant advised the Commission by letter that on legal advice, it would be withholding payment of \$378,245 to Kitimat, as the tax (as prescribed under Section 407 (2) of the Municipal Act) does not apply to gas sold to the British Columbia Gas Corporation for resale to Ocelot. The \$378,245 was included by the Applicant in revenue requirements for 1985 and a further \$188,906 now deemed paid in error in 1984 is being claimed by the Applicant for refund.

The Commission has been advised that the District of Kitimat will be approaching the Provincial Government to retroactively amend Section 407 (2) to preserve the foregoing source of income for the District. Since it may be some time before the outcome of this tax applicability is known, the Applicant has recommended (supported by BCGC by letter of July 17, 1985) that the \$378,245 will be held in an interest-bearing account until the issue is resolved.

The Commission concurs and has therefore made no adjustment. Disposition of the \$188,906 paid in 1984 will be determined upon resolution of the Applicant's claim for refund.

(e) Cost of Gas

Pursuant to the Applicant's contract with Westcoast Transmission, the Application includes the cost of gas for interruptible sales based on the energy content of the gas. On June 1, 1985 after the Application had been filed, Westcoast Transmission switched to energy billing, thereby making energy adjustments unnecessary.

The Commission has therefore accepted the energy adjustment for the period to June 1 and has eliminated from the cost of gas \$40,000 comprising the cost of energy component on interruptible sales for the period June 1 to December 31, 1985.

(f) Non-utility Items

The Application reflects PNG's position that certain items of research and development expenditures, interest income and interest expense were non-utility in nature.

The Commission concludes that the Applicant's expenditures in support of research by the B.C. Research Council on a new manufacturing process for specialized chemicals (THAQ and AQ), are properly designated as non-utility expenditures.

With respect to the interest expense and income arising from the Applicant's financing of gas sold to B.C. Gas Corporation for the Ocelot account, PNG argued that since none of its other customers are exposed to any risk or burden attributable to this arrangement, the customers are not entitled to any potential benefits therefrom.

Counsel for BCGC argued that since by agreement full payment for the gas to PNG was guaranteed by BCGC and since the agreement was integral to PNG as a supplier of industrial gas and thereby a normal utility function, that the financing or credit function related thereto should be accepted as utility in nature.

The Commission rejects the argument of BCGC and accepts the Applicant's position that the interest income and expense related to the supply of gas to Ocelot is appropriately designated non-utility.

#### IV CAPITAL STRUCTURE

The Applicant's capital structure, as indicated in Schedule V to this Decision, is supported by a common equity component of 27%. This compares to an equity component of 24% in the August 1983 Decision.

Debt, customer and shareholder funding components are :

Debt	46.15%
Customer (deferred taxes, CIAC, construction advances, etc.)	21.73
Equity	<u>32.12</u>
	<u>100.00%</u>

## V RISK AND RATE OF RETURN

The hearing produced extensive evidence and testimony on the matter of risk and appropriate rate of return. The Commission recognizes the merits of the conventional and generally practised technical methodology utilized by the expert witnesses for both the Applicant (Dr. Sherwin) and B.C. Gas Corporation (Dr. Cannon) in their determination of risk and appropriate rates of return. In the circumstances of PNG, however, in the Commission's view the magnitude of the Ocelot load together with relatively unpredictable economic conditions, render the business cycle basis of analysis unusually difficult and susceptible to error. Reflecting these conditions, the Commission notes that in the absence of convincing supporting evidence Dr. Sherwin appears to have relied on his personal judgment.

With respect to the Applicant's overall level of risk, Dr. Sherwin relied principally on the comparable earnings test to arrive at his conclusion that the appropriate rate of return on equity for PNG was "no less than 16.5%" (ref. Exhibit 3, p. 38). Because he concluded that PNG was riskier than his particular selection of "comparable" companies, Dr. Sherwin included a 1% equity risk premium in that recommended rate of return. Although the Commission agrees that a risk premium in the order of 1% is appropriate, it does so for reasons beyond any indications from the comparable earnings test, and is not persuaded that the particular selection of companies made by Dr. Sherwin directly supports his 1% risk premium adjustment.

With respect to the Ocelot load, currently attributable to the methanol plant operations and representing some 55% of PNG's total load, this is supported by the presence of a provincial government guarantee.

In the Commission's opinion the very existence of that guarantee renders PNG a special case not amenable to conventional rate of return analysis. The key requirement in such analysis is the simulation and reflection of competitive

market conditions leading to a reasoned and competitive rate of return linked to competitive market risks. The government guarantee of the dominant portion of PNG's load (Ocelot) effectively eliminates the competitive market factor, thereby invalidating the conventional methodology for rate of return determination. Hence, Dr. Sherwin's decision to simply equate the level of risk in the Ocelot contract to the residential level, in the Commission's view violates the very logic on which his rate of return assessment depends.

The Applicant's President, Mr. O'Shaughnessy testified that the operation of either plant would be dependent on the trouble-free operation of the other and that he viewed the planned fertilizer plant as exposing PNG to significant additional risks (Transcript pp. 1327-1329). While no evidence was presented regarding the ability of either plant to compete against larger, world-scale plants during the prevailing world surplus in both methanol and fertilizers, the Commission is satisfied that the government guarantee will safeguard the interests of the utility's customers and shareholders.

With respect to the balance of the Applicant's industrial loads (Alcan, Westar, Eurocan and Telkwa) representing some 30% of the utility's total load, the Commission notes that with three out of four of these major customers, PNG is heavily dependent on the outlook for B.C.'s forest industries. The Commission further notes that there is as yet no evidence that those industries will recover fully, easily or quickly from their continuing difficulties. In both his pre-filed evidence (Exhibit 18) and in cross-examination (Transcript Volume 3, pp. 509-559) Mr. L.J. Smith of Westar testified as to the nature of those difficulties.

From that evidence the Commission concludes that the necessary capital investments in new technology and plant are unlikely to be made possible until the forest industries' balance sheets recover from the last four years of poor

performance. The Commission further concludes that such investments when made, in conjunction with increasing use of woodwaste and other competitive fuels, are likely to reduce the consumption of natural gas by those industries. Accordingly, PNG and any other company heavily dependent on the use of natural gas by the forest industries must be viewed as somewhat riskier than those that are not.

The Commission finds Dr. Sherwin's methodology leading to his recommended 16.5% rate of return to be deficient in two respects which render that rate unjustifiably high. Firstly, in his use of the business cycle approach to analysis Dr. Sherwin chose to ignore the substantial decline in the rate of inflation that occurred and has continued since the end of the last business cycle. Secondly, in December 1984 when Dr. Sherwin prepared his evidence, he projected 11.0 to 12.5% with an average of 11.75% as the appropriate rate on long-term Government of Canada bonds, on which to build his recommended rate of return. On the basis of more recent data and trends, it is the Commission's judgment that a range of 10.25 to 11.25% is more realistic and that Dr. Sherwin's rate of return is accordingly too high.

The Commission therefore concludes, while accepting a risk premium of 1% as a valid adjustment but with downward adjustments for the foregoing inflation and interest rate factors, that the opportunity to earn 15.0% on equity within a range of 14.75 to 15.25% will fairly compensate the Applicant's shareholders, preserve the financial integrity of the utility and avoid any undue burden on the Applicant's customers. A schedule of adjustments to revenue requirements reflecting a return on equity of 15.0% is attached to this Decision.

## VI INCOME TAX TREATMENT

By letter dated December 29, 1983 R.J. Bauman, on behalf of his client B.C. Timber Ltd. (now Westar Timber Ltd.), made a complaint to the Commission requesting that consideration be given as to the appropriate method for calculating income tax for the Applicant. The Commission advised Counsel for B.C. Timber, by letter dated May 31, 1984, that in the interest of equity and minimizing hearing costs, the matter would be heard during the next rate proceeding and instructed the Applicant to file by December 31, 1984.

Through his witnesses, Messrs. Johnson and Waters, Mr. Wallace tendered evidence that "flow-through" was the appropriate method to be adopted for PNG. The Applicant did not tender theoretical evidence surrounding the choice of the appropriate method of calculating income tax but prepared its submission, not from the point of view that one method of calculating the income tax component in the cost of service is always right but rather, that in the particular circumstances of PNG the normalized method yields a result which is just and equitable for both the Applicant and its customers.

The Applicant stated that as a utility it has characteristics which make it unique and support its position to remain on normalized taxes.

"These characteristics include the following :

1. approximately 85% of Pacific Northern's sales are to four large industrial customers;
2. approximately 77% of Pacific Northern's gas plant in service are transmission facilities. The loss of any one or more of its large industrial customers would disproportionately impact on rates charged to its remaining customers; and

3. approximately 88% of Pacific Northern's long-term debt was financed within the last three years at historically high rates. This financing would not have been possible with flow-through income tax treatment."

(Application Volume 4, Tab 1, p. 5)

While the Commission finds the evidence of the expert witnesses for the industrial intervenors (Messrs. Johnson and Waters) in favour of the flow-through basis to be persuasive, in the Commission's view it is persuasive in the generic sense rather than in the particular circumstances pertaining to PNG.

The Commission sees little merit in extensive repetition of issues and arguments considered at length in other previous proceedings, to support its decision in the present case. In the view of the Commission the witnesses and counsel for the intervenors collectively failed to seriously weaken the Applicant's position. That position, being a claim to aspects of uniqueness or differences from other utilities for which this Commission has found flow-through to be appropriate, is based on the fact that PNG is essentially an industrial gas system. It features a high (77%) percentage of total plant investment devoted to transmission, with dependence on only four major customers for 85% of its load and whose individual loads have changed significantly in recent years (e.g. Westar) and appear likely to do so in the foreseeable future, by reason of changing markets and competing sources of fuel.

In such circumstances the Commission believes it to be only prudent and in the overall best interest of both the shareholders and the customers of the utility to maintain the "front-end loading" feature of the normalized or deferred tax basis of income tax determination until it becomes apparent that some of the aforementioned uncertainties have been resolved and the Applicant's ability to provide for future income taxes is more secure.



Accordingly, the Commission has concluded that just and reasonable rates can best be maintained by requiring that PNG remain on the normalized or deferred tax basis of income tax determination and will so order. If the Applicant's circumstances change significantly in the future, the question of appropriate tax treatment will be reconsidered by the Commission on its own motion.

By this Decision the Commission wishes to make clear the distinction it believes must be made between rigid devotion (for reasons of consistency of treatment of the utilities which it regulates) to accounting principles on which the accounting profession itself is divided, and the priority which must be given to the particular circumstances of each utility on their merits.

## VII      TARIFF MATTERS

Arising from a review by Commission staff, the following tariff matters were considered at the rate hearing :

- (a) Mains Extension Policy
- (b) Mains and Service Line Extension Costs
- (c) Cost of Mains Extension - Discretionary Policy
- (d) Security Deposits

### (a) Mains Extension Policy

The current Mains Extension Policy has been in existence since the Applicant began operations in 1968. That policy states that the utility will extend the gas main to new customers provided that the gross annual revenues for 2.5 years will exceed the cost of the extension.

The Applicant testified during the Hearing that the Mains Extension Test, based on gross revenues, no longer provides an up-to-date basis upon which to extend mains to new customers. In 1968 the cost of gas was stable and the

sales prices charged to customers did not change dramatically from year to year. In 1985 however, the gross revenue received from an extension does not provide an accurate indication of the net return expected by the company from a new extension. It is common practice for utilities to base their Mains Extension policies on the net return to the company and the net revenue received from a customer extension.

The Commission concludes that the Mains Extension Policy of the Applicant should be amended and should be based on net revenue as the appropriate test upon which to extend service. The Commission accordingly directs that the Applicant review its present policy on mains extensions and provide the Commission with proposed modifications for Commission consideration on or before March 31, 1986. This material should include supporting data and rationale for the proposed modifications.

(b) Mains and Service Line Extension Costs

1. Standard Costs

The Applicant's standard unit costs to extend mains and service lines to new and existing customers have not changed for several years. During that time the industry and the Applicant have extensively switched from the use of steel pipe, which is highly labour, machinery and parts intensive, to plastic pipe which is relatively cheap to install.

The Commission accordingly directs the Applicant to review the standard costs associated with mains and service lines extensions and report their findings and proposals to the Commission with a tariff filing on or before March 31, 1986.

## 2. Service Line Components

The Commission has reviewed the practice of other regulated utilities with regard to the treatment of certain components when calculating individual customer contributions. Meters and regulators are required components for every utility customer served, are moveable and can be re-used, and should be provided by the company at no charge.

The Commission therefore concludes that when determining contributions for mains or service line extensions which are required for customers for lines which are in excess of the "free" 21 metres of service line on the customers property, or for contributions concerning capital costs of a mains extension which are in excess of the gross annual revenue of the extension for 2.5 years, the capital costs of meters sets or regulators should not form part of the capital costs of the extension.

### (c) Cost of Mains Extension - Discretionary Policy

The Commission has considered the Mains Extension - Discretionary Policy of the Applicant (Tariff Section 5.3 (3) and 5.3 (4)) and has determined that these sections should not be amended or changed at this time. The Commission, however, views these sections as essential for the extension of mains only in unusual circumstances. Such circumstances may be involved, for example, in large industrial, commercial or residential subdivisions where an initial customer contracts for the supply of gas but provides insufficient revenues to justify extension of service under the normal Extension policy. Under the current tariff other potential customers would not be recognized outside of the 2.5 year time frame.

The Commission therefore directs the Applicant to review these sections along with the Mains Extension Policy in general and formulate an amended mains extension policy for Commission consideration.

(d) Security Deposits

After careful consideration of the Applicant's Security Deposit Policy, the Commission concludes that the present policy of refunding deposits only on application by the customer is contrary to the best interests of reliable customers with good credit and prompt payment records. In cross-examination the Applicant agreed to amend the refunding procedures concerning security deposits in its Gas Tariff (Section 3.6 (d) - Deposit and Guarantee).

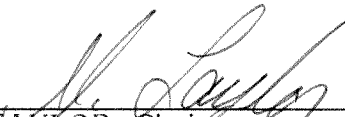
The Commission accordingly directs the Applicant to file a revised security deposit refunding policy for its Gas Tariff.

**VIII DECISION**


In light of its conclusions with respect to matters and related adjustments set out in Sections II, III and V of this Decision, the Commission has determined that the 1.88% interim increase in customer rates granted by Order No. G-5-85 effective February 1, 1985 was excessive to the needs of the Applicant by approximately \$655,000 on an annual basis. Accordingly, the Commission directs Pacific Northern Gas Ltd. to proceed with the appropriate refunds, including interest as specified in Order No. G-5-85, to its customers of record in the period February 1, 1985 through February 28, 1986. Such refunds will apply to actual consumption for the period ending February 28, 1986 as afore-noted or such earlier date as may be appropriate, resulting from the timely filing of amended Tariff Rate Schedules together with a reconciliation thereof. The refunds may be implemented as a credit on customer billings.

Amended Revenue Requirements for the Test Year 1985 are approximately \$88,645,000 (see Schedule 2) and amended Tariff Rate Schedules affording PNG the opportunity to generate, on an annual basis that Revenue Requirement will be accepted for filing by the Commission effective March 1, 1986, subject to timely filing by the Applicant.

DATED at the City of Vancouver, in the Province of British Columbia,  
this 29th day of January, 1986.

  
\_\_\_\_\_  
M. TAYLOR, Chairman

  
\_\_\_\_\_  
J.D.V. NEWLANDS, Deputy Chairman

  
\_\_\_\_\_  
D.B. KILPATRICK, Commissioner



BRITISH COLUMBIA UTILITIES COMMISSION	
ORDER	G-5-86
NUMBER	_____

PROVINCE OF BRITISH COLUMBIA  
BRITISH COLUMBIA UTILITIES COMMISSION

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

and

IN THE MATTER OF Applications for Rate  
Relief by Pacific Northern Gas Ltd.

BEFORE:	M. Taylor,	)	
	Chairman;	)	
	J.D.V. Newlands,	)	January 29, 1986
	Deputy Chairman; and	)	
	D.B. Kilpatrick,	)	
	Commissioner	)	

O R D E R

WHEREAS a public hearing pertaining to Pacific  
Northern Gas Ltd. ("PNG") commenced before this Commission at  
Prince Rupert, B.C. on Monday, May 13, 1985 to hear, inter-alia,  
the following matters:

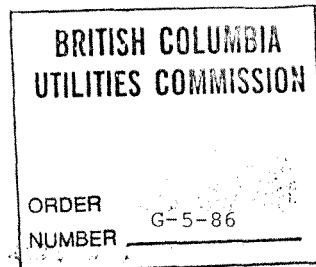
- (a) An Application dated December 21, 1984 for a  
1.88% interim rate increase effective  
February 1, 1985 to its filed Tariff Rate  
Schedules, as supplemented on March 15, 1985.

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

NOW THEREFORE the Commission hereby orders Pacific  
Northern Gas Ltd. as follows:

1. The interim rates currently in effect as  
authorized by Commission Order No. G-5-85 are  
hereby confirmed as being excessive to the  
test year Revenue Requirements of PNG.

.../2



2. The Rate Base for the Test Year ending December 31, 1985 is approximately \$90,696,000.
3. The Total Revenue Requirement for the Test Year ending December 31, 1985 is approximately \$88,645,000.
4. The Commission will accept for filing, subject to timely presentation, revised Tariff Rate Schedules conforming to the above-noted Revenue Requirement, effective with consumption on and after March 1, 1986. The amended Tariff Rate Schedules will allow PNG an opportunity to earn a rate of return on common share equity of approximately 15.0%, within a range of 14.75% to 15.25%.
5. PNG is to proceed with refunds to its customers of record in the period February 1, 1985 through February 28, 1986 as specified in the Commission Decision issued concurrently with this Order.
6. PNG will comply with the directions incorporated in the Commission's Decision.

DATED at the City of Vancouver, in the Province of  
British Columbia, this 29<sup>th</sup> day of January, 1986.

BY ORDER

A handwritten signature in cursive script, appearing to read "McTaylor".

Chairman

PACIFIC NORTHERN GAS LTD.

Schedule of Adjustments to the Amended Application  
Test Year 1985

<u>Adjustments</u>	<u>Decrease (Increase) in Revenue Requirement</u>
1. Reduce the opening Rate Base by the amount of the \$801,000 Federal Sales Tax refund. (Schedule 1)	\$ 143,000
2. Set up a "Deferred Revenue Account" of \$586,000 at "no cost capital" as at January 1, 1985 with offsetting entries to "Retained Earnings" and "Deferred Income Taxes Payable" and amortize the "Deferred Tax" over three years. (Decision, page 18) (Schedule 4 and Schedule 5)	68,000
3. Further to Adjustment #2, amortize the "Deferred Revenue Account" over three years. (Schedule 2)	195,000
4. Remove energy adjustments on interruptible sales June 1 to December 31, 1985. (Schedule 2)	40,000
5. ROE to 15.00%. (Schedule 5)	822,000
6. Adjustment for additional hearing costs. (Schedule 2)	( 44,000)
7. Correct amended income tax. (Schedule 3)	( 68,000)
Total Adjustments (Schedule 2)	<u>\$ 1,156,000</u>



## Pacific Northern Gas Ltd. -TEST YEAR 1985

UTILITY RATE BASE						SCHEDULE 1	
\$000'S	per	AMEND PER	Amended	BCUC	Adjustment	'1985	'1983'
SCHEDULE 1 (Ex. 2, t 2)	Application	Ex. 8, Ex. 49	Application	ADJUSTMENT	REFERENCE	ADJUSTED	DECISION
Gas plant in service	\$104,473	\$1,227	\$105,700	(\$801)	#1	\$104,899	\$96,784
Additions to in service(50%]	1,953	6	1,959			1,959	3,471
W.I.P. (no AFUDC)	545		545			545	538
<hr/>							
GROSS PLANT	106,971	1,233	108,204	-801		107,403	100,793
	0	0	0	0		0	
<hr/>							
	106,971	1,233	108,204	-801		107,403	100,793
Accum. Depreciation	-15,393	8	-15,385			-15,385	-11,182
<hr/>							
NET PLANT	91,578	1,241	92,819	-801		92,018	89,611
<hr/>							
Deferred charges	894		894	38	#6	932	1,072
CASH WORKING CAPITAL	-3,006		-3,006			-3,006	-2,317
OTHER WORKING CAPITAL	705	47	752			752	507
<hr/>							
UTILITY RATE BASE	\$90,171	\$1,288	\$91,459	(\$763)		\$90,696	\$88,873
	=====	=====	=====	=====		=====	=====

## Pacific Northern Gas Ltd. -TEST YEAR 1985

## UTILITY INCOME AND EARNED RETURN

## SCHEDULE 2

\$000's	per	AMEND PER	Amended	BCUC	Adjustment	'1985	'1983'
SCHEDULE 2 (Ex. 2, t 1 & 18)	Application	Ex. 8, Ex. 49	Application	ADJUSTMENT	REFERENCE	ADJUSTED	DECISION
SALES VOLUME 000'S Mcf	23,657	0	23,657	0		23,657	22,130
	=====	=====	=====	=====		=====	=====
% Increase in price	1.79%	0.57%	2.36%	-1.32%		1.04%	3.88%
Average new price/Mcf	\$3.77	\$0.02	\$3.80	(\$0.05)		\$3.75	\$3.43
UTILITY REVENUE-GAS							
-present rates, \$3.71	\$87,732	\$0	\$87,732	\$0		\$87,732	\$72,997
-interim rates, +1.79%	1,568	0	1,568	0		1,568	2,625
-adjustment	0	501	501	-1,156		-655	206
	-----	-----	-----	-----		-----	-----
TOTAL REVENUE	\$89,300	\$501	\$89,801	(\$1,156)		\$88,645	\$75,828
Less cost of gas sold	60,375	0	60,375	-40	#4	60,335	49,422
Less gas used, lost + tax	2,075		2,075	0		2,075	2,075
	-----	-----	-----	-----		-----	-----
GROSS MARGIN	\$26,850	\$501	\$27,351	(\$1,116)		\$26,235	\$24,331
	-----	-----	-----	-----		-----	-----
O&M gross wages+benefits	2,817	0	2,817	0		2,817	2,297
O & M net all other(x-gas)	1,534	119	1,653	-195	#3	1,458	965
Property, capital tax	2,689	-99	2,590	0		2,590	2,172
Franchise fees	563	0	563	0		563	518
Depreciation/amortize'n	2,556	30	2,586	38	#6	2,624	2,363
Other rev. less exch. loss	136	57	193			193	14
	-----	-----	-----	-----		-----	-----
OPERATING EXPENSES	\$10,295	\$107	\$10,402	(\$157)		\$10,245	\$8,329
	-----	-----	-----	-----		-----	-----
Utility income before tax	\$16,555	\$394	\$16,949	(\$959)		\$15,990	\$16,002
INCOME TAX EXPENSE	\$4,995	\$192	\$5,187	(\$452)	#'s 2, 5, 7	\$4,735	\$4,262
	-----	-----	-----	-----		-----	-----
EARNED RETURN	\$11,560	\$202	\$11,762	(\$507)	#'s 1, 2, 5, 6	\$11,255	\$11,740
	=====	=====	=====	=====		=====	=====
UTILITY RATE BASE	\$90,171	\$1,288	\$91,459	(\$763)	#'s 1, 6	\$90,696	\$88,873
RATE OF RETURN	12.82%	0.00%	12.86%	-0.45%	#'s 2, 5	12.41%	13.21%

## Pacific Northern Gas Ltd. -TEST YEAR 1985

INCOME TAXES						SCHEDULE 3	
\$000's	per	AMEND PER	Amended	BCUC	Adjustment	'1985	'1983'
SCHEDULE 3 (t16)	Application	Ex. 8, Ex. 49	Application	ADJUSTMENT	REFERENCE	ADJUSTED	DECISION
Earned return	\$11,560	\$202	\$11,762	(\$507)	#'s 1, 2, 5, 6	\$11,255	\$11,740
Deduct: interest	-7,186	-141	-7,327	44		-7,283	-8,025
Add: non-deductible	237	57	294	0		294	149
	-----	-----	-----	-----		-----	-----
Acctng. income. aft. tax	4,611	118	4,729	-463		4,266	3,864
Deduct: timing diff's	-2,949	0	-2,949			-2,949	-4,094
	-----	-----	-----	-----		-----	-----
TAXABLE INCOME AFTER TAX-FOR TAX RETURN	\$1,662	\$118	\$1,780	(\$463)		\$1,317	(\$230)
	=====	=====	=====	=====		=====	=====
Income tax rate	52.0%	0.9%	52.9%	0.0%	#7	52.9%	52.9%
Deferred tax rate	52.0%	0.0%	52.0%	0.0%		52.0%	52.0%
Taxable income. bef. tax	\$3,463	\$250	\$3,712	(\$915)		\$2,797	(\$488)
Deferred tax-grossed up	3,195	0	3,195	61		3,256	4,520
Timing differences	2,949	0	2,949	0		2,949	4,094
	-----	-----	-----	-----		-----	-----
TAXABLE INCOME BEFORE TAX-FOR ACCOUNTING	\$9,607	\$249	\$9,856	(\$854)		\$9,002	\$8,126
	=====	=====	=====	=====		=====	=====
Income tax expense							
-payable on flow-through	\$1,801	\$163	\$1,964	(\$484)		\$1,480	(\$258)
-payable on deferred	1,661	29	1,690	32		1,722	2,391
-deferred	1,533	0	1,533	0		1,533	2,129
	-----	-----	-----	-----		-----	-----
INCOME TAX EXPENSE	\$4,995	\$192	\$5,187	(\$452)		\$4,735	\$4,262
	=====	=====	=====	=====		=====	=====

## Pacific Northern Gas Ltd. -TEST YEAR 1985

COMMON EQUITY						SCHEDULE 4	
\$000's	per	AMEND PER	Amended	BCUC	Adjustment	'1985	'1983'
SCHEDULE 4 (Ex. 2,t17)	Application	Ex.8, Ex.49	Application	ADJUSTMENT	REFERENCE	ADJUSTED	DECISION
OPENING BALANCE							
Share capital	\$8,002	\$0	\$8,002	\$0		\$8,002	\$8,002
Contributed Surplus	0	0	\$0	0		\$0	
Retained, opening	16,326	0	\$16,326	-276	#2	\$16,050	12,152
	-----	-----	-----	-----		-----	-----
	24,328	0	24,328	-276		24,052	20,154
Net income	4,400	-2	4,398	-426		3,972	3,674
Deduct:							
Dividends Pref.	-338	0	-338	0		-338	-338
Dividends Common	-1,761	0	-1,761	0		-1,761	-1,600
Add:							
Shares issued							
	-----	-----	-----	-----		-----	-----
CLOSING BALANCE	\$26,629	(\$2)	\$26,627	(\$702)		\$25,925	\$21,890
	=====	=====	=====	=====		=====	=====
COMMON EQUITY	\$25,478	(\$1)	\$25,478	(\$489)		\$24,989	\$21,022
Mid-year average							
Less:mid-year non-util.	\$863		\$863			\$863	
	-----	-----	-----	-----		-----	-----
COMMON EQUITY	\$24,615	(\$1)	\$24,615	(\$489)		\$24,126	\$21,022
UTILITY BALANCE	=====	=====	=====	=====		=====	=====

Pacific Northern Gas Ltd. -TEST YEAR 1985							SCHEDULE 5
RETURN ON CAPITAL							
\$000'S	per	AMEND PER	Amended	BCUC	Adjustment	'1985	'1983'
SCHEDULE 5 (Ex.2, t.17)	Application	Ex.8, Ex.49	Application	ADJUSTMENT	REFERENCE	ADJUSTED	DECISION
Deferred revenue	\$0	\$0	\$0	\$391	#2	\$391	\$46,858
proportion	0.00%	0.00%	0.00%	0.43%		0.43%	53.17%
embedded cost	0.000%	0.000%	0.000%	0.000%		0.000%	16.980%
return	0.00%	0.00%	0.00%	0.00%		0.00%	9.03%
Long-term debt	\$41,803	\$0	\$41,803	\$0		\$41,803	\$46,858
proportion	45.97%	0.03%	46.00%	0.15%		46.15%	53.17%
embedded cost	17.340%	0.066%	17.406%	0.000%		17.406%	16.980%
return	7.97%	0.04%	8.01%	0.02%		8.03%	9.03%
Deferred income taxes	\$15,874	\$0	\$15,874	(\$207)	#2	\$15,667	\$12,171
proportion	17.46%	0.01%	17.47%	-0.17%		17.30%	13.81%
return	0.00%	0.00%	0.00%	0.00%		0.00%	0.00%
Construct'n adv. and contr.	\$3,702	(\$83)	\$3,619	\$0		\$3,619	\$3,126
proportion	4.07%	-0.09%	3.98%	0.01%		4.00%	3.55%
return	0.00%	0.00%	0.00%	0.00%		0.00%	0.00%
Preference shares	\$4,967	\$0	\$4,967	\$0		\$4,967	\$4,948
proportion	5.46%	0.00%	5.47%	0.01%		5.48%	5.61%
embedded cost	7.010%	0.000%	7.010%	0.000%		7.010%	7.010%
return	0.38%	0.00%	0.38%	0.00%		0.38%	0.39%
Common equity	\$24,591	\$24	\$24,615	(\$489)		\$24,126	\$21,029
proportion	27.04%	0.04%	27.09%	-0.45%		26.64%	23.86%
ROE	16.500%	0.000%	16.500%	-1.500%	#5	15.000%	15.870%
return	4.46%	0.01%	4.47%	-0.47%		4.00%	3.79%
TOTAL CAPITAL	\$90,937	(\$59)	\$90,878	(\$305)		\$90,573	\$88,132
RATE OF RETURN	12.82%	0.00%	12.86%	-0.45%		12.41%	13.21%
=====	=====	=====	=====	=====		=====	=====

MARKET & UNIT PRICES	per	Pacific Northern Gas Ltd. -TEST YEAR 1985 AMEND PER	Amended	BCUC	Adjustment	APPENDIX A	'1983'
APPENDIX A (Ex. 2-t 9 & 20)	Application	Ex.8, Ex.49	Application	ADJUSTMENT	REFERENCE	'1985	DECISION
Revenue(natural gas)							
-Residential	\$4,272	\$24	\$4,296	(\$55)		\$4,241	\$3,421
-Commercial	5,873	33	\$5,906	-76		\$5,830	5,481
-Small industrial	5,452	31	\$5,483	-71		\$5,412	5,585
-Large industrial&oth.	73,702	413	\$74,115	-954		\$73,162	61,339
Total \$000's	\$89,299	\$501	\$89,800	(\$1,156)		\$88,644	75,826
				(\$1,156)			
Sales Units 000's Mcf							
-Residential	947	0	947	0		947	843
-Commercial	1,339	0	1,339	0		1,339	1,388
-Small industrial	1,336	0	1,336	0		1,336	1,518
-Large industrial, oth.	20,035	0	20,035	0		20,035	18,381
Total	23,657	0	23,657	0		23,657	22,130
Customers/12 mo. avg.							
-Residential	8,411	0	8,411	0		8,411	7,340
-Commercial	1,929	0	1,929	0		1,929	1,764
-Small industrial	20	0	20	0		20	15
-Avg. MCF/residential	112.6	0.0	112.6	0.0		112.6	114.9
/commercial	694.1	0.0	694.1	0.0		694.1	786.8
/small industrial	66,800	0.0	66,800	0.0		66,800	101,200
-Avg. rate*residential	\$4.51	\$0.03	\$4.54	(\$0.06)		\$4.48	\$4.06
*commercial	\$4.39	\$0.02	\$4.41	(\$0.06)		\$4.35	\$3.95
*small industrial	\$4.08	\$0.02	\$4.10	(\$0.05)		\$4.05	\$3.68
*lrg. industrial & oth.	\$3.68	\$0.02	\$3.70	(\$0.05)		\$3.65	\$3.34
*total sales	\$3.77	\$0.02	\$3.80	(\$0.05)		\$3.75	\$3.43
-Annual \$/residential	\$508	\$3	\$511	(\$7)		\$504	\$466
/commercial	\$3,045	\$17	\$3,062	(\$39)		\$3,022	\$3,107
/small industrial	\$272,600	\$1,529	\$274,129	(\$3,528)		\$270,602	\$372,333

UNIT COSTS PER MCF AND PER CUSTOMER APPENDIX B COST PER MCF SOLD	Pacific Northern Gas Ltd. - TEST YEAR 1985 per AMEND PER Amended BCUC Application Ex. 8, Ex. 49 Application ADJUSTMENT				APPENDIX B '1985 ADJUSTED	'1983' DECISION
TOTAL REVENUE	\$3.77	\$0.02	\$3.80	(\$0.05)	\$3.75	\$3.43
Less cost of gas sold	2.55	\$0.00	2.55	\$0.00	2.55	2.23
Less gas used, lost + tax	0.09	\$0.00	0.09	\$0.00	0.09	0.09
GROSS MARGIN	1.13	\$0.02	1.16	(\$0.05)	1.11	1.11
O&M gross wages+benefits	0.12	\$0.00	0.12	\$0.00	0.12	0.10
O & M net, all other(x-gas)	0.06	\$0.01	0.07	(\$0.01)	0.06	0.04
Depreciation and amort'n	0.11	\$0.00	0.11	\$0.00	0.11	0.11
Taxes of all kinds	0.35	\$0.00	0.35	(\$0.02)	0.33	0.31
Interest expense	0.30	\$0.01	0.31	\$0.00	0.31	0.38
Other rev. less exch. loss	0.01	\$0.00	0.01	\$0.00	0.01	0
ROE	0.18	\$0.00	0.19	(\$0.02)	0.17	0.17
COSTS "PER CUSTOMER"						
TOTAL REVENUE	\$8,620	\$48	\$8,668	(\$112)	\$8,557	\$8,315
Less cost of gas sold	5,828	\$0	5,828	(\$4)	5,824	5,420
Less gas used, lost & tax	200	\$0	200	\$0	200	228
GROSS MARGIN	2,592	\$48	2,640	(\$108)	2,532	2,668
O&M gross wages+benefits	272	\$0	272	\$0	272	252
O & M net, all other(x-gas)	148	\$11	160	(\$19)	141	106
Depreciation and amort'n	247	\$3	250	\$4	253	259
Taxes of all kinds	796	\$9	805	(\$44)	761	762
Interest expense	694	\$14	707	(\$4)	703	880
Other rev. less exch. loss	13	\$6	19	\$0	19	2
ROE	422	\$6	428	(\$45)	383	407