

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

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In the Matter of:

AN ADJUSTMENT OF RATES OF)
COLUMBIA GAS OF KENTUCKY INC.) CASE NO. 8738

O R D E R

Procedural Background

On January 14, 1983, Columbia Gas of Kentucky, Inc., ("Columbia") filed its notice with this Commission seeking to increase its rates and charges for gas service rendered to its customers by \$9.6 million, a 6.8 percent increase over test period revenues to become effective February 3, 1983. Columbia stated that the additional revenue was necessary to offset increased operating costs, capital costs and declining sales. In this Order the Commission has allowed an increase in operating revenues of \$2,081,843.

In order to determine the reasonableness of the proposed request the Commission by its Order of January 24, 1983, suspended the proposed rates and charges for 5 months after February 3, 1983. Public hearings were held to consider the request in the Commission's offices in Frankfort, Kentucky, on May 10 and 11, 1983. The Consumer Protection Division of the Attorney General's Office and the Lexington-Fayette Urban County Government ("AG") were permitted to intervene in this proceeding and participated in

the hearings. Simultaneous briefs were filed on June 3, 1983, and responses have been filed to all data requests.

BACKGROUND

Columbia is one of seven subsidiary distribution companies owned by the Columbia Gas System, Inc., ("Columbia System"). Columbia distributes and sells natural gas to approximately 110,678 customers in numerous counties in Central and Eastern Kentucky. Columbia has headquarters in Columbus, Ohio, and shares most corporate officers with several other Columbia distribution companies. This leads to the question of whether the officers are primarily concerned with Columbia, since it is one of the smaller of the Columbia distribution companies. The parent company also owns Columbia Gas Transmission Corporation ("Columbia Transmission") which is Columbia's primary source of supply. Given the questions that other non-affiliated distribution companies served by Columbia Transmission have raised, this also is a matter of concern.

ANALYSIS AND DETERMINATION

Test Period

Columbia proposed and the Commission has accepted the 12 months ending September 30, 1982, as the test period in this proceeding.

NET INVESTMENT RATE BASE

Columbia proposed a net investment rate base of \$53,269,054.^{1/} The Commission has accepted the proposed rate base with the following modifications:

Attrition

Columbia proposed to increase its end of period rate base by \$4,980,510^{2/} to reflect the average increase in the gross investment per customer that occurred during the test period. This Commission has not allowed an "attrition" allowance of the type requested for over 10 years. The proposed calculation, which is apparently based on an adjustment accepted by prior commissions in the late 1950's and in a few minor cases in the early 1970's, looks only to changes in investment. It assumes that revenues and expenses would remain constant. The Commission is not inclined to dip into the past and pick up so flawed a concept that has long since been rejected. Attrition or an erosion of earnings may well have been a factor for Columbia in the recent past, but if so, it has not been shown to be the result of increasing investment.^{3/} It would appear that any attrition has occurred because of loss of sales resulting from two factors, significantly increasing gas prices from its supplier, Columbia Transmission, and its failure or inability to obtain other supplies at lower costs, and the state of the economy. The state of the economy appears to be improving. The gas price trend is also changing, as is discussed later in this opinion. This case should take care of the attrition that has occurred over the last few years due to these factors, and if the economy improves and Columbia is able to obtain lower cost sources of gas, it should not suffer from future attrition. Rather it should see its revenues rebound with relatively small increases in its investment. Therefore, Columbia's proposed adjustment should be denied.

Acquisition Adjustment

This Commission has always used the net original cost as the basis for determining revenue requirements. An inequity occurs if a company is allowed to purchase property at above book value and receive rate treatment on that basis, while any property that has not changed hands is treated at net book value. Such a policy could lead to the transference of property to increase its value for rate-making purposes. The amount involved in this case is trivial; however, the principle and consistency are important. For that reason the Commission will not include the net acquisition adjustment of \$7,359 in its pro forma rate base.^{4/}

Prepayments

Columbia, through its wholesale suppliers, Columbia Transmission and Columbia LNG Corporation ("Columbia LNG"), nominates natural gas requirements and contracts for synthetic gas requirements, primarily during the off-peak season for use during the peak heating season to assure its customers of adequate gas supplies during peak periods. In its notice, Columbia proposed to include a 13-month average of the prepaid balance in gas supplies priced at the current price of gas at the filing date to reflect current working capital requirements. In Columbia's last rate case, Case No. 8281, An Adjustment of Rates of Columbia Gas of Kentucky, Inc., the Commission allowed this adjustment. However, since that case, the Commission has determined that this adjustment is inappropriate. The Commission recognizes that the price of gas has increased since the end of the test period; however, in determining a test year-end rate base the objective is

to establish the value of investment in utility property at a specific point in time. In establishing the net investment rate base and the adjusted level of operating revenues and expenses, the Commission must develop a proper matching of earnings and rate base. It is the opinion of the Commission that to allow Columbia to reprice its nominated gas would improperly update the year-end rate base and result in a mismatch of earnings and rate base since Columbia proposed no offsetting adjustments to operations. Therefore, the Commission has denied Columbia's proposed adjustment.

The Commission has further reduced Columbia's proposed level of prepayments by \$1,194,587 to reflect an error discovered by Columbia in responding to the Commission information request of March 2, 1983. The Commission has therefore reduced Columbia's pro forma level of prepayments by a total of \$4,353,884.

Cash Working Capital

Columbia proposed to include a cash working capital allowance of \$1,940,056 in its pro forma rate base. The Commission has reduced this amount by \$90,308^{5/} in order to reflect one-eighth of the adjusted operating and maintenance expenses less purchased gas expense found appropriate herein.

The AG, through its witness, Mr. Hugh Larkin, Jr., of Larkin and Associates, proposed to reduce Columbia's proposed working capital by the amount of accounts payable to Columbia Transmission and Columbia LNG. Mr. Larkin stated that since "the Company enjoys a cost-free use of these payable funds from the midpoint of the month when the gas is nominated to the 20th of the

following month, the payables should be considered cost-free sources of capital."^{6/} The Commission agrees that accounts payable are a cost-free source of funds. However, no lead-lag study or other analysis was made to determine the overall average working capital requirements, and without such an analysis it is not feasible or appropriate to determine selectively the amount of cost-free capital available to Columbia from its purchased gas transactions in isolation. Therefore, the Commission has not accepted the AG's proposal.

Propane Plant

Mr. Larkin proposed in his prefiled testimony to eliminate Columbia's propane plant facilities from its rate base.^{7/} These facilities are used to provide colder than normal weather peaking service for Columbia's heat sensitive customers. Although these facilities have not been used since 1978, they have in the past provided service to the customers of Columbia and could become necessary again depending on Columbia's load characteristics and weather conditions. Therefore, the Commission will allow Columbia to keep these facilities in its rate base; however, the Commission places Columbia on notice that in future proceedings it will be required to justify their continued inclusion.

Mr. Larkin also proposed to eliminate the fuel inventory associated with these facilities from Columbia's rate base. Since the Commission has denied Mr. Larkin's proposal to exclude them from Columbia's rate base, its corresponding fuel inventory should also be included in the determination of rate base.

Accumulated Provision for Depreciation

The Commission has increased Columbia's accumulated provision for depreciation by \$92,879 in order to reflect the pro forma adjustments to its test period depreciation expense.

Thus, the Commission has determined Columbia's net investment rate base to be as follows:

Gas Plant in Service	\$56,837,107
Construction Work in Progress	1,572,451
Materials and Supplies	535,625
Fuel Stock Inventory	139,482
Prepayments	10,562,803
Cash Working Capital Allowance	<u>1,849,748</u>
Subtotal	\$71,497,216
Less:	
Accumulated Provision for Depreciation	\$24,879,506
Retirement Work in Process	120,944
Customer Advances for Construction	771,555
Accumulated Deferred Income Taxes	1,781,931
Pre Job Development Investment Tax Credits	<u>199,166</u>
Subtotal	\$27,753,102
Net Investment Rate Base	\$43,744,114

REVENUES AND EXPENSES

Columbia had net operating income of \$4,849,925^{8/} for the test period. In order to reflect more current operating conditions, Columbia proposed several adjustments to its test period revenues and expenses which resulted in an adjusted net operating income of \$1,406,999.^{9/} The Commission is of the opinion that the proposed adjustments are generally proper and acceptable for rate-making purposes with the following exceptions:

Sales Curtailment

Columbia proposed to adjust its test period operations to reflect a revenue deficiency of \$3,102,052 due to anticipated sales decreases projected to occur for the year ended December 31, 1983.^{10/} Columbia's witness, Mr. James R. Lee, Vice President Of Supply Planning and Services, stated that the major reason for the sales curtailment trend Columbia has experienced since 1979 was the economic recession and its effects on industrial customers, although conservation and the increased price of gas above the price of alternative fuels were also contributing factors.^{11/} Mr. Larkin opposed this adjustment, contending that if the Commission were to accept Columbia's estimates of decreased sales due to the recession, the resultant rates would be based on abnormal economic conditions which would force the ratepayers to "pay for this recession" as if it were a constantly occurring situation.^{12/} Mr. Larkin further testified that Columbia's proposal to allow an adjustment for projected decreased sales exacerbates the decline in sales by causing still higher prices and additional curtailment.^{13/}

The Commission's policy has been to determine rates based on an historical test period adjusted for known and measurable changes. Columbia's proposal would allow rates based solely on projected sales volumes and would represent a radical departure from this policy with significant implications for all future rate requests determined by this Commission.

Columbia's projected sales were based on assumptions regarding residential and commercial usage as well as

conversations with industrial users about anticipated future usage. The Commission is of the opinion that the estimates presented were neither properly determined nor adequately supported. When questioned about the basis of the projected sales estimates to six industrial users, Columbia's witness, Mr. Woodrow W. Burchett, Director of Rates, stated that he did not know how the specific estimates were derived.^{14/} Moreover, Mr. Burchett admitted that Columbia did not provide the Commission with separate adjustments for temperature, residential conservation, number of customers, and other factors and the computations necessary to determine these separate adjustments even though the Commission had requested them numerous times.^{15/} Columbia also failed to provide studies requested by the Commission regarding sales lost to alternate fuels.^{16/}

Columbia further stated that the projections used were prepared without an analysis of price elasticity factors.^{17/} This statement is particularly noteworthy since Mr. Lee testified that Columbia estimates anticipated future rates for industrial customers when industrial sales requirements are gathered,^{18/} which suggests that industrial projections of decreased sales could be partially based upon assumed increases in rates. Columbia admitted this possibility, but stated that forecasts could not quantify the volume of sales reductions if the increase requested herein were granted.^{19/} Such admissions indicate an apparent lack of knowledge by Columbia of the effect of its rates, and particularly this rate increase, upon sales.

The Commission is of the opinion that Columbia's analysis of projected sales levels was not a known and measurable adjustment and was of insufficient detail to justify a departure from the Commission's long-standing policy regarding the use of an historical test period. Normally the Commission would have allowed an adjustment for temperature normalization. However, in this case, Columbia failed to provide a separate adjustment for temperature normalization in such detail as to allow a determination of the appropriateness of the adjustment. Therefore, the Commission has disallowed the projected sales levels and has adopted the actual test period sales levels.

Normalized Revenues

Columbia proposed a pro forma level of revenues generated through gas sales based on its projected level of anticipated sales volume of \$142,335,308. The Commission has increased this amount by \$14,211,395 to \$156,546,703 in order to reflect actual test period sales volumes normalized for the October 26, 1982, purchased gas adjustment rate on file with the Commission.^{20/}

Forfeited Discounts

The AG proposed to increase Columbia's operating revenues by the \$29,388 in forfeited discounts eliminated by Columbia from its operations. Columbia stated that this penalty was imposed on only one customer during the test period and that this customer has paid neither its bill nor the penalty.^{21/} Since Columbia did not realize any actual revenue from forfeited discounts during the test period and as this penalty has only been imposed on one customer which has remained delinquent in the payment of its

account the Commission is of the opinion that the AG's proposed adjustment should be denied.

Winter Service Profits

The AG proposed to increase Columbia's test period operating profits before taxes by \$1,488,930 in order to reflect the differential in the cost of winter service ("WS") gas purchased by Columbia in the summer of 1982 and the Purchased Gas Adjustment ("PGA") cost reflected in customers' rates the following winter. It is disturbing that a utility profits from higher prices paid to its supplier, although we have constantly attempted to assure that the PGA is nothing but a pass through. The Commission recently investigated this issue in several cases and concluded that although there were such profits none of the utilities had excess earnings. The Commission therefore did not order refunds. This phenomenon could act as a disincentive to vigorously pursuing lower gas rates from the supplier. This is particularly disturbing in this instance, given the interrelationship between Columbia and its supplier, Columbia Transmission. However, as is discussed later in this Order, we are very hopeful that gas price increases, at least of the magnitude experienced in the last few years, will not continue and therefore such profits will not be realized. Therefore, we are disallowing this adjustment. However, if an increase in gas prices of any substantial magnitude occurs, it will be considered in Columbia's PGA seeking approval to pass that increase through to its customers.

Purchased Gas Expense

Columbia proposed a pro forma purchased gas expense of \$122,560,424. The Commission has increased this amount by \$11,111,823 to \$133,672,247 to reflect the test period sales volume normalized for the October 26, 1982, purchased gas adjustment on file with the Commission.^{22/}

Wages and Salaries

The test period wages and salaries were \$6,998,296 and Columbia proposed to normalize wage increases granted during the test period to an end of period level resulting in an increase of \$287,815. Columbia also proposed to increase wages to reflect the annualization of wage increases in the amount of \$616,732,^{23/} which are expected to occur in 1983. The latter adjustment reflected increases to both union and non-union employees of 7.5 percent effective December 1, 1982.^{24/} The Commission is of the opinion that increases of this magnitude are unreasonably high under present economic conditions and that Columbia's customers should not be required to bear the full amount of the increases.

Current trends indicate a continued decrease in the rate of inflation with no measurable decline in the high unemployment rate. These trends have caused recent wage settlements in many of the nation's non-regulated industries to reflect greater concern for job security than for wage increases. Given present economic conditions in general, it is imperative that utility employees not be overly compensated compared to their counterparts in competitive industries. It is the Commission's responsibility, as a surrogate for competition, to insure that the utilities under

its jurisdiction are not insulated from the effects of today's economy.

The Commission is of the opinion that Columbia should be particularly sensitive to economic conditions when wage increases are determined. The central issue in this case is the substantial loss of load that Columbia has experienced, and is expecting to experience, due to economic recession, conservation, and competition from alternate fuels. Given these factors, it is absolutely necessary that Columbia institute any and all possible cost-saving measures in order to keep its rates as low as possible and forestall any additional sales losses. When other companies are laying off employees and reducing and/or freezing wages, the Commission finds it unreasonable for Columbia to ignore today's economic realities and expect its customers to bear such increases. The Commission realizes that Columbia's increase to its union employees was set by contract; however, when the need arises, contracts can be renegotiated or the number of employees can be reduced. The record in this case does not show that Columbia has attempted to implement either of these actions.

The Consumer Price Index ("CPI") is a primary measure of inflation and since September, 1982, its annual percentage increase has been 5 percent or less, declining to less than 4 percent annually through the end of April, 1983. The CPI is frequently considered by industry in wage increases, and the Commission finds it to be useful in analyzing proposed wage and salary adjustments. At the time the current contract was negotiated, in December, 1982, the CPI reflected a yearly increase

of approximately 5 percent. The Commission is of the opinion that this is the maximum increase that should be passed on to Columbia's customers for the annualized wage increases projected to occur in 1983.

Based on the above findings, the Commission has reduced Columbia's proposed adjustment by \$252,426.^{25/} Moreover, the Commission places Columbia on notice that if future wage increases are granted which the Commission determines to be excessive, the Commission will take appropriate action to insure that the customers of Columbia will not bear that portion of the wage increase found to be excessive.

Payroll Taxes

The Commission has reduced Columbia's pro forma payroll tax expense by \$18,428^{26/} in order to reflect the Commission's adjustment to Columbia's pro forma usage expense.

Pensions and Benefits

Columbia proposed a pro forma expense level for pensions and benefits of \$1,742,000 which Columbia stated was necessary to cover the increased cost of its benefit program. In response to a Commission request^{27/} Columbia stated that the detailed work papers used to calculate these projected costs were not available and Columbia's witness, Mr. James W. Schweitzer, Senior Rate Engineer for Columbia, testified that Columbia has no control over these costs.^{28/} Since Columbia does not exercise any control over these expenses and since the derivation of the proposed increase is unknown the Commission is of the opinion that the ratepayers should not be required to bear the burden of increases in this

expense above a reasonable level based on historical experience applied to pro forma wages and salaries. The Commission is of the opinion that the historical ratio of pensions and benefits to wages and salaries is an acceptable method of determining the amount of pensions and benefits expense to be allowed herein. During the test period this ratio was 20.9 percent^{29/} which is in line with Columbia's past experience. Therefore, the Commission has reduced Columbia's pro forma pension and benefits expense by \$143,063.^{30/}

Uncollectible Accounts

Columbia proposed to increase its test period operating expenses by \$219,077 in order to reflect estimated additional uncollectible accounts. Columbia's witness, Mr. Schweitzer, testified that an historical average previously used by Columbia would not adequately reflect the level of bad debts to be experienced by Columbia in the future.^{31/} The AG's witness, Mr. Larkin, suggested that a 4-year average percentage of historical write-offs experienced was more appropriate, which, if accepted, would result in the disallowance of this adjustment.^{32/}

Because Columbia failed to provide a detailed analysis of various factors and levels affecting uncollectibles, the Commission finds that it is appropriate to use a 4-year average percentage of write-offs. This results in a reduction in adjusted operating expenses of \$222,923 based on normalized revenues granted herein.

Injuries and Damages

Columbia proposed a pro forma expense for injuries and damages of \$56,630 based on a 5-year average of this account. The Commission agrees with this methodology; however, the 5-year period used by Columbia included damage settlements in 1977 of \$85,893 and in 1979 of \$112,313.^{33/} The Commission is of the opinion that these settlements are of a non-recurring nature which should properly be reflected in the long-range risk expectations of stockholders and should not be borne by the ratepayers. Therefore, the Commission has reduced this pro forma level by \$39,641 in order to reflect the 5-year average of this account exclusive of the above-mentioned settlements.

Amortization of Acquisition Adjustment

Columbia included in its test period operations the current year's amortization of its acquisition adjustment. Since the Commission has disallowed the inclusion of this adjustment in Columbia's rate base, the Commission is of the opinion that this associated expense should also be disallowed. Therefore, the Commission has reduced Columbia's test period expenses by \$2,054.^{34/}

Allowance for Funds Used During Construction

Columbia included construction work in progress in its rate base that was eligible for capitalization of funds used during construction ("AFUDC") of \$414,377.^{35/} Columbia did not include this allowance in determining its pro forma net operating income. Since Columbia's policy is to capitalize interest on this construction and add it to the rate base, and since Columbia will

reflect this allowance in its overall financial statements, the Commission is of the opinion that the inclusion of the allowance in determining Columbia's pro forma net operating income is a proper adjustment for rate-making purposes and has consistently followed this policy in rate cases. The Commission has therefore determined this amount based on the overall rate of return allowed herein to be \$49,228^{36/} and has increased Columbia's net operating income by this amount.

Service Corporation Charges

Mr. Larkin proposed that expenses paid by Columbia to the affiliated Columbia Service Corporation ("Service Corporation") be reduced by \$250,000 in order to give notice to Columbia that such payments will be closely scrutinized.^{37/} Mr. Larkin based this adjustment upon the increase of 17 percent in Service Corporation charges between 1981 and 1982. However, he offered no specific evidence to indicate that the charges incurred were unreasonable. The Commission has therefore rejected this adjustment.

The Commission is, however, concerned with the ever-increasing levels of these charges. In future rate proceedings, the Commission expects Columbia to substantiate fully the cost benefit of the services derived from the Service Corporation and other affiliates, as well as to provide detailed information concerning the frequency of use of these services, the specific benefits which accrue to Columbia's ratepayers, and the methods employed by Columbia to manage these expenditures. Columbia is herein advised that failure to substantiate costs and benefits of affiliated transactions adequately may result in the

disallowance of a portion of these costs in subsequent proceedings.

FERC Costs

Columbia's witness, Mr. Burchett, testified that Columbia intervenes and is represented before the Federal Energy Regulatory Commission ("FERC") in interstate rate proceedings.^{38/} The portion of the cost of FERC intervention allocated to Columbia is \$4,650 annually.^{39/} Although this amount is relatively insignificant, the Commission is of the opinion that it should be disallowed for rate-making purposes absent a showing by Columbia that specific benefits accrue to the ratepayers of Kentucky rather than to the Columbia System as a result of this intervention. If Columbia can provide evidence that this intervention has been in the best interests of Columbia's ratepayers, these costs will be allowed as operating expenses in subsequent proceedings. However, Columbia acknowledged a position in a recent Columbia Transmission proceeding that the Commission considers protective of the interests of the Columbia System rather than of the ratepayers of Kentucky. For this reason, the Kentucky Public Service Commission has obtained counsel to intervene in rate proceedings by Columbia Transmission.

Lobbying Expenses

In response to the Commission's request, Columbia showed that \$16,064 in lobbying expenses for salary, memberships, and dues were allocated to Kentucky operations during the test period.^{40/} Consistent with past policy, the Commission has eliminated these expenses from the ratepayers' cost of service.

Absent specific proof quantifying the benefits received by ratepayers, lobbying expenses should be borne by the stockholders.

Promotional Advertising

Columbia has included \$24,760 in its test period operating expenses associated with advertising for promotional purposes. 807 KAR 5:016 specifically disallows this type of advertising expense and further places the burden of proof on the utility to show that the inclusion of any advertising expenditures for rate-making purposes will result in material benefit to the ratepayers. Columbia has failed to meet this test and the Commission has therefore reduced Columbia's pro forma operating expenses by this amount.

The Commission is aware that the adjustments made herein for lobbying expenses and promotional advertising are not material in amount. However, the Commission has made these adjustments to be consistent with its established policy.

Taxes Other Than Income

In calculating its pro forma Old Age Survivor's Insurance ("OASI") expense Columbia used an erroneous ratio for labor expense to gross payroll of 1.1073. This ratio should have been 1.0731. Using Columbia's methodology, the adjusted wage increase allowed herein and the revised ratio of 1.073, the Commission has determined this expense to be \$493,875. Therefore the Commission has reduced Columbia's pro forma OASI expense of \$525,135 by \$31,260.

Assessment Fees

Columbia paid PSC assessment fees during the test period of \$96,926. After consideration of the revenues of Columbia the Commission has increased this amount by \$29,035.

Interest Synchronization

Columbia had interest charges of \$2,595,672 during the test period. The Commission, using the capital structure and weighted cost of debt found reasonable herein, has determined interest charges for rate-making purposes to be \$2,303,213, a reduction of \$292,459.^{41/}

Normalized Income Taxes

Columbia had actual income tax expenses during the test period of \$1,565,693. The normalizing adjustments made by Columbia and the Commission to Columbia's test period operations have the net effect of decreasing this tax expense by \$426,424 to \$1,139,269.

Columbia had no excess deferred taxes resulting from the change in the maximum tax rate from 48 to 46 percent.

The Commission finds that Columbia's adjusted test period operations are as follows:

	<u>Actual</u>	<u>Adjustments</u>	<u>Adjusted</u>
Operating Revenues	\$129,246,201	\$27,386,707	\$156,632,908 ^{42/}
Operating Expenses	<u>124,420,618</u>	<u>28,069,526</u>	<u>152,490,144</u>
Net Operating Income \$	4,825,583	\$ (682,819)	\$ 4,142,764

Capital Structure

Mr. Michael W. O'Donnell, Assistant Treasurer of Columbia, recommended using the consolidated capital structure of Columbia,

as of the end of the test year, which contained 50.26 percent long-term debt, 1.41 percent preferred stock and 48.33 percent common equity.^{43/} Mr. O'Donnell did not include short-term debt in his proposed capital structure because Columbia does not use short-term debt to finance fixed plant.^{44/} At the hearing, Mr. O'Donnell agreed that Columbia used short-term debt to finance items included in the rate base and that short-term debt was an integral part of Columbia's financings.^{45/}

Mr. Larkin recommended using Columbia's consolidated capital structure, as of the end of the test year, with short-term debt included because a substantial portion of rate base is comprised of items which could be financed with short-term debt.^{46/} Mr. Larkin's proposed capital structure contained 44.53 percent long-term debt, 11.15 percent short-term debt, 1.26 percent preferred stock and 43.06 percent common equity.^{47/}

The Commission is of the opinion that short-term debt should be included in the capital structure and that the ratios of 44.53 percent long-term debt, 11.15 percent short-term debt, 1.26 percent preferred stock and 43.06 percent common equity are reasonable.

Rate of Return

Mr. O'Donnell proposed to use the end-of-test-year embedded costs of 9.32 percent and 12.08 percent for long-term debt and preferred stock.^{48/} Mr. Larkin proposed to use the end-of-test-year embedded cost of 12.08 percent for preferred stock, the updated embedded cost of 9.28 percent for long-term debt and an 8.60 percent cost for short-term debt.^{49/} The

Commission is of the opinion that the end-of-test-year costs of 12.08 percent for preferred stock and 9.32 percent for long-term debt are reasonable. Because the average 3-month commercial paper rate for the 12 months ended April 30, 1983, was 10 percent,^{50/} the Commission is of the opinion that 10 percent is a reasonable cost for short-term debt.

Mr. O'Donnell determined a range of returns of 17.25 to 19.20 percent, with a recommended return on equity of 17.5 percent, based on a risk premium and a discounted cash flow analysis.^{51/} Mr. O'Donnell did not perform a comparable earnings study for Columbia. He determined that a risk premium for equity of at least 4 percentage points over the cost of Columbia's fixed income securities was required.^{52/} Mr. O'Donnell developed that required risk premium based on average risk premiums on his schedule 8. However, the risk premium between Columbia's equity and A-rated utility bonds fluctuated from a high of 7.07 percentage points in 1956 to a low of -1.89 percentage points in 1981.^{53/} The risk premiums for 1980, 1981 and 1982 were less than one positive percentage point.^{54/} Mr. O'Donnell originally estimated an 8 percent dividend growth rate based on average historical growth rates in earnings, dividends and book value per share for Columbia.^{55/} But, at the hearing, he revised his estimated dividend growth rate to 6.43 percent.^{56/} In its April 15 report, Value Line Investment Survey calculated a 4.5 percent historical dividend growth rate for Columbia. At the hearing, Mr. O'Donnell agreed that the dividend growth rate for

1982 would be 5.62 percent using the earnings retention ratio times the return on equity ("BxR") method.^{57/}

Dr. Ben Johnson of Ben Johnson Associates, Inc., witness for the AG, estimated Columbia's cost of equity to be 14.5 percent, using a comparable earnings approach and a market approach.^{58/} At the hearing, Dr. Johnson stated that adverse factors, such as take-or-pay contracts, were depressing investor expectations regarding dividend growth rates.^{59/} Therefore, in his DCF calculation, Dr. Johnson used a dividend growth rate of 3.5 to 4.5 percent, which was just below most of the historic growth rates for Columbia.^{60/}

The Commission is not convinced that investors expect Columbia's dividends to grow at an 8 or even a 6.43 percent annual rate over the long run. Applying a more reasonable range of 4.5 to 5.6 percent dividend growth rates to a current dividend yield of 9.9 percent produces a DCF determined return on equity in the range of 14.4 to 15.5 percent.^{61/} After considering all of the evidence, including current economic conditions, the Commission is of the opinion that a range of returns on equity of 14.5 to 15.5 percent is fair, just and reasonable. A return on equity in this range would not only allow Columbia to attract capital at reasonable costs to insure continued service and provide for necessary expansion to meet future requirements, but also would result in the lowest reasonable cost to the ratepayer. A return on common equity of 15 percent will allow Columbia to attain the above objectives.

Rate of Return Summary

Applying rates of 15 percent for common equity, 12.08 percent for preferred stock, 9.32 percent for long-term debt and 10 percent for short-term debt to the capital structure approved herein produces an overall cost of capital of 11.88 percent. The additional revenue granted will provide a rate of return on net investment of 11.88 percent. The Commission finds this overall cost of capital to be fair, just and reasonable.

REVENUE REQUIREMENT

The required net operating income, based on the rate of return found fair, just and reasonable of 11.88 percent is approximately \$5,196,801. Columbia has an adjusted net operating income of \$4,142,764. Therefore, the Commission has increased Columbia's rates and charges by \$2,081,843 determined as follows:

Adjusted Net Operating Income	\$4,142,764
Required Net Operating Income	<u>5,196,801</u>
Deficiency	\$1,054,037
Retention Factor (\div .5063) ^{62/}	\$2,081,843

PURCHASED GAS ADJUSTMENT CLAUSE

Columbia proposed to modify its PGA to a yearly filing based on projected wholesale rates, projected gas purchases and projected sales. The Commission is of the opinion that these modifications should be rejected, as the proposal is based on projections. Additionally, the Commission is of the opinion that a yearly filing could allow too great a variation in the tracking mechanism and that a shorter filing time period would be preferable. Even though the Commission will not approve Columbia's modifications to its PGA in this case, the

Commission commends Columbia for seeking to improve its PGA and encourages it to continue to do so.

REVENUE ALLOCATION AND RATE DESIGN

Columbia proposed to allocate the revenue increase to all rate classes by an equal MCF adder. The Commission agrees with Columbia in the allocation methodology.

Columbia proposed a change in the design of the Residential, Commercial and Industrial tariffs. The net effect of the rate design change was to reduce the tariffs from a six-step energy charge with a minimum charge equal to the first MCF energy charge to a two-step energy charge with a monthly customer charge.

The Commission is of the opinion that the reduction to a two-step energy charge with a monthly customer charge is in the best interest of Columbia and the customers of Columbia. The Commission does not approve the amount of the requested customer charge. During the test period, Columbia collected \$8,640,132 and furnished 1,168,921 MCF to its customers from the minimum charge of the GSR rate. In the proposed GSR rate Columbia would collect \$7,301,520 from the \$6.00 customer charge and collect \$6,729,479 from the first energy step, which is the proceeds of 1,168,921 MCF at \$5.757 per MCF. Therefore, the amount of increase in the proposed customer charge is \$7,301,520 divided by \$1,910,654 (\$8,640,132 - \$6,729,478) or an increase of 382 percent. The Commission is of the opinion that this percentage amount of increase for this charge is unjust, unfair and unreasonable. Therefore, the Commission has adjusted this charge accordingly.

Columbia furnished cost support for the proposed customer charge. At the hearing Columbia's witness was asked why the following items were included in the cost support: mains and services in the operation and maintenance expense, mains and services in the depreciation expense, nominated gas purchases, American Gas Association Research and Communications, and synthetic gas purchases in prepayments. Columbia did not reply to this question, other than stating that the items were a customer cost. Based on the evidence presented, the Commission is not convinced that the cost allocations fully support the customer charge requested by Columbia.

Columbia stated that no customers were served under the FI-2 rate structure and therefore proposed that the FI-2 rate be deleted from its tariff. As the projected sales level has been rejected and the test year actual sales level has been previously accepted in this Order, the deletion of the FI-2 rate structure is denied.

Columbia proposed minor tariff changes and the Commission accepts these changes as stated in Appendix A.

UTILIZATION OF LOCALLY PRODUCED, LOWER PRICED
NATURAL GAS

Columbia has testified that it would be willing to purchase locally produced natural gas for its general system supply if that gas could be delivered into its system at a price lower than the price Columbia pays its primary supplier, Columbia Transmission. Columbia also testified that to date it has been unable to compete with the prices the pipelines can pay for gas, that

transportation arrangements were difficult to arrange and too expensive, and that it could not rely on a "best efforts" supply agreement with a pipeline company for a substantial quantity of its supply. In support of its contention that alternate supply arrangements have not been feasible, Columbia, at the request of the Commission, filed on May 23, 1983, a study prepared for Columbia Gas of Ohio by Booz, Allen and Hamilton, Inc., entitled "Feasibility of Increased Purchases of Natural Gas" ("Ohio Report"). Though the Ohio Report deals only with Ohio production and transportation systems, Columbia maintained that the fundamental conclusions of the report are equally applicable to Kentucky.

Having thus defended its lack of past purchases of lower priced, locally produced gas, Columbia testified that it is expanding its local gas procurement staff in an effort to purchase more locally produced gas. Citing a fundamental change in the natural gas market place, Columbia indicated that it thought that alternate purchasing activities might be more feasible in the near future. Due to these fundamental changes, the Commission is of the opinion that the Ohio Report is significantly out-of-date and that its conclusions should not be relied upon by Columbia in the formulation of a gas procurement policy. The Commission is pleased to state that Columbia seems to agree with that opinion.

During the past month, Columbia's supplier, Columbia Transmission, has filed a Settlement Agreement (Docket No. RP82-120) with the FERC which will, if approved, allow certain direct purchase/transportation agreements designed to lower gas

prices and to retain industrial load. Columbia has also filed a transportation tariff with this Commission. Columbia has testified that it will take full advantage of its suppliers' transportation programs, if the Settlement Agreement is approved by the FERC. Further, Columbia has testified to the reduction in the price its supplier is willing to pay for certain categories of "incentive" natural gas, thus improving the competitive position of Columbia in the purchase of that gas. Also, several pipelines have dramatically reduced their gas purchases and have indicated a willingness to waive their contractual rights to the gas not purchased, thus making more gas available for general purchase. /

All the considerations above comprise some of the fundamental changes in the natural gas industry which are making a more feasible climate for the purchase of lower priced natural gas. Another factor involved is the underutilization of pipeline capacity at the present time. Available projections do not anticipate substantially increased utilization in the near future. With these considerations in mind, the Commission is of the opinion that Columbia should be able to increase its purchases of lower priced gas. Realizing lead time problems and Columbia's desire to make accurate projections of supply, the Commission is distressed to find that Columbia projects a delivery of only 32.8 MCF of local production during the 12 months of November, 1982, to October, 1983. This represents only 0.149 percent of the projected total system deliveries during that period.^{63/} The

Commission expects this percentage of deliveries of local production to increase substantially.

The Commission finds that the climate for purchasing lower priced, locally produced natural gas is improving and that Columbia has testified to increased activities in this area. Accordingly, the Commission is of the opinion that Columbia should file with the Commission a report explaining all activities it is pursuing and intends to pursue in its efforts to purchase lower priced natural gas. This report should include activities related to the Settlement Agreement discussed above, if approved, as well as any other activities that will be pursued regardless of the settlement outcome. Further, the Commission is of the opinion that Columbia should file a report on or about October 3, 1983, detailing the success of its local gas procurement efforts and its utilization of the programs included in the Settlement Agreement should it receive final approval. The October report should include a statement as to the effect such actions by Columbia have had and are projected to have on the overall price and supply of gas for Columbia for the 1983-84 heating season as well as longer range projections.

FINDINGS AND ORDERS

The Commission, after examining the evidence of record and being advised, is of the opinion and finds that:

1. The rates and charges proposed by Columbia should be denied upon application of KRS 278.030.
2. The rates and charges in Appendix A are the fair, just and reasonable rates to be charged by Columbia.

3. Columbia should report in writing to this Commission within 30 days of receipt of this Order its present and planned efforts with regard to local procurement activities and its proposed utilization of transportation programs offered by its suppliers.

4. Columbia should report in writing on or about October 3, 1983, as to the success of its local gas procurement efforts and its utilization of the programs included in the Settlement Agreement should it receive final approval. The October report should include a statement as to the effect such actions by Columbia have had and are projected to have on the overall price and supply of gas for Columbia for both the 1983-84 heating season as well as in the future.

IT IS THEREFORE ORDERED that the rates and charges proposed by Columbia be and they hereby are denied.

IT IS FURTHER ORDERED that the rates and charges in Appendix A be and they hereby are the fair, just and reasonable rates to be charged by Columbia for service rendered on and after July 3, 1983.

IT IS FURTHER ORDERED that Columbia shall report in writing to this Commission within 30 days of receipt of this Order its present and planned efforts with regard to local procurement activities and its proposed utilization of transportation programs offered by its suppliers.

IT IS FURTHER ORDERED that Columbia shall report in writing on or about October 3, 1983, as to the success of its lower cost procurement activities and its utilization of transportation

programs offered by its supplier. The report shall include a statement detailing the present and anticipated effects of such actions on load retention, price and supply.

IT IS FURTHER ORDERED that Columbia shall file with this Commission, within 30 days of the date of this Order, its revised tariff sheets setting out the rates and charges approved herein.

Done at Frankfort, Kentucky, this 5th day of July, 1983.

PUBLIC SERVICE COMMISSION


Chairman


Vice Chairman


Commissioner

ATTEST:

Secretary

FOOTNOTES

1. Cost data for September 30, 1982, filed January 24, 1983, Exhibit 4, Schedule 1.
2. Ibid., Schedule 10.
3. Transcript of Evidence ("T.E."), May 10, 1983, pages 105-106.
4. Cost data for September 30, 1982, filed January 24, 1983, Exhibit 4, Schedule 2, Line 10, and Schedule 3, Line 20.
5. $(\$14,797,985 \text{ O \& M expenses} \times 1/8) - \$1,940,056 = (\$90,308)$.
6. Joint brief of the AG and Lexington-Fayette Urban County Government, pages 7 and 8.
7. Larkin testimony, page 11.
8. Response to Commission Order of January 12, 1983, Item 7, page 3 of 8.
9. Cost data for September 30, 1982, filed January 24, 1983, Exhibit 10, Schedule 1.
10. Response to Commission Order of April 14, 1983, Item 9, sheet 1 of 8.
11. T.E., May 11, 1983, pages 48-49.
12. Ibid.
13. Ibid., page 128.
14. T.E., May 10, 1983, page 116.
15. Ibid., page 135. Response received May 23, 1983, Item 2.
16. T.E., May 10, 1983, pages 119-122.
17. Response to Commission Order of March 24, 1983, Item 19.
18. T.E., May 11, 1983, page 47.
19. Response to Commission Order of April 14, 1983, Item 11.
20. Case No. 8281-J, PGA of Columbia.
21. T.E., May 10, 1983, page 163-164.
22. Case No. 8281-J, PGA of Columbia.

23. Cost data filed January 12, 1983, Exhibit 1, Schedule 2, sheet 4 of 5.
24. Union agreement provided in response to AG request of February 18, 1983, Item 10.
25. Proposed wage increase of \$616,732 - (Normalized wages of \$7,286,111 X 5 percent) = \$252,426.
26. \$252,426 wage reduction X 7.3 percent = \$18,427. Commission Order of January 12, 1983, Item 42, lines 4, 5 and 6.
27. Response to Commission Order of March 24, 1983, Item 6.
28. T.E., May 10, 1983, pages 154 and 155.
29. Response to Commission Order of January 12, 1983, Item 42.
30. \$1,742,000 - (\$7,650,417 adjusted wages and salaries X 20.9 percent) = \$143,063.
31. T.E., May 10, 1983, page 156.
32. Larkin testimony, pages 28-30.
33. Response to Commission Order of March 2, 1983, Item 17.
34. Response to Commission Order of January 12, 1983, Item 7, page 3 of 8.
35. Response to Commission Order of March 2, 1983, Item 27.
36. \$414,377 X 11.88 percent = \$49,228.
37. Larkin testimony, page 44.
38. T.E., May 10, 1983, page 96.
39. Information submitted in response to hearing requests received May 23, 1983, Item 4.
40. Response to Commission Order of January 12, 1983, Item 28.
41. \$43,744,114 rate base X long term debt cost of 9.32 percent X 44.53 percent of capital structure = \$1,815,466.

\$43,744,114 X short term debt cost of 10 percent X 11.15 percent of capital structure = \$487,747.

\$1,815,466 + \$487,747 = \$2,303,213.
42. Includes AFUDC of \$49,228.

43. O'Donnell testimony, page 2.
44. AG's first supplemental data request, Item 11c.
45. T.E., May 10, 1983, pages 22 and 25.
46. Larkin testimony, page 18.
47. Ibid., page 19.
48. O'Donnell testimony, pages 7 through 8.
49. Larkin testimony, page 19 and Larkin exhibit, schedule 2.
50. Federal Reserve Statistical Release.
51. O'Donnell exhibit, schedule 13.
52. O'Donnell testimony, page 9.
53. T.E., May 10, 1983, page 21.
54. Ibid., page 22.
55. O'Donnell testimony, page 13.
56. T.E., May 10, 1983, page 15.
57. Ibid., page 16.
58. Johnson testimony, page 2.
59. T.E., May 11, 1983, page 68.
60. Ibid.
61. T.E., May 10, 1983, page 16.
62. Retention factor = $(1 - .4924 \text{ Income Tax Rate}) +$
 $(1 + .001826 \text{ Uncollectible Accounts} + .0008006 \text{ PSC}$
 $\text{Assessment}) = .5063.$
63. Letter to Commission from C. E. Clay dated June 1, 1983, in response to Order dated May 29, 1981, in Case No. 7357.

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 8738 DATED JULY 5, 1983

The following rates and charges are prescribed for the customers in the area served by Columbia Gas of Kentucky, Inc. All other rates and charges not specifically mentioned herein shall remain the same as those in effect under authority of this Commission prior to the date of this Order.

GENERAL SERVICE RATE SCHEDULE - GS Residential

RATE

Customer Charge:

\$3.00 per delivery point per month

Commodity Charge:

First 50 Mcf per month @ \$5.959 per Mcf

All Over 50 Mcf per month @ \$5.775 per Mcf

MINIMUM MONTHLY CHARGE

The minimum month charge shall be the customer charge.

GENERAL SERVICE RATE SCHEDULE - GS-Commercial and Industrial

RATE

Customer Charge:

\$5.00 per delivery point per month

Commodity Charge:

First 200 Mcf per month @ \$6.187 per Mcf

All Over 200 Mcf per month @ \$6.041 per Mcf

MINIMUM MONTHLY CHARGE

The minimum monthly charge shall be the customer charge.

RATE SCHEDULE FC-1
FIRM AND CURTAILABLE GAS SERVICE - OPTIONAL

RATE*

**Firm Volume (Daily Firm Volume Times Number of Days
in Month)**

First 1,000 Mcf per month @ \$6.115 per Mcf
Over 1,000 Mcf per month @ \$6.065 per Mcf

Curtable Volume

\$5.915 per Mcf of Curtable Volume of gas
delivered hereunder each billing month.

AVAILABILITY OF EXCESS GAS

In the event Buyer shall desire to purchase on any day gas in excess of Buyer's specified Maximum Daily Volume, Buyer shall inform the Seller and if the Seller is able to provide such excess gas required by Buyer from its operations, Seller shall make such excess gas available at the rate of \$5.915 per Mcf.

MINIMUM MONTHLY CHARGE

See Sheet No. 58 for minimum monthly charge.

RATE SCHEDULE FI-1
FIRM AND INTERRUPTIBLE GAS SERVICE - OPTIONAL

RATE*

Daily Firm Volume

First 5,000 Mcf per month @ \$6.031 per Mcf
Over 5,000 Mcf per month @ \$6.001 per Mcf

Daily Interruptible Volume

\$5.821 per Mcf of Daily Interruptible Volume of gas
delivered hereunder each billing month.

AVAILABILITY OF EXCESS GAS

In the event Buyer shall desire to purchase on any day gas in excess of Buyer's specified Maximum Daily Volume, Buyer shall inform the Seller and if the Seller is able to provide such excess gas required by Buyer from its operations, Seller shall make such excess gas available at the rate of \$5.821 per Mcf.

MINIMUM MONTHLY CHARGE

See Sheet Nos. 62 and 63 for minimum monthly charge.

RATE SCHEDULE FI-2

FIRM AND INTERRUPTIBLE GAS SERVICE - OPTIONAL

RATE*

Daily Firm Volume

First 50,000 Mcf per month @ \$5.903 per Mcf

Over 50,000 Mcf per month @ \$5.833 per Mcf

Daily Interruptible Volume

\$5.743 per Mcf of Daily Interruptible Volume of gas delivered hereunder each billing month.

AVAILABILITY OF EXCESS GAS

In the event Buyer shall desire to purchase on any day gas in excess of Buyer's specified Maximum Daily Volume, Buyer shall inform the Seller and if the Seller is able to provide such excess gas required by Buyer from its operations, Seller shall make such excess gas available at the rate of \$5.743 per Mcf.

MINIMUM MONTHLY CHARGE

See Sheet Nos. 62 and 63 for minimum monthly charge.

RATE SCHEDULE IS-1

INTERRUPTIBLE GAS SERVICE - OPTIONAL

RATE*

Billing Months April Through November

\$6.205 per Mcf for all volumes delivered each month up to and including the Average Monthly Winter Volume. The Average Monthly Winter Volume shall be one-fourth of the total delivery during the preceding billing months of December through March.

\$5.805 per Mcf for all volumes delivered each month in excess of the Average Monthly Winter Volume.

Billing Months December Through March

\$6.205 per Mcf delivered.

RATE SCHEDULE IUS-1
INTRASTATE UTILITY SERVICE

RATE*

For all gas delivered each month \$5.838 per Mcf.

MINIMUM MONTHLY CHARGE

The Maximum Daily Volume specified in the Sales Agreement multiplied by \$5.838 per Mcf.

RULES AND REGULATIONS
RATE SCHEDULE GS

- IV. If service is discontinued at the request of any customer, the company may refuse service to such customer, at the same premises within eight (8) months, unless it shall first receive payment of twenty-four dollars (\$24.00) reconnection charge.
- V. A reconnect charge of fifteen dollars (\$15.00) will be made by the Company when service has been disconnected for nonpayment of bills or for violation of the Company's Rules and Regulations and the customer has qualified for and requested the service to be reconnected.
- VI. When a customer requests gas service from a high-pressure pipeline, the Company will furnish and install all taps, regulating equipment and meters at no cost to the customer except as follows with respect to pressure regulators:
 - 1. If the line from which the customer is to be served is operated at a pressure not exceeding 60 psig, the Company will furnish the necessary service regulator at no cost to the customer.
 - 2. If the line from which the customer is to be served is operated at a pressure in excess of 60 psig but not in excess of 200 psig, which will necessitate one high-pressure regulator in addition to the service regulator, the customer will be required to make a payment of \$100 to cover the cost, installed, of the high-pressure regulator.

3. If the line from which the customer is to be served is operated at a pressure in excess of 200 psig which will necessitate two high-pressure regulators in addition to the service regulator, the customer will be required to make a payment of \$200 to cover the cost, installed, of the high-pressure regulators.

The Company will make all necessary installations including the tap, meter and regulator or regulators at no cost to the customer except as specified above.

The Company will own, operate and maintain all facilities except the requisite service line of the customer.

- X. The Company shall make a test of any meter upon written request of any customer provided such request is not made more frequently than once each twelve months or the meter is not scheduled for a periodic test. The customer shall advance an amount based on meter capacity as follows: 500 cu. ft. per hour and under @ \$10.00, over 500 cu. ft. per hour @ \$20.00, and 1,500 cu. ft. per hour @ \$30.00. If such tests show the meter to be more than 2% fast or slow, the amount advanced shall be refunded to the customer and adjustments made pursuant to Commission's General Rule IX for "Bill Adjustment". If the meter is found not to be more than 2% fast or slow, the amount advanced by the customer shall be retained by the Company.
- XI. The Company will extend its distribution mains without cost up to but not more than a distance of one hundred (100) feet for each prospective domestic customer who agrees to utilize gas as the major source of energy.
- XIII. If a customer's check tendered in payment of a bill for service is returned by a bank as unpaid, the customer will be charged a fee of five dollars (\$5.00) to cover the cost of further processing of the account.

RATE SCHEDULE FC-1

MINIMUM MONTHLY CHARGE

The minimum monthly charge each billing month for gas delivered or the right of the Buyer to receive same shall be:

- (a) The amount determined by applying the rates for the firm volume less the commodity cost of gas to a minimum monthly volume which shall be the product of fifty percent (50%) of the specified Daily Firm Volume times thirty (30) plus the commodity cost of gas for all volumes included in minimum except that.

RATE SCHEDULE FI-1

MINIMUM MONTHLY CHARGE

- (a) The amount determined by applying the rates for the firm volume less the commodity cost of gas to a minimum monthly volume which shall be the product of fifty percent (50%) of the specified Daily Firm Volume times thirty (30) plus the commodity cost of gas for all volumes included in minimum except that.

The above rates and charges have incorporated all adjustments through Case No. 8281-O.

The base rates for the future application of the purchased gas adjustment clause are:

Columbia Gas Transmission Corporation

Zone 1 and Zone 3 rate per DTH

	<u>Demand</u>	<u>Commodity</u>
Schedule CDS	\$ 4.91	429.97¢
Schedule WS		
Demand	\$ 1.39	
Winter Contract Quantity	2.44¢	

Columbia LNG Corporation

LNG - Rate per Mcf	\$ 5.61
Transportation - Rate per DTH	
Zone 1 and Zone 3	47.01¢