BEFORE

THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Columbia Gas of Ohio, Inc. for Authority to Amend its Filed Tariffs to Increase the Rates and Charges for Gas Services and Related Matters.))))	Case No. 21-637-GA-AIR
In the Matter of the Application of Columbia Gas of Ohio, Inc. for Approval of an Alternative Form of Regulation.)))	Case No. 21-638-GA-ALT
In the Matter of the Application of Columbia Gas of Ohio, Inc. for Approval of a Demand Side Management Program for its Residential and Commercial Customers.)))	Case No. 21-639-GA-UNC
In the Matter of the Application of Columbia Gas of Ohio, Inc. for Approval to Change Accounting Methods.)))	Case No. 21-640-GA-AAM
Jenifer French, Chair M. Beth Trombold, Commissioner Lawrence K. Friedeman, Commissioner Dennis P. Deters, Commissioner		

Daniel R. Conway, Commissioner

To the Honorable Commission:

In accordance with the provisions of the Ohio Revised Code Section 4909.19, the Staff of the Public Utilities Commission of Ohio (Staff) has conducted its investigation in the above matter and hereby submits its findings to the Commissioners of the PUCO (Commission) in this Staff Report.

The Staff Report has been jointly prepared by the Staff's Rates and Analysis Department and Service Monitoring and Enforcement Department.

Copies of the Staff Report have been filed with the Docketing Division of the Public Utilities Commission of Ohio (PUCO) and served by certified mail upon the mayors of all affected municipalities and other public officials deemed representative of the service area affected by the application. A copy of this report has also been served upon the utility or its authorized representative. Interested parties are advised that written objections to any portion of the Staff Report must be filed within 30 days of the date of the filing of this report, after which time the Commission will promptly set this matter for public hearing. Written notice of the time, place, and date of such hearing will be served upon all parties to the proceeding.

The Staff Report is intended to present for the Commission's consideration the results of the Staff's investigation. It does not purport to reflect the views of the Commission nor should any party to the proceeding consider the Commission as bound in any manner by the representations or recommendations. The Staff Report, however, is legally cognizable evidence upon which the Commission may rely in reaching its decision in this matter. (See *Lindsey v. Pub. Util. Comm.*, 111 Ohio St. 6 (1924)).

Respectfully submitted,

PUCO Rates and Analysis Department

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PUCO Service Monitoring and Enforcement Department

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BACKGROUND

Columbia Gas of Ohio, Inc. (Columbia, Applicant, or the Company), is a regulated utility, and is engaged in the business of supplying natural gas for lighting, power, or heating purposes to more than 1.4 million customers in 60 of Ohio's 88 counties. Columbia, a subsidiary of NiSource Inc., is the largest local gas distribution company in Ohio.

Columbia's current base rates for natural gas distribution service were established by the Public Utilities Commission of Ohio (Commission or PUCO) in Case No. 08-72-GA-AIR, which used a date certain of December 31, 2007, and a test period of 12 months ending September 30, 2008.

On May 28, 2021, Columbia filed separate notices of its intent to file an application for an increase in rates and an application for approval of an alternative rate plan, as well as a motion to establish a test year and date certain and for waiver of certain filing requirements pursuant to R.C. 4909.15(C) and Ohio Adm.Code 4901-7-01 and 4901:1-19-02(D), respectively. Columbia proposed to use the 12-month period ending December 31, 2021, as the test year for its intended rate case and March 31, 2021, as the date certain for determining rate base.

On June 30, 2021, Columbia filed its application for an increase in rates with accompanying applications for accounting authority and for approval of revised tariffs (Application).

By Entry dated July 7, 2021, the Commission approved the test year and date certain and granted the requested waivers. On August 25, 2021, the Commission issued an Entry accepting the Application as of the June 30, 2021, filing date.

In its application, Columbia calculated a revenue deficiency of approximately \$221.4 million associated with base distribution services. The total base distribution revenue requirement requested is approximately \$1,039.4 million. The total revenue increase over test year operating revenues is approximately 21.3 percent.

Summary of Staff's Recommendations

As shown on Schedule A-1 Staff recommends an approximate revenue increase in the range of \$35,197,000 to \$57,554,000. This represents an increase of 3.98 percent to 6.34 percent over test year operating revenue. This determination is based on Staff's examination of the accounts and records of the Applicant for the 12 months ending December 31, 2021, as summarized in this report, including schedules which incorporate Staff's recommended rate of return, rate base, and adjusted operating income.

OPERATING INCOME AND RATE BASE

Scope of Investigation

The scope of the investigation was to determine if the Applicant's filed exhibits concerning test year operating income, rate base and other data are reasonable for ratemaking purposes, and if the financial and statistical records supporting the data can be relied upon. Staff interviewed the Applicant's key management personnel and reviewed both internal and published financial reports to assure understanding of the Applicant's operations and organization. Staff's investigation of test year operating income and date certain rate base included a review of the Applicant's budgeting and forecasting techniques, verification of the operating revenue computation, and an examination of the Applicant's continuing property records. In addition, Staff verified the existence and used and useful nature of the assets through physical inspections. Staff performed other independent analyses it considered necessary.

The Applicant proposed various adjustments to operating income and rate base, as summarized on the Applicant's Schedules. Staff reviewed and analyzed the Applicant's proposed adjustments to operating income and rate base and traced them to supporting workpapers and source data. As a result of its review and analysis, Staff accepted some of the proposed adjustments, changed some of the Applicant's proposed adjustments using alternative approaches, and/or proposed new adjustments. Staff's adjustments make the test year operating income and date certain rate base consistent with sound regulatory accounting practices, more representative of normal operations and appropriate for ratemaking purposes.

The purpose of Staff's investigation was to develop financial data for ratemaking purposes; it was not intended to provide a basis for expressing an opinion on the financial statements of the Company as a whole. The following sections of this report summarize the results of Staff investigation, which Staff believes are relevant to the determination of test year operating income and rate base. Staff presents these sections in the general order in which the schedules are presented at the end of this document.

Revenue Requirements

Schedule A-1 presents Staff's determination of the Applicant's revenue requirements. Staff's recommended revenue increase is shown on Schedule A-1. This determination is based on the examination of the accounts and records of the Applicant for the twelve months ending December 31, 2021, the test year in this proceeding. The results of Staff's examination are summarized in this report, and the schedules that incorporate Staff's recommended rate of return, rate base, and adjusted test year operating income.

RATE BASE

The rate base represents the Applicant's net investment in plant and other assets as of the date certain, March 31, 2021, which were used and useful in providing gas utility service to its customers and upon which its investors are entitled to the opportunity to receive a fair and reasonable rate of return.

Staff's analysis of the rate base is divided into Plant-In-Service, Depreciation, Construction Work in Progress, Working Capital, and Other Rate Base Items. A comparison of rate base submitted by the Applicant and Staff's recommendation is shown on Schedule B-1. Schedules B-2 through B-7 provide additional support for Staff's rate base findings.

Plant-In-Service

The Plant-In-Service, as presented by the Applicant, is the surviving original cost of the plant that is used and useful or projected to be used and useful as of the date certain, in providing electric utility service to its customers. As a result of Staff's investigation and review of the application, Staff recommends that adjustments be made to the Applicant's date certain plant investment for ratemaking purposes. These adjustments are identified below, summarized on Schedule B-2.2, and reflected in the calculation of jurisdiction plant in service figures on Schedule B-2.1.

Intangible

Cloud Software

In its Application, the Company has included in plant in-service, certain expenditures related to Software as a Service (Cloud Software or SaaS solutions). The amount included in plant in-service represents certain implementation and application development stage costs attributable to Cloud Software hosting arrangements. US GAAP treats these amounts as prepaid expenses—instead of capitalized costs—with the balance amortized over the lesser of five years or the term of the hosting arrangement. The Company indicated it has capitalized these amounts in accordance with Federal Energy Regulatory Commission (FERC) guidelines;¹ however, the Company's internal accounting policy dated August 2020 adheres more closely with US GAAP. Specifically, the policy states, "internal and external costs incurred to implement SaaS solutions during [the application development] stage should be classified as deferred O&M" and defines deferred O&M as, "eligible SaaS (cloud) costs that are deferred to a prepaid account, [and] are not presumed to received rate base treatment."² Additionally, the accounting policy recommends project teams work with NiSource's regulatory strategy teams to request rate base treatment for either specific SaaS projects or get blanket approval for all SaaS projects benefiting the state. The Company advised Staff it did not seek approval for rate base treatment of Cloud Software costs as all costs were booked consistent with FERC guidelines.

Staff notes the balance of prepayments are typically included in the allowance for working capital; however, as a result of the Company's treatment of these costs, the amounts have been capitalized and included in plant balances, bypassing the need to request an allowance for working capital. In the context of a rate case, Staff finds it more appropriate to the treat these costs as prepayments instead of capitalized costs, adhering more closely to the Company's internal accounting policy and US GAAP. Given the

¹ Staff Data Requests 102 and 134.

² Staff Data Request 63, Attachment I (Emphasis in original).

Company has not requested an allowance for working capital in this case, Staff recommends removal from rate base, all capitalized costs associated with Cloud Software in Account 30399. This adjustment reduces plant in-service by \$3,582,685, as shown on Schedule B-2.2.

Distribution & General

Staff's review of the Distribution and General Plant assets of the Company included a used and useful field inspection of the assets as sampled by Staff from the company's continuing property records (CPR). The field inspection included all vintage years in the CPR. Staff also performed a financial audit of the CPR activity in the Plant in Service accounts from January 1, 2018, to date certain, March 31, 2021. The account balances per the CPR matched the balances as of date certain listed on the Company's Schedule B-2.1 per the as-filed application.

Staff recommends several adjustments for various reasons as a result of both the financial, and the used and useful field inspection audits. Staff's adjustments are outlined below and are further supported by the Staff WPB-2.2 workpaper.

CEP Adjustments

Staff adjusted plant in-service to reflect adjustments related to Infrastructure Development Rider ("IDR") additions, imprudent assets, cost overruns and account reclasses that were recommended in the Capital Expenditure Program (CEP) audit in Case No. 21-0023-GA-RDR. Due to the timing of the filing of this rate case, the adjustments were still reflected in the date certain plant balances of this case. These adjustments reduce plant-in-service by \$2,029,572, as shown on Schedule B-2.2.

No Address Provided, Not Asset Tagged, or No Locational Data

During its investigation, Staff selected numerous items to perform site inspections. In response, the Company provided a list of multiple assets that were identified as *blanket – no address, not asset tagged,* or *locational data not identified.* Therefore, Staff could not perform site inspections to confirm the existence of these assets. For the reasons stated above Staff adjusted these line items from plant in service. These adjustments reduce plant in-service by, \$27,180,704, as shown on Schedule B-2.2.

Asset Lists Not Provided

Similarly, during its investigation, Staff selected numerous items to perform site inspections. In response, the Company recognized a list of assets that were identified as *CPG/COH PODs Purchase*. The Applicant said they would try to send over a list that was more specified to the items and locations for the chosen assets that Staff had selected. However, the list was never provided therefore, Staff could not perform site inspections to confirm the existence of these assets. For the reasons stated above Staff adjusted these line items from plant in service. These adjustments reduce plant-in-service by \$4,396,568, as shown on Schedule B-2.2.

PISCC Charges

PISCC charges dating to 1992, 1993 and 1994 totaling \$9,214 are being adjusted out of plant-in-service as the Company was unable to explain the source of these charges or provide support for the amounts. These adjustments reduce plant-in-service as shown on Schedule B-2.2.

No Support Provided

Staff removed \$16,172,902 in distribution and general plant because the Company did not provide adequate invoices and/or picture level supporting documentation. These adjustments reduce plant-in-service as shown on Schedule B-2.2.

Permit Fees

Staff removed \$1,788 for a permit invoice which was paid twice. This adjustment reduces plant-in-service as shown on Schedule B-2.2.

Assets Not Located for or During Field Inspection

Staff sampled various assets for inspection for which the Company was either unable to locate prior to or during physical inspections at the field site on the day of the inspection. For General Plant assets, the items at issue were trailers, forklifts, values and fittings, Boring & Tap Machine, and Borescopes. There were various other general tools and equipment items for which the company was able to show some items, and some items for which the Company claimed were located on work trucks. The Company did not include or schedule any work trucks with the items at issue as part of the inspections which took place over approximately 2 weeks, so Staff was unable to inspect them. The total adjustment related to these issues is \$610,703 and is shown on Schedule B-2.2.

Not Used or Useful in Providing Gas Distribution Utility Service

Staff is removing \$304,240 in costs, half of which is estimated, from Plant-in-Service associated with a workout facility, aerobic rooms, and locker rooms at the Company's headquarter building, which are not used or useful in providing gas distribution utility service. The estimated portion is related to costs the Company was unable to identify for items including audio visual equipment, AV racks, AV cabling, speakers, mirrors, miscellaneous furniture/fixtures, and the original costs of the men's and women's locker rooms. The adjustments for these items are shown on Schedule B-2.2.

Assets Identified During Review Which Company Agreed to Remove or Found to be No Longer in Service

Staff requested inspection of various items found in the continuing property records (CPR), such assets included base station and mobile unit radios, interactive voice reading system, operator console, a speaker phone, tower telecom, car washes, forklifts, a trailer, CNG Station, and a 1998 Boring Machine, in the Company's CPR. The Company agreed to remove these items, in addition to office equipment formerly located in Sugar Grove, Ohio, from the plant balances because they are either no longer located at the site or no longer in service. The adjustment for these items totaled \$1,688,266 and is reflected on Schedule B-2.2.

Asset used for all NiSource Service territories in and out of Ohio

While inspecting a pipe cutting and beveling machine at NiSource's Mount Vernon, Ohio facility, the Company confirmed that the asset is used to service all of the NiSource service territories, both in and out of Ohio. Staff's adjustment for this asset reduces Plant in Service by \$510,581 and is shown on Schedule B-2.2.

Capitalized Incentive Compensation

Staff avers incentive compensation payments related to financial performance metrics should be funded by a utility's shareholders, not its ratepayers. Therefore, Staff recommends an adjustment to remove the

capitalized incentive payments related to financial performance from January 2018 through the date certain. This adjustment reduces rate base by \$12,046,410, as shown on Schedule B-2.

Going forward, Staff recommends the Company exclude from rate base, including riders that recover capital investments, all capitalized incentive compensation attributable to financial performance.

Depreciation

Depreciation is the process which distributes the original cost of depreciable assets, adjusted for net salvage, over the normal life of the property in a systematic and rational manner. Staff's investigation of depreciation is segregated into two areas: (1) Depreciation Reserve, and (2) Depreciation Accrual Rates and Depreciation Expense. These two areas are discussed in detail in the following sections.

Depreciation Reserve

The Applicant maintains its depreciation reserve, by account, on a total company basis. In order to determine if the Applicant's book reserve for depreciation is proper and adequate, Staff compared the Applicant's company-wide book reserve as of date certain, March 31, 2021, with a calculated theoretical reserve as a guide to determine if past accrual rate calculations have been appropriate. Staff determined the level of the overall booked reserve is not unreasonable as the difference between it and Staff's calculated theoretical reserve is minimal.

Staff adjusted the depreciation reserve for the amount of reserve associated with adjustments to Plant-In-Service, as discussed above in the Plant in Service section. The adjustments to the reserve are shown on Schedule B-3.1.

The jurisdictional reserve for depreciation as adjusted by Staff and shown on Schedule B-3 is proper and adequate, therefore, it should be used for the purposes of this proceeding.

Depreciation Accrual Rates and Depreciation Expense

The Applicant's current accrual rates were prescribed by the Commission in Case No. 08-0072-GA-AIR. The Applicant's current accrual rates had been in use for approximately 13 years.

The Applicant filed a depreciation study for its gas distribution and general plant performed by Gannett Fleming Valuation and Rate Consultants, LLC. The Applicant's accrual rates were developed using the straight-line method, average service life procedure and applied on a whole life basis except for certain General Plant accounts which were developed using amortization accounting.

Staff conducted an independent analysis of the depreciation study provided by the Applicant. Staff generally agrees with the average service lives, net salvages, and curve forms developed through the depreciation study. Staff calculated a composite accrual rate for Account 375.70 - Other Distribution System Structures, because the account is broken into two sub-categories, Distribution Structures and Small Structures with different average service lives, net salvage percentages, and curve forms. Staff's calculation of the composite accrual rate for the account is shown at the bottom of Schedule B-3.2.

Staff's recommended accrual rates are shown on Schedule B-3.2. Staff recommends that the Applicant be ordered to use the accrual rates shown on Schedule B-3.2 for book depreciation purposes, effective concurrent with the customer rates from this proceeding.

Construction Work In Progress (CWIP)

The Applicant did not request an allowance for CWIP in its filing and Staff did not recommend an allowance, as shown on Schedule B-4.

Working Capital

The Company did not request an allowance for working capital in this Application. This is reflected on Schedule B-5.

Other Rate Base Items

Customer Deposits

In its Application, the Company did not include as a reduction to rate base, the 13-month average balance of customer deposits. The Company avers customer deposits are considered part of a cash working capital claim, and since the Company did not request an allowance for cash working capital, customer deposits were not included in rate base.³ Staff recommends the Commission reject the Company's position. Customer deposits have consistently been included as part of Other Rate Base Items on Schedule B-6, and Staff has historically recommended adjustments to include customer deposits with Other Rate Base Items in cases where companies have proposed to include the balance in work capital, including Columbia's most recent rate case. Additionally, the Standard Filing Requirements for Rate Increases for large utilities specifies that customer deposits be included on Schedule B-6, not the schedule for working capital. Therefore, Staff recommends the 13-month average balance of customer deposits be included as a reduction to rate base on Schedule B-6. Staff's adjustment reduces rate base by \$11,090,577, as shown on Schedule B-6. In addition, Staff recommends the interest paid on customer deposits be reflected in test year operating income, which is discussed in further detail later.

Accumulated Deferred Income Taxes

In its Application, the Company proposes various adjustments to the date certain balances of Accumulated Deferred Income Taxes (ADIT) based on the assertion these balances are either related to working capital or related to balances in accounts not included in rate base. Historically, adjustments to ADIT balances have been limited to amounts attributable to non-jurisdictional functions of a utility. Given that Columbia is 100 percent jurisdictional, Staff finds the Company's adjustments to be inappropriate and unreasonable. Therefore, Staff recommends the Commission reject the Company's proposed adjustments to ADIT as the Company has not identified nor proposed any adjustments to ADIT balances related to non-jurisdictional functions.⁴

COVID-19 Deferral

In May 2020, in Case No. 20-1104-GA-AAM, the Company filed an application seeking authority to establish a regulatory asset and defer the expenditures incurred and revenues lost as a result of the COVID-19 emergency. The Commission issued a Finding and Order granting deferral authority and required the Company to track any costs it avoids due to the COVID-19 emergency.⁵ Before the Company could recover the deferred amounts, the Commission required the costs be reviewed for issues including

³ See response to Staff Data Request 119

⁴ See testimony of Bryan Trapp pp. 2 - 6.

⁵ In the Matter of the Application of Columbia Gas of Ohio, Inc. for Approval to Change Accounting Methods, Case No. 20-1104-GA-AAM, Finding and Order (July 15, 2020).

but not limited to: prudence, proper computation, proper recording, reasonableness, and any potential double-recovery. Columbia now seeks to recover the deferred COVID-19 costs and foregone revenues as part of this rate case. Staff notes the Company has stopped deferring COVID-19 expenses as of May 31, 2021.⁶

As part of this rate case, the Company has requested authority to recover \$5.2 million in deferred costs and foregone revenues related to the COVID-19 emergency. Additionally, the Company has identified and tracked \$6.2 million in avoided costs attributable to the COVID-19 emergency. As part of Staff's investigation, Staff requested transactional details for all costs deferred and performed sampling to request the underlying documentation and invoices for over 300 of the transactions. As part of this review, the Company identified numerous transactions that were improperly recorded as COVID-19-related costs. Staff also found a myriad of transactions for which the Company did not have invoices or supporting documentation,⁷ as well as instances of duplicated transactions for which the Company provided the same invoices to support separate line items.

In addition to the transactions either lacking supporting documentation or inappropriately included in the COVID-19 deferral, Staff found one instance where the Company acquired five thermal cameras, at a cost of \$14,995 each, which the Company advised were for safety-related items for taking temperatures and required to keep employees safe. Including taxes and hardware, \$83,021 was spent on the cameras with \$17,243 allocated to Columbia Gas of Ohio. Although Staff understands the Company's desire to keep employees safe during the COVID-19 emergency, Staff finds this purchase to be significantly excessive as more inexpensive options, such as hand-held thermometers, were available.

Overall, Staff recommends the Commission deny recovery of deferred COVID-19 costs, as the incremental savings exceeded the incremental costs incurred. In this instance, Columbia was able to avoid \$6.2 million in costs compared to incurring \$5.2 million in incremental costs and foregone revenues. When comparing incremental costs and foregone revenues to the savings realized through avoided costs, Staff finds that Columbia in fact benefited by \$1 million. Staff asserts if the Company was able to avoid more costs than it incurred, recovery of the deferral is inappropriate as customers should not be responsible to pay for the expenses while Columbia retains the savings. Alternatively, if the Commission deems recovery of the deferral to be appropriate, Staff recommends an adjustment of \$399,800 which includes costs erroneously deferred to the COVID-19 regulatory asset, costs for which invoices or receipts were not provided, duplicated costs, as well costs which Staff finds to be imprudent and unreasonable.

Environmental Remediation Expense Deferral

The Company proposes to recover \$11,288,244 for environmental and remediation activities (ERC) on Schedule B-6 Other Rate Base Items. This includes \$9,671,687 in expenses and \$1,616,546 in carrying costs. The Company proposes to amortize recovery of these costs over five years on Schedule C-3.25 Environmental Remediation Expense Deferral Amortization. The costs include investigation and remediation costs associated with 14 sites.

The Company also proposes to include \$4,493,618 in rate base for Toledo I Land MGP on Schedule B-3.1 and Schedule B-3.2. This includes \$4,168,389 in plant and \$325,229 for AFUDC. The Company proposes to

⁶ Staff DR 172.

⁷ The Company advised the amounts for these expenses was below the threshold to require receipts per the NiSource "Business Expense Policy".

amortize recovery of these costs over five years on Schedule C-3.28 Depreciation and Amortization Expense Adjustment. The costs have been booked as \$1,052,285, FERC account 37570 (structures and improvements, other distribution system) and \$3,441,333, FERC account 36210 (gas holders, environmental remediation).

As part of the audit, Staff reviewed accounting procedures, capitalization policies, engineering documents, and insurance information. Staff also interviewed Company witnesses, reviewed all invoices associated with 14 sites, and reviewed all plant detail and invoices associated with Toledo I Land MGP.

Staff recommends that the Commission disallow recovery of all ERC costs from the test year and remove all ERC cost from rate base. Staff also recommends that the Commission terminate any authority associated with Case Nos. 99-195-GA-AAM and 08-606-GA-AAM for ongoing and/or future deferral or recovery of ERC costs specifically related to manufactured gas plant (MGP).

During the investigation, Staff discovered that the Company collected insurance proceeds for historic environmental liabilities. The Company allocated \$21,727,774 of the proceeds to Columbia Gas of Ohio (COH) and suggests that these costs should be split 70-30 between MGP and non-MGP expenses after legal fees.¹¹ However, in this case, the Company seeks recovery for both MGP and non-MGP costs. Therefore, Staff recommends that all insurance proceeds should be applied to offset all ERC costs permitted for recovery in this case.

Additionally, the Company included \$4,493,618 in costs associated with Toledo I Land MGP which were sold by the Company in 2011. These costs were not reasonably and prudently incurred. The Company did not have authority to capitalize these costs and the company accounted for the costs in an improper manner. Considering both the Commission Entry in Case No. 99-195-GA-AAM and Staff's objections in Case No. 08-606-GA-AAM, Staff finds that the Company was not authorized to modify its accounting treatment for ERC costs incurred for the Toledo I Land MGP site. The costs incurred prior to the sale of land should have been treated as capital costs by the Company at the time the costs were incurred, and to the extent permitted by FERC. The ERC costs incurred after the sale of the land should be considered O&M expenses, since the costs were not eligible for capitalization as the Company did not own the underlying property. Staff then recommends the balance of the Toledo I Land be adjusted to remove costs incurred after the sale of the land, as these costs are not eligible for capitalization, and the Company has not been granted authority to defer the O&M costs. These costs should be expensed as incurred.

Further, the Company deferred costs as a depreciation adjustment which provides for both the recovery of costs and the ability to earn a return. This should be permitted only for assets the Company continues to own. In this case, the Company sold the assets in 2011. Therefore, the company should not be receiving depreciation and a return on the assets.

In summary, Staff recommends all ERC costs presented in this case be offset by insurance proceeds resulting in no additional costs to ratepayers. Staff also recommends that insurance proceeds be applied to all future costs that may be incurred at these sites. As such, the authority granted in Case No. 08-606-GA-AAM is no longer necessary. Staff recommends that the Company be required to request new authority for recovery of future ERC expenses if or once insurance proceeds are depleted.

This adjustment reduces the proposed rate base by \$11,288,244, as shown on Schedule B-6. In addition, Staff adjusted the associated balance of ADIT attributable to the ERC deferral. This adjustment reduces

the balance of ADIT by \$2,370,531, as shown on Schedule B-6. If the Commission permits recovery of ERC costs contrary to Staff's recommendation, it should be noted that as of the time of this Staff Report publication, the Company could not provide support for \$54,240 in ERC costs and therefore this amount should be adjusted from total costs on Schedule B-6.

CEP-Related PISCC

During Staff's investigation, the Company informed Staff that due to the timing of filing this Application, it did not adjust the date certain balance of CEP-related PISCC to reflect the adjustments ordered by the Commission in the most recent audit of the Company's Capital Expenditure Program Rider.⁸ Therefore, Staff adjusted the deferred CEP-related PISCC balance to reflect this. Staff's adjustment reduces the balance of CEP-related PISCC by \$43,554. In addition, Staff adjusted the balance of ADIT attributable to this PISCC adjustment, which reduces ADIT by \$9,146. Both adjustments are shown on Schedule B-6.

Pension and OPEB Deferral

In 2009, Columbia filed an application to defer the difference between incurred pension and Other Post Employment Benefits (OPEB) costs and the amount recovered in base rates, which was ultimately approved by the Commission.⁹ Staff reviewed the underlying support for the amount of pension and OPEB expense deferred each year from 2009 through 2020 and accepts the Company's proposed deferral totaling \$18,463,000.

As part of this rate case, the Company has requested authority to continue deferring the pension portion of the deferral, and cease deferring the OPEB portion. This proposal would result in the Company continuing to defer on an annual basis the difference, either positive or negative, between incurred pension cost and the amount of pension cost included in base rates. Although pension expense may vary year-to-year in future years, all expenses and revenues will invariably differ from the amounts in base rates, and Staff does not find it reasonable to grant deferral authority due to costs being higher or lower than base rates in a given year. Additionally, Staff notes the existing deferral authority was granted in part, based on "the combination of the market and unusually low test-year pension and OPEB expenses."¹⁰ Overall, Staff finds the pension expense it has recommended in this rate case to reflect a reasonable, normalized annual cost which reflects the pension cost expected to be incurred by Columbia on a going-forward basis. Therefore, Staff recommends the Commission reject the Company's request to continue deferral of pension expenses.

Staff notes the Company's proposal to cease deferral of OPEB costs is predicated upon Staff's acceptance of the Company's proposed cost of service adjustment for OPEB expense. Staff recommends deferral of OPEB costs cease regardless of Staff's acceptance of the Company's proposed adjustment for OPEB expenses in the test year.

2008 Deferred Property Tax and 2008 Deferred Depreciation

The Company proposes to recover \$3,247,000 in deferred property tax for the year 2008 and \$7,042,000 in deferred depreciation for the year 2008, on Schedule B-6 Other Rate Base Items. Staff reviewed the

⁸ In the Matter of the Annual Application of Columbia Gas of Ohio, Inc. for an Adjustment to the Capital Expenditure *Program Rider Rate,* Case No. 21-23-GA-RDR, Opinion and Order (August 11, 2021).

⁹ In the Matter of the Application of Columbia Gas of Ohio, Inc. for Approval to Change Accounting Methods, Case No. 09-371-GA-AAM, Opinion and Order (July 7, 2009).

¹⁰ Id. at ¶9.

2008 deferred property taxes and the 2008 deferred depreciation and recommends recovery. The transactions reflect property tax deferrals recorded for the period January 2008 through November 2008 and were not included for recovery in Case No. 08-0072-GA-AIR or any subsequent regulatory filings.

Allocations

All rate base items and operations of Columbia, as of the date certain, are subject to the jurisdiction of the Public Utilities Commission of Ohio. As such, Columbia's jurisdictional allocation in this rate proceeding is 100 percent.

OPERATING INCOME

The Applicant's test year operating income combined three months of actual data for the period of January 1, 2021, through March 31, 2021, with nine months of forecast data for the period April 1, 2021, through December 31, 2021. The Staff adjusted the Applicant's test year operating income as required to render it appropriate as a basis for setting rates.

The Staff's proforma operating income is the Staff's adjusted test year operating income modified to reflect the Applicant's proposed increase in revenues and the associated increases in commercial activities taxes, state and municipal taxes, and federal income taxes. The Staff's proforma operating income also includes a Staff proposed increase in other operating revenues.

Schedules C-1 and C-2 present the Staff's determination of operating income. The calculations, methodologies, and rational used to develop the Staff's adjusted proforma operating income are detailed on Schedules A1, C-1.1, C-3.1 through C-3.38, and C-4.

Pro Forma Adjustments

Schedule C-1 sets forth the Applicant's proposed increase in operating revenues and affected expenses. The increase in revenues is the combined result of the increase in base revenues created by the Applicant's proposed tariffs, and an increase in miscellaneous revenues. Further discussion of the Applicant's proposed revenue increases can be found in various other sections of this report. Associated increases in commercial activities taxes, state and municipal taxes, and federal income taxes are also summarized on this schedule.

Current Adjustments

Annualized Base, RAR, IRP, & CEP Revenue, Schedule C-3.1

Staff adjusted the test year revenue to reflect the billing determinants provided in supplemental DR#24, which is based on actual active customer counts by rate schedule by month for the 12 months ending September 30, 2021. Actual volumes (Mcf) were normalized for weather for this 12-month period. Staff accepted the Company's test year billing determinants as it relates to Flex customers and as adjusted on Schedules WPE-4e through WPE-4i. This adjustment increases test year revenue by \$18,853,000, as shown on Schedule C-3.1.

Annualized DSS Gas Cost Revenue, Schedule C-3.2

The Company and Staff adjusted distribution test year revenue to reflect the change in purchased gas revenues resulting from the annualization of base revenues. This adjustment decreases test year gas cost revenue by \$77,090,000, as shown on Schedule C-3.2.

Elimination of Non-Traditional Revenue, Schedule C-3.3

The Company and Staff adjusted distribution test year revenue to eliminate non-traditional revenue from the test year. Non-traditional revenue has been addressed in the stipulation in Case No. 12-2637-GA-EXM and is included in the Choice/SSO/SCO Reconciliation Rider. This adjustment decreases test year operating income by \$30,433,000, as shown on Schedule C-3.3.

Elimination of O&M Expense Rider Revenue, Schedule C-3.4

Staff accepted the Company's methodology to remove from the test year revenues attributable to O&M expense riders. This adjustment reduces test year revenues by \$44,696,298, as shown on Schedule C-3.4.

Elimination of Taxes Other than Income Expense Rider Revenue, Schedule C-3.5

The Company and Staff adjusted distribution test year revenue to eliminate Distribution and Excise Tax expense rider revenues from the test year. This adjustment decreases test year operating income by \$58,855,519 as shown on Schedule C-3.5.

Elimination of Infrastructure Development Rider Base Revenue, Schedule C-3.6

The Company and Staff adjusted distribution test year revenue to eliminate Infrastructure Development Rider base revenue from the test year. This adjustment decreases test year operating income by \$142,000, as shown on Schedule C-3.6.

Elimination of Infrastructure Development Rider Other Gas Department Revenue, Schedule C-3.7

The Company and Staff adjusted distribution test year revenue to eliminate the Infrastructure Development Rider other gas revenue in the test year. This adjustment decreases test year operating income by \$259,000, as shown on Schedule C-3.7.

Elimination of Unbilled Revenue, Schedule C-3.8

The Company and Staff adjusted distribution test year revenue to eliminate unbilled revenues from the test year. This adjustment increases test year operating income by \$7,012,000 and is shown on Schedule C-3.8.

Elimination of Non-Jurisdictional Revenue, Schedule C-3.9

The Company and Staff proposed no adjustment related to non-jurisdictional revenue in the test year, as shown on Schedule C-3.9, because all of the Company's revenue are jurisdictional.

Annualized Gas Cost Expense, Schedule C-3.10

Both Staff and the Applicant synchronized test year operating gas cost expense recovered through Columbia's Choice / Standard Choice Offer (SCO) Reconciliation Rider (CSRR) with the adjusted test year gas cost revenues, which also eliminates the test year non-traditional gas cost expense. Staff's adjustments reduce test year operating expenses by \$109,868,000, as shown on Schedule C-3.10.

Elimination of Fuel Used in Company Operations O&M Expense, Schedule C-3.11

Both Staff and Applicant eliminated costs associated with contra gas cost expense Account 812, Fuel Used in Company Operations, for activity related to company used gas recovered through the CSRR. Staff's adjustments reduce test year operating expenses by \$438,265, as shown on Schedule C-3.11.

Elimination of O&M Tracker Expenses, Schedule C-3.12

In regard to WarmChoice[®], Columbia is requesting the continuation of \$7.1 million in base rates and additional funding in Rider DSM for the existing WarmChoice[®] program. Additionally, Columbia seeks to spend on average \$30.9 million annually on its DSM programs. This is an increase to the annual funding levels by two percent annually to account for inflation. In this application the Company also proposes an increase in shared savings to be capped at \$10,000,000 by the end of 2027, plus a gross-up for taxes.

After reviewing the application and supporting materials, Staff provides the following recommendations.

Staff supports the continuation of the WarmChoice[®] program, including the modification of income levels to 200 percent at or below poverty guidelines. However, Staff recommends the removal of WarmChoice[®] program funding from base rates and recommends the funding level of \$7.1 million be recovered through the existing Demand Side Management (DSM) rider going forward.

In Case No. 16-1309-GA-UNC, et al., the Commission approved a Stipulation and Recommendation that included a total DSM program budget of \$35,643,682 for the 2022 calendar year, which includes the \$7,100,000 currently included in base rates for the WarmChoice[®] program and excludes the \$70,000 previously proposed by the Company for DSM Stakeholder Group Support/DSM Planning.

Staff recommends that the Commission deny the Company's requested increase for additional DSM program spending in the current case and recommends capping the annual amounts eligible for recovery through Rider DSM at the 2022 levels, i.e., \$35,643,682.

Finally, Staff recommends that the Commission deny the continuation of the Company's shared savings incentive program at this time.

Staff accepted the Company's methodology to remove from the test year expenses attributable to O&M expense riders. Including Staff's recommendation to remove the WarmChoice[®] program expenses from base rates, these adjustments reduce test year expenses by \$49,764,000, as shown on Schedule C-3.12.

O&M Expense Exclusions, Schedule C-3.13

Both the Applicant and the Staff adjusted O&M expenses to remove items from the test year that are inappropriate to include for ratemaking purposes. Furthermore, Staff removed additional costs associated with lobbying, payments to churches, and an expense for a storage shed incurred outside of the test year. Staff's supplemental adjustments result in the removal of an additional \$84,840. Staff's total O&M Expense Exclusions adjustment decreases test year expenses by \$712,000, as shown on Schedule C-3.13.

Annualized Labor Expense Adjustment, Schedule C-3.14

Staff adjusted test year labor expense by annualizing Columbia Gas of Ohio labor expense based on actual employee levels and average hourly rates as of October 2021. This calculation incorporates all current employees as of October 2021, and all pay increases within the test year. Staff's adjustment increases test year labor expense by \$307,528, as shown on Schedule C-3.14.

Incentive Compensation Adjustment, Schedule C-3.15

Staff adjusted test year incentive compensation by removing incentive compensation based on financial metrics such as earnings per share (EPS). Staff's adjustment reduces test year incentive compensation by \$2,841,614, as shown on Schedule C-3.15.

Annualized Employee Benefits Expense, Schedule C-3.16

Staff adjusted the employee benefits expense by incorporating the latest known 12 months of actual data. Staff removed the deferred O&M pension and OPEB expenses recorded for the test year. Staff maintained the accrual accounting for the OPEB medical cost. Staff's adjustment reduces test year expense by \$7,946,072, as shown on Schedule C-3.16.

Columbia Headcount Complement, Schedule C-3.17

Staff adjusted Columbia labor by removing the headcount adjustment. Staff included the latest known labor data on C-3.14 and therefore included the latest known employee headcount. Staff's adjustment

reduces the Columbia headcount complement from a Company proposed increase of \$3,269,266 to \$0.00, as shown on Schedule C-3.17.

Corporate Insurance Expense, Schedule C-3.18

Both the Applicant and the Staff adjusted the corporate insurance expense to annualize it to the latest known level. During its investigation, Staff discovered that allocation factors related to travel accident and medical stop loss policies had changed. Therefore, Staff incorporated the changes into the adjustment calculation. Staff also included in the calculation funds related to the medical stop loss 2020 true-up that were not included in the Applicant's original filing. Staff's adjustment decreases test year expenses by \$461,000, as shown on Schedule C-3.18.

Normalize Uncollectible Accounts Expense, Schedule C-3.19

Staff accepted the Company's methodology to normalize uncollectible expenses associated with Large General Service, Large General Transportation Service, and Full Requirements Large General Transportation Service customer classes. This adjustment increases test year expenses by \$338,052, as shown on Schedule C-3.19.

Safety Operations O&M Expense Adjustment, Schedule C-3.20

The Company proposed to adjust O&M expenses in the test year to include anticipated additional labor expenses associated with cross bore and field/system operations technical training. Staff removed this proposed adjustment because it does not recommend expansion of the cross bores program and the associated technical training. This adjustment is shown on Schedule C-3.20.

NiSource Corporate Services O&M Expense Adjustment, Schedules C-3.21

Both the Applicant and the Staff adjusted NiSource Corporate Services O&M expenses to remove items from the test year that are not appropriate to include for ratemaking purposes. Furthermore, Staff removed additional costs associated with a paperless billing customer giveaway campaign, expenses related to the usage of Hallmark cards for customer outreach, a radio advertisement for Columbia Gas of Pennsylvania, dues to various organizations in which membership does not benefit the Applicant's distribution service, and a hotel room cancellation fee. Staff's supplemental adjustments are shown on Work Papers WPC-3.21c, e, f and I and result in the removal of \$124,445, in addition to the Company's adjustment of \$1,355,154.

Staff adjusted NiSource costs by removing the proposed inclusion of annualized fees for residential credit, debit card, ACH and check transactions, and fees for residential walk-in transactions. Staff's adjustment is shown on Staff Work Paper WPC-3.21r and reduces a Company proposed increase of \$3,082,376 to \$0.00.

Staff adjusted NiSource labor allocated to Columbia Gas of Ohio, Staff Work Papers WPC-3.21k, I, and m, by using the latest known 12 months of actual payroll labor and latest known benefit costs. Staff adjusted the data to include appropriate pay increases for a 12-month period. This calculation incorporates all current employees and pay increases within the test year. Staff's adjustment reduces test year NiSource labor expense by \$10,349,153.

Staff adjusted test year incentive compensation, Staff Work Paper WPC-3.21n, by removing incentive compensation based on financial metrics. Staff's adjustment reduces the test year NiSource incentive compensation by \$6,413,452.

Staff adjusted NiSource labor by removing call center representative salary increases on Staff Work Paper WPC-3.210. Staff included the latest known labor data as shown on WPC-3.21k and therefore included pay increases for call center representatives. Staff's adjustment reduces NiSource call center salary from a Company proposed increase of \$1,606,182 to \$0.00.

Staff adjusted NiSource labor by removing the headcount complement adjustment on Staff Work Paper WPC-3.21p. Staff included the latest known 12 months of actual payroll data as shown on WPC-3.21k, and therefore included the latest known employee count. Staff's adjustment reduces NiSource headcount complement from a Company proposed increase of \$8,599,308 to \$0.00.

Staff adjusted NiSource annual pension and OPEB expense by incorporating the latest known 12 months of actual data as shown on Staff Work Paper WPC-3.21q. Staff's adjustment reduces the test year NiSource annual pension and OPEB expense by \$187,831.

Staff accepted the Company's methodology to amortize over a period of five years, the balance of pension and OPEB expenses billed to Columbia in 2011 and subsequently deferred as a result of a Commission order.¹¹ This adjustment increases test year expenses by \$434,720, as show on Staff Work Paper WPC-3.21ab.

Staff's total NiSource Corporate Services O&M Expense Adjustment decreases test year expenses by \$17,995,315, as shown on Schedule C-3.21.

Rate Case Expense, Schedule C-3.22

Staff adjusted the Miscellaneous expense portion of the rate case expense to reflect the actual amount for miscellaneous expenses received. The adjustment increases test year expenses by \$326,000, as shown on Schedule C-3.22.

Staff recommends that the Commission review the most recent updated information regarding the Applicant's rate case expense before issuing its final Order. The Applicant should submit this information as a late filed exhibit.

NiFiT Deferral Amortization, Schedule C-3.23

In Case No. 12-3224-GA-AAM, the Commission approved the Company's application to defer costs associated with the development of a common financial system (NiFiT Project or NiFiT) across all NiSource companies.¹² As part of this rate case, the Company has requested to amortize and recover the balance of the deferred costs totaling approximately \$6.5 million.

Staff accepted the Company's methodology to amortize over a period of five years, the balance of deferred expenses attributable to the NiFiT Project. This adjustment increases test year expenses by \$1,308,800, as shown on Schedule C-3.23.

¹¹ In the Matter of the Application of Columbia Gas of Ohio, Inc. for Approval to Change Accounting Methods, Case No. 12-1135-GA-AAM, Opinion and Order (July 18, 2012).

¹² In the Matter of the Application of Columbia Gas of Ohio, Inc. for Approval to Change Accounting Methods, Case No. 12-3224-GA-AAM, Opinion and Order (October 30, 2013).

Pension and OPEB Deferral Amortization, Schedule C-3.24

Staff accepted the Company's methodology to amortize over a period of five years, the balance of pension and OPEB expenses deferred from 2009 through 2020. This adjustment increases test year expenses by \$3,687,200, as shown on Schedule C-3.24.

Environmental Remediation Expense Deferral Amortization, Schedule C-3.25

As discussed in the Other Rate Base section of the Staff Report, Staff recommends an adjustment to remove all deferred O&M expenses attributable to environmental remediation activities for which the Company proposed to include in rate base. Therefore, Staff recommends an adjustment to remove the associated amortization expense proposed by the Company. This adjustment reduces test year expenses by \$2,257,600, as shown on Schedule C-3.25.

Pipeline Safety Program (PSP) Expense Deferral Amortization, Schedule C-3.26

The Company proposed to amortize the accumulated PSP expense deferral as of March 31, 2021 and adjust for annual on-going program O&M expenses. Staff adjusted the unamortized balance to remove invoices Staff deemed ineligible for recovery. Staff further adjusted the annual ongoing program expenses to exclude \$10 million associated with Damage Prevention Technology Initiative (DPTI), which is to conclude on December 31, 2023. Staff recommends the DPTI continue to be deferred up until December 31, 2023. This adjustment decreases test year expenses by \$29,907,000, as shown on Schedule C-3.26.

COVID-19 Late Payment Revenue and Incremental O&M Expense Deferral Amortization

Staff adjusted the test year to reflect Staff's recommendation to eliminate the COVID-19 deferral. Given this recommendation, Staff recommends an amortization expense of \$0, as shown on Schedule C-3.27.

Depreciation and Amortization Expense Adjustment, Schedule C-3.28

Staff adjusted the depreciation and amortization expense to reflect Staff's recommended depreciable plant-in-service as of the date certain, including the elimination of the amortization expense attributable to the Toledo I Land MGP for which Staff recommended disallowance. Staff's adjustment to annualize depreciation and amortization expense results in an increase in test year expenses of \$11,739,741, as shown on Schedule C-3.28, with supporting calculations provided on Schedule B-3.2. Further discussion of depreciation and Toledo I Land MGP can be found in the Rate Base Section of the Staff Report. The Company proposed to amortize Toledo 1 MPG – Environmental Remediation costs over 5 years on Line 16 of Schedule C-28. Staff's disallowance of regulatory treatment for Toledo I Land MGP - Environmental Remediation (Account 362.10) costs, in conjunction with plant adjustments recommended by Staff and reflected on Line 6, reduced the overall adjustment. The foregoing results in Staff's adjustment to annualize deprecation of \$11,739,741, as shown on Schedule C-3.28.

PISCC Amortization, Schedule C-3.29

Staff accepted the Company's methodology to amortize the deferred PISCC balances based on the new composite depreciation rate. Staff adjusted the PISCC amortization expense to reflect Staff's adjustments to the date certain balance of CEP PISCC. Staff's adjustments decrease test year expense by \$424,050, as shown on Schedule C-3.29.

Payroll Tax Adjustment, Schedule C-3.30

Staff adjusted test year payroll tax expenses by using the latest known 12 months of actual payroll tax expense. Staff also removed payroll tax associated with incentive compensation that was tied to financial

metrics. Staff's adjustment reduces the test year payroll tax expenses by \$611,690, as shown on Schedule C-3.30.

Property Tax Adjustment, Schedule C-3.31

Staff adjusted property tax expense to reflect the latest known property tax rates and valuation. Staff's adjustment also removes West Virginia property tax expense related to natural gas storage. Staff's adjustment increases test year expenses by \$4,843,727, as shown on Schedule C-3.31.

Elimination of State Income Tax Expense, Schedule C-3.32

Staff accepted the Company's methodology to remove from the test year, expenses state income taxes paid to states other than Ohio. This flow through adjustment reduces test year expenses by \$170,115, as shown on Schedule C-3.32.

Elimination of Distribution and Excise Tax Expense, Schedule C-3.33

Staff accepted the Company's methodology to remove from the test year expenses attributable to the Excise Tax Rider and Gross Receipts Tax Rider. This flow through adjustment reduces test year expenses by \$73,586,094, as shown on Schedule C-3.33.

PUCO/OCC Assessments, Schedule C-3.34

Both the Applicant and the Staff adjusted the PUCO/OCC assessments to annualize them to the latest known level. In addition, the Applicant proposed to recover a portion of the assessments through the Regulatory Assessment Rider. However, Staff finds that the total amount should be recovered through base rates. Therefore, Staff removed the amount proposed for the rider and included it in the base rate total. Staff's adjustment increases test year expenses by \$518,000 and is shown on Schedule C-3.34.

Federal Statutory Deductions Adjustment, Schedule C-3.35

Staff accepted the Company's methodology to account for the adjustments to statutory tax deductions. Additionally, Staff adjusted the tax-deductible interest expense to reflect the flow-through effects of Staff's rate base adjustments. Staff's adjustments reduce the federal income tax expense in the test year by \$3,194,780, as shown on Schedule C-3.35.

Adjustment to Other Revenues, Schedule C-3.36

Staff adjusted distribution test year other revenue, excluding non-traditional and IDR revenue, in order to be more representative of a normal year. Staff's calculation used a historical four-year average excluding the year 2020. This adjustment increases test year operating income by \$1,139,000, as shown on Schedule C-3.36.

Interest Expense on Customer Deposits Adjustment, Schedule C-3.37

The Company did not include interest on customer service deposits as part of the test year, therefore Staff recommends an adjustment to include the interest expense incurred on customer deposits. To align the interest expense with the balance of customer deposits to be included as a rate base adjustment, Staff recommends the interest expense reflect the expense incurred during the twelve months ended March 31, 2021. Staff's adjustment increases test year operating expenses by \$336,577, as shown on Schedule C-3.37.

Out of Period Expenses, Schedule C-3.38

During its investigation, Staff found numerous transactions for expenses incurred prior to the test year period. Staff adjusted the test year to reflect the removal of the identified expenses. Staff's adjustment decreases the test year expenses by \$664,000, as shown on Schedule C-3.38.

Adjusted Jurisdictional Federal Income Taxes Schedule C-4

Staff made an adjustment to correct an error identified by the Company attributable to the flow-through deferred income tax adjustment line item on Schedule C-4. This correction results in an increase to federal income tax expense of \$208,060. Additionally, Staff adjusted federal income tax expense to reflect the flow-through effect of Staff's proposed adjustments to test year revenues and expenses. Combining both the error correction and flow-through effects, Staff's adjustments decrease the test year income tax expense by \$1,983,000, as shown on Schedule C-4.

RATE OF RETURN

Staff recommends a rate of return in the range of 6.88 percent to 7.39 percent. The recommended rate of return was developed using a cost of capital approach which reflects a market-derived cost of equity and the actual cost of debt for the Applicant.

Capital Structure

The Applicant is a wholly owned subsidiary of NiSource Inc., which is a publicly traded public holding company. Staff used the capital structure of the Applicant, which is 49.40 percent debt and 50.60 percent equity. Staff recommends that in this case using the Applicant's capital structure is appropriate based on the financial environment.

Cost of Long-Term Debt

Staff is adopting the actual cost of debt for the Company, which is 4.67 percent.

Cost of Common Equity

To calculate the cost of common equity the Staff averaged the Capital Asset Pricing Model (CAPM) and the Discounted Cashflow (DCF) model. For the CAPM and the DCF, Staff needed to select a group of comparable companies. To create the comparable companies, Staff used the S&P peer company selection tool, which include a universe of all utilities in the United Sates. The selected criteria were the Beta, Bond Rating, Dividend Yield and Earnings before Interest, Taxes, Depreciation and Amortization (EBITDA), and Market Capitalization. The following seven companies were selected:

SP_ENTITY_NAME	Rating
CenterPoint Energy, Inc.	2.74
Pinnacle West Capital Corporation	4.64
OGE Energy Corp.	5.06
Atmos Energy Corporation	5.81
CMS Energy Corporation	6.31
Ameren Corporation	6.5
Evergy, Inc.	6.66

Staff used the CAPM formula of: CAPM = Risk Free Rate + Beta * (Equity Risk Premium)

Staff employed the average of the Standard & Poors' betas of the comparable companies, which was 0.8 and an equity market risk premium from Fairness Finance (Market Risk Premium = (Market Risk Rate-Risk Free Rate)) of 6.21 percent and the weighted average of 10-year and 30-year monthly closing Treasury Yields for the period from September 1, 1991 through September 1, 2021. The averaged 10-year yield is 4.07 percent, and the averaged 30-year yield is 4.63 percent. This averaged to 4.35 percent which produced a CAPM calculation of: 9.32 = 4.35 + 0.8(6.21)

In calculating its DCF cost of common equity estimate, for each comparable company, the Staff employed the annual average stock price, the sum of the last four quarterly dividends, and estimates of the expected rate of growth of earnings. The stock price employed is the average daily closing price for the period from September 14, 2020 through September 10, 2021. The DCF model assumes that earnings growth and dividends growth are the same. The Staff averaged earnings per share estimates from Yahoo Finance, Zack's and Value Line to get DCF growth estimates for each company. "'The Value Line average incorporates both the explicit long-range earnings estimate shown in the "box" and the implicit continuous growth rate calculated from the estimates of earnings per share.'"

For the Staff's determination of DCF cost of equity, a non-constant DCF growth rate was assumed. Dividends were assumed to grow at a rate derived from financial analysts' growth estimates for the first five years (i.e., long term growth rate). The Staff's DCF growth estimates were used for the first five years, as they are averages of estimates from various investor news services. From the twenty-fifth year on, the growth rate was assumed to equal the long-term growth rate in GNP. For the sixth through twenty-fourth years, dividends vary between the two rates in a linear fashion. The long-term growth rate in GNP was the average annual change in GNP from the U.S. Department of Commerce for 1929 through 2020. Based on long-term GNP growth, the respective Company DCF growth estimate and dividend, a stream of annual dividends was calculated. The internal rate of return derived from the dividend stream and the stock price was used for Staff's non-constant growth DCF cost of equity estimate.

The comparable group non-constant DCF cost of equity estimates average 9.6 percent. When average with the CAPM calculation and using a one hundred basis point range of uncertainty, the cost of equity estimate becomes 8.96-9.96 percent. To provide for this return, allowance must be made for issuance and other costs, as shown on Schedule D-1.3. Therefore, an adjustment factor of 1.00871 was applied resulting in a baseline cost of common equity recommendation of 9.04 percent to 10.05 percent.

RATES AND TARIFFS

By its application in Case No. 21-637-GA-AIR, the Company requests authority to increase rates to be charged and collected for gas service within its service territory. Staff investigated the rate and tariff matters proposed by the Applicant and reports the results of its investigation in these sections. Each section addresses a distinct facet of the review with any Staff recommendations specifically delineated. However, it's important to note that these issues are not distinct. Staff applies General Guidelines to provide analysis with regard to the acceptability and reasonableness of the Applicant's rate and tariff proposals.

Staff's Tariff Analysis addresses changes specific to individual rate schedules, changes which apply to more than one specific rate class, and tariff additions and deletions. Rate Classes analyzes the Applicant's proposals to change the parameters of existing rate classes. Cost of Service Study addresses the Applicant's cost of service model and its results. Revenue Analysis depicts the impact of the rate schedule proposals on revenue distribution amongst the proposed rate classes. Rate Design addresses the current and Applicant-proposed base rates and rider impacts on the effective customer charges currently born by the rate classes. Finally, Bill Impacts represents the possible effect on rates of the Staff rate design recommendations. These rates are based on the specific assumptions outlined in that section. The assumptions may diverge from specific Staff recommendations in this report; therefore, this section should not be used as a proxy for Staff proposed rates.

Tariff Analysis

The Applicant is proposing changes to its tariffs. Unless noted, Staff recommends approval of these changes as proposed by the Applicant.

Original Sheet 1d, Definitions, Commercial Customer

The Definition of Commercial customer includes a hybrid service that has both residential and commercial use. One's service is deemed commercial when over 50 percent of the use is for commercial means. At the time the Staff Report was filed, the Company has not provided Staff with a written policy or procedure in determining the percentage of use in hybrid situations. Staff recommends that the Company develop written policies and procedures to determine the percentage of use for hybrid service and provide customers with notice of said policy.

Fifth Revised Sheet No. 3, Section 1 - Service, 11 Right of Way

The Application adds a new provision for customers to be responsible for the cost of a right of way across property not owned or controlled by the customer. In addition, the Application added a new provision requiring customers to keep the right of way free and clear of any and all encroachments and to be financially responsible for the removal of any such encroachments that create a safety hazard.

Staff recommends that new customers be responsible for necessary rights of way. If an existing customer requires an additional right of way, Staff recommends that the Company work with the customer. Staff, however, does not recommend a broad responsibility to keep rights of way free and clear. Staff recommends limiting responsibility on encroachments to those that create a safety hazard.

Fourth Revised Sheet No. 4, Section 1 - Service, 15 Right to Shut Off Gas

The Application proposes two new provisions to the right to discontinue service: namely, whenever there is stray gas present creating a safety hazard and whenever deemed necessary by the Company for safety reasons. Staff recommends only adding the provision for safety reasons. Staff believes that the stray gas hazard would be included as a safety reason and is not necessary as a specific reason for discontinuance of service.

Fourth Revised Sheet No. 5, Section 2 – Metering and Billing 1. Quality of Gas Delivered by Meter

The Company currently includes a meter test charge for meters deemed to be registering correctly. Staff recommends that the Company provide residential customers a free meter test regardless of accuracy every three years.

Sixth Revised Sheet No. 6, Section 2 – Metering and Billing 4 Billing Periods

The Company does not provide any proration for partial billing periods of the customer service charge. Staff recommends that the partial billing periods should have a proration of the customer service charge.

Sixth Revised Sheet No. 6, Section 2 – Metering and Billing 5 Payment of Bills

The Application seeks recovery of credit/debit card and pay station convenience fees in base rates instead of being charged to individual customers. At this time, Staff does not recommend recovery of these fees in base rates. Staff recognizes that these fees are a source of complaint from utility customers. Staff encourages the Company to reduce these charges with its vendors; however, the cost for the convenient transaction is still a multiple of ten higher than the Company's other payment channels and should remain the responsibility of the cost causer.

<u>Second Revised Sheet No. 6a, Section 3 – Physical Property 1 Service Lines, (h) Customer Rights and</u> <u>Responsibilities</u>

The Application increases the customer's responsibilities for damage done to encroachments. Staff does not recommend the addition of encroachments to the customer's responsibilities regarding service lines.

Fifth Revised Sheet No. 7, Section 3 – Physical Property 4 Meter Location

The Application seeks to give the Company the sole discretion to determine the meter location and rewords the customer expense for relocating meters that become inaccessible or exposed to hazards. Staff recommends not adding the term sole discretion to the Company's provision to determine the location of the meter. Although just a rewording of customer responsibility to pay for moving a meter that is inaccessible or exposed to a hazard, Staff recommends removing the customer's financial responsibility for the relocation. The Company could not provide an example of a relocation or a move for 2018, 2019, or 2020 due to the meter becoming inaccessible or exposed to hazards.

Fourth Revised Sheet No. 9, Section 3 – Physical Property 12 Extension of Distribution Mains

The Application modifies the reimbursement for the first 100 feet of distribution main extension from actual cost to average cost of an installation of similar size. Staff does not recommend the use of average cost. The fluctuation in cost per foot between customers and between years provides too much variation to use an average cost.

Fourth Revised Sheet No. 10, Section 3 – Physical Property 13 Addition and Replacement of Facilities

The Application revises the terms for additions and replacements in the event the facilities are not economically justified. The Capital Expenditure Program Rider is the primary source for recovery of additions, replacements, and betterments by the Company not the customer. Staff recommends that the Company provide written clarification to the customer on the procedures and policies in determining recovery between and amongst the Capital Expenditure Program Rider and customers.

<u>Fifth Revised Sheet No. 10, Section 3 – Physical Property 14 Farm Tap Consumer, 15 Farm Tap Consumer</u> <u>Service, and 16 Farm Tap Consumer Abandonment</u>

The Application has introduced new provisions regarding farm tap consumers. Staff supports the initiation of a long-term solution to these orphan consumers that are not served directly by a Company distribution asset. However, Staff does not support the Company's farm tap provisions. The Company has nearly 10,000 active farm tap customers. Most of these farm tap customers are served from formerly owned transmission pipelines. The prospect of thousands of customers being dropped from service through an annual process does not provide Staff with any comfort that the rights of customers are respected. The process for abandonment of abandoning customers first must consider R.C. 4905.20 and 4905.21, which generally provide that public utilities may not abandon service, except with the approval of the Commission following an application for abandonment. As distribution customers, an abandonment proceeding must be provided, and due process must not be expedited or delayed by an annual filing when there are no assurances that the customers have been compensated or provided an alternative fuel source during the abandonment. As the Company is not the only local distribution company with customers not supplied directly through distribution facilities and assets, Staff recommends the Commission address farm tap customers through a broader forum or through the rule making process.

Fourth Revised Sheet No. 13, Section 4 – General 6 Miscellaneous Charges (d) late payment charges

The Company applies interest when the balance includes a prior month's late payment charges and is therefore compounding interest. Staff recommends that late payment charges apply only once to charges and therefore interest is not compounded.

Fourth Revised Sheet No. 13, Section 4 – General 6 Miscellaneous Charges (e) Excess Flow Valve Charge

The Company currently charges customers who request an excess flow valve (EFV) on their service line. Staff recommends the Company remove this provision. The Company no record of a customer requesting a EFV since the Commission approved the EFV tariff provision in Case No. 17-1005-GA-ATA on July 5, 2017. In addition, with the responsibility for all service lines to the Company, this charge seems obsolete.

Third Revised Sheet No. 14, Section 4 – General 6 Miscellaneous Charges (h) Meter Test Charge

The Company currently has a tariff charge for meter test but will waive the fee if requested. Staff recommends providing residential customers with one free meter test every three years.

<u>Nineteenth Revised Sheet No. 27, Section 5 – Sales Service Rider IRP – Infrastructure Replacement</u> <u>Program Rider</u>

The Application for the IRP description references customer-owned metallic service lines. Staff recommends removing the reference to customer owned.

Original Sheet No. 41, Section 6 – Gas Transportation Service 8 Interruptions

The Company has added pandemic to the list of force majeure events for interruptions of transport service. Staff does not recommend the inclusion of pandemics as a force majeure event. The Company could not define essential elements of an event such as when it begins and ends and did not require any interruptions as a result of the current COVID 19 pandemic.

Staff Report Tariff Formatting Recommendations

The following tariff formatting recommendations use the Company's filing in this proceeding as the page source for the recommendation.

E-2.1 https://dis.puc.state.oh.us/ViewImage.aspx?CMID=A1001001A21F30B42216C00632

Page 427 of 1112

- 1. Change to Eleventh Revised Sheet No. 1
- 2. Add Effective Dates

Page 428

- 1. Change to Sheet 1a if it goes over to next page
- 2. Change to Three Hundred and Twenty Fifth Revised Sheet No.1a
- 3. Remove extra lines to combine the Section IV, etc

Page 429

1. Change to Two Hundred and Fifty Seventh Revised Sheet No. 1b

Page 430

1. Remove lines to combine with sheet above

Page 431

1. Change to Two Hundred and Fifty-Seventh Revised Sheet No. 1b

Pages 432 - 441

1. Change to Original Sheet No. 1c Page x of 10

Page 442

1. Change to Original Sheet No. 1d Page 1 of 2

Page 443

1. Change to Original Sheet No. 1d Page 2 of 2

Pages 446 - 456

- 1. Change to Fourth Revised Sheet No. 4
- 2. Remove lines after #12 and add #13 whatever fits, possibly #14, continue this throughout Section III.

Pages 457 - 461

1. Remove lines after Section A (2) to combine lines continuously throughout Section IV.

Page 462

1. Renumber sections so that there is only one of each and they are in order.

Page 464

1. Renumber to Page 16 if needed

Pages 465 through 475

- 1. Renumber if necessary.
- 2. Remove extra lines to combine pages if necessary
- 3. Do not have duplicate page numbers

Page 491

1. Make the numbering definition letter M uniform (unbold)

Page 493

1. Margin needs to be adjusted to left to be in line with other definitions on previous pages

Page 495

1. Renumber so there aren't duplicate page numbers

Pages 516 - 520

1. Remove lines to combine lines continuously through section

Page 522

1. Remove lines to include billing adjustments number 9 and 10 on the page

Page 526

1. Remove lines to include last sentence on the page

Page 538

1. Margins are not consistent with document

Page 551

1. Renumber 26 to 27

Page 563

- 1. Margins are not consistent with document
- 2. Make page numbers consistent

Page 599

1. Margins are not consistent with document

In General

- 1. Make sure all headers and footers are consistent
- 2. Make sure all pages are numbered correctly and in order and have a unique number for each sheet
- 3. Make sure all sections are continuous without large gaps or duplicate page or section numbers
- 4. Make sure formatting: font, font size, and margins are consistent
- 5. Add Effective Dates or update Effective Dates on all sheets
- 6. Update Issued Date on all sheets.

General Guidelines

Customers are divided into rate classes for purposes of allocating costs of service and designing rates. A rate class is defined by characteristics that are common to members of a class. Factors used to define a rate class include customer type, for example residential customers; size, which refers to the total volume of use over a time period; load factor, which refers to a customer's consumption pattern and is a ratio of the customer's consumption to peak consumption; and firm or interruptibility of service, which refers to the commitment to serve up to a customer's peak demand.

Cost of service studies approximate the costs incurred by a utility in providing service to rate classes and identify the cause of the costs. These are determined by assigning the costs to the customer class relative to what each class imposes on the system. There are several steps involved: functionalization, classification, and allocation.

Generally, there are three capacity allocations that are commonly used for natural gas distribution utilities - coincident demand, non-coincident demand, and average and excess demand. The standard filing requirements allow the selection of any of these approaches, or alternatives, when, in the utility's opinion, the procedure best represents the utility's system characteristics.

The applicable rate schedules should provide the utility the opportunity of recovering an authorized revenue. The various schedules should represent a reasonable distribution of revenue between and among the various customer groups. The particular schedules should be equitable and reasonable, should provide for customer understanding and continuity of rates, and should cause minimal customer impact.

Rate design criteria are to be viewed as a package, in that they are interrelated. Although each item can be separately identified and applied to rate schedule determinations, no single standard is overriding in determining proper rate design. The rate schedules which comprise a particular utility's tariffs should provide for recovery of expenses found proper in the course of a regulatory proceeding. Normally, and to the extent sufficient information is available, cost of service studies and related expense analyses are necessary to determine the appropriate level of revenue to be generated and the appropriate recovery of such revenue.

From a practicable rate design standpoint, absolute equality between costs and revenues may be difficult to achieve in the short term. While it may be viewed as equitable to set rates at cost, if there is a substantial divergence in the current rates, the resulting impact on individual customers may be viewed as unreasonable. While desiring cost supported charges, Staff considers such items as resulting typical customer billings and resulting revenue increases which would necessarily occur. These tests help provide benchmarks with regard to reasonableness of charges in rate forms. While it is Staff's position that rate schedules reflect costs, it is also important to consider the continuity associated with current and proposed pricing structures. This may result in movement towards more closely aligning revenue with costs rather than an absolute match at a particular time period.

In summary, gas rates should:

- Be predicated on costs.
- Be fair, equitable, and reasonable.
- Cause minimal impact (sometimes called "gradualism") when changed.
- Provide continuity in pricing structures.
- Provide the utility the opportunity to recover the authorized revenue by providing for the recovery of costs found proper in a regulatory proceeding.

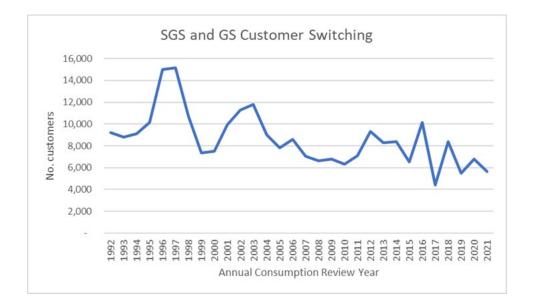
The preceding standards are important and each has value. They are, however, subjective, and it is generally impossible to fully accomplish them all. Sometimes one standard (the most obvious being that the rates must provide the utility with the opportunity to recover its authorized revenue requirement) supersedes, to a degree, the others. Sometimes the standards are in conflict and to accomplish one, another might be set aside (e.g. in this application, the need for rates to be predicated on costs may cause changes in pricing structures, resulting in greater than minimal impacts on some customers).

Rate Classes

In its application, Columbia proposes several changes to its rate classes. Columbia proposes to increase the breakpoint between its Small General Service (SGS) / Small General Transportation Service (SGTS) / Full Requirements Small General Transportation Service (FRSGTS) rate classes (together, the SGS Rate Classes) and its General Service (GS) / General Transportation Service (GTS) / Full Requirements General Transportation Service (FRGTS) rate classes (together, the GS Rate Classes) from 300 Mcf per year to 600 Mcf per year. The purpose is to minimize customer switching between rate classes.

Based on billing frequency data in a 12-month period, the Company concluded that there are fewer customers consuming between 550 Mcf and 650 Mcf per year in both rate classes compared to the number of customers consuming between 250 Mcf and 350 Mcf per year. Therefore, the Company expects to minimize the number of customers who are shifted each year between these rate classes based on changes in their annual consumption levels that are identified during Columbia's Annual Consumption Review, which is described in Company Witness Feingold's testimony on page 32. The Company also expects this change to reduce the rate impacts experienced by these customers caused by periodic changes to the level of their gas bills when they are transferred to a new rate schedule. No changes are expected to the physical structures supplying natural gas to the transferred customers.

In response to Data Request No. 152, the Company provided a cost estimate for the Annual Consumption Review; the Company estimates \$3k in labor costs and another \$152 in postage costs to notify qualifying customers. The Company also provided copies of reports generated through the Annual Consumption Review process; the data from these reports are graphed below to show the history of customer switching between the two rate classes.



Further, the Company calculated the number of customers that would have shifted between the SGS and GS Rate Classes if the volumetric breakpoint was 600 Mcf. On average, approximately 3,700 fewer GS and SGS customers would have shifted between rate classes during the last five years if the proposed 600 Mcf volumetric breakpoint had been in effect.

Under the Company's proposal, approximately 17,000 customers or 45 percent of the current GS Rate Classes customers would transfer from the GS Rate Classes to the SGS Rate Classes, increasing the SGS Rate Classes customer count by 1 percent.

As the physical structures used to serve these customers will not change, Staff reviewed the costs to serve the transferring customers and compared them to the unit cost of meters and service lines for both rate classes. Differences exist in the cost to serve customers in the SGS and GS Rate Classes. Moreover, the transferred customers' unit cost per meter is approximately five times the SGS Rate Classes' unit cost per meter. The per unit cost of service line of the transferring customers is 28 percent higher than the SGS Rate Classes'.

Staff also reviewed the impacts of the proposed transfer on the design day demand and average gas usage by customer. As with the unit meter and service line costs, Staff compared the transferred customers characteristics to the characteristics of the current SGS Rate Classes. The transferred customer's average usage per customer is 5.1 times greater than the average usage of the SGS Rate Classes customers and the transferred customers' average design day demand is 3.2 times greater.

Staff finds that the number of customers shifting annually between the rate classes is consistent with the historical trend and there are no material savings to the Annual Consumption Review process by modifying the breakpoint between the SGS Rate Class and GS Rate Class. The proposal would shift a significant segment of the GS Rate Class customers to the SGS Rate Class moving toward a flattening of the rate classes. Most importantly, the cost to serve the customers transferring under the company's proposal are not like the costs to serve SGS Rate Class customers. Therefore, Staff recommends the Commission reject the Company's proposal to increase the breakpoint between the SGS Rate Classes and GS Rate Classes and maintain the current 300 Mcf breakpoint.

Columbia also proposes to 1) eliminate the seasonal load factor requirements for the Large General Service (LGS) / Large General Transportation Service (LGTS) / Full Requirements Large General Transportation Service (FRLGTS) rate classes (together the "LGS Rate Classes") to increase the number of customers qualifying for service under those rate classes; 2) add a new LGS/LGTS/FRLGTS schools Services for primary and secondary school customer accounts consuming at least 18,000 Mcf per year; and 3) eliminate the Mainline Delivery Charge in the LGTS tariff. Staff finds these to be not unreasonable.

Cost of Service Analysis

The Cost of Service Study (COSS) filed by the Applicant is an embedded and fully-allocated cost of service study by rate class for the test period ending December 31, 2021. The COSS functionalized costs as either purchased-gas or distribution; classifies distribution related cost items such as plant investment, operating expenses and taxes as either demand or customer-related; and then allocates the same items to the various customer classes. Finally, the COSS calculates the revenue responsibility of each class that is required to generate the recommended rate of return. The Applicant based its allocations on the cost causation guidelines established by NARUC. The Applicant utilized a coincident peak demand allocation method using the company's design day demand for allocating certain portions of the capacity related costs. The remaining distribution costs were allocated based upon prescribed and accepted methodologies in allocating distribution costs. Staff finds the methodology to be reasonable.

The COSS results applying the Applicant's costs to serve are presented in Tables 1 through 4. Table 1 provides the Current and Applicant-proposed distribution related Rates of Return and Indexes for the customer classes as proposed in the Application.

	Applicant	Current	Applicant Proposed		
Rate Class	ROR	Index	ROR	Index	
Proposed SGS Rate Classes	0.97%	0.33	6.11%	0.78	
Proposed GS Rate Classes	19.21%	6.54	22.53%	2.87	
LGS Rate Classes	11.32%	3.85	14.67%	1.87	
FRCTS	8.02%	2.73	10.19%	1.30	
Total	2.94%	1.00	7.85%	1.00	

Table 1 Cost of Service Results: Current Class Rate of Return

The Applicant's filing provided class allocations based upon a levelized rate of return in addition to class rate of returns based upon the Company's proposed revenue distribution. The Applicant is not proposing a levelized rate of return. After reviewing several analyses evaluating moving each class toward the cost to serve on an index's basis, Staff finds the Applicant's proposal reflects a reasonable movement toward the cost to serve each class identified by the Applicant's COSS at the Applicant's proposed cost to serve.

Revenue Analysis

The COSS results showing the allocation of total distribution related revenue based on the Applicant's current total distribution revenue and the Applicant's proposed increase in total distribution revenue are embedded in Tables 2-4. Table 2 provides the Applicant's current and proposed distribution of revenue and the Applicant's proposed revenue increase. Generally, Table 2 excludes gas related costs and miscellaneous revenues; the Applicant proposed increase of \$221 million includes \$6.7 million in purchased gas expenses. Table 3 also shows the Current and Applicant Proposed distribution of revenue and the Applicant's Proposed revenue increase, but it includes gas related costs and miscellaneous revenues. Table 4 shows the distribution of the Applicant's Proposed revenues at Staff-calculated equalized class rate of returns.

	Applicant Current Revenue		Applicant Proposed Revenue		Applicant Proposed Increase		crease
Rate Class	\$	% of Total	\$	% of Total	\$	% Increase	% Total
Proposed SGS Rate Classes	602,809,836	81.25%	805,498,548	83.61%	202,688,712	33.62%	91.54%
Proposed GS Rate Classes	103,343,496	13.93%	116,166,425	12.06%	12,822,929	12.41%	5.79%
LGS Rate Classes	35,498,332	4.78%	41,374,116	4.29%	5,875,783	16.55%	2.65%
FRCTS	291,547	0.04%	328,204	0.03%	36,657	12.57%	0.02%
Total	741,943,211	100.00%	963,367,293	100.00%	221,424,081	29.84%	100.00%

Table 2 Applicant Proposed Distribution of Revenue and Increase: Excluding Gas Costs and Other Revenues

	Applicant Current Revenue		Applicant Proposed Revenue		Applicant Proposed Increase		rease
Rate Class	\$	% of Total	\$	% of Total	\$	% Increase	% Total
Proposed SGS Rate Classes	662,353,211	80.98%	865,041,922	83.23%	202,688,712	30.60%	91.54%
Proposed GS Rate Classes	115,424,682	14.11%	128,247,611	12.34%	12,822,929	11.11%	5.79%
LGS Rate Classes	39,884,986	4.88%	45,760,770	4.40%	5,875,783	14.73%	2.65%
FRCTS	299,444	0.04%	336,101	0.03%	36,657	12.24%	0.02%
Total	817,962,323	100.00%	1,039,386,404	100.00%	221,424,081	27.07%	100.00%

	Applicant Current Revenue		Applicant Proposed Revenue		Applicant Proposed Increase		crease
Rate Class	\$	% of Total	\$	% of Total	\$	% Increase	% Total
Proposed SGS Rate Classes	662,353,211	80.98%	933,806,745	89.84%	271,453,534	40.98%	122.59%
Proposed GS Rate Classes	115,424,682	14.11%	71,471,954	6.88%	(43,952,728)	-38.08%	-19.85%
LGS Rate Classes	39,884,986	4.88%	33,811,137	3.25%	(6,073,849)	-15.23%	-2.74%
FRCTS	299,444	0.04%	296,568	0.03%	(2,876)	-0.96%	0.00%
Total	817,962,323	100.00%	1,039,386,404	100.00%	221,424,081	27.07%	100.00%

Table 4 Distribution of Applicant Proposed Revenue and Increase (Including Gas Costs and Other Revenues) at Staff Calculated Equalized Class Rate of Returns

Staff Recommendation on COSS and Revenue Distribution

Staff does not find the results of the Applicant's cost of service to be a reasonable presentation of the costs to serve each rate class and should not be used as a starting point for designing rates. The costs to serve the proposed SGS and GS Rate Classes are not representative of the costs to serve these classes if the breakpoint between SGS and GS Rate Classes remains the same. Further, pursuant to Staff's review of the test year revenues and expenses, Staff recommends adjustments that significantly modify the calculation of the cost to serve the Applicant's customers (See Staff Schedule A-1). Staff believes that a COSS based on test year values that align with Staff's recommendations would result in material changes to the class returns and indices in Table 1. The interclass subsidies identified by the Applicant's COSS could change substantially when taking Staff's recommendations into account. In this report, Staff calculates the Company's current operating income at \$209 million, twice the company's \$104 million. Coupled with Staff's \$97 million adjustment to the Company's rate base, Staff found that the Company's earned rate of return is 6.04 percent, 310 basis points higher than the Company's 2.94 percent.

Therefore, the COSS model needs to be rerun to include Staff's recommendations regarding rate class breakpoint and cost to serve the Applicant's customers. The results of the modified COSS should be used as a basis for rate design.

Rate Design

SGS Rate Classes

In Case No. 08-72-GA-AIR, the Commission found that straight fixed variable (SFV) rate design is the appropriate rate design for the SGS Rate Class. The Applicant's proposal maintains this rate design for the proposed rate class. Monthly delivery charges calculated pursuant to a SFV rate design are a flat monthly fee where the charge is determined by dividing the appropriate class revenue requirement by the number of bills.

The Applicant is proposing to increase the monthly delivery charge to \$46.31 for all customers. The Applicant's proposal maintains the 5 percent discount for primary and secondary school customer accounts, which results in a monthly delivery charge of \$43.99. Table 5 compares the current base distribution rates and Applicant-proposed rates for SGS Rate Class customers.

		Applicant		
	Current	Proposed	Increase	
SGS Rate Class	\$	\$	%	
Monthly Delivery Charge	16.75	46.31	176.48	

Ta	ble	5

Rider Impacts on SGS Rate Classes

On December 3, 2008, in Case No. 08-72-GA-AIR, et al., the Commission approved and adopted a stipulation regarding the Company's application for approval of an increase in gas distribution rates and an alternative rate plan for its gas distribution service. Since 2008, the Commission approved several alternative rate plans that authorize the Company to track and recover, on an annual basis, costs of implementing the Infrastructure Replacement Program (IRP) and Capital Expenditure Program (CEP). The IRP and CEP rider rates are fixed monthly fees. The costs currently recovered through the IRP and CEP riders are part of the Applicant's cost to serve and are rolled into the base distribution rates proposed by the Company. The effective monthly delivery charge currently paid by SGS Rate Class customers should be considered when evaluating the rate design guidelines outlines in General Guidelines. Staff notes that the IRP and CEP rider rates included in the application and chart below reflect the rates in effect at the time the Application was filed and generally recover costs associated with assets invested through Dec. 31, 2020. These assets are part of the Applicant's cost to serve and the rider rates will be adjusted down to remove any assets rolled into base rates.

	Monthly Fixed Riders*		Monthly Fixed Riders*		Appl	icant
	Current	IRP	CEP	Total	Proposed	Increase
SGS Rate Class	\$	\$	\$	\$	\$	%
Monthly Delivery Charge	16.75	11.98	5.92	34.65	46.31	33.65

Table 6

Staff's recommendation to re-run the COSS to reflect Staff's recommendations in this case will impact these calculations. The modified COSS and Commission approved revenue requirement should be used to establish an appropriate monthly delivery charge.

GS and LGS Rate Classes Customer Charges

Generally, the Company proposes to increase the current monthly delivery charges for the GS and LGS rate classes to reflect the level of fixed distribution costs incurred by Columbia to serve customers in these rate classes and to recognize the fixed charges currently being paid monthly by these customers through the IRP and CEP Riders.

GS Rate Class customers currently pay a customer charge of \$21.16 per account, per month regardless of gas consumed. The Company proposes to establish a monthly delivery charge for the GS Rate Classes based upon the percentage of margin revenues at current rates recovered through monthly fixed charges applied against the proposed annualized non-gas revenues in the rate class.¹³

LGS Rate Class customers currently pay a customer charge of \$559.53 per account, per month regardless of gas consumed. The Company proposes to establish a monthly delivery charge for the LGS Rate Classes based upon the sum of the current monthly fixed charges under the IRP and CEP Riders and the customer-related costs for the rate class adjusted by the approximate percentage increase in revenues for the rate class.¹⁴

¹³ Feingold testimony at 39.

¹⁴ Id.

Staff does not agree with these approaches. First, the IRP and CEP rider rates are a product of numerous factors negotiated in alternative rate regulation cases. Rider rates should be evaluated when considering the appropriateness of any proposed rate, however, they are not the basis for the rate design. The basis for the rate design should be the COSS. Second, the Applicant's COSS already includes the costs of assets currently recovered in the IRP and CEP riders. The Applicant's COSS delineates for each rate class the customer-related costs of providing service at the Company's cost to serve. According to the Applicant's COSS, the customer-related costs of providing service to the GS Rate Classes are \$75.40 and \$718.77 for the LGS Rate Classes. These rates represent a 256 percent and 28 percent increase over the current customer charges for each rate class. Staff recommends moving the GS and LGS customer charges closer to the COSS customer-related rates. Staff's recommendation to re-run the COSS to reflect Staff's recommendations in this case will impact these calculations. The modified COSS should be used to establish appropriate GS and LGS customer charges.

Rider Impacts on GS and LGS Rate Classes

The IRP and CEP Riders are recovered from SGS, GS and LGS Rate Classes through fixed monthly charges. The IRP rider recovers assets replaced on an accelerated timeline. The CEP rider may recover all other capital expenditure by the utility. Both riders also recover deferrals of PISCC, property tax and depreciation expenses that are unique to these programs. This results in rider rates that increase annually, subject to any negotiated rate caps. Since the last rate case was approved in 2008, the fixed costs recovered from GS and LGS Rate Class customers has grown steadily such that the current monthly fixed charges paid by GS and LGS Rate Class customers regardless of gas consumed are \$170.82 and \$5,005.51, respectively.

Staff is concerned that the riders have shifted a disproportionate percentage of revenues into a fixed charge resulting in intraclass subsidies for GS and LGS Rate Classes. Customers within these rate classes are not homogenous. Customers who use less gas have been paying the same rider rates as customers that use more gas, leading to higher bill increases for the lower use customers. Based on Staff's review of the Application, Staff observes that by moving the customer charge close to the COSS, the customers that use less gas can expect to see total bill decreases while customers that use more gas would pay a larger amount of revenue through the variable Mcf rate. Based on Staff's review of the Application, Staff believes the total bill increases for high use customers will not be unreasonable if customer charges are established at the Applicant's COSS. However, Staff acknowledges that the modified COSS results need to be evaluated and a movement toward the COSS, but not at the COSS results, may be appropriate to limit total bill impacts for high use customers within these classes.

Staff further recommends that additional steps be taken to prevent a repeat of this issue in the next rate case. The IRP and CEP rider rate designs for GS and LGS rate classes should not be wholly fixed monthly fees. The rates could be designed at a percentage of the customer's base distribution charge or a combination of fixed and volumetric rates.

GS Rate Class

In general, the rates in this section are available to customer accounts that consume at least 300 Mcf per year between September 1 and August 31. Annual consumption for Customers served hereunder will be reviewed each August 31st. The Applicant proposes to limit availability to customers that consume at least 600 mcf per year.

The Applicant is proposing to increase the monthly customer charge to \$194.00 for all customers. The variable rate is proposed at \$1.8369 for the first 25 Mcf, \$1.3818 for the next 75 Mcf and \$1.0864 for over 100 Mcf. Table 7 compares the current and Applicant-proposed rates for customers. The Applicant's proposal maintains the 5 percent discount for primary and secondary school customer accounts.

		Applicant		
	Current	Proposed	Increase	
GS Rate Class	\$	\$	%	
Customer Charge	21.16	194.00	816.82	
First 25 Mcf per account per month	1.6161	1.8369	13.66	
Next 75 Mcf per account per month	1.2227	1.3818	13.01	
Over 100 Mcf per account per month	0.9712	1.0867	11.89	

Tabl	e 7

Staff's recommendation to re-run the COSS to reflect Staff's recommendations in this case will impact these calculations. The modified COSS and Commission approved revenue requirement should be used to establish appropriate rates.

LGS Rate Class

In general, the rates in this section are available for Customers that consumed at least 18,000 Mcf during one of the two most recent Annual Periods, or Customers that present evidence demonstrating to Company's satisfaction that it will consume at least 18,000 Mcf per year during future Annual Periods.

The Applicant is proposing to increase the monthly customer charge to \$5,560.00 for all customers. The variable rate is proposed at \$0.6615 for the first 2,000 Mcf, \$0.4064 for the next 13,000 Mcf, \$0.3525 for the next 85,000 Mcf, and \$0.2787 for over 100,000 Mcf. Table 8 compares the current and Applicant-proposed rates for customers. The Applicant's proposal adds the 5 percent discount for primary and secondary school customer accounts.

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		Applicant		
	Current	Proposed	Increase	
LGS Rate Class	\$	\$	%	
Customer Charge	559.53	5,560.00	893.69	
First 2,000 Mcf per account per month	0.3865	0.6615	71.15	
Next 13,000 Mcf per account per month	0.2370	0.4064	71.50	
Next 85,000 Mcf per account per month	0.2068	0.3525	70.47	
Over 100,000 Mcf per account per month	0.1635	0.2787	70.47	

Staff's recommendation to re-run the COSS to reflect Staff's recommendations in this case will impact these calculations. The modified COSS and Commission approved revenue requirement should be used to establish appropriate rates.

Full Requirements Cooperative Transportation Service

The Full Requirements Cooperative Transportation Service (FRCTS) is available to any Cooperative that meets all of the requirements listed on the tariff sheet.

The Applicant is proposing a monthly customer charge of \$30.00 for all customers. The variable rate is proposed at \$1.0472 for the first 25 Mcf and \$0.9658 for over 25 Mcf. Table 9 compares the current, Applicant-proposed, and Staff-proposed rates for customers.

		Applicant Proposed Increase	
	Current		
Full Requirements Cooperative Transportation Service	\$	\$	%
Customer Charge	0.00	30.00	N/A
First 25 Mcf per account per month	0.9496	1.0472	10.28
Over 25 Mcf per account per month	0.8777	0.9658	10.04

<u>Table 9</u>

Staff's recommendation to re-run the COSS to reflect Staff's recommendations in this case will impact these calculations. The modified COSS and Commission approved revenue requirement should be used to establish appropriate rates.

Bill Impacts

While Staff recommends the adjustments to the rate design, this table should in no way be taken as a recommendation by the Staff as to the overall revenue requirement recommended by the appropriate Staff in other sections to this report. The rates are meant to reflect the Applicant's proposed revenues and revenue distribution. The rates in the below table are intended to reflect the changes to the rate design that Staff proposes. The typical bills reflect the rates and charges calculated by Staff to reflect its rate design recommendations and are shown in E-5 Schedules at the end of this report. Calculation of the typical bills uses a gas cost of \$4.625 per Mcf, consistent with the Application. Rates and charges shown in the below rate schedule tables may require adjustment based on the revenue requirement granted by the Commission, and/or changes in the rate areas, or changes in rate structure approved by the Commission. If the Commission were to accept the Applicant's recommended revenue requirement, revenue distribution and COSS, the rates calculated below in Table 10 reflect only Staff's recommended rate design changes to the GS and LGS rate class customer charges. This table is not intended to show Staff's proposed rates with Staff recommended revenue requirement. With the issuance of this Staff Report, Staff will issue a Data Request that requests a modified COSS.

Т	ab	le	10

		Calcu	lated
	Current	Proposed	Increase
SGS Rate Class	\$	\$	%
Monthly Delivery Charge	16.75	46.31	176.48
GS Rate Class	\$	\$	%
Customer Charge	21.16	75.40	256.33
First 25 Mcf per account per month	1.6161	2.651805	64.09
Next 75 Mcf per account per month	1.2227	1.994863	63.15
Over 100 Mcf per account per month	0.9712	1.568775	61.53
LGS Rate Class	\$	\$	%
Customer Charge	559.53	718.77	28.46
First 2,000 Mcf per account per month	0.3865	1.5658	305.12
Next 13,000 Mcf per account per month	0.2370	0.960988	305.48
Next 85,000 Mcf per account per month	0.2068	0.836405	304.45
Over 100,000 Mcf per account per month	0.1635	0.661278	304.45
Full Requirements Cooperative Transportation Service	\$	\$	%
Customer Charge	0.00	30.00	N/A
First 25 Mcf per account per month	0.9496	1.0472	10.28
Over 25 Mcf per account per month	0.8777	0.9658	10.04

ALTERNATIVE RATE PLAN

In conjunction with its application for a base rate increase, the Company filed an application for an alternative rate plan.

R.C. 4929.05 states:

"(A) A natural gas company may request approval of an alternative rate plan by filing an application under section 4909.18 of the Revised Code, regardless of whether the application is for an increase in rates. After investigation, which may include a hearing at the discretion of the public utilities commission, the commission shall authorize the applicant to implement an alternative rate plan if the natural gas company has made a showing and the commission finds that all of the following conditions are met: (1) The natural gas company is in compliance with section 4905.35 of the Revised Code and is in substantial compliance with the policy of this state specified in section 4929.02 of the Revised Code; (2) The natural gas company is expected to continue to be in substantial compliance with the policy of this state specified in section 4929.02 of the Revised Code after implementation of the alternative rate plan; and (3) The alternative rate plan is just and reasonable.

(B) The applicant shall have the burden of proof under this section.

Staff's determination of whether the components of the alternative rate plan are just and reasonable is outlined below.

Sheet No. 72, Infrastructure Replacement Program Rider

The Company is proposing in its application to not only continue the IRP, but also to modify the IRP. The IRP currently consists of three segments. The Accelerated Mains Replacement Program (AMRP), which focused on modernizing significant segments of mainline pipe and its associated facilities that present an existing hazard or increased probability of developing a leak. The Hazardous Service Line Program (HSLP), which addresses maintenance, repair, and replacement of service lines that present an existing or probable hazard to persons or property. The Automated Meter Reading Device (AMRD) program is related to the installation of devices on meters that enable reading of meters without directly accessing the meter.

The Company is proposing three modifications:

- Columbia proposes to eliminate current limits on the replacement of interspersed lengths of non-Priority Pipe. Columbia proposes to include projects in the IRP when the project retires 50 percent or greater ratio of priority pipe.
- The IRP currently allows mandatory relocation projects that include less than 25 percent plastic pipe retirement to be included in filings. Columbia proposes that the limit match the 50 percent threshold proposed for other projects.
- Columbia's IRP limits the retirement of plastic in the IRP to less than five percent of the total IRP retirement in any year. Columbia proposes this restriction be eliminated.

Staff finds the continuation of the IRP program is just and reasonable but does not support the proposed modifications. Staff avers the Company should continue to focus on the original purpose of the program,¹⁵

¹⁵ Accelerated Main Line Replacement Program Case No. 08-73-GA-ALT

which was to target the replacement of bare steel, unprotected coated steel, cast iron, and wrought iron mains. These types of priority pipe or priority mains are prone to leak at higher rates than mains made from other materials. Staff recognizes the Commission clarified the scope of the AMRP in Case No. 11-5515-GA-ALT to include certain items, including interspersed sections of non-priority pipe, first generation plastic pipe, ineffectively coated steel, certain meter move outs, and government relocations that include priority pipe. Even though the Commission clarified the scope, Staff does not believe this changed the intent of the IRP, which is to focus on the priority pipe. Columbia's proposed modifications will most likely lead to the inclusion of projects that include non-priority pipe. Staff avers the Company should continue to utilize that mechanism or seek recovery through future rate cases for projects involving non-priority pipe.

As noted in Staff's Comments and Recommendations filed in Case No. 21-1185-GA-RDR, the Company's "Total Progress through 2021" showed the "Anticipated Totals to be Replaced" for each respective category (i.e., Pre-1955 Unprotected Coated Steel and Customer Service Lines) exceeded the Company's original estimates pursuant to Case No. 08-0072-GA-AIR. Staff recommends the Company provide revised "Anticipated Totals to be Replaced" total mileage amounts for each respective category (specifically for Pre-1955 Unprotected Coated Steel and Customer Service Lines (hazardous and non-hazardous service lines)) and provide Staff with the anticipated timeframe to complete these projects and the Company's assumptions for the calculation of the "Anticipated Totals to be Replaced" for these respective categories. Staff further recommends the Company provide revised "Anticipated Totals to be Replaced" total mileage amounts for each respective category (Bare Steel and Cast-Iron) and provide Staff with the anticipated time frame to complete these projects and the Company's assumptions for the calculation of these respective categories. These revisions to the "Anticipated Totals to be Replaced" for these respective categories. These revisions to the "Anticipated Totals to be Replaced" will allow Staff to more effectively track the milestones of the IRP program in future filings.

On March 31, 2022, in Case No. 21-1185-GA-RDR, the Company filed a Statement informing the Commission whether issues raised in comments have been resolved¹⁶. That Statement agreed with Staff's recommendations, except for any issues related to the financial performance portion of capitalized incentives which will be addressed in Case No. 21-638-GA-ALT. Staff avers incentive compensation payments related to financial performance metrics should be funded by a utility's shareholders, not its ratepayers. Going forward, Staff recommends the Company exclude from rate base all capitalized incentive compensation attributable to financial performance.

Staff is also recommending the Company's proposed SGS yearly rate limits be reduced by \$0.48 per year.¹⁷ Staff's recommended SGS Rate limit is detailed in the table below.

¹⁶ Infrastructure Replacement Rider Case No. 21-1185-GA-RDR

¹⁷ Staff's proposed reduction is based on the historical average difference between the allowed and actual SGS rates for the years 2009 through 2017. Staff excluded the years 2018 through 2021 because of the impact of the Tax Cuts and Jobs Act.

Staff's Recommended Infrastructure Replacement Rider Yearly Rate Limit									
Rate Effective Date	2022	2023	2024	2025	2026	2027			
Company Proposed SGS Rate limit	\$1.51	\$3.25	\$5.01	\$6.79	\$8.62	\$10.87			
Company Proposed Yearly Rate Increase	\$0.00	\$1.74	\$1.76	\$1.78	\$1.83	\$2.25			
Staff Recommended SGS Rate limit	\$1.51	\$2.77	\$4.05	\$5.35	\$6.70	\$8.47			
Staff Recommended Yearly Rate Increase	\$0.00	\$1.26	\$1.28	\$1.30	\$1.35	\$1.77			

With regards to the transition period, Staff recommends the assets for 2021 continue to be recovered as approved in the prior alternative regulation case (Case No. 16-2422-GA-ALT). Upon Commission approval of new base rates, the IRP rider will be adjusted to remove the revenue requirement associated with all assets being rolled into and recovered within base rates. Staff recommends all other aspects of the IRP rider, such as but not limited to rate of return, allocations, depreciation, and O&M cost savings be updated with the 2023 application, which corresponds to plant investment made in 2022. Staff does not support the Company's proposed transition plan because the Company did not demonstrate measurable benefits to customers to adjusting all other aspects mid-recovery.

AMRP O&M Expense Savings

Columbia recommends the continuation of calculating the associated O&M expense savings from the AMRP and the O&M expense savings calculation be updated to reflect the baseline of the twelve-month period ending December 31, 2021. The Company further proposes to update the calculation to reflect the base rate proceeding and pass back the greater of actual O&M savings or \$2.00 million per year. Staff agrees with the Company's recommendation in future filings subsequent to the 2022 investment year to continue to calculate the O&M expense savings from the AMRP at the amount of \$2.00 million per year. Pursuant to the Commission adopted and approved Stipulation in Case No. 16-2422-GA-ALT, which guaranteed minimum levels of AMRP O&M expense savings of \$2.5 million for investment years 2021 and 2022. In Case No. 21-1185-GA-RDR, the Company passed back AMRP O&M expense savings of \$2.50 million. In the 2022 IRP case filing the Company will need to follow the Commission's adopted and approved Stipulation in Case No. 16-2422-GA-ALT and pass back the greater of actual O&M savings or \$2.50 million.

Staff finds that the proposal would be just and reasonable as modified by Staff's recommendations herein.

Sheet No. 75, Capital Expenditure Program Rider

The Company proposes to extend its CEP and to renew the program in five-year increments through future alternative regulation applications. The Company also proposes to adjust the current formula by removing the depreciation offset, by including recovery of audit costs in the annual rider, and by requiring Staff to file its report by a date certain. Columbia proposes a transition to address timing issues between the conclusion of the current rate case and the annual filing made in 2022. Finally, the Company proposes caps for each of the next five years with the ability to defer costs in excess of monthly rate limits with carrying charges.

Staff recommends that the program be established for five years and then terminate until and unless the Company files a new rate case. Alternatively, Staff proposes that the program could be renewed with a

future alternative regulation application in five years as long as the debt rate and rate of return are adjusted concurrent with the new filing.

Staff accepts the Company's proposal to remove the depreciation offset; however, Staff recommends if the Company does not file a base rate case within five years of the Commission's opinion and order in this proceeding, then the depreciation offset be added back and re-incorporated into the determination of the revenue requirement, with the calculation of the depreciation offset to be a continuation of the currently approved formula.

Staff does not agree with the inclusion of audit costs in the annual rider. Staff confirmed during the course of the investigation¹⁸ that audit cost for the CEP have properly been included in test year expenses. Including audit costs for recovery in the rider would result in double recovery and therefore should not be permitted.

Regarding the CEP formula, Staff recommends that the Company include incremental revenue as an offset to the revenue requirement. Incremental revenue was included in the original formula from Case Nos. 11-5351-GA-UNC.¹⁹ Incremental revenue was omitted in Case No. 17-2202-GA-ALT, and it should be added back at this time. The Company has incurred incremental revenues in the past few years that have been omitted from the calculation and could have lowered the rate, benefiting ratepayers. Also, by comparison, all Ohio natural gas utilities with active CEP programs use a formula that includes an incremental revenue offset in their current formula.

For calendar year 2021 assets, Columbia proposes to adjust CEP rider rates once the proposed base rates go into effect. Staff agrees that upon Commission approval of new base rates, the CEP rider should be adjusted to remove the revenue requirement associated with all assets being rolled into and recovered within base rates, thereby lowering rates. However, similar to the process recommended in the IRP, Staff recommends all other aspects of the CEP rider be the same as the formula approved in Case No. 17-2022-GA-ALT until a new rider if filed in 2023 for investments made in 2022. Any mid-year adjustment of the rider affecting the formula would require refiling and reauditing plant assets and financial schedules either mid-course or post approval by the Commission. Also, the Company did not demonstrate measurable benefits to customers to adjusting all other aspects of the rider mid-course.

Staff does not agree that the Staff report should be filed by a date certain in each annual filing. Staff proposes an alternative schedule for the audit. Currently the company files the application on March 1 and the audit is concluded such that the tariff goes into effect by September 1. This allows six months to conduct a full plant audit. The time period has been a challenge for Staff to complete in a timely fashion. Staff recommends an alternative schedule by adding a month to the audit schedule such that the tariff would go into effect October 1. This would allow Staff ample time to complete a thorough audit.

Finally, Staff proposes alternative rate caps with no further deferrals on plant that exceeds the rate caps. Staff recommends a cap of \$0.75 per year for the next five years.

Staff finds that the proposal would be just and reasonable as modified by Staff's recommendations herein.

¹⁸ Staff Data Request 43.

¹⁹ Case No. 11-5351-GA-UNC Finding and Order 8/29/2012 paragraph 32 page 11.

Sheet No. 78, Federally Mandated Investment Rider

The Company is proposing in its application a new Federally Mandated Investment (FMI) Rider, a monthly charge for customers in all rate classes to allow the Company to recover incremental costs, both capital and O&M associated with federally and state-mandated investments in plant, including investments to comply with the Pipeline and Hazardous Materials Safety Administration (PHMSA) "Mega Rule." The Mega Rule enhances safety regulations for onshore gas transmission pipelines and establishes required actions by pipeline operators. Additionally, it sets requirements for maximum allowable operating pressure (MAOP) reconfirmation and verification of pipeline materials; including enhanced repair requirements for high consequence areas (HCAs) and non-HCAs; and includes new requirements for emergencies, enhancing PHMSA's authority to issue emergency orders and address imminent hazards.

The Company is planning to include the investment (both capital and O&M) to comply with the Mega Rule. For all categories of FMI spend, the costs include supervisory, engineering, general and administrative overheads, and Allowance for funds used during construction. None of the capital expenditures in the FMI Rider include costs targeted for inclusion in Columbia's IRP.

The FMI Rider will be a fixed monthly charge, which will be adjusted each year to collect from customers the prior calendar year's FMI spend and FMI deferral. Annually by the last day of February, Columbia will file an application to adjust its FMI Rider rates to collect from customers the FMI spend and related deferrals through December of the prior calendar year.

On February 28, 2023, the Company will file an application to set new FMI Rider rates to begin with Unit 1 of September 2023 billing, based on the calendar year FMI spend as of December 31, 2022. Each year thereafter, the Company will continue to seek to recover its incremental FMI spend on a calendar-year basis.

On October 1, 2019, PHMSA published amendments to the Pipeline Safety Regulations, 49 CFR 191 and 192. These amendments created new requirements for operators of gas transmission pipelines and are referred to as the "Transmission Rule Part 1" by PHMSA and the "Mega-Rule" in their FMI rider application. Among the new requirements established by the rule change are requirements to reconfirm Maximum Allowable Operating Pressure (MAOP) of certain transmission pipelines through hydrostatic pressure testing or other methods, and a material verification process by which physical samples of older pipe with incomplete records are tested in a laboratory to establish the grade of steel used in pipe construction.

After review, Staff finds that Columbia has not established a complete scope of work in order to comply with these new rule requirements and the range of projected costs varies greatly. Staff requested information on Columbia's proposed scope of work and received a response in Columbia's Data Request Response 44, dated August 13, 2021. In response to Staff's question about the amount of piping subject to MAOP reconfirmation, Columbia responded "Columbia is currently reviewing 337 of its stations to determine whether these stations meet the new MAOP requirements of 49 CFR 192.624." Columbia's estimate for costs to complete work on these stations is over \$2 billion dollars, and this is based on all 337 stations under review being subject to MAOP reconfirmation. Staff believes the number of stations in the Columbia intrastate transmission system subject to these requirements may be significantly less than 337 based on Staff's knowledge of the Columbia system. In response to additional questions by Staff attempting to better define Columbia's scope of work, Columbia responded in Data Request 121, dated

October 6, 2021, that "Columbia has determined that there are 337 stations that are currently in scope under 49 CFR 192.624, but Columbia is currently researching the records of these stations to confirm the final number in scope." Staff concludes from this answer that Columbia does not actually know how many stations are subject to MAOP reconfirmation requirements and the final number may be significantly lower than 337.

Staff also requested information on Columbia's scope of work to comply with new requirements for material verification. Columbia stated in their Data Request Response 44 that "In addition to pipeline material verification, Columbia has approximately 891 stations that may require material verification to obtain TVC attributes required by Title 49 CFR 192.607. Columbia is currently reviewing 506 of its stations to determine these verification requirements. Columbia estimates the cost to be at least \$250 million; however, because some of these stations will be replaced with the MAOP Reconfirmation requirement (49 CFR 192.624), this estimate will likely decrease." Columbia further responded in their Data Request Response 121 that "Approximately 891 stations in Ohio may require some type of material verification in order to obtain TVC attributes required by Title 49 CFR 192.607. 506 of the 891 stations are still undergoing a thorough review of the documentation available and may drop off of this total count as those reviews are completed over the next five years."

Staff concludes from these responses that Columbia has not fully defined the work required in order to comply with PHMSA's Transmission Rule Part 1. Costs associated with performing work on various stations are listed as costing up to \$2.25 billion but could be far less based on documentation review that according to Columbia has not been completed.

Based on Staff's investigation, the Company is still in the process of evaluating its pipeline system to determine the scope of work required to comply with specific provisions of the MEGA rule. Ultimately, Staff finds the Company's proposal to be premature, as the scope of work required is still unknown, and the Company could only provide Staff an upper bound for investment. Staff has determined a much narrower level of capital investment to be appropriate, however, since the Company is still investigating the scope of work needed, Staff cannot determine a reasonable level of capital investment that is more limited that the Company's proposal. Additionally, Staff notes this investment would otherwise be eligible for inclusion in the Capital Expenditure Program. Therefore, given Staff's inability to determine the amount of capital investment for a more narrowly scoped FMI Rider, and the fact that this investment is eligible for inclusion in the CEP program, Staff finds the Company's proposal.

RIDERS

Sheet No. 30b, Regulatory Assessment Rider

Columbia proposes to update the Regulatory Assessment Rider (RAR) on an annual basis to recover a portion of the PUCO and OCC assessments through the RAR. Staff avers the PUCO and OCC assessments should be recovered through base rates and not through the RAR. The assessments are distribution costs which should be recovered in distribution rates. Staff has reviewed the Company's proposal and recommends denial of the rider.

Sheet No. 79 Federal/State Tax Reform Rider

In its Application, the Company has proposed the creation of a new rider, the "Federal/State Tax Reform Rider", which will be initially set at \$0 and be adjusted when future changes to federal or state tax rates or other changes dictate a rate adjustment. The Company proposes this rider to apply to all customers billed under rate schedules: SGS, SGSS, GS, GSS, LGS, and LGSS. Staff notes the Company's proposal does not limit the types of tax changes that could be included in this rider.

Staff has reviewed the Company's proposal and recommends denial of the rider. The Company's request is premature and the request to include any adjustments to federal or state tax rates or other tax related changes is excessively broad and open-ended; therefore, Staff recommends denial of the rider. Staff finds that the impact of tax changes should be evaluated and considered in a separate proceeding and be limited to significant and material changes in tax rates, in a similar manner to the Commission Ordered Investigation in response to the Tax Cuts and Jobs Act of 2017 (TCJA).

Sheet No. 80, Carbon Reduction Rider

Columbia proposes a new Carbon Reduction Rider as a voluntary, opt-in rider to allow customers to pay a fixed \$5/month fee to be used to purchase carbon offsets. The Company proposes the rider to provide its customers (all classes, shopping/nonshopping) the opportunity to offset carbon dioxide (CO₂) emissions generated by burning natural gas.

Columbia proposes to contract with third-party vendor Bluesource, LLC to administer the program. According to the Company, the \$5/month fee will flow directly to Bluesource, LLC to purchase carbon offsets on behalf of customers who participate in the program, and to cover the vendor's administrative costs. Columbia will not retain any portion of the \$5/month fee, and the Company does not anticipate charging labor or any other administrative expenses to the Carbon Reduction Rider.

The amount of CO₂ offset by the program will depend on participation levels and market prices, both which are variable. Columbia will work with Bluesource, LLC to ensure the offsets meet one of the major carbon standards: Verified Carbon Standard (VCS), the American Carbon Registry (ACR), the Climate Action Reserve (CAR), or Gold Standard (GS). Columbia plans to initially offer U.S. sourced carbon offsets, with the goal of offering Ohio-sourced carbon offsets. Specific projects will be determined based on availability at the time of purchase.

Participating customers will see the Carbon Reduction Rider itemized on their bill, and they may opt-out of participation at any time.

Staff is generally supportive of the concept of a carbon offset program. However, Staff does not believe that a new rider is necessary to implement the program. Staff recommends that the Company implement

the program as a non-regulated service under the existing "OPTIONAL SERVICES" tariff. ¹⁴ Staff further recommends that any uncollectible accounts receivable associated with the optional service be ineligible for recovery through the Uncollectible Expense Rider, since it is not related to distribution service.

DEFERRAL REQUEST

<u>Picarro</u>

As proposed in the Application, the Company requested the approval of a new deferral authority for Picarro, Inc. (Picarro). As approved in Case No. 20-1356-GA-WVR, the Company requested a limited waiver of the time requirement to classify non-hazardous leaks pursuant to Ohio Adm.Code 4901:1-16-04(H). The Company engaged Picarro to pilot its mobile leak detection equipment until July 31, 2022. In addition to piloting the Picarro technology, the Company continues conducting leakage surveys using traditional leak survey equipment. Under this new deferral authority, the Company is requesting a five-year deferral of the costs associated with the Picarro program. The annual Picarro O&M costs are \$3,958,183.

The Picarro mobile leak detection system is currently being used by the Company on a trial basis. As of July 2021, the Company expanded its use of Picarro to perform traditional leakage survey methods and Picarro mobile leak detection on survey routes simultaneously and compare the results. The Company will analyze the additional leaks detected using Picarro and the types of pipe for each leak not detected using traditional methods. The Company receives a data set from Picarro once field surveys are complete that contains the concentration and spatial location of methane plumes in the area. The methane plumes are then evaluated by crews using conventional leak detected by conventional methods to confirm the presence of a leak. The Picarro system identified significantly more gas leaks on piping where it was used than conventional leak detect. The Company expects to phase out their utilization of the traditional leak survey equipment approach to Picarro for compliance leaks surveys and the transition will take at least three to four years. Based on the survey results obtained by the Company and shared with Staff, the Picarro system appears to provide an equivalent or greater level of safety than conventional leak detection methods.

Staff rejects the Company's request for new deferral authority for Picarro mobile leak detection system and recommends the Company file after Case No. 20-1356-GA-WVR concludes on July 31, 2022, any additional data received detailing the efficiencies of the program that could lead to cost savings for the Company. Through its investigation, Staff has determined the costs associated with the Picarro program do not meet the requirements of deferral authority. As a result, and after applying the six criteria below, Staff has determined if deferral authority is not granted, the financial integrity of the Company will not be significantly or adversely affected. When evaluating a deferral request, Staff applies the following criteria:

1) Whether the utility's current rates or revenues are sufficient to cover the costs associated with the requested deferral.

The costs associated with this deferral are not specifically recovered in the Company's current rates, and the current rates are not sufficient to cover the costs of the Picarro program. However, the Company's proposed Picarro program is entirely voluntary, which means the level of annual spending can be set exclusively at the discretion of the Company.

2) Whether the costs requested to be deferred are material in nature.

The deferral requested represents \$3,958,183 or 0.62 percent of the adjusted test year operating expenses; therefore, Staff finds that the amount is immaterial. However, since the amount of annual spending is exclusively at the discretion of the Company, the Company controls the relative material impact of the annual spending.

3) Whether the problem was outside of the Company's control.

The Company's deferral request represents a discretionary pilot program the Company piloted outside of the traditional leak detection survey methods, with the amount of costs incurred at the discretion of the Company. As a result, the problem was within the Company's control.

4) Whether the expenditures are atypical and infrequent.

The Company's proposal for the new deferral authority is such that the costs will be incurred on an annual basis. Therefore, these expenditures are not atypical nor infrequent.

5) Whether the financial integrity of the utility will be significantly and adversely affected if deferral authority is not granted.

In this instance, the Company's proposal represents a discretionary pilot program the Company piloted outside of the traditional leak detection survey methods, with the amount of costs incurred at the discretion of the Company. As a result, Staff concludes if deferral authority is not granted, the financial integrity of the Company will not be significantly or adversely affected. Additionally, the deferral request is premature and it's unclear whether there's potential for gains to efficiencies that could outweigh the costs and lead to overall cost savings for the program.

6) Whether the Commission could encourage the utility to do something it would not otherwise do through the granting of the deferral authority.

Staff avers the Picarro system is new technology that has identified significantly more gas leaks on piping where it was used than traditional leak detection methods. The Company has stated there are no cost savings with the Picarro program (Case No. 21-637-GA-AIR, DR # 127). Therefore, the Commission could encourage the utility to do something it would not otherwise do through the granting of the deferral authority.

TAX CUTS AND JOBS ACT OF 2017

Revenue Increase Due to Fully Amortized Unprotected EDIT

In Case No. 17-2202-GA-ALT (TCJA Case), the Commission approved a stipulation which, among other things, provided for a reduction in base rates resulting from the need to pass back to ratepayers the balance of Unprotected Excess Deferred Income Taxes (EDIT),²⁰ with the balance to be refunded over a period of six years beginning in 2018.²¹ In addition, the Company was authorized to adjust its base rates upon completion of the six-year amortization period to reflect the elimination of the reduction in base rates attributable to the refund of Unprotected EDIT.

In its Application, the Company proposes to increase base rates beginning in 2024 to account for the impact on the cost of service attributable to the completion of the amortization of Unprotected EDIT. The Company's proposal contemplates two effects on the test year cost of service attributable to Unprotected EDIT. First, the annual amortization of Unprotected EDIT is a credit, or reduction, to federal income tax expense, directly increasing the operating income in the test year. Second, rate base is reduced by \$15.62 million, the date certain balance of unamortized Unprotected EDIT, which affects the computation of the Company's required operating income.

To account for these two effects, the Company proposes to increase base rates by \$6.9 million upon completion of the amortization of Unprotected EDIT. Of this, \$5.68 million is attributable to the increase in federal income tax expense, and \$1.23 million is attributable to the increased rate base on January 1, 2024, compared to the date certain in this case, all else equal.²² The Company has proposed to allocate the \$6.9 million increase to ratepayers based on its base revenues, base rates, and billing determinants by rate class that are approved by the Commission at the conclusion of this rate case.

Regarding the increase in base rates of \$5.68 million associated with the increased federal income tax expense incurred upon completion of the amortization, Staff finds the Company's proposal represents the effect on the federal income tax expense, which directly affects operating income in the test year. Therefore, Staff accepts and recommends the Commission approve, the Company's request to increase base rates by \$5.68 million beginning in 2024.

Second, Staff recommends the Commission reject the Company's proposal to increase base rates by an additional \$1.23 million to account for the increase in rate base and revenue requirement as an indirect effect of the completion of the amortization and pass back of Unprotected EDIT. Staff has consistently recommended that the rate base-related effects of the amortization of EDIT be limited to existing mechanisms which include periodic updates to rate base, such as the Company's existing Infrastructure Replacement Rider. Additionally, Staff notes the stipulation approved by the Commission in the TCJA Case provided for a specific reduction in base rates directly resulting from the need to pass back of Unprotected EDIT, and did not provide for reductions attributable to the indirect, flow-through effect Unprotected EDIT has on the Company's rate base. Therefore, Staff finds this aspect of the Company's proposal to <u>not</u> be

²⁰ Staff notes that this can also be referred to as, "Non-Normalized EDIT".

 ²¹ In the Matter of the Application of Columbia Gas of Ohio, Inc. for Approval of an Alternative Form of Regulation to Establish a Capital Expenditure Program Rider, Case No. 17-2202-GA-ALT, Opinion and Order (November 28, 2018).
 ²² The \$1.23 million is based on the Company's 7.85% proposed rate of return (\$15.62MM * 7.85% = \$1.23MM).

directly related to the elimination of the reduction in base rates related to the pass back of Unprotected EDIT approved in the TCJA Case.

Finally, with respect to the Company's proposed methodology to allocate the base rate increase, Staff finds the Company's proposal to be reasonable, and recommends the Commission approve the allocation of Staff's recommended base rate increase of \$5.68 million accordingly.

SERVICE MONITORING AND ENFORCEMENT

The Service Monitoring and Enforcement Department (SMED), inspects utility facilities to ensure regulated utility service providers operate and maintain their systems to allow safe, reliable and quality service. SMED also investigates consumer inquiries and complaints to identify areas of customer concerns and compliance with Commission rules and conducts Customer Service Audits. Below is a summary of SMED Staff's investigations and findings:

Customer Service Audit

Customer Service Audit Staff completed a customer service audit in June 2020 regarding the customer service performance, practices, and procedures of the company. As a result of the audit, Staff determined that the overall customer service practices and policies of the applicant, as reviewed and observed by the team, generally comply with the applicable rules and regulations set forth by the Commission.

Staff reviewed the customer contacts to the PUCO's call center for the period of January 1, 2020, through December 31, 2020. The call center received 1,995 contacts during this period. General requests constituted the largest number of contacts, with 637 for the period. This included customers calling to make payments or inquiries into a component of their bill but had not contacted the company first. The next largest category of contacts involved payment issues, with 445 contacts. This included contacts regarding disconnections and payment assistance programs including PIPP Plus. Contacts regarding the Ohio Choice Program and marketing material were the next highest category of contacts with 320. Most of these customers were seeking information on how to shop for competitive suppliers or questioning a current supplier showing on their bill. The PUCO call center also received contacts from 300 customers who voiced concerns about a billing matter after contacting the company. These contacts were mostly customers disputing a bill or charge on their bill. Residential customers and landlords routinely dispute the Company's ability to charge a fixed Customer Charge no matter the amount of gas consumed, or the days being billed for. The number of contacts during the review period was also impacted due to COVID-19.

MANAGEMENT AND OPERATIONS REVIEW

R.C. 4909.154 states that the Commission shall consider the management policies, practices, and organization of public utilities in fixing the just, reasonable, and compensatory rates, joint rates, tolls, classification, charges, or rentals to be observed and charged for service by any public utility.

Ohio Adm.Code 4901-7-01, Appendix A requires medium and large utilities to include in their rate filings a concisely written summary of their management policies, practices, and organization. Among other things, the summary is to include a discussion of policy and goal setting, strategic and long range planning, organization structure, decision making and controlling, and communications for the Company's executive management process (Schedule S-4.1) as well as for functional areas common to most electric utility companies (Schedule S-4.2).

Staff routinely reviews Schedule S-4.1 and Schedule S-4.2, applicant performance, and various events relating to the Applicant's management. Staff of the Pipeline Safety section selected the following functional areas that Columbia must include in the application to be filed as part of the Management Operation and Organization section of the Standard Filing Requirement.

- 1. Provide details on upgrades to the system mapping improvements.
- 2. Provide details on how the Company plans to reduce the limitations of its current compliance database.
- 3. Provide details on the implementation of its Safety Management System program as described in American Petroleum Institute (API) standard 1173.

The following is Staff's review of the three functional areas specified in Staff's letter.

The Commission required Columbia to enhance its records management as part of their Finding & Order in Commission Case No. 15-1351-GA-GPS addressing a home explosion in Upper Arlington that occurred on March 12, 2015. The cause of this explosion in part was due to an unrecorded improperly abandoned service line at the property. The actions required of Columbia included a requirement for Columbia to obtain and record global positioning system locations of curb boxes by incorporating curb box locations into its current process of internally recording facility locations, in order to provide a common repository for Columbia's facility locations. Columbia was required to substantially complete the collection of global positioning system coordinates on ail operating main lines, service lines, and curb valves by 2023.

Columbia provided details on upgrades to their system mapping improvements on page 1064 to 1070 of their "Application Schedules A, B, C, D, E, S-1, S-2, S-3, S-4.1, and S-4.2" document filed with the Commission on June 30, 2021. Based on Staff review, these upgrades appear to comply with Commission requirements.

Columbia provided details on how they plan to reduce the limitations of its current computer database on pages 1070 to 1074. The Columbia Work Management System database is used to maintain and track operations and maintenance work conducted in the field. This database was originally developed in the early 1990's and have been enhanced with significant added functionality since that time. Columbia states they plan to replace this database eventually but have not yet established a timeline for this replacement process. Staff noted in Commission Case No. 19-452-GA-GPS that an inability of field technicians to access service line records was a contributing factor in a house fire that occurred in Avon on August 2, 2017. Columbia reports improvements to its service line records that will help address this deficiency, and other improvements related to tracking and recording completed work and in leak grading and repair.

Columbia provided details on their Safety Management System SMS program on pages 1075 to 1111. These details align with recommendations for an effective SMS program described in American Petroleum Institute (API) Recommended Practice (RP) 1173 "Pipeline Safety Management Systems", which is the standard for SMS recommended by the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA).

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR OVERALL FINANCIAL SUMMARY FOR THE TWELVE MONTHS ENDED 12/31/21

SCHEDULE A-1 PAGE 1 OF 1

LINE	DESCRIPTION	SUPPORTING SCHEDULE	JURISDICTIONAL PROPOSED	ST	AFF
NO.		REFERENCE	TEST YEAR	LOWER BOUND	UPPER BOUND
			\$000	\$000	
1	RATE BASE AS OF DATE CERTAIN	B-1	3,560,230	3,463,095	3,463,095
2	CURRENT OPERATING INCOME	C-1	104,549	210,455	210,455
3	EARNED RATE OF RETURN (2)/(1)		2.94%	6.08%	6.08%
4	REQUESTED RATE OF RETURN	D-1	7.85%	6.88%	7.39%
5	REQUIRED OPERATING INCOME (1) x (4)		279,478	238,261	255,923
6	OPERATING INCOME DEFICIENCY (5) - (2)		174,929	27,806	45,468
7	GROSS REVENUE CONVERSION FACTOR	A-2	1.26582	1.26582	1.26582
8	REVENUE DEFICIENCY (6) x (7)		221,429	35,197	57,554
9	REVENUE INCREASE REQUESTED BEFORE MIRRORED REVENUE OFFSET	E-4	221,429		
10	ADJUSTED OPERATING REVENUES	C-1	817,960	850,225	850,225
11	REVENUE REQUIREMENTS (9) + (10)		1,039,389	885,422	907,779
12	NET INCREASE		21.30%	3.98%	6.34%

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR CALCULATION OF GROSS REVENUE CONVERSION FACTOR FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

SCHEDULE A-2 PAGE 1 OF 1

LINE NO.	DESCRIPTION	% OF INCREMENTAL GROSS REVENUE
1	OPERATING REVENUE	100.0000%
2	FEDERAL INCOME TAX (1) * 21%	21.0000%
3	INCOME AFTER INCOME TAX (1) - (2)	79.0000%
4	GROSS REVENUE CONVERSION FACTOR 100% / (3)	1.26582

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR JURISDICTIONAL RATE BASE SUMMARY AS OF MARCH 31, 2021

WORK PAPER REFERENCE NO(S):

SCHEDULE B-1 PAGE 1 OF 1

LINE NO.	RATE BASE COMPONENT	SUPPORTING SCHEDULE REFERENCE	COMPANY PROPOSED AMOUNT	STAFF PROPOSED AMOUNT
			\$000	\$000
1	PLANT IN SERVICE	B-2	5,160,922	5,092,388
2	RESERVE FOR ACCUMULATED DEPRECIATION	B-3	1,304,778	1,287,072
3	NET PLANT IN SERVICE (1) - (2)		3,856,144	3,805,316
4	CONSTRUCTION WORK IN PROGRESS	B-4	0	0
5	ALLOWANCE FOR WORKING CAPITAL	B-5	0	0
6	CONTRIBUTIONS IN AID OF CONSTRUCTION	B-6	0	0
7	OTHER RATE BASE ITEMS	B-6	(295,914)	(342,221)
8	JURISDICTIONAL RATE BASE (3) THRU (7)		3,560,230	3,463,095

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR PLANT IN SERVICE SUMMARY BY MAJOR PROPERTY GROUPINGS AS OF MARCH 31, 2021

WORK PAPER REFERENCE NO(S):

SCHEDULE B-2

PAGE 1 OF 1

LINE NO.	MAJOR PROPERTY GROUPINGS	TOTAL COMPANY	ALLOCATION %	ALLOCATED TOTAL	ADJUSTMENTS	ADJUSTED JURISDICTION
		\$		\$	\$	\$
		(a)	(b)	(c = a x b)	(d)	(e = c + d)
1	INTANGIBLE	\$67,707,662	100%	\$67,707,662	(\$3,740,725)	\$63,966,936
2	DISTRIBUTION	\$5,016,860,733	100%	\$5,016,860,733	(\$57,612,822)	\$4,959,247,911
3	GENERAL	\$76,353,453	100%	\$76,353,453	(\$7,180,084)	\$69,173,369
4	TOTAL	\$5,160,921,848		\$5,160,921,848	(\$68,533,631)	\$5,092,388,217

WORK PAPER REFERENCE NO(S):

SCHEDULE B-2.1 PAGE 1 OF 4

LINE NO.	ACCT NO.	ACCOUNT TITLE	TOTAL COMPANY	ALLOCATION %	ALLOCATED TOTAL	ADJUSTMENTS	ADJUSTED JURISDICTION
			\$		\$	\$	\$
			(a)	(b)	(c = a x b)	(d)	(e = c + d)
1		INTANGIBLE PLANT					
2	20100	Organization	25.027	100.00%	05.007		05 007
_	30100	Organization	25,937	100.00%	25,937	-	25,937
3	30200	Franchise and Consents	-	100.00%	-	-	-
4	30300	Miscellaneous Intangible Plant, General	2,376,229	100.00%	2,376,229	-	2,376,229
5	30330	Miscellaneous Intangible Plant, Software	43,846,772	100.00%	43,846,772	-	43,846,772
6	30331	Miscellaneous Intangible Plant, Software	17,876,039	100.00%	17,876,039	-	17,876,039
7	30399	Miscellaneous Intangible Plant, Cloud Software	e 3,582,685	100.00%	3,582,685	(3,582,685)	-
8	N/A	Capitalized Incentive Adjustment ¹				(158,040)	(158,040)
9		TOTAL INTANGIBLE PLANT	\$67,707,662		\$67,707,662	(3,740,725)	\$63,966,936

¹From WPB-2 Cap. Incentives (Page 2)

WORK PAPER REFERENCE NO(S):

SCHEDULE B-2.1 PAGE 2 OF 4

LINE NO.	ACCT NO.	ACCOUNT TITLE	TOTAL COMPANY	ALLOCATION %	ALLOCATED TOTAL	ADJUSTMENTS	ADJUSTED JURISDICTION
			\$		\$	\$	\$
1		DISTRIBUTION PLANT	(a)	(b)	(c = a x b)	(d)	(e = c + d)
2	36210	Environmental Remediation	-	100.00%	-	-	-
3	37410	Land, City Gate/Main Line Ind	226,993	100.00%	226,993	-	226,993
4	37420	Land, Other Distribution Sys	2,615,685	100.00%	2,615,685	-	2,615,685
5	37430	Land Rights, City Gate/Main Line	217,880	100.00%	217,880	-	217,880
6	37431	Land Rights, Exchange Gas M&R	(300)	100.00%	(300)	-	(300)
7	37440	Land Rights, Other Distribution Sys	5,665,186	100.00%	5,665,186	(102,656)	5,562,530
8	37450	Rights of Way	20,315,885	100.00%	20,315,885	-	20,315,885
9	37520	Str, City Gate Measuring & Reg	1,209,205	100.00%	1,209,205	-	1,209,205
10	37521	Str, Exchange Gas Measuring & Reg	(3,747)	100.00%	(3,747)	-	(3,747)
11	37530	Str, General Measuring & Reg	4,565	100.00%	4,565	-	4,565
12	37531	Str, General M&R, Local Gas	4,203	100.00%	4,203	-	4,203
13	37540	Str, Regulating	11,672,505	100.00%	11,672,505	-	11,672,505
14	37550	Str, Main Line Industrial M&R	230,557	100.00%	230,557	-	230,557
15	37560	Str, Distribution Industrial M&R	56,556	100.00%	56,556	-	56,556
16	37570	Str, Other Distribution Sys	11,935,277	100.00%	11,935,277	-	11,935,277
17	37571	Str, Other Distribution Sys, Leased	9,242,172	100.00%	9,242,172	-	9,242,172
18	37580	Str, Communication	584,484	100.00%	584,484	-	584,484
19	37600	Mains	1,249,627,112	100.00%	1,249,627,112	(1,490,244)	1,248,136,868
20	37625	Mains Replacement	1,159,926,002	100.00%	1,159,926,002	(15,069,602)	1,144,856,400
21	37810	Measuring & Reg Sta Eq, General	3,849,141	100.00%	3,849,141	(528,872)	3,320,269
22	37820	Measuring & Reg Sta Eq, Regulating	111,984,899	100.00%	111,984,899	(4,679,404)	107,305,495
23	37821	Measuring & Reg Sta Eq, Regulating-FMV	(1,813,753)	100.00%	(1,813,753)	-	(1,813,753)
24	37830	Measuring & Reg Sta Eq, Local Gas	983,019	100.00%	983,019	-	983,019
25	37832	Measuring & Reg Sta Eq, El Flow Com	30,041	100.00%	30,041	-	30,041
26	37910	Measuring & Reg Sta Eq, City Gate	23,669,961	100.00%	23,669,961	-	23,669,961

WORK PAPER REFERENCE NO(S):

SCHEDULE B-2.1 PAGE 3 OF 4

LINE NO.	ACCT NO.	ACCOUNT TITLE	TOTAL COMPANY	ALLOCATION %	ALLOCATED TOTAL	ADJUSTMENTS	ADJUSTED JURISDICTION
			\$		\$	\$	\$
			(a)	(b)	(c = a x b)	(d)	(e = c + d)
27	37911	Measuring & Reg Sta Eq, Exchange Gas	591,434	100.00%	591,434	-	591,434
28	37920	Measuring & Reg Sta Eq, Main Line	766,392	100.00%	766,392	-	766,392
29	38000	Services	847,803,345	100.00%	847,803,345	(6,026)	847,797,320
30	38012	Riser Replacements	144,739,012	100.00%	144,739,012	(15,252,226)	129,486,786
31	38013	Services Replaced aff Risers	319,701,522	100.00%	319,701,522	-	319,701,522
32	38025	Services Replaced aff Mains	669,386,878	100.00%	669,386,878	-	669,386,878
33	38100	Meters	124,845,100	100.00%	124,845,100	(5,912,021)	118,933,079
34	38110	Auto Meter Reading Devices	10,709,356	100.00%	10,709,356	-	10,709,356
35	38125	Customer AMR Devices	78,949,655	100.00%	78,949,655	-	78,949,655
36	38200	Meter Installations	58,683,211	100.00%	58,683,211	1,339,273	60,022,484
37	38300	House Regulators	69,028,969	100.00%	69,028,969	(2,752,902)	66,276,068
38	38325	House Regulators Replaced	725,918	100.00%	725,918	-	725,918
39	38400	House Regulator Installation	29,121,637	100.00%	29,121,637	-	29,121,637
40	38500	Industrial Measuring & Reg Sta Eq	14,704,075	100.00%	14,704,075	-	14,704,075
41	38710	Other Equipment	253,490	100.00%	253,490	-	253,490
42	38720	Other Equip, Odorization	170,195	100.00%	170,195	-	170,195
43	38741	Other Equip, Telephone	5,300,536	100.00%	5,300,536	(204,431)	5,096,105
44	38742	Other Equip, Radio	10,395,476	100.00%	10,395,476	(1,040,624)	9,354,852
45	38744	Other Equip, Other Communication	1,098,942	100.00%	1,098,942	-	1,098,942
46	38745	Other Equip, Telemetering	17,081,323	100.00%	17,081,323	(202,939)	16,878,384
47	38746	Other Equip, Customer Info Service	570,740	100.00%	570,740	-	570,740
48	N/A	Capitalized Incentive Adjustment ¹				(11,710,148)	(11,710,148)
49		TOTAL DISTRIBUTION PLANT	\$5,016,860,733		\$5,016,860,733	(57,612,822)	\$4,959,247,911

¹From WPB-2 Cap. Incentives (Page 2)

WORK PAPER REFERENCE NO(S):

SCHEDULE B-2.1 PAGE 4 OF 4

LINE NO.	ACCT NO.	ACCOUNT TITLE	TOTAL COMPANY	ALLOCATION %	ALLOCATED TOTAL	ADJUSTMENTS	ADJUSTED JURISDICTION
			\$		\$	\$	\$
			(a)	(b)	(c = a x b)	(d)	(e = c + d)
1		GENERAL PLANT					
2	39071	Str, Arena Off, Imp Leas Prp	15,144,126	100.00%	15,144,126	(122,830)	15,021,296
1	39110	OF&E, Unspecified	17,228,861	100.00%	17,228,861	(181,410)	17,047,451
3	39111	OF&E, Data Handling Equip	-	100.00%	-	-	-
2	39112	OF&E, Information Systems	7,270,351	100.00%	7,270,351	(511,447)	6,758,904
4	39220	Trans Eq, Trailers > \$1,000	1,169,000	100.00%	1,169,000	(227,954)	941,047
3	39221	Trans Eq, Trailers \$1000 or <	950	100.00%	950	-	950
5	39300	Stores Equipment	266,558	100.00%	266,558	(53,368)	213,190
4	39410	Tools, Garage & Service Eq	71,704	100.00%	71,704	(39,772)	31,931
6	39411	Tools, CNG Equip, Stationary	9,532	100.00%	9,532	(9,500)	32
5	39420	Tools, Shop Equipment	101,246	100.00%	101,246	(14,329)	86,917
7	39430	Tools, Tools and Other	33,224,783	100.00%	33,224,783	(5,756,061)	27,468,722
6	39500	Laboratory Equipment, Gas	38,532	100.00%	38,532	(38,532)	-
8	39600	Power Operated Equipment	1,670,198	100.00%	1,670,198	-	1,670,198
7	39800	Miscellaneous Equipment	157,611	100.00%	157,611	(46,659)	110,952
9	N/A	Capitalized Incentive Adjustment ¹				(178,221)	(178,221)
10		TOTAL GENERAL PLANT	\$76,353,453		\$76,353,453	(\$7,180,084)	\$69,173,369
11		TOTAL PLANT	\$5,160,921,848		\$5,160,921,848	(\$68,533,631)	\$5,092,388,217

¹From WPB-2 Cap. Incentives (Page 2)

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ADJUSTMENTS TO PLANT IN SERVICE AS OF MARCH 31, 2021

WORK PAPER REFERENCE NO(S):

STAFF WPB-2.2 & WPB-2.2 Cap. Incentives

LINE ACC NO. NC		TOTAL COMPANY ADJUSTMENT	ALLOCATION %	JURISDICTIONAL ADJUSTMENT
		\$ (a)	(b)	\$ (c = a x b)
	INTANGIBLE PLANT			
303	.99 Miscellaneous Intangible Plant, Cloud Software	(3,582,685)	100.00%	(3,582,685)
N/	0	(158,040)	100.00%	(158,040)
	Total Intangible Plant			(3,740,725)
	DISTRIBUTION PLANT			
37	74.4 Land Rights, Other Distribution Sys	(102,656)	100.00%	(102,656)
37	76 Mains	(1,490,244)	100.00%	(1,490,244)
376	.25 Mains Replacement	(15,069,602)	100.00%	(15,069,602)
378	-	(528,872)	100.00%	(528,872)
378		(4,679,404)	100.00%	(4,679,404)
38		(6,026)	100.00%	(6,026)
380		(15,252,226)	100.00%	(15,252,226)
38	Meters	(5,912,021)	100.00%	(5,912,021)
38	2 Meter Installations	1,339,273	100.00%	1,339,273
38	3 House Regulators	(2,752,902)	100.00%	(2,752,902)
387	.41 Other Equip, Telephone	(204,431)	100.00%	(204,431)
387		(1,040,624)	100.00%	(1,040,624)
387	.45 Other Equip, Telemetering	(202,939)	100.00%	(202,939)
N/.	A Adjustment to Capitalized Financial Incentives	(11,710,148)	100.00%	(11,710,148)
	Total Distribution Plant			(57,612,822)
	GENERAL PLANT			
390	.71 Str, Arena Off, Improvement Leas Prp	(122,830)	100.00%	(122,830)
391		(181,410)	100.00%	(181,410)
391		(511,447)	100.00%	(511,447)
392	· · · · · · · · · · · · · · · · · · ·	(227,954)	100.00%	(227,954)
39		(53,368)	100.00%	(53,368)
394		(39,772)	100.00%	(39,772)
394		(9,500)	100.00%	(9,500)
394		(14,329)	100.00%	(14,329)
394		(5,756,061)	100.00%	(5,756,061)
39		(38,532)	100.00%	(38,532)
39		(46,659)	100.00%	(46,659)
N/		(178,221)	100.00%	(178,221)
	Total General Plant			(7,180,084)
				(69 533 634)

Total Adjustments

(68,533,631)

SCHEDULE B-2.2 PAGE 1 OF 1

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR RESERVE FOR ACCUMULATED DEPRECIATION AS OF MARCH 31, 2021

WORK PAPER REFERENCE NO(S):

SCHEDULE B-3 PAGE 1 OF 1

LINE NO.	MAJOR PROPERTY GROUPINGS &	TOTAL COMPANY	RESERVE BALANCES							
	ACCOUNT TITLES	PLANT INVESTMENT	TOTAL COMPANY	ALLOCATION PERCENT	ALLOCATED TOTAL	STAFF ADJUSTMENTS	ADJUSTED JURISDICTIONAL			
		\$	\$		\$	\$	\$			
		(a)	(b)	(c)	$(d = b \times c)$	(e)	(f = d + e)			
1	INTANGIBLE	\$64,124,977	\$33,940,253	100%	\$33,940,253	(\$861,996)	\$33,078,257			
2	DISTRIBUTION	\$4,970,958,060	\$1,236,128,289	100%	\$1,236,128,289	(\$5,177,640)	\$1,230,950,649			
3	GENERAL	\$69,351,591	\$27,939,131	100%	\$27,939,131	(\$1,617,100)	\$26,322,031			
4	RETIREMENT WORK IN PROGRESS	\$0	(\$3,278,859)	100%	(\$3,278,859)	\$0	(\$3,278,859)			
5	TOTAL	\$5,104,434,627	\$1,294,728,814	100%	\$1,294,728,814	(\$7,656,736)	\$1,287,072,078			

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ADJUSTMENTS TO THE RESERVE FOR ACCUMULATED DEPRECIATION AS OF MARCH 31, 2021

WORK PAPER REFERENCE NO(S): STAFF WPB-3.1 and STAFF WPB-3.1 Cap Inc RSV

SCHEDULE B-3.1 PAGE 1 OF 2

LINE NO.	ACCT. NO.	ACCOUNT TITLE	TOTAL COMPANY ADJUSTMENT		COMPANY S ADJUSTMENT ADJ		COMPANY STAFF ADJUSTMENT ADJUSTMENT		ALLOCATION %	JURISDICTIONAL ADJUSTMENT	
				\$ (a)			(b)		\$ (c = a x b)		
		INTANGIBLE PLANT									
1	303.99	Miscellaneous Intangible Plant, Cloud Software	\$	-	\$	(853,822) (a)	100%	\$	(853,822)		
2		Reserve Adjustment for Capitalized Financial Incentives	\$	-	\$	(8,174) (d)	100%	\$	(8,174)		
3		TOTAL INTANGIBLE PLANT	\$	-	\$	(861,996)		\$	(861,996)		
		DISTRIBUTION PLANT									
4	362.1	Environmental Remediation	\$	3,014,995	\$	(3,014,995) (b)	100%	\$	-		
5	362.1	Environmental Remediation	\$	-	\$	6,456,328 (b)	100%	\$	6,456,328		
6	375.7	Other Distribution Systems Structures (Environmental Remediation)	\$	-	\$	1,052,289 (b)	100%	\$	1,052,289		
7	376	Mains	\$	-	\$	(15,040) (c)	100%	\$	(15,040)		
8	376	Mains	\$	-	\$	(93,963)	100%	\$	(93,963)		
9	376.25	Mains Replacement	\$	-	\$	(1,983,525)	100%	\$	(1,983,525)		
10	378.1	Measuring & Reg Sta Eq, General	\$	-	\$	(105,444)	100%	\$	(105,444)		
11	378.2	Measuring & Reg Sta Eq, Regulating	\$	-	\$	(5,562) (c)	100%	\$	(5,562)		
12	378.2	Measuring & Reg Sta Eq, Regulating	\$	-	\$	(920,814)	100%	\$	(920,814)		
13	380	Services	\$	-	\$	(3,659)	100%	\$	(3,659)		
14	380.12	Riser Replacements	\$	-	\$	(5,618,754)	100%	\$	(5,618,754)		
17	381	Meters	\$	-	\$	(1,778,697)	100%	\$	(1,778,697)		
18	382	Meter Installations	\$	-	\$	23,992 (c)	100%	\$	23,992		
19	382	Meter Installations	\$	-	\$	(55,863)	100%	\$	(55,863)		
20	383	House Regulators	\$	-	\$	(39,110) (c)	100%	\$	(39,110)		
21	383	House Regulators	\$	-	\$	(593,847)	100%	\$	(593,847)		
22	387.41	Other Equip, Telephone	\$	-	\$	(125,247)	100%	\$	(125,247)		
23	387.42	Other Equip, Radio	\$	-	\$	(621,577)	100%	\$	(621,577)		
24	387.45	Other Equip, Telemetering	\$	-	\$	(7) (c)	100%	\$	(7)		
25	387.45	Other Equip, Telemetering	\$	-	\$	(143,499)	100%	\$	(143,499)		
26		Reserve Adjustment for Capitalized Financial Incentives	\$	-	\$	(605,641) (d)	100%	\$	(605,641)		
27		TOTAL DISTRIBUTION PLANT	\$	3,014,995	\$	(8,192,635)		\$	(5,177,640)		

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ADJUSTMENTS TO THE RESERVE FOR ACCUMULATED DEPRECIATION AS OF MARCH 31, 2021

WORK PAPER REFERENCE NO(S):

SCHEDULE B-3.1 PAGE 2 OF 2

LINE NO.	ACCT. NO.	ACCOUNT TITLE	TOTAL OMPANY JUSTMENT	TOTAL STAFF ADJUSTMENT		ALLOCATION %	JURISDICTIONAL ADJUSTMENT	
		GENERAL PLANT						
26	390.71	Str, Arena Off, Improvement Leas Prp	\$ -	\$	(33,267)	100%	\$	(33,267)
27	391.1	OF&E, Unspecified	\$ -	\$	(58,959)	100%	\$	(58,959)
30	392.2	Trans Eq, Trailers > \$1,000	\$ -	\$	(147,107)	100%	\$	(147,107)
32	393	Stores Equipment	\$ -	\$	(45,088)	100%	\$	(45,088)
33	394.1	Tools, Garage & Service Eq	\$ -	\$	(14,573)	100%	\$	(14,573)
34	394.11	Tools, CNG Equip, Stationary	\$ -	\$	(9,500)	100%	\$	(9,500)
35	394.2	Tools, Shop Equipment	\$ -	\$	(13,373)	100%	\$	(13,373)
36	394.3	Tools, Tools and Other	\$ -	\$	(1,234,877)	100%	\$	(1,234,877)
37	395	Laboratory Equipment, Gas	\$ -	\$	(27,615)	100%	\$	(27,615)
39	398	Miscellaneous Equipment	\$ -	\$	(23,524)	100%	\$	(23,524)
40		Reserve Adjustment for Capitalized Financial Incentives	\$ -	\$	(9,217) (d)	100%	\$	(9,217)
41								
42		TOTAL GENERAL PLANT	\$ -	\$	(1,617,100)		\$	(1,617,100)
43					. ,			
44		TOTAL PLANT ADJUSTMENT	\$ 3,014,995	\$	(10,671,731)		\$	(7,656,736)

(a) Cloud software Plant reserve adjustment. Amount taken from Applicant's Schedule B-3.2.

(b) Reserve adjustments for Environmental Remediation - ERC costs. Refer to DR#'s 26, 29, and the Manufactured Gas Plant section of Staff Report.

(c) Reserve adjustments related to Company's 2020 CEP rider audit. See response to DR 174.

(d) Reserve adjustments for Capitalized Financial Incentives in Plant

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR DEPRECIATION ACCRUAL RATES AND JURISDICTIONAL RESERVE BALANCES BY ACCOUNTS AS OF MARCH 31, 2021

WORK PAPER REFERENCE NO(S):

Staff SCHB-2.1, Staff WPB-3.2 & Staff SCHB-3.3

SCHEDULE B-3.2 PAGE 1 OF 3

LINE NO.	ACCT NO.	ACCOUNT TITLE	ADJUSTED PLANT INVESTMENT	JURIS. RESERVE BALANCE	CURRENT ACCRUAL RATE %	CALC. DEPR. EXPENSE	% NET SALVAGE	AVERAGE SERVICE LIFE	CURVE FORM
			\$	\$	%	\$			
			(a)	(b)	(c)	(d = (a x c)			
1		INTANGIBLE PLANT							
2	30100	Organization	\$25,937	\$0	0.00%	\$0	N/A	N/A	N/A
3	30200	Franchise and Consents	\$0	(\$2)	0.00%	\$0	N/A	N/A	N/A
4	30300	Miscellaneous Intangible Plant, General	\$2,376,229	\$659,566	3.27%	\$77,811	N/A	N/A	N/A
5	30330	Miscellaneous Intangible Plant, Software	\$43,846,772	\$20,319,330	20.00%	\$8,769,354	N/A	N/A	N/A
6	30331	Miscellaneous Intangible Plant, Software	\$17,876,039	\$12,961,359	10.00%	\$1,787,604	N/A	N/A	N/A
7	30399	Miscellaneous Intangible Plant, Cloud Software	\$0	(\$0)	(e)	\$0	N/A	N/A	N/A
8		TOTAL INTANGIBLE PLANT	\$64,124,977	\$33,940,253		\$10,634,769			

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR DEPRECIATION ACCRUAL RATES AND JURISDICTIONAL RESERVE BALANCES BY ACCOUNTS AS OF MARCH 31, 2021

WORK PAPER REFERENCE NO(S):

SCHEDULE B-3.2 PAGE 2 OF 3

LINE	ACCT	ACCOUNT TITLE	ADJUSTED PLANT	JURIS. RESERVE	CURRENT	CALC. DEPR.	% NET	AVERAGE SERVICE	CURVE
NO.	NO.	ACCOUNT TILE	INVESTMENT	BALANCE	RATE %	EXPENSE	SALVAGE	LIFE	FORM
1		DISTRIBUTION PLANT	\$	\$	%	\$			
2	36210	Environmental Remediation	\$0	(\$0)	(f)	\$0	N/A	N/A	N/A
3	37410	Land, City Gate/Main Line Ind	\$226,993	\$0	0.00%	\$0	N/A	N/A	N/A
4	37420	Land, Other Distribution Sys	\$2,615,685	(\$2,624)	0.00%	\$0	N/A	N/A	N/A
5	37430	Land Rgts, Cty Gate/Main Line	\$217,880	(\$569)	0.00%	\$0 \$0	N/A	N/A	N/A
6	37431	Land Rgts, Exchange Gas M&R	(\$300)	(¢000) \$0	0.00%	\$0 \$0	N/A	N/A	N/A
7	37440	Land Rgts, Other Distr Sys	\$5,562,530	(\$70,010)	0.00%	\$0 \$0	N/A	N/A	N/A
8	37450	Rights of Way	\$20,315,885	\$215,772	0.00%	\$0 \$0	N/A	N/A	N/A
9	37520	Str, City Gate Mea & Reg	\$1,209,205	\$643,614	2.50%	\$30,230	-50%	60	R1.5
10	37521	Str, Exchange Gas Mea & Reg	(\$3,747)	(\$4,545)	2.50%	(\$94)	-50%	60	R1.5
10	37530	Str, General Mea & Reg	\$4,565	\$4,819	2.50%	(¢01) \$114	-50%	60	R1.5
12	37531	Str, General M&R, Local Gas	\$4,203	\$3,697	2.50%	\$105	-50%	60	R1.5
12	37540	Str, Regulating	\$11,672,505	\$2,968,564	2.50%	\$291,813	-50%	60	R1.5
13	37550	Str, Main Line Industrial M&R	\$230,557	\$48,353	3.33%	\$7,685	-50%	45	R1.5
14	37560	Str. Distribtn Industrial M&R	\$56,556	\$49,369	3.33%	\$1,885	-50%	45	R1.5
16	37570	Str, Other Distribution Sys	\$11,935,277	\$809,562	1.70%	\$202,900	-30 %	composite	K1.5
10	37571	Str, Other Distribution Sys	\$9,242,172	\$4,115,971	6.68%	\$617,235	N/A	N/A	N/A
	37580	Str, Communication	\$584,484	\$370,163	2.00%	\$11,690	0%	50	R4
18 19	37580	Mains	\$304,404 \$1,248,136,868	\$422,380,542	1.74%	\$11,690	-20%	50 69	R1.5
20	37600	Mains Mains Replacement	\$1,240,130,000	\$99,214,035	1.74%	\$21,700,720 \$19,910,546	-20%	69	R1.5 R1.5
	37825	•		. , ,		. , ,	-20%	69 44	R1.5 R0.5
21		Mea & Reg Sta Eq, General	\$3,320,269	\$663,933	2.73%	\$90,553			
22	37820	Mea & Reg Sta Eq, Regulating	\$107,305,495	\$27,260,750	2.73%	\$2,926,514	-20%	44	R0.5
23	37821	Mea & Reg Sta Eq, Regulating-FMV	(\$1,813,753)	(\$244,525)	2.73%	(\$49,466)	-20%	44	R0.5
24	37830	Mea & Reg Sta Eq, Local Gas	\$983,019	\$378,573	2.73%	\$26,810	-20%	44	R0.5
25	37832	Mea & Reg Sta Eq, El Flow Com	\$30,041	\$30,041	2.73%	\$819	-20%	44	R0.5
26	37910	Mea & Reg Sta Eq, City Gate	\$23,669,961	\$8,242,499	2.61%	\$618,647	-15%	44	R0.5
27	37911	Mea & Reg Sta Eq, Exch Gas	\$591,434	\$522,681	2.61%	\$15,458	-15%	44	R0.5
28	37920	Mea & Reg Sta Eq, Main Line	\$766,392	\$137,621	2.61%	\$20,031	-15%	44	R0.5
29	38000	Services	\$847,797,320	\$219,379,613	3.91%	\$33,174,678	-80%	46	S0
30	38012	Riser Replacements	\$129,486,786	\$46,937,969	3.91%	\$5,066,874	-80%	46	S0
31	38013	Services Replaced aff Risers	\$319,701,522	\$57,736,886	3.91%	\$12,510,060	-80%	46	S0
32	38025	Services Replaced aff Mains	\$669,386,878	\$109,885,783	3.91%	\$26,193,400	-80%	46	S0
33	38100	Meters	\$118,933,079	\$57,042,431	1.98%	\$2,353,884	5%	48	S0.5
34	38110	Auto Meter Reading Devices	\$10,709,356	\$6,422,362	6.67%	\$713,957	0%	15	S2.5
35	38125	Customer AMR Devices	\$78,949,655	\$51,076,001	6.67%	\$5,263,310	0%	15	S2.5
36	38200	Meter Installations	\$60,022,484	\$34,480,048	2.33%	\$1,400,525	-5%	45	R4
37	38300	House Regulators	\$66,276,068	\$36,017,596	2.91%	\$1,926,630	-25%	43	R3
38	38325	House Regulators Replaced	\$725,918	\$305,138	2.91%	\$21,102	-25%	43	R3
39	38400	House Regulator Installation	\$29,121,637	\$23,366,309	2.44%	\$711,110	-5%	43	R3
40	38500	Industrial Mea & Reg Sta Eq	\$14,704,075	\$3,850,645	3.83%	\$563,656	-15%	30	01
41	38710	Other Equipment	\$253,490	\$252,116	4.77%	\$12,098	-5%	22	S0
42	38720	Other Equip, Odorization	\$170,195	\$73,837	4.77%	\$8,123	-5%	22	S0
43	38741	Other Equip, Telephone	\$5,096,105	\$5,072,948	3.40%	\$173,268	-2%	30	S0.5
44	38742	Other Equip, Radio	\$9,354,852	\$9,253,046	3.40%	\$318,065	-2%	30	S0.5
45	38744	Other Equip, Oth Communicatn	\$1,098,942	\$1,055,399	3.40%	\$37,364	-2%	30	S0.5
46	38745	Other Equip, Telemetering	\$16,878,384	\$5,600,172	3.40%	\$573,865	-2%	30	S0.5
47	38746	Other Equip, Customr Info Srv	\$570,740	\$581,704	3.40%	\$19,405	-2%	30	S0.5
49		TOTAL DISTRIBUTION PLANT	\$4,970,958,060	\$1,2 362 128,289		\$137,471,577			

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR DEPRECIATION ACCRUAL RATES AND JURISDICTIONAL RESERVE BALANCES BY ACCOUNTS AS OF MARCH 31, 2021

WORK PAPER REFERENCE NO(S):

SCHEDULE B-3.2 PAGE 3 OF 3

3 39110 OF&E, Unspecified \$17,047,451 \$6,089,664 5.00% \$8 4 39111 OF&E, Data Handling Equip \$0 (\$24) 5.00% \$1,5 5 39112 OF&E, Information Systems \$6,758,904 \$4,123,391 20.00% \$1,5 6 39220 Trans Eq, Trailers >\$1,000 \$941,047 \$569,284 7.50% \$ 7 39221 Trans Eq, Trailers \$1000 or < \$950 \$3,389 5.29% \$ 8 39300 Stores Equipment \$213,190 \$157,272 3.33% \$ 9 39410 Tools, Carage & Service Eq \$31,931 \$5,104 4.00% 10 39411 Tools, CNG Equip, Stationary \$32 (\$90,695) 9.09% 11 39420 Tools, Shop Equipment \$86,917 \$53,943 4.00% 12 39430 Tools, Tools and Other \$27,468,722 \$10,835,359 4.00% 13 39500 Laboratory Equipment, Gas \$0 \$1,777 5.00% 14 39600 Power Operated Equipment \$1,670,198	i2,373 N/A \$0 N/A i1,781 0% i0,578 10% \$50 10% \$7,106 0% \$1,277 0% \$3 0% \$3,477 0%	% \$757,206 % \$852,373 % \$0 % \$1,351,781 % \$70,578 % \$50 % \$7,106 % \$1,277 % \$3 % \$3,477 % \$1,098,749	N/A 20 5 12 17 30 25 11 25 25	N/A SQ SQ L3 SQ SQ S0.5 SQ SQ
2 39071 Str, Arena Off, Impv Leas Prp \$15,021,296 \$4,795,981 5.00% \$7 3 39110 OF&E, Unspecified \$17,047,451 \$6,089,664 5.00% \$6 4 39111 OF&E, Data Handling Equip \$0 (\$24) 5.00% \$1 5 39120 OF&E, Information Systems \$6,758,904 \$4,123,391 20.00% \$1,3 6 39220 Trans Eq, Trailers \$1,000 \$941,047 \$569,284 7.50% \$ 7 39221 Trans Eq, Trailers \$1000 or < \$950 \$3,389 5.29% \$ 8 39300 Stores Equipment \$213,190 \$157,272 3.33% \$ 9 39410 Tools, CAG arage & Service Eq \$31,931 \$5,104 4.00% 10 39411 Tools, CNG Equip, Stationary \$32 (\$90,695) 9.09% 11 39420 Tools, Shop Equipment \$86,917 \$53,943 4.00% 12 39430 Laboratory Equipment, Gas \$0 \$	i2,373 N/A \$0 N/A i1,781 0% i0,578 10% \$50 10% \$7,106 0% \$3,0% \$3 \$3,0% \$3,0% \$3,477 0% \$8,749 0%	% \$852,373 % \$0 % \$1,351,781 % \$70,578 % \$50 % \$7,106 % \$1,277 % \$3,477 % \$3,477 % \$1,098,749	20 20 5 12 17 30 25 11 25	SQ SQ SQ L3 L3 SQ SQ SQ SQ SQ
3 39110 OF&E, Unspecified \$17,047,451 \$6,089,664 5.00% \$8 4 39111 OF&E, Data Handling Equip \$0 (\$24) 5.00% \$1,3 5 39112 OF&E, Information Systems \$6,758,904 \$4,123,391 20.00% \$1,3 6 39220 Trans Eq, Trailers > \$1,000 \$941,047 \$569,284 7.50% \$3 7 39221 Trans Eq, Trailers > \$1,000 or <	i2,373 N/A \$0 N/A i1,781 0% i0,578 10% \$50 10% \$7,106 0% \$3,0% \$3 \$3,0% \$3,0% \$3,477 0% \$8,749 0%	% \$852,373 % \$0 % \$1,351,781 % \$70,578 % \$50 % \$7,106 % \$1,277 % \$3,477 % \$3,477 % \$1,098,749	20 20 5 12 17 30 25 11 25	SQ SQ SQ L3 L3 SQ SQ SQ SQ SQ
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5 39112 OF&E, Information Systems \$6,758,904 \$4,123,391 20.00% \$1,3 6 39220 Trans Eq, Trailers > \$1,000 \$941,047 \$569,284 7.50% \$ 7 39221 Trans Eq, Trailers \$1000 or <	i1,781 0% i0,578 10% \$50 10% \$7,106 0% i1,277 0% \$3,0% 53,477 \$8,749 0%	% \$1,351,781 % \$70,578 % \$50 % \$50 % \$1,277 % \$3,477 % \$3,477 % \$1,098,749	5 12 17 30 25 11 25	SQ L3 SQ SQ S0.5 SQ SQ
6 39220 Trans Eq, Trailers > \$1,000 \$941,047 \$569,284 7.50% \$ 7 39221 Trans Eq, Trailers \$1000 or <	0,578 10% \$50 10% \$7,106 0% \$1,277 0% \$3 0% \$3,477 0% \$8,749 0%	% \$70,578 % \$50 % \$57,106 % \$1,277 % \$33,477 % \$3,477 % \$1,098,749	12 17 30 25 11 25	L3 L3 SQ SQ S0.5 SQ SQ
7 39221 Trans Eq, Trailers \$1000 or <	\$50 10% \$7,106 0% \$1,277 0% \$3 0% \$3,477 0% \$8,749 0%	% \$50 % \$7,106 % \$1,277 % \$3 % \$3,477 % \$1,098,749	17 30 25 11 25	L3 SQ SQ.5 SQ SQ
8 39300 Stores Equipment \$213,190 \$157,272 3.33% 9 39410 Tools, Garage & Service Eq \$31,931 \$5,104 4.00% 10 39411 Tools, CNG Equip, Stationary \$32 (\$90,695) 9.09% 11 39420 Tools, Shop Equipment \$86,917 \$53,943 4.00% 12 39430 Tools, Tools and Other \$27,468,722 \$10,835,359 4.00% 13 39500 Laboratory Equipment, Gas \$0 \$1,777 5.00% 14 39600 Power Operated Equipment \$1,670,198 \$1,286,134 5.38% \$ 15 39800 Miscellaneous Equipment \$110,952 \$108,552 5.00% \$ 16 TOTAL GENERAL PLANT \$69,351,591 \$27,939,131 \$4,2	37,106 0% \$1,277 0% \$3 0% \$3,477 0% \$8,749 0%	% \$7,106 % \$1,277 % \$3 % \$3,477 % \$1,098,749	30 25 11 25	SQ SQ S0.5 SQ SQ
9 39410 Tools, Garage & Service Eq \$31,931 \$5,104 4.00% 10 39411 Tools, CNG Equip, Stationary \$32 (\$90,695) 9.09% 11 39420 Tools, Shop Equipment \$86,917 \$53,943 4.00% 12 39430 Tools, Tools and Other \$27,468,722 \$10,835,359 4.00% \$1,0 13 39500 Laboratory Equipment, Gas \$0 \$1,777 5.00% \$14 14 39600 Power Operated Equipment \$1,670,198 \$1,286,134 5.38% \$ 15 39800 Miscellaneous Equipment \$110,952 \$108,552 5.00% 16 TOTAL GENERAL PLANT \$69,351,591 \$27,939,131 \$4,2	\$1,277 0% \$3 0% \$3,477 0% \$8,749 0%	% \$1,277 % \$3 % \$3,477 % \$1,098,749	25 11 25	SQ S0.5 SQ SQ
10 39411 Tools, CNG Equip, Stationary \$32 (\$90,695) 9.09% 11 39420 Tools, Shop Equipment \$86,917 \$53,943 4.00% 12 39430 Tools, Tools and Other \$27,468,722 \$10,835,359 4.00% \$1,0 13 39500 Laboratory Equipment, Gas \$0 \$1,777 5.00% \$14 14 39600 Power Operated Equipment \$1,670,198 \$1,286,134 5.38% \$ 15 39800 Miscellaneous Equipment \$110,952 \$108,552 5.00% 16 TOTAL GENERAL PLANT \$69,351,591 \$27,939,131 \$4,2	\$3 0% 53,477 0% 98,749 0%	% \$3 % \$3,477 % \$1,098,749	11 25	S0.5 SQ SQ
11 39420 Tools, Shop Equipment \$86,917 \$53,943 4.00% 12 39430 Tools, Tools and Other \$27,468,722 \$10,835,359 4.00% \$1,07 13 39500 Laboratory Equipment, Gas \$0 \$1,777 5.00% 14 39600 Power Operated Equipment \$1,670,198 \$1,286,134 5.38% \$ 15 39800 Miscellaneous Equipment \$110,952 \$108,552 5.00% \$ 16 TOTAL GENERAL PLANT \$69,351,591 \$27,939,131 \$4,2	0% 08,749 0%	% \$3,477 % \$1,098,749	25	SQ SQ
11 39420 Tools, Shop Equipment \$86,917 \$53,943 4.00% 12 39430 Tools, Tools and Other \$27,468,722 \$10,835,359 4.00% \$1,0 13 39500 Laboratory Equipment, Gas \$0 \$1,777 5.00% \$1,4 14 39600 Power Operated Equipment \$1,670,198 \$1,286,134 5.38% \$ 15 39800 Miscellaneous Equipment \$110,952 \$108,552 5.00% 16 TOTAL GENERAL PLANT \$69,351,591 \$27,939,131 \$4,2	08,749 0%	% \$1,098,749		SQ
13 39500 Laboratory Equipment, Gas \$0 \$1,777 5.00% 14 39600 Power Operated Equipment \$1,670,198 \$1,286,134 5.38% \$ 15 39800 Miscellaneous Equipment \$110,952 \$108,552 5.00% 16 TOTAL GENERAL PLANT \$69,351,591 \$27,939,131 \$4,2			25	
14 39600 Power Operated Equipment \$1,670,198 \$1,286,134 5.38% \$ 15 39800 Miscellaneous Equipment \$110,952 \$108,552 5.00% 16 TOTAL GENERAL PLANT \$69,351,591 \$27,939,131 \$4,2	\$0 0%	% \$0		
15 39800 Miscellaneous Equipment \$110,952 \$108,552 5.00% 16 TOTAL GENERAL PLANT \$69,351,591 \$27,939,131 \$4,2			20	SQ
16 TOTAL GENERAL PLANT \$69,351,591 \$27,939,131 \$4,2	9,934 30%	% \$89,934	13	L2.5
	5,548 0%	% \$5,548	20	SQ
	8,082	\$4,238,082		
17 RETIREMENT WORK IN PROGRESS \$0 (\$3,278,859)				
	\$0	\$0		
18TOTAL PLANT BEFORE CAPITALIZED INCENTIVE ADJUSTMENT\$5,104,434,627\$1,294,728,814\$152,33	4,428	\$152,344,428		
19 COMPOSITE DEPRECIATION/AMORTIZATION RATE 2.98455% (g)		% (g)		
20 CAPITALIZED INCENTIVE ADJUSTMENT (\$12,046,410) (\$623,032) 2.98455% (\$3	9,531)	% (\$359,531)		
21 TOTAL PLANT NET OF CAPITALIZED \$5,092,388,217 \$1,294,105,782 \$151,5		\$151,984,897		

(e)

Cloud based software has been adjusted out by Staff as per the Plant audit Account 362.1 - Environmental Redediation has been adjusted out by Staff as per the Plant audit (f)

(g) Composite Depreciation/Amortization Rate (Line 19) = Total Depreciation Expense (Line 18) ÷ Total Plant (Line 18)

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR DEPRECIATION RESERVE ACCRUALS, RETIREMENTS, AND TRANSFERS FROM JANUARY 1, 2021 - MARCH 31, 2021

WORK PAPER REFERENCE NO(S): WORK PAPER REFERENCE NO(S): WPB 3.3a & 3.3b

SCHEDULE B-3.3 PAGE 1 OF 3

LINE	ACCT.		BEGINNING				COST OF				TRANSFERS/RECLA	SSIFICATIONS	
NO.	NO.	DESCRIPTION	BALANCE	ACCRUALS	SALVAGE	RETIREMENTS	REMOVAL	GAIN/LOSS	AMOUNT	EXPLANATION OF TRANSFERS	OTHER ACCTS. INVOLVED	STAFF ADJUSTMENTS	ENDING BALANCE
			\$	\$	\$	\$	\$	\$	\$				\$
			(a)	(b)	(c)	(d)	(e)	(f)	(g)				(h = a+b+c+d+e+f+g)
1		INTANGIBLE PLANT	_										
2	30100	Organization	\$0	\$0	\$0	\$0	\$0	\$0	\$0				\$0
3	30200	Franchise and Consents	(\$2)	\$0	\$0	\$0	\$0	\$0	\$0				(\$2)
4	30300	Miscellaneous Intangible Plant, General	\$640,113	\$19,453	\$0	\$0	\$0	\$0	\$0				\$659,566
5	30330	Miscellaneous Intangible Plant, Software	\$19,596,327	\$2,239,426	\$0	(\$1,516,423)	\$0	\$0	\$0				\$20,319,330
6	30331	Miscellaneous Intangible Plant, Software	\$12,511,658	\$449,701	\$0	\$0	\$0	\$0	\$0				\$12,961,359
7	30399	Miscellaneous Intangible Plant, Cloud Software	\$657,110	\$196,712	\$0	\$0	\$0	\$0	\$0			(\$853,822)	(\$0)
		Reserve Adjustment for Capitalized Financial											
8		Incentives										(\$8,174)	(\$8,174)
9		TOTAL INTANGIBLE PLANT	\$33,405,206	\$2,905,292	\$0	(\$1,516,423)	\$0	\$0	\$0				\$33,932,079

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR DEPRECIATION RESERVE ACCRUALS, RETIREMENTS, AND TRANSFERS FROM JANUARY 1, 2021 - MARCH 31, 2021

WORK PAPER REFERENCE NO(S): WORK PAPER REFERENCE NO(S): WPB 3.3a & 3.3b

	ACCT.		BEGINNING				COSTOF				TRANSFERS/RECLA	ASSIFICATIONS	
NO.	NO.	DESCRIPTION	BALANCE	ACCRUALS	SALVAGE	RETIREMENTS	COST OF REMOVAL	GAIN/LOSS	AMOUNT	EXPLANATION OF TRANSFERS	OTHER ACCTS. INVOLVED	STAFF ADJUSTMENTS	ENDING BALANCE
			\$	\$	\$	\$	\$	\$	\$				(h orbroidiorfra)
1	П	ISTRIBUTION PLANT	(a)	(b)	(c)	(d)	(e)	(f)	(g)				(h = a+b+c+d+e+f+g)
•													
2		nvironmental Remediation	(\$6,456,328)	\$0	\$0	\$0	\$0	\$0	\$0			\$6,456,328	(\$0)
3		and, City Gate/Main Line Ind	\$0	\$0	\$0	\$0	\$0	\$0	\$0				\$0
4		and, Other Distribution Sys	(\$2,624)	\$0	\$0	\$0	\$0	\$0	\$0				(\$2,624)
5		and Rgts, Cty Gate/Main Line	(\$569)	\$0	\$0	\$0	\$0	\$0	\$0				(\$569)
6		and Rgts, Exchange Gas M&R	\$0	\$0	\$0	\$0	\$0	\$0	\$0				\$0
7		and Rgts, Other Distr Sys	(\$69,968)	\$0	\$0	(\$4)	(\$39)	\$0	\$0				(\$70,010)
8		and Rgts, Oth Distr Sys, Loc	\$0	\$0	\$0	\$0	\$0	\$0	\$0				\$0
9		ights of Way	\$215,772	\$0	\$0	\$0	\$0	\$0	\$0				\$215,772
10		tr, City Gate Mea & Reg	\$638,111	\$8,253	\$0	\$0	(\$2,750)	\$0	\$0				\$643,614
11		Str, Exchange Gas Mea & Reg	(\$4,545)	\$0 \$0	\$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0				(\$4,545)
12		tr, General Mea & Reg	\$4,819		\$0								\$4,819
13		tr, General M&R, Local Gas	\$3,697	\$0	\$0	\$0	\$0	\$0	\$0				\$3,697
14		tr, Regulating	\$2,952,186	\$79,547	\$0	(\$3,042)	(\$60,126)	\$0	\$0				\$2,968,564
15 16		tr, Main Line Industrial M&R	\$46,191	\$2,161 \$0	\$0	\$0	\$0 \$0	\$0 \$0	\$0 \$0				\$48,353
10		tr, Distribtn Industrial M&R	\$49,369	• •	\$0 \$0	\$0 \$0		\$0 \$0	\$0 \$0			¢4.050.000	\$49,369
		tr, Other Distribution Sys	(\$320,452)	\$79,682			(\$1,958)	\$0 \$0	\$0 \$0			\$1,052,289	\$809,562
18		tr, Other Dist Sys, Leased	\$3,969,262	\$146,709 \$2,922	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0				\$4,115,971
19 20	37580 St 37600 M	tr, Communication	\$367,240		\$0 \$0	50 (\$758,170)	\$0 (\$240,739)	\$0 \$0	\$0 \$0			(\$100.002)	\$370,163 \$422,380,542
20			\$417,698,687	\$5,789,767	\$0 \$0			\$0 \$0	\$0 \$0			(\$109,003)	
		lains Replacement	\$95,987,693	\$5,370,562		(\$153,457)	(\$7,239)		\$0 \$0			(\$1,983,525)	\$99,214,035
22 23		lea & Reg Sta Eq, General	\$738,879	\$30,697	\$0 \$0	\$0 (\$258.004)	(\$199)	\$0 \$0	\$0 \$0			(\$105,444)	\$663,933
23 24		lea & Reg Sta Eq, Regulating lea & Reg Sta Eq, Regulating-FMV	\$27,604,791 (\$231,767)	\$872,094 (\$12,758)	\$0 \$0	(\$258,004) \$0	(\$31,755) \$0	\$0 \$0	\$0 \$0			(\$926,376)	\$27,260,750 (\$244,525)
24 25					\$0 \$0	• •	\$0 \$0	\$0 \$0	\$0 \$0				
25 26		lea & Reg Sta Eq, Local Gas	\$381,118	\$7,909 \$0	\$0 \$0	(\$10,454) \$0	\$0 \$0	\$0 \$0	\$0 \$0				\$378,573
26		lea & Reg Sta Eq, El Flow Com	\$30,041 \$8,097,019	\$0 \$202,586	\$0 \$0		(\$2,006)	\$0 \$0	\$0 \$0				\$30,041 \$8,242,499
27		lea & Reg Sta Eq, City Gate lea & Reg Sta Eq, Exch Gas	\$522,414	\$202,586	\$0 \$0	(\$55,099) \$0	(\$2,008) \$0	\$0 \$0	\$0 \$0				\$6,242,499 \$522.681
28		lea & Reg Sta Eq, Main Line	\$131,030	\$6,591	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0				\$137,621
29 30	37920 M		\$216,089,371	\$6,728,936	\$0 \$0	ەر (\$1,510,619)		\$0 \$0	ەن \$149,818			(\$3,659)	\$219,379,613
30		iser Replacements	\$216,089,371 \$51,398,811	\$0,728,936 \$1,157,912	\$0 \$0	(\$1,510,619) \$0	(\$2,074,234) \$0	\$0 \$0	\$149,616 \$0			(\$5,618,754)	\$46,937,969
32		ervices Replaced aff Risers	\$55,244,699	\$2,524,076	\$0 \$0	(\$27,283)	(\$4,606)	\$0 \$0	\$0 \$0			(\$5,618,754)	\$57,736,886
33		•	\$104,598,370	\$5,298,867	\$0 \$0	(\$0 \$0	\$0 \$0			φυ	\$109,885,783
33 34	38100 M	ervices Replaced aff Mains	\$104,598,370 \$58,358,060	\$5,298,867 \$711,680	\$0 \$0	(\$7,089) (\$248,847)	(\$4,366) \$0	\$0 \$0	\$0 \$236			(\$1,778,697)	\$57,042,431
34		uto Meter Reading Devices	\$6,243,832	\$178,530	\$0 \$0	(\$240,047)	\$0 \$0	\$0 \$0	\$230 \$0			(\$1,770,097)	\$6,422,362
36		sustomer AMR Devices	\$49,759,516	\$1,316,486	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0				\$51,076,001
30		leter Installations	\$34,191,866	\$321,292	\$0 \$0	(\$1,239)	\$0 \$0	\$0 \$0	\$0 \$0			(\$31,871)	\$34,480,048
38		louse Regulators	\$36,040,180	\$613,705	\$0 \$0	(\$1,239)	(\$602)	\$0 \$0	\$0 \$0			(\$632,957)	\$36,017,596
39		ouse Regulators Replaced	\$298.659	\$6.479	\$0 \$0	(\$2,730) \$0	(\$002) \$0	\$0 \$0	\$0 \$0			(4032,937)	\$305.138
40		ouse Regulator Installation	\$23,106,398	\$259,911	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0				\$23,366,309
40		ndustrial Mea & Reg Sta Eq	\$3,786,676	\$135,696	\$0 \$0	(\$49,987)	(\$21,739)	\$0 \$0	\$0 \$0				\$3,850,645
41		oustrial mea & Reg Sta Eq	\$252.116	\$135,690	\$0 \$0	(\$49,987) \$0	(\$21,739) \$0	\$0 \$0	\$0 \$0				\$252,116
42		other Equip, Odorization	\$73,837	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0				\$252,116
43		ther Equip, Telephone	\$5,195,580	\$2,615	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0			(\$125,247)	\$5,072,948
44		ther Equip, Radio	\$9,868,595	\$12,033	\$0 \$0	(\$6,005)	\$0 \$0	\$0 \$0	\$0 \$0			(\$621,577)	\$9,253,046
45 46		other Equip, Oth Communicatn	\$9,000,595 \$1,055,941	\$12,033	\$0 \$0	(\$6,005) (\$1,495)	\$0 \$0	\$0 \$0	\$0 \$0			(\$021,377)	\$9,253,046
40		other Equip, Telemetering	\$5,556,485	\$193,758	\$0 \$0	(\$6,503)	(\$62)	\$0 \$0	\$0 \$0			(\$143,506)	\$5,600,172
47		other Equip, Customr Info Srv	\$581,704	\$193,738 \$0	\$0 \$0	(\$0,503) \$0	(\$02) \$0	\$0 \$0	\$0 \$0			(\$140,000)	\$581,704
40		eserve Adjustment for Capitalized Fina		4 0	4 0	φU	4 0	4 0	4 0			(\$605,641)	(\$605,641)
		, ,										(4003,041)	
50	TO	OTAL DISTRIBUTION PLANT	\$1,214,052,762	\$32,049,919	\$0	(\$3,100,027)	(\$2,452,419)	\$0	\$150,054				\$1,235,522,648

SCHEDULE B-3.3 PAGE 2 OF 3

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR DEPRECIATION RESERVE ACCRUALS, RETIREMENTS, AND TRANSFERS FROM JANUARY 1, 2021 - MARCH 31, 2021

WORK PAPER REFERENCE NO(S): WORK PAPER REFERENCE NO(S): WPB 3.3a & 3.3b

LINE	ACCT.		BEGINNING				COST OF				TRANSFERS/RECLA	SSIFICATIONS	
NO.	NO.	DESCRIPTION	BALANCE	ACCRUALS	SALVAGE	RETIREMENTS	REMOVAL	GAIN/LOSS	AMOUNT	EXPLANATION OF TRANSFERS	OTHER ACCTS. INVOLVED	STAFF ADJUSTMENTS	ENDING BALANCE
-			\$	\$	\$	\$	\$	\$	\$				\$
			(a)	(b)	(c)	(d)	(e)	(f)	(g)				(h = a+b+c+d+e+f+g)
1		GENERAL PLANT											
2	39071	Str, Arena Off, Impv Leas Prp	\$4,639,403	\$189,844	\$0	\$0	\$0	\$0	\$0			(\$33,267)	\$4,795,981
3	39110	OF&E, Unspecified	\$5,945,032	\$215,385	\$0	(\$11,795)	\$0	\$0	\$0			(\$58,959)	\$6,089,664
4	39111	OF&E, Data Handling Equip	\$169,186	\$1,422	\$0	(\$170,632)	\$0	\$0	\$0				(\$24)
5	39112	OF&E, Information Systems	\$4,248,648	\$357,211	\$0	(\$482,469)	\$0	\$0	\$0				\$4,123,391
6	39220	Trans Eq, Trailers > \$1,000	\$696,908	\$19,483	\$0	\$0	\$0	\$0	\$0			(\$147,107)	\$569,284
7	39221	Trans Eq, Trailers \$1000 or <	\$3,389	\$0	\$0	\$0	\$0	\$0	\$0				\$3,389
8	39300	Stores Equipment	\$209,664	\$2,261	\$0	(\$9,565)	\$0	\$0	\$0			(\$45,088)	\$157,272
9	39410	Tools, Garage & Service Eq	\$19,449	\$719	\$0	(\$492)	\$0	\$0	\$0			(\$14,573)	\$5,104
10	39411	Tools, CNG Equip, Stationary	(\$81,195)	\$0	\$0	\$0	\$0	\$0	\$0			(\$9,500)	(\$90,695)
11	39420	Tools, Shop Equipment	\$66,304	\$1,012	\$0	\$0	\$0	\$0	\$0			(\$13,373)	\$53,943
12	39430	Tools, Tools and Other	\$11,761,623	\$331,753	\$0	(\$23,140)	\$0	\$0	\$0			(\$1,234,877)	\$10,835,359
13	39500	Laboratory Equipment, Gas	\$28,910	\$482	\$0	\$0	\$0	\$0	\$0			(\$27,615)	\$1,777
14	39600	Power Operated Equipment	\$1,270,410	\$0	\$0	\$0	\$15,723	\$0	\$0				\$1,286,134
15	39800	Miscellaneous Equipment	\$130,106	\$1,970	\$0	\$0	\$0	\$0	\$0			(\$23,524)	\$108,552
16		Reserve Adjustment for Capitalized Financial Inc	centives									(\$9,217)	(\$9,217)
17		TOTAL GENERAL PLANT	\$29,107,839	\$1,121,544	\$0	(\$698,092)	\$15,723	\$0	\$0	\$0	\$0		\$27,929,914
18		RETIREMENT WORK IN PROGRESS					(\$3,278,859)						(\$3,278,859)
19		TOTAL PLANT	\$1,276,565,807	\$36,076,755	\$0	(\$5,314,543)	(\$5,715,555)	\$0	\$150,054	\$0	\$0		\$1,294,105,782

SCHEDULE B-3.3 PAGE 3 OF 3

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ALLOWANCE FOR WORKING CAPITAL AS OF MARCH 31, 2021

WORK PAPER REFERENCE NO(S):

SCHEDULE B-5 PAGE 1 OF 1

LINE DESCRIPTION REVENUES & EXPENSES	DAYS LAG	WEIGHTED DOLLAR DAYS	WORKING CAPITAL REQUIREMENTS
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The Company has not included Allowance For Working Capital in this Rate Case.

WORK PAPER REFERENCE NO(S).: Staff Schedule WPB-6

SCHEDULE B-6 PAGE 1 OF 5

LINE NO.		DESCRIPTION	TOTAL COMPANY	ADJUSTMENTS	ADJUSTED JURISDICTION
NO.	NUMBER		(A)	(B)	(C)
			\$000	\$000	\$000
1	182, 186, 252 & 254	Other Items	430,266	(27,592)	402,674
2	190, 282 & 283	Deferred Taxes	(513,507)	2,772	(510,736)
3	25405000	Regulatory Liability - Inc Tax	(234,159)	0	(234,159)
4	25500000	Investment Tax Credit-ITC	(5,361)	5,361	0
5		TOTAL OTHER RATE BASE	(322,761)	(19,459)	(342,221)
	Note:				

(1) Total Company is 100% Jurisdictional.

WORK PAPER REFERENCE NO(S).: Staff Schedule WPB-6

SCHEDULE B-6 PAGE 2 OF 5

LINE NO.	ACCOUNT NUMBER	DESCRIPTION	TOTAL COMPANY	ADJUSTMENTS	ADJUSTED JURISDICTION
			(A)	(B)	(C)
			\$000	\$000	\$000
		Other Items			
1	18233320,18235320	Deferred Property Tax	2,725	0.00	2,725
2	18230290,18235500	Deferred Depreciation	6,640	0.00	6,640
3	18235580,18230400	Deferred PISCC	131	0.00	131
4	18230410,18235585	Deferred PISCC-Rider IRP	83,248	0.00	83,248
5	18230300,18235510	IRP Accum Depr	35,010	0.00	35,010
6	18233330,18235330	Deferred Property Tax-IRP	14,943	0.00	14,943
7	18233540,18235586	Deferred PISCC-CEP	108,441	(43.55)	108,397
8	18233350,18235505	Deferred Depreciation-CEP	81,677	0.00	81,677
9	18233550,18235340	Deferred Property Tax-CEP	43,674	0.00	43,674
10	18235322	Deferred Property Tax - 2008	3,247	0.00	3,247
11	18235502	Deferred Depreciation - 2008	7,042	0.00	7,042
12	18235800	NiFit	6,544	0.00	6,544
13	18235105	NC Reg Asset OPEB Regulatory	2,174	0.00	2,174
14	25405150	Reg Liab NC-OPEB Tracker	(51,574)	0.00	(51,574)
15	18235109	NC Reg Asset Retire Income NC	70,010	0.00	70,010
16	18235104	NC Reg Asset Environmental	11,288	(11,288.00)	0
17	18235530	COVID	5,170	(5,170.00)	0
18	18600400	Customer Advances for Construction	20,710	0.00	20,710
19	25200000	Customer Advances for Construction	(20,834)	0.00	(20,834)
20	25300000	Customer Deposits	0	(11,090.58)	(11,091)
21		TOTAL OTHER	430,266	(27,592.13)	402,674

Note: (1) Total Company is 100% Jurisdictional.

WORK PAPER REFERENCE NO(S).: Staff Schedule WPB-6

SCHEDULE B-6 PAGE 3 OF 5

LINE NO.	ACCOUNT	DESCRIPTION	TOTAL COMPANY	ADJUSTMENTS	ADJUSTED JURISDICTION
NO.	NUMBER		(A)	(B)	(C)
			\$000	\$000	\$000
		Account 190 - Deferred Income Taxes			
1	19005000	Federal NOL	61,406	0	61,406
2	19005000	Inventory Capitalization	3,153	0	3,153
3	19005000	Custmr Advn for Constr NonCur	4,375	0	4,375
4	19005000	NC Reg Asset OPEB Regulatory	(456)	0	(456)
5	19005000	Reg Liab NC-OPEB Tracker	10,830	0	10,830
6	19005000	NC Reg Asset Envir Non-Curr	(2,371)	2,371	0
7	19005000	Accum Provisions FAS 112	330	0	330
8	19005000	Accd Liab-ST FAS112	86	0	86
9	19005000	VEBA	10,979	0	10,979
10	19005000	Accum Prov-Banked Vacation	683	0	683
11	19005000	Accd Liab-Vacation Pay PY	1,976	0	1,976
12	19005000	Accd Liab-Vacation Pay CY	555	0	555
13	19005000	Accd Liab-Profit Sharing	58	0	58
14	19005000	Accd Liab-Severance	80	0	80
15	19005000	Accd Liab-Incentive Compostion	309	0	309
16	19005000	Stock Comp LTIP - Tax	135	0	135
17	19005000	Accd Liab-Environmental	219	0	219
18	19005000	Def Credits-Environmental	5,099	0	5,099
19	19005000	Bad Debts	3,022	0	3,022
20	19005000	Reg Asset Other	(8)	0	(8)
21	19005000	Reg Liab Curr-OFS Cust Proceed	18,320	0	18,320
22	19005000	Reg Liab Curr-Cap Rel Proceeds	2,865	0	2,865
23	19005000	Reg Liab Curr-OFS Proceeds	27,923	0	27,923
24	19005000	Reg Liab Curr-OFS Cap Rel Cr	(30,788)	0	(30,788)
25	19005000	Reg Liab Curr-Settlement Rev	(17,155)	0	(17,155)
26	19005000	Reg Liab Curr-Logo Fee for SCO	4	0	4
27	19005000	Reg Liab Supplier deposits SCO	505	0	505
28	19005000	Reg Liab NC-Nontrad Sales	625	0	625
29	19005000	Reg Liab NC-BA Lost Credits	250	0 0	250 1.347
30	19005000	Reg Liab NC Supplier depos SCO	1,347 764	0	764
31	19005000	Reg Liab NC-COH Infr Dev Ridr	764 2	0	
32 33	19005000	Accd Liab-Legal Charitable Contributions	2 150	0	2 150
33 34	19005000 19005000	Oblig Operating Leas-NC Issuan	150	0	150
34 35	19005000	Oblig Operating Leas NC Transf	(36)	0	(36)
35 36	19005000	Oblig Operating Lease Curr-Add	(36) 99	0	(36)
30 37	19005000	Oblig Operating Lease Curr-Pay	(222)	0	(222)
38	19005000	Oblig Operating Lease Curr-Trn	(222)	0	(222)
39	19005000	Oblig Operating Lease Cull-Th		0	795
40	19005000	Oblig Operating Lease Curr-BB	481	0	481
40	19005000	Other Business Tax Credit	401	0	401
42	19005000	R&D Tax Credit	480	39	519
42	19003000	Subtotal Account 190	106,908	2,409	109,317
43	19005000	NC Reg Asset FAS 158 OPEB	(835)	0	(835)
44	19005000	Accum Provisions OPEB	(6,192)	0	(6,192)
		Subtotal Account 190	(7,026)	0	(7,026)
45	19005400	ADIT FIT Gross Up	49,173	0	49,173
46		Total Account 190	\$ 149,055	\$ 2,409	\$ 151,464

Note: (1) Total Company is 100% Jurisdictional.

WORK PAPER REFERENCE NO(S) .:

Staff Schedule WPB-6

SCHEDULE B-6 PAGE 4 OF 5

LINE NO.	ACCOUNT NUMBER	DESCRIPTION	TOTAL COMPANY	ADJUSTMENTS	ADJUSTED JURISDICTION
NO.	NOMBER		(A)	(B)	(C)
			\$000	\$000	\$000
		Account 282 - Deferred Income Taxes	(= (= _ = = =)	(2)	
47	28205000	FAS 109 Property	(519,607)	(2)	(519,609)
48	28205000	FAS 109 Property Miscellaneous	185	0	185
49	28205000	FAS 109 Fed Gross Up	(263)	(43)	(306)
50 51	28205000	Builder Incentives	0 688	0 (688)	0
52	28205000	Federal Benefit of FAS 109 Property State Total Account 282	\$ (518,998)	\$ (732) \$	(519,730)
52		Total Account 202	φ (510,990)	φ (732) φ	(519,730)
53		Account 283 - Deferred Income Taxes			
54	28305000	Reg Asset Def Property Tax	(22)	0	(22)
55	28305000	NC Reg Asset Def Property Tax	(550)	0	(550)
56	28305000	Reg Asset Deferrd Depreciation	(53)	0	(53)
57	28305000	NC Reg Asset Def Depreciation	(1,341)	0	(1,341)
58	28305000	Reg Asset PISCC	(5)	0	(5)
59	28305000	NC Reg Asset PISCC	(22)	0	(22)
60	28305000	Reg Asset Def PISCC-Rider IRP	(540)	0	(540)
61	28305000	NC Reg Asset PISCC-Rider IRP	(16,942)	0	(16,942)
62	28305000	Reg Asset IRP Accum Depr	(271)	0	(271)
63	28305000	NC Reg Asset IRP Accum Depr	(7,081)	0	(7,081)
64	28305000	Reg Asset Def Property Tax-IRP	(86)	0	(86)
65	28305000	NC Reg Asset Def Prop Tax-IRP	(3,052)	0	(3,052)
66	28305000	Reg Asset-Def PISCC-CEP RIDER	(797)	9	(788)
67	28305000	NC Reg Asset Def PISCC - CEP	(21,976)	0	(21,976)
68	28305000	Reg Asset DEF DEPR - CEP	(600)	0	(600)
69	28305000	NC Reg Asset Deferred Depr CEP	(16,552)	0	(16,552)
70	28305000	Reg Asset-Def Prop Tx-CEP RIDR	(325)	0	(325)
71	28305000	Reg Asset Def Property Tax-CEP	(8,846)	0	(8,846)
72	28305000	NC Reg Asset NiFiT_WMS Impl Co	(1,374)	0	(1,374)
73	28305000	NC Reg Asset Retire Income NC	(14,702)	0	(14,702)
74	28305000	NC Reg Asset COVID Costs	(1,086)	1,086	0
75	28305000	NC Reg Asset Def Prop Tax 09	(682)	0	(682)
76	28305000	NC Reg Asset Def Depr 09	(1,479)	0	(1,479)
77	28305000	Reg Asset Unbill-Recoveries	21	0	21
78	28305000	NC Reg Asset Bad Debt Tracker	(2,924)	0	(2,924)
79	28305000	Reg Asset Riser Project	(24)	0	(24)
80	28305000	NC Reg Asset Riser Project	(55)	0	(55)
81	28305000	Misc Assets-Property Tax	(12,033)	0	(12,033)
82	28305000	Accrd Property Tax	23,461	0	23,461
83	28305000	NC Payroll Taxes Cares Act	491	0	491
84	28305000	Reg Asset Weatherization	(27)	0	(27)
85	28305000	Reg Asset Bad Debt Tracker	1,211	0	1,211
86 87	28305000	Reg Asset DSM Expenses-GAS	(6,023)	0	(6,023)
87 88	28305000	Reg Asset Def Int Exp-GCR	(0)	0	(0)
89	28305000 28305000	NC Reg Asset Rate Case Non-Cur NC Reg Asset Def Depr Cap Lse	(33) (3,305)	0	(33) (3,305)
90	28305000	NC Reg Asset DSM Expenses	(3,303)	0	(3,303)
90 91		NC Reg Asset-PSP	(30,658)	0	(30,658)
91	28305000 28305000	NC Reg Asset - PSP Def Interes	(510)	0	(50,658)
92 93	28305000	NC Reg Asset - PSP Def Interes	(203)	0	(203)
93 94	28305000	Right of Use Asset-Additions	(203)	0	(203)
94 95	28305000	Right of Use Asset-Amort	(99)	0	(99)
95 96	28305000	Right of Use Asset-Retirements	107	0	107
96 97	28305000	Right of Use Asset-Beg Bal	(1,248)	0	(1,248)
51	20000000	Subtotal Account 283	(130,382)	1,095	(129,287)

Note:

(1) Total Company is 100% Jurisdictional.

WORK PAPER REFERENCE NO(S).: Staff Schedule WPB-6

SCHEDULE B-6 PAGE 5 OF 5

LINE NO.		DESCRIPTION	c	TOTAL COMPANY	ADJUSTMENTS	JURISDICTION
				(A)	(B)	(C)
				\$000	\$000	\$000
98	28305000	Funds Held in Trust		(3,393)	0	(3,393)
99	28305000	Reg Asset PIP-Current		1,583	0	1,583
100	28305000	Reg Liab Curr-PIP Asset Recls		0	0	0
101	28305000	NC Reg Asset FAS158 Pension		(11,397)	0	(11,397)
102	28305000	Accum Provisions Pen Cost Qual		0	0	0
103	28305000	Accum Prov LT PenCost Non-Qual		16	0	16
104	28305000	Accd Liability - Pension ST-NQ		1	0	1
105	28305000	Reg Liab NC-FAS158 NQ Pension		6	0	6
		Subtotal Account 283		(13,183)	0	(13,183)
106		Total Account 283	\$	(143,565)	\$ 1,095	\$ (142,470)
107		Total Deferred Taxes	\$	(513,507)	\$ 2,772	\$ (510,736)
108	25500000	Account 255- Investment Tax Credit Investment Tax Credit-ITC	\$	(5,361)	\$ 5,361	\$ -

Note:

(1) Total Company is 100% Jurisdictional.

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR JURISDICTIONAL PROFORMA INCOME STATEMENT FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-1a

SCHEDULE C-1 PAGE 1 OF 1

LINE NO.	DESCRIPTION	ADJUSTED REVENUES & EXPENSES	PROPOSED INCREASE	PROFORMA REVENUES & EXPENSES
1	OPERATING REVENUES	\$000	\$000	\$000
2	BASE REVENUES [1]	787,764	35,197	822,962
3	GAS COST REVENUES	42,367	0	42,367
4	OTHER OPERATING REVENUES	20,094	0	20,094
5	TOTAL OPERATING REVENUES	850,225	35,197	885,423
6	OPERATING EXPENSES			
7	COST OF GAS PURCHASED	42,367	0	42,367
8	OTHER OPERATION AND MAINTENANCE	327,611	0	327,611
9	TOTAL OPERATION AND MAINTENANCE	369,978	0	369,978
10	DEPRECIATION AND AMORTIZATION	161,600	0	161,600
11	TAXES, OTHER THAN INCOME	85,436	0	85,436
12	INCOME TAXES-STATE	0	0	0
13	INCOME TAXES-FEDERAL	22,756	46,499	69,255
14	TOTAL OPERATING EXPENSES	639,770	46,499	686,269
15	NET OPERATING INCOME	210,455	(11,302)	199,154
16	RATE BASE	3,463,095		3,463,095
17	RATE OF RETURN	6.08%		5.75%

Note:

[1] Base Revenue is inclusive of annualized base revenue and annualized revenues for the

Regulatory Assessment Rider (RAR), Infrastructure Replacement Program (IRP) Rider and

Capital Expenditure Program (CEP) Rider. A breakdown of the revenue is shown on Schedule C-3.1.

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR JURISDICTIONAL ADJUSTED TEST YEAR OPERATING INCOME FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

SCHEDULE C-2 PAGE 1 OF 1

LINE	DESCRIPTION	UNADJUSTED REVENUE &	ADJUSTMENTS	ADJUSTED REVENUE &
NO.	DESCRIPTION	EXPENSES	ADJUSTMENTS	EXPENSES
<u> </u>		\$000	\$000	\$000
		\$600	φυυυ	φυυυ
	OPERATING REVENUES			
1	BASE REVENUES [1]	767,772	19,993	787,764
2	UNBILLED REVENUES	(8,876)	8,876	0
3	EXPENSE RIDER / TRACKER REVENUES [2]	119,377	(119,377)	0
4	GAS COST REVENUES	119,457	(77,090)	42,367
5	OTHER OPERATING REVENUES	58,945	(38,851)	20,094
6	TOTAL OPERATING REVENUES	1,056,674	(206,449)	850,225
	OPERATING EXPENSES			
7	COST OF GAS PURCHASED	152,235	(109,868)	42,367
8	OTHER OPERATION AND MAINTENANCE	372,222	(44,611)	327,611
9	TOTAL OPERATION AND MAINTENANCE	524,457	(154,479)	369,978
10	DEPRECIATION AND AMORTIZATION	150,284	11,316	161,600
11	TAXES, OTHER THAN INCOME	154,273	(68,837)	85,436
12	INCOME TAXES-STATE	216	(216)	0
13	INCOME TAXES-FEDERAL	24,739	(1,983)	22,756
14	TOTAL OPERATING EXPENSES	853,969	(214,199)	639,770
15	NET OPERATING INCOME	202,705	7,750	210,455

Notes:

[1] Base Revenue is inclusive of unadjusted and annualized base revenue and annualized revenues for the Regulatory

Assessment Rider (RAR), Infrastructure Replacement Program (IRP) Rider and Capital Expenditure Program (CEP) Rider.

A breakdown of the revenue is shown on Schedule C-3.1.

[2] Unadjusted test year Expense Rider / Tracker Revenues includes the following:

1) Excise Tax Rider,

2) Gross Receipts Tax Rider (Distribution Tax),

3) Uncollectible Expense Rider (Bad Debt Uncollectible),

4) Demand Side Management Rider,

5) Percentage of Income Payment Plan (PIPP) Rider, and

6) Infrastructure Development Rider (IDR).

WORK PAPER REFERENCE NO(S):

SCHEDULE C-3 PAGE 1 OF 6

LINE NO.	TITLE OF ACCOUNT	TOTAL SCHEDULE	ANNUALIZED BASE, RAR, IRP, & CEP REVENUE	ANNUALIZED DSS GAS COST REVENUE	ELIMINATION OF NON-TRADITIONAL REVENUE	ELIMINATION OF O&M EXPENSE RIDER REVENUE	ELIMINATION OF TAXES OTHER THAN INCOME EXPENSE RIDER REVENUE	ELIMINATION OF INFRASTRUCTURE DEVELOPMENT RIDER BASE REVENUE	ELIMINATION OF INFRASTRUCTURE DEVELOPMENT RIDER OTHER GAS DEPARTMENT REVENUE
		C-3 \$000	C-3.1 \$000	C-3.2 \$000	C-3.3 \$000	C-3.4 \$000	C-3.5 \$000	C-3.6 \$000	C-3.7 \$000
1	OPERATING REVENUES	<i>Q</i> OOO	<i>Q</i> 000	\$ 000	\$ 000	\$000	\$ 000	\$000	\$ 000
2	BASE REVENUE	(90,508)	18,853			(44,696)	(74,501)	(180)	
3	TOTAL BASE RATE REVENUE ADJUSTMENT	(90,508)	18,853	0	0	(44,696)	(74,501)	(180)	0
4 5	GAS COST REVENUE OTHER REVENUE ADJUSTMENTS	(77,090) (38,851)		(77,090)	(38,523)				(328)
6	TOTAL OPERATING REVENUES	(206,449)	18,853	(77,090)	(38,523)	(44,696)	(74,501)	(180)	(328)
7	OPERATING EXPENSES								
8 9	COST OF GAS PURCHASED OTHER OPERATION AND MAINTENANCE	(109,868) (44,611)							
10	TOTAL OPERATION AND MAINTENANCE	(154,479)	0	0	0	0	0	0	00
11	DEPRECIATION AND AMORTIZATION	11,316	0	0	0	0	0	0	0
12 13 14 15	TAXES, OTHER THAN INCOME PAYROLL OTHER TAXES TOTAL TAXES OTHER THAN INCOME	(612) (68,225) (68,837)	0	0	0 0 0	0	0	0	0 0 0
16	TOTAL OPER. EXPENSE BEFORE TAXES	(212,000)	0	0	0	0	0	0	0
17	OPERATING INCOME BEFORE TAXES	5,551	18,853	(77,090)	(38,523)	(44,696)	(74,501)	(180)	(328)
18	INCOME TAXES								
19 20	FEDERAL INCOME TAX STATE INCOME TAX	(1,983) (216)	3,959 0	(16,189)	(8,090)	(9,386)	(15,645)	(38) 0	(69) 0
20	TOTAL INCOME TAX	(2,199)	3,959	(16,189)	(8,090)	(9,386)	(15,645)	(38)	(69)
22	TOTAL OPER. EXPENSE AND TAXES	(214,199)	3,959	(16,189)	(8,090)	(9,386)	(15,645)	(38)	(69)
23	NET OPERATING INCOME	7,750	14,894	(60,901)	(30,433)	(35,310)	(58,856)	(142)	(259)

WORK PAPER REFERENCE NO(S):

SCHEDULE C-3 PAGE 2 OF 6

LINE NO.	TITLE OF ACCOUNT	ELIMINATION OF UNBILLED REVENUE	ELIMINATION OF NON- JURISDICTIONAL REVENUE	ANNUALIZED GAS COST EXPENSE	ELIMINATION OF FUEL USED IN COMPANY OPERATIONS O&M EXPENSE	ELIMINATION OF O&M TRACKER EXPENSES	O&M EXPENSE EXCLUSIONS	ANNUALIZED LABOR EXPENSE
1	OPERATING REVENUES	C-3.8 \$000	C-3.9 \$000	C-3.10 \$000	C-3.11 \$000	C-3.12 \$000	C-3.13 \$000	C-3.14 \$000
2 3	BASE REVENUE TOTAL BASE RATE REVENUE ADJUSTMENT	<u>8,876</u> 8,876	<u>0</u>	0	0	0	0	0
4 5	GAS COST REVENUE OTHER REVENUE ADJUSTMENTS							
6	TOTAL OPERATING REVENUES	8,876	0	0	00	0	0	0
7	OPERATING EXPENSES							
8 9	COST OF GAS PURCHASED OTHER OPERATION AND MAINTENANCE			(109,868)	(438)	(49,764)	(712)	308
10	TOTAL OPERATION AND MAINTENANCE	0	0	(109,868)	(438)	(49,764)	(712)	308
11	DEPRECIATION AND AMORTIZATION	0	0	0	0	0	0	0
12 13 14 15	TAXES, OTHER THAN INCOME PAYROLL OTHER TAXES TOTAL TAXES OTHER THAN INCOME	0	0 0 0	0 0 0	0 0 0	0	0 0 0	0 0 0
16	TOTAL OPER. EXPENSE BEFORE TAXES	0	0	(109,868)	(438)	(49,764)	(712)	308
17	OPERATING INCOME BEFORE TAXES	8,876	0	109,868	438	49,764	712	(308)
18 19 20 21	INCOME TAXES FEDERAL INCOME TAX STATE INCOME TAX TOTAL INCOME TAX	1,864 0 1,864	0 0 0	23,072 0 23,072	92 0 92	10,450 0 10,450	151 0 151	(65) 0 (65)
22	TOTAL OPER. EXPENSE AND TAXES	1,864	0	(86,796)	(346)	(39,314)	(561)	243
23	NET OPERATING INCOME	7,012	0	86,796	346	39,314	561	(243)

WORK PAPER REFERENCE NO(S):

SCHEDULE C-3 PAGE 3 OF 6

LINE NO.	TITLE OF ACCOUNT	NORMALIZED INCENTIVE COMPENSATION EXPENSE	ANNUALIZED EMPLOYEE BENEFITS EXPENSE	ADJUSTMENT FOR COLUMBIA HEADCOUNT COMPLEMENT	ANNUALIZED CORPORATE INSURANCE EXPENSE	NORMALIZED UNCOLLECTIBLE ACCOUNTS EXPENSE	SAFETY OPERATIONS O&M EXPENSE ADJUSTMENTS	NISOURCE CORPORATE SERVICES O&M EXPENSE ADJUSTMENT
		C-3.15 \$000	C-3.16 \$000	C-3.17 \$000	C-3.18 \$000	C-3.19 \$000	C-3.20 \$000	C-3.21 \$000
1	OPERATING REVENUES	• • • •	••••	••••	• • • •	• • • •	• • • •	••••
2	BASE REVENUE							
3	TOTAL BASE RATE REVENUE ADJUSTMENT	0	0	0	0	0	0	0
4 5	GAS COST REVENUE OTHER REVENUE ADJUSTMENTS							
6	TOTAL OPERATING REVENUES	0	00	00	0	0	0	0
7	OPERATING EXPENSES							
8	COST OF GAS PURCHASED	<i>(</i>)		_				()
9	OTHER OPERATION AND MAINTENANCE	(2,842)	(7,946)	0	(462)	338	0	(17,995)
10	TOTAL OPERATION AND MAINTENANCE	(2,842)	(7,946)	0	(462)	338	0	(17,995)
11	DEPRECIATION AND AMORTIZATION	0	0	0	0	0	0	0
12	TAXES, OTHER THAN INCOME							
13	PAYROLL	0	0	0	0	0	0	0
14 15	OTHER TAXES TOTAL TAXES OTHER THAN INCOME	0	0	0	0	0	0	0
15	TOTAL TAXES OTHER THAN INCOME	0	0	0	0	0		0
16	TOTAL OPER. EXPENSE BEFORE TAXES	(2,842)	(7,946)	0	(462)	338	0	(17,995)
17	OPERATING INCOME BEFORE TAXES	2,842	7,946	0	462	(338)	(0)	17,995
18	INCOME TAXES							
19	FEDERAL INCOME TAX	597	1,669	0	97	(71)	0	3,779
20	STATE INCOME TAX	0	0	0	0	0	0	0
21	TOTAL INCOME TAX	597	1,669	0	97	(71)	0	3,779
22	TOTAL OPER. EXPENSE AND TAXES	(2,245)	(6,277)	0_	(365)	267	0	(14,216)
23	NET OPERATING INCOME	2,245	6,277	0	365	(267)	(0)	14,216

WORK PAPER REFERENCE NO(S):

SCHEDULE C-3 PAGE 4 OF 6

LINE NO.	TITLE OF ACCOUNT	RATE CASE EXPENSE ADJUSTMENT	NIFIT DEFERRAL AMORTIZATION	PENSION AND OPEB EXPENSE DEFERRAL AMORTIZATION	ENVIRONMENTAL REMEDIATION EXPENSE DEFERRAL AMORTIZATION	PIPELINE SAFETY PROGRAM (PSP) EXPENSE DEFERRAL AMORTIZATION	COVID-19 LATE PAYMENT REVENUE AND INCREMENTAL 0&M EXPENSE DEFERRAL AMORTIZATION
		C-3.22 \$000	C-3.23 \$000	C-3.24 \$000	C-3.25 \$000	C-3.26 \$000	C-3.27 \$000
1	OPERATING REVENUES						
2 3	BASE REVENUE TOTAL BASE RATE REVENUE ADJUSTMENT	0	0	0	0	0	0
4 5	GAS COST REVENUE OTHER REVENUE ADJUSTMENTS						
6	TOTAL OPERATING REVENUES	00	0	0	0	0	0
7	OPERATING EXPENSES						
8 9	COST OF GAS PURCHASED OTHER OPERATION AND MAINTENANCE	326	1,309	3,687	0	29,907	0
10	TOTAL OPERATION AND MAINTENANCE	326	1,309	3,687	0	29,907	0
11	DEPRECIATION AND AMORTIZATION	0	0	0	0	0	0
12 13	TAXES, OTHER THAN INCOME PAYROLL	0	0	0	0	0	0
13	OTHER TAXES	0	0	0	0	0	0
15	TOTAL TAXES OTHER THAN INCOME	0	0	0	0	0	0
16	TOTAL OPER. EXPENSE BEFORE TAXES	326	1,309	3,687	0	29,907	0
17	OPERATING INCOME BEFORE TAXES	(326)	(1,309)	(3,687)	0	(29,907)	0
18	INCOME TAXES						
19	FEDERAL INCOME TAX	(68)	(275)	(774)	0	(6,280)	0
20	STATE INCOME TAX	0	0	0	0	0	0
21	TOTAL INCOME TAX	(68)	(275)	(774)	0	(6,280)	0
22	TOTAL OPER. EXPENSE AND TAXES	258	1,034	2,913	0	23,627	0
23	NET OPERATING INCOME	(258)	(1,034)	(2,913)	0	(23,627)	0

WORK PAPER REFERENCE NO(S):

SCHEDULE C-3 PAGE 5 OF 6

LINE NO.	TITLE OF ACCOUNT	DEPRECIATION AND AMORTIZATION EXPENSE ADJUSTMENT	POST IN-SERVICE CARRYING CHARGES AMORTIZATION	PAYROLL TAXES ADJUSTMENT	PROPERTY TAX ADJUSTMENT	ELIMINATION OF STATE INCOME TAX EXPENSE	ELIMINATION OF DISTRIBUTION AND EXCISE TAX EXPENSE	PUCO & OCC TAX ADJUSTMENT	FEDERAL STATUTORY DEDUCTIONS ADJUSTMENT
1	OPERATING REVENUES	C-3.28 \$000	C-3.29 \$000	C-3.30 \$000	C-3.31 \$000	C-3.32 \$000	C-3.33 \$000	C-3.34 \$000	C-3.35 \$000
2 3	BASE REVENUE TOTAL BASE RATE REVENUE ADJUSTMENT	0	0	0	0	0	0	0	0
4 5	GAS COST REVENUE OTHER REVENUE ADJUSTMENTS								
6	TOTAL OPERATING REVENUES	0	0	0	0	0	0	0	0
7	OPERATING EXPENSES								
8 9	COST OF GAS PURCHASED OTHER OPERATION AND MAINTENANCE	0	0	0	0	0	0	0	0
10	TOTAL OPERATION AND MAINTENANCE	0	0	0	0	0	0	0	0
11	DEPRECIATION AND AMORTIZATION	11,740	(424)	0	0	0	0	0	0
12 13 14 15	TAXES, OTHER THAN INCOME PAYROLL OTHER TAXES TOTAL TAXES OTHER THAN INCOME	0 0 0	0 0 0	(612) 0 (612)	0 4,843 4,843	0 0 0	0 (73,586) (73,586)	0 <u>518</u> 518	0 0 0
16	TOTAL OPER. EXPENSE BEFORE TAXES	11,740	(424)	(612)	4,843	0	(73,586)	518	0
17	OPERATING INCOME BEFORE TAXES	(11,740)	424	612	(4,843)	0	73,586	(518)	0
18 19 20 21	INCOME TAXES FEDERAL INCOME TAX STATE INCOME TAX TOTAL INCOME TAX	(2,465) 0 (2,465)	89 0 89	128 0 128	(1,017) 0 (1,017)	46 (216) (170)	15,453 0 15,453	(109) 0 (109)	(3,195) 0 (3,195)
22	TOTAL OPER. EXPENSE AND TAXES	9,274	(335)	(484)	3,826	(170)	(58,133)	409	(3,195)
23	NET OPERATING INCOME	(9,274)	335	484	(3,826)	170	58,133	(409)	3,195

WORK PAPER REFERENCE NO(S):

SCHEDULE C-3 PAGE 6 OF 6

LINE NO.	TITLE OF ACCOUNT	ADJUSTMENT TO OTHER REVENUES	ADJUSTMENT IN INTEREST EXPENSE ON CUSTOMER DEPOSITS	OUT OF PERIOD EXPENSE ADJUSTMENT
1	OPERATING REVENUES	C-3.36 \$000	C-3.37 \$000	C-3.38 \$000
2 3	BASE REVENUE TOTAL BASE RATE REVENUE ADJUSTMENT	<u> </u>	0	0
4 5	GAS COST REVENUE OTHER REVENUE ADJUSTMENTS			
6	TOTAL OPERATING REVENUES	1,139	0	0
7	OPERATING EXPENSES			
8 9	COST OF GAS PURCHASED OTHER OPERATION AND MAINTENANCE	0	337	(664)
10	TOTAL OPERATION AND MAINTENANCE	0	337	(664)
11	DEPRECIATION AND AMORTIZATION	0	0	0
12 13 14 15	TAXES, OTHER THAN INCOME PAYROLL OTHER TAXES TOTAL TAXES OTHER THAN INCOME	0 0 0	0 0 0	0 0 0
16	TOTAL OPER. EXPENSE BEFORE TAXES	0	337	(664)
17	OPERATING INCOME BEFORE TAXES	1,139	(337)	664
18 19 20 21	INCOME TAXES FEDERAL INCOME TAX STATE INCOME TAX TOTAL INCOME TAX	239 0 239	(71) 0 (71)	139 0 139
22	TOTAL OPER. EXPENSE AND TAXES	239	266	(525)
23	NET OPERATING INCOME	900	(266)	525

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ANNUALIZED BASE, RAR, IRP, & CEP REVENUE FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-2.1a-g, WPC-3.1a and Schedule E-4.1

SCHEDULE C-3.1 PAGE 1 OF 1

		SUPPORTING SCHEDULE	
LINE NO.	PURPOSE AND DESCRIPTION	OR WORK PAPER	AMOUNT
NO.		REFERENCE NO.	
			\$000
	PURPOSE and DESCRIPTION: To reflect the change in base, Regulatory		
	Assessment Rider (RAR), Infrastructure Replacement Plan (IRP) Rider, and Capital		
	Expenditures Plan (CEP) Rider revenues which resulted from the annualization of		
	base, RAR, IRP, & CEP revenue in the E Schedules.		
1	TEST YEAR REVENUE		
2	TEST YEAR BASE REVENUE	WPC-2.1a-g	390,848
3	TEST YEAR RAR REVENUE	WPC-2.1a-g	209
4	TEST YEAR IRP REVENUE	WPC-2.1a-g	261,930
5	TEST YEAR CEP REVENUE	WPC-2.1a-g	114,785
6	TOTAL TEST YEAR BASE, RAR, IRP, & CEP REVENUE		767,772
7	BASE REVENUE-20 YEAR NORMALIZATION		
8	ANNUALIZED BASE REVENUE	Staff WPC-3.1a and Staff Schedule E-4.1	392,388
9	ANNUALIZED RAR REVENUE	Staff WPC-3.1a and Staff Schedule E-4.2	162
10	ANNUALIZED IRP REVENUE	Staff WPC-3.1a and Staff Schedule E-4.3	268,437
11	ANNUALIZED CEP REVENUE	Staff WPC-3.1a and Staff Schedule E-4.4	125,638
12	TOTAL ADJUSTED BASE, RAR, IRP, & CEP REVENUE	_	786,625
13	BASE, RAR, IRP, & CEP REVENUE ADJUSTMENT (12) - (6)	-	18,853

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ANNUALIZED DSS GAS COST REVENUE FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule C-2, WPC-2.1a-g, WPC-3.1a and Schedule E-4.1

SCHEDULE C-3.2 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
	PURPOSE and DESCRIPTION: To reflect the change in purchased gas revenues which would result from the annualization of base revenues using the most current Expected Gas Cost (EGC) rate.		\$000
1	TEST YEAR DSS GAS COST REVENUE	SCH C-2 and WPC-2.1a-g	119,457
2 3	PURCHASED GAS COST REVENUE NORMALIZED MCF SALES (DSS)	WPC-3.1a and Schedule E-4.1	9,160
4	LATEST KNOWN EXPECTED GAS COST RATE	WPC-3.1a and Schedule E-4.1	4.6250
5	ANNUALIZED DSS GAS COST REVENUE (3) x (4)		42,367
6	ANNUALIZED DSS GAS COST REVENUE ADJUSTMENT (5) - (1)		(77,090)

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ELIMINATION OF NON-TRADITIONAL REVENUE FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-2.1a-g

SCHEDULE C-3.3 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
			\$000
	PURPOSE and DESCRIPTION: To eliminate non-traditional revenue from test year data.		
1	TEST YEAR NON-TRADITIONAL REVENUE	WPC-2.1a-g	38,523
2	ELIMINATION OF NON-TRADITIONAL REVENUE		0
3	TOTAL ADJUSTMENT TO OTHER REVENUE (2) - (1)		(38,523)

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ELIMINATION OF O&M EXPENSE RIDER REVENUE FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-2.1a-g

SCHEDULE C-3.4 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
			\$000
	PURPOSE and DESCRIPTION: To eliminate the test year O&M Expense Riders for Bad Debt (Uncollectible), Percentage of Income Plan (PIPP) and Demand Side Management (DSM) revenues.		
1 2	RIDER REVENUE ADJUSTMENT TEST YEAR UNCOLLECTIBLE O&M EXPENSE RIDER REVENUE	WPC-2.1a-g	11,410
3	TEST YEAR PIPP O&M EXPENSE RIDER REVENUE	WPC-2.1a-g	10,665
4	TEST YEAR DSM O&M EXPENSE RIDER REVENUE	WPC-2.1a-g	22,621
5	TOTAL TEST YEAR UNCOLLECTIBLE, PIPP AND DSM O&M EXPENSE RIDER REVENUES		44,696
6	ELIMINATION OF UNCOLLECTIBLE, PIPP AND DSM O&M EXPENSE RIDER REVENUES		0
7	ADJUSTMENT TO O&M EXPENSE RIDER REVENUES (7) - (6)		(44,696)

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ELIMINATION OF TAXES OTHER THAN INCOME EXPENSE RIDER REVENUE FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-2.1a-g

SCHEDULE C-3.5 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
			\$000
	PURPOSE and DESCRIPTION: To eliminate the test year Distribution and Excise Tax Expense Rider revenues.		
1	TEST YEAR DISTRIBUTION TAX EXPENSE RIDER REVENUE	WPC-2.1a-g	28,020
2	TEST YEAR EXCISE TAX EXPENSE RIDER REVENUE	WPC-2.1a-g	46,481
3	ELIMINATION OF DISTRIBUTION AND EXCISE TAX EXPENSE RIDER REVENUE		0
4	ADJUSTMENT TO DISTRIBUTION AND EXCISE TAX EXPENSE RIDER REVENUE (3) - (2) - (1)		(74,501)

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ELIMINATION OF INFRASTRUCTURE DEVELOPMENT RIDER BASE REVENUE FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-2.1a-g

SCHEDULE C-3.6 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
	PURPOSE and DESCRIPTION: To eliminate the test year Infrastructure Development Rider (IDR) base revenue.		\$000
1 2	RIDER REVENUE ADJUSTMENT TEST YEAR INFRASTRUCTURE DEVELOPMENT RIDER BASE REVENUE	WPC-2.1a-g	180
3	ELIMINATION OF INFRASTRUCTURE DEVELOPMENT RIDER BASE REVENUE		0
4	ADJUSTMENT TO INFRASTRUCTURE DEVELOPMENT RIDER BASE REVENUE (3) - (2)		(180)

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ELIMINATION OF INFRASTRUCTURE DEVELOPMENT RIDER OTHER GAS DEPARTMENT REVENUE FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-2.1a-g

SCHEDULE C-3.7 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
	PURPOSE and DESCRIPTION: To eliminate the test year Infrastructure Development Rider (IDR) other gas department revenue.		\$000
1 2	<u>RIDER REVENUE ADJUSTMENT</u> TEST YEAR INFRASTRUCTURE DEVELOPMENT RIDER OTHER GAS DEPARTMENT REVENUE	WPC-2.1a-g	328
3	ELIMINATION OF INFRASTRUCTURE DEVELOPMENT RIDER OTHER GAS DEPARTMENT REVENUE		0
4	ADJUSTMENT TO INFRASTRUCTURE DEVELOPMENT RIDER OTHER GAS DEPARTMENT REVENUE (3) - (2)		(328)

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ELIMINATION OF UNBILLED REVENUE FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-2.1a-g

SCHEDULE C-3.8 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
	PURPOSE and DESCRIPTION: To eliminate unbilled revenues from test year data.		\$000
1	TEST YEAR UNBILLED	WPC-2.1a-g	(8,876)
2	ELIMINATION OF UNBILLED REVENUE		0
3	ADJUSTMENT TO UNBILLED REVENUE (2) - (1)		8,876

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ELIMINATION OF NON-JURISDICTIONAL REVENUE FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

SCHEDULE C-3.9 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
			\$000

NOTHING TO REPORT. THE COMPANY'S REVENUES ARE 100% JURISDICTIONAL.

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ANNUALIZED GAS COST EXPENSE FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-2.1a-g and Schedule C-3.2

SCHEDULE C-3.10 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
			\$000
	PURPOSE and DESCRIPTION: To reflect the change in purchased gas cost expense to match annualized revenue levels.		
1	TEST YEAR GAS COST EXPENSE	WPC-2.1a-g	152,235
2	ANNUALIZED GAS COST EXPENSE (REVENUE)	SCH C-3.2	42,367
3	NORMALIZED GAS COST EXPENSE ADJUSTMENT (2) - (1)		(109,868)

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ELIMINATION OF FUEL USED IN COMPANY OPERATIONS O&M EXPENSE FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-3.11a

SCHEDULE C-3.11 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
			\$000
	PURPOSE and DESCRIPTION: To reflect the removal of fuel used in Company operations to match annualized purchased gas cost expense revenue levels.		
1	TEST YEAR FUEL USED IN COMPANY OPERATIONS O&M EXPENSE	WPC-3.11a	438
2	ELIMINATION OF FUEL USED IN COMPANY OPERATIONS O&M EXPENSE		0
3	NORMALIZED GAS COST EXPENSE ADJUSTMENT (2) - (1)		(438)

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ELIMINATION OF O&M TRACKER EXPENSES FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-2.1a-g

SCHEDULE C-3.12 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
	PURPOSE and DESCRIPTION: To eliminate the test year O&M Expense Tracker Bad Debt (Uncollectible) Expense, Percentage of Income Plan (PIPP) and Demand Side Management (DSM) expenses, as well as to include an annual level of Warm Choice Program expense.		\$000
1 2	TRACKER EXPENSE ADJUSTMENT TEST YEAR UNCOLLECTIBLE O&M TRACKER EXPENSE	WPC-2.1a-g	10,869
3	TEST YEAR PIPP O&M TRACKER EXPENSE	WPC-2.1a-g	10,140
4	TEST YEAR DSM O&M TRACKER EXPENSE	WPC-2.1a-g	28,755
5	TOTAL TEST YEAR UNCOLLECTIBLE, PIPP, AND DSM O&M TRACKER EXPENSE		49,764
6	ELIMINATION OF UNCOLLECTIBLE, PIPP, AND DSM O&M TRACKER EXPENSE		0
7	ANNUAL DSM WARMCHOICE PROGRAM EXPENSE		0
8	TOTAL ADJUSTMENT TO TRACKER O&M EXPENSES ((6) - (5)) + (7)		(49,764)

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR O&M EXPENSE EXCLUSIONS FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-3.13a-j

SCHEDULE C-3.13 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
			\$000
	PURPOSE and DESCRIPTION: To eliminate Lobbying, Sales, Advertising, Other Non-recoverable, Customer Service & Information, and Other Dues & Memberships Expenses from test year operating expenses.		
1	LOBBYING EXCLUSION	STAFF WPC-3.13e,3.13g & 3.13h	(121)
2	DIRECT CUSTOMER SERVICE AND INFORMATION EXCLUSION	STAFF WPC-3.13b	(313)
3	SALES EXCLUSION	STAFF WPC-3.13c	0
4	ADVERTISING EXCLUSION	STAFF WPC-3.13d	(1)
5	DUES & MEMBERSHIPS EXCLUSION	STAFF WPC-3.13e	(1)
6	CHARITABLE CONTRIBUTIONS EXCLUSION	STAFF WPC-3.13f	0
7	OUTSIDE SERVICES EXCLUSION	STAFF WPC-3.13g	(198)
8	EMPLOYEE EXPENSES EXCLUSION	STAFF WPC-3.13h	(76)
9	MISCELLANEOUS & OTHER EXPENSE EXCLUSION	STAFF WPC-3.13i	(2)
10	TOTAL ADJUSTMENT TO O&M (SUM OF (1) THRU (9))		(712)

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ANNUALIZED LABOR EXPENSE FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-2.1a-g and Schedule WPC-3.14a-e

SCHEDULE C-3.14 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
	PURPOSE and DESCRIPTION: To annualize non-incentive payroll costs for full-time, part-time and temporary employees.		\$000
1	TEST YEAR O&M (NON INCENTIVE) LABOR	WPC-2.1a-g	55,596
2	TOTAL ANNUALIZED O&M LABOR	STAFF WPC-3.14a	55,904
3	TOTAL O&M LABOR ADJUSTMENT (2) - (1)		308

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR NORMALIZED INCENTIVE COMPENSATION EXPENSE FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-2.1a-g and Schedule WPC-3.15a-d

SCHEDULE C-3.15 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.		AMOUNT
	PURPOSE and DESCRIPTION: To reflect incentive payroll costs for eligible full-time, part-time and temporary employees.			\$000
1	TEST YEAR O&M INCENTIVE PLAN	WPC-2.1a-g		3,279
2	TOTAL TEST YEAR INCENTIVE PAY	CONFIDENTIAL Staff WPC-3.15a		878
3	% O&M EXPENSE	As Filed WPC-3.14c	49.83%	437
4	TOTAL STAFF O&M INCENTIVE ADJUSTMENT (2) - (1)			(2,842)

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ANNUALIZED EMPLOYEE BENEFITS EXPENSE FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-2.1a-g and Schedule WPC-3.16a

SCHEDULE C-3.16 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
	PURPOSE and DESCRIPTION: To annualize employee benefits (Insurance Plans, Pension and OPEB, as well as Thrift Plan expense).		\$000
1	TEST YEAR EMPLOYEE BENEFITS EXPENSE	WPC-2.1a-g	12,874
2	ANNUALIZED EMPLOYEE BENEFITS EXPENSE	STAFF WPC-3.16a	4,928
3	TOTAL O&M EMPLOYEE BENEFITS ADJUSTMENT (2) - (1)		(7,946)

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ADJUSTMENT FOR COLUMBIA HEADCOUNT COMPLEMENT FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-3.17a

SCHEDULE C-3.17 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	COMPANY AS FILED	STAFF ADJUSTMENT	ADJUSTMENT
			\$000	\$000	\$000
	PURPOSE and DESCRIPTION: To annualize labor, employee benefits and incentive compensation for post- March 31, 2021 Columbia Gas of Ohio employee headcount complement by test year end, December 31, 2021.				
1	COH DIRECT HEADCOUNT COMPLEMENT - LABOR O&M EXPENSE	WPC-3.17a	2,225	(2,225)	0
2	COH DIRECT HEADCOUNT COMPLEMENT - INCENTIVE O&M EXPENSE	WPC-3.17a	152	(152)	0
3	COH DIRECT HEADCOUNT COMPLEMENT - NON-LABOR EMPLOYEE BENEFITS O&M EXPENSE	WPC-3.17a	439	(439)	0
4	COH DIRECT HEADCOUNT COMPLEMENT - NON-LABOR CLEARING O&M EXPENSE	WPC-3.17a	453	(453)	0
5	TOTAL COH DIRECT HEADCOUNT COMPLEMENT O&M EXPENSE (1) + (2) + (3) + (4)		3,269	(3,269)	0

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ANNUALIZED CORPORATE INSURANCE EXPENSE FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-2.1a-g and Schedule WPC-3.18a-c

SCHEDULE C-3.18 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
	PURPOSE and DESCRIPTION: To annualize property, general liability workers compensation and medical stop loss corporate insurance expense.		\$000
1	TEST YEAR CORPORATE INSURANCE EXPENSE	WPC-2.1a-g	14,385
2	ANNUALIZED CORPORATE INSURANCE EXPENSE	WPC-3.18a-c	13,923
3	TOTAL O&M CORPORATE INSURANCE ADJUSTMENT (2) - (1)		(462)

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR NORMALIZED UNCOLLECTIBLE ACCOUNTS EXPENSE FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-2.1a-g and Schedule WPC-3.19a

SCHEDULE C-3.19 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
	PURPOSE and DESCRIPTION: To normalize the Uncollectible Accounts O&M expense for Large General Service customers, which includes Large General Service (LGS), Large General Transportation Service (LGTS) and Full Requirements Large General Transportation Service (FRLGTS).		\$000
1	TEST YEAR UNCOLLECTIBLE ACCOUNTS EXPENSE	WPC-2.1a-g	(141)
2	NORMALIZED UNCOLLECTIBLE ACCOUNTS EXPENSE	WPC-3.19a	197
3	TOTAL O&M UNCOLLECTIBLE ACCOUNTS EXPENSE ADJUSTMENT (2) - (1)		338

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR SAFETY OPERATIONS O&M EXPENSE ADJUSTMENTS FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

SCHEDULE C-3.20 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
	PURPOSE and DESCRIPTION: To adjust O&M expenses for known changes since the preparation of the official operating budget anticipated to occur during the test year, or within in the twelve months following the historic test year.		\$000
1	<u>CROSS BORES [1]:</u> CROSS BORES - LABOR O&M EXPENSE		0.30
2	CROSS BORES - INCENTIVE COMPENSATION O&M EXPENSE		0.00
3	CROSS BORES - NON-LABOR EMPLOYEE BENEFITS O&M EXPENSE		0.00
4	CROSS BORES - NON-LABOR CLEARING O&M EXPENSE		0.00
5	CROSS BORES - NON-LABOR OUTSIDE SERVICES		0.00
6	TOTAL CROSS BORES O&M EXPENSE (1) + (2) + (3) + (4) + (5)		0.30
7	FIELD / SYSTEM OPERATIONS TECHNICAL TRAINING [1]: TECHNICAL TRAINING - LABOR O&M EXPENSE		0.00
8	TECHNICAL TRAINING - INCENTIVE COMPENSATION O&M EXPENSE		0.00
9	TECHNICAL TRAINING - NON-LABOR EMPLOYEE BENEFITS O&M EXPENSE		0.00
10	TECHNICAL TRAINING - NON-LABOR CLEARING O&M EXPENSE		0.00
11	TOTAL FIELD / SYSTEM OPERATIONS TECHNICAL TRAINING O&M EXPENSE (7) + (8) + (9) + (10)		0.00
12	TOTAL ADJUSTMENT TO SAFETY OPERATIONS O&M EXPENSE (6) + (11)		0.30
	Notes:		

(1) Labor and Non-Labor cost allocations for Cross Bores and Field / System Operations Technical Training O&M expenses are based on historical calendar year 2020 O&M expense actuals for labor, incentive compensation, employee benefits and clearing (truck and tools).

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR NISOURCE CORPORATE SERVICES O&M EXPENSE ADJUSTMENT FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-2.1a-g and Schedule WPC-3.21a-ab

SCHEDULE C-3.21 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
	PURPOSE and DESCRIPTION: To adjust NiSource Corporate Services Company (NCSC) to eliminate non-recoverable and non-recurring O&M expense items, to annualize labor and benefits, payroll taxes, normalize incentive compensation, annualize and amortize pension and OPEB expenses, annualize residential customer transaction expense, as well as adjust for any known changes since the preparation of the official operating budget.		\$000
1	TEST YEAR CORPORATE SERVICES O&M EXPENSE	WPC-2.1a-g	150,666
2	ADJUSTED CORPORATE SERVICES O&M EXPENSE	WPC-3.21a-ab	132,671
3	TOTAL O&M CORPORATE SERVICE ADJUSTMENT (2) - (1)		(17,995)

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR RATE CASE EXPENSE ADJUSTMENT FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-2.1a-g and Schedule C-8

SCHEDULE C-3.22 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
	PURPOSE and DESCRIPTION: To amortize the estimated costs associated with this base rate proceeding over a five-year period in test year operating expenses.		\$000
1	TEST YEAR RATE CASE EXPENSE	WPC-2.1a-g	0
2 3	ESTIMATED RATE CASE EXPENSE TOTAL COMPANY ESTIMATED RATE CASE EXPENSE	SCH C-8	1,630
4	AMORTIZATION PERIOD - NUMBER OF YEARS		5
5	ANNUAL AMORTIZATION (3)/(4)		326

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR NIFIT DEFERRAL AMORTIZATION FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S): Schedule B-6 SCHEDULE C-3.23 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
	PURPOSE and DESCRIPTION: To amortize the accumulated NiFiT expense deferral as of March 31, 2021.		\$000
1	UNAMORTIZED BALANCE OF NIFIT EXPENSE DEFERRAL	SCH B-6	6,544
2	AMORTIZATION PERIOD (NUMBER OF YEARS)		5
3	ANNUAL AMORTIZATION (1) / (2)		1,309

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR PENSION AND OPEB EXPENSE DEFERRAL AMORTIZATION FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S): Schedule B-6

SCHEDULE C-3.24 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
	PURPOSE and DESCRIPTION: To amortize the accumulated Pension and OPEB expense deferral as of March 31, 2021.		\$000
1	UNAMORTIZED BALANCE OF PENSION AND OPEB EXPENSE DEFERRAL	SCH B-6	18,436
2	AMORTIZATION PERIOD (NUMBER OF YEARS)		5
3	ANNUAL AMORTIZATION (1) / (2)		3,687

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ENVIRONMENTAL REMEDIATION EXPENSE DEFERRAL AMORTIZATION FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule B-6

SCHEDULE C-3.25 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
	PURPOSE and DESCRIPTION: To amortize the accumulated Environmental Remediation expense deferral as of March 31, 2021.		\$000
1	UNAMORTIZED BALANCE OF ENVIRONMENTAL REMEDIATION EXPENSE DEFERRAL	SCH B-6	0
2	AMORTIZATION PERIOD (NUMBER OF YEARS)		5
3	ANNUAL AMORTIZATION (1) / (2)		0

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR PIPELINE SAFETY PROGRAM (PSP) EXPENSE DEFERRAL AMORTIZATION FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-3.13d

SCHEDULE C-3.26 PAGE 1 OF 1

LINE		SUPPORTING SCHEDULE	
NO.	PURPOSE AND DESCRIPTION	OR WORK PAPER REFERENCE NO.	AMOUNT
		KEI EKENCE NO.	\$000
	PURPOSE and DESCRIPTION: To amortize the accumulated Pipeline Safety Program (PSP) expense deferral as of March 31, 2021, and adjust for annual on-going program O&M expenses.		
	AMORTIZATION		
1	UNAMORTIZED BALANCE OF PSP EXPENSE DEFERRAL		149,072
2	AMORTIZATION PERIOD (NUMBER OF YEARS)		10
3	ANNUAL AMORTIZATION (1) / (2)		14,907
	ANNUAL EXPENSES		
4	ANNUAL PSP O&M EXPENSE		15,000
	PSP PUBLIC AWARENESS EXPENSES:		
5	TEST YEAR PSP PUBLIC AWARENESS EXPENSE		0
6	ANNUAL PSP PUBLIC AWARENESS EXPENSE		0
7	PSP PUBLIC AWARENESS EXPENSE ADJUSTMENT (6) - (5)		0
	PSP TECHNICAL TRAINING EXPENSES [1]:		
8	ANNUAL PSP TECHNICAL TRAINING EXPENSE - LABOR O&M EXPENSE		0
9	ANNUAL PSP TECHNICAL TRAINING EXPENSE - INCENTIVE COMPENSATION O&M EXPENSE		0
10	ANNUAL PSP TECHNICAL TRAINING EXPENSE - NON-LABOR EMPLOYEE BENEFITS O&M EXPENSE		0
11	ANNUAL PSP TECHNICAL TRAINING EXPENSE - NON-LABOR CLEARING O&M EXPENSE		0
12	ANNUAL PSP TECHNICAL TRAINING EXPENSE - NON-LABOR EMPLOYEE EXPENSES O&M EXPENSE		0
13	TOTAL ANNUAL PSP TECHNICAL TRAINING EXPENSE (8) + (9) + (10) + (11) + (12)		0
14	TOTAL PSP (3) + (4) + (7) + (13)		29,907

Notes:

(1) Labor and Non-Labor cost allocations for PSP Technical Training O&M expenses are based on historical calendar year 2020 O&M expense actuals for labor, incentive compensation, employee benefits and clearing (truck and tools).

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR COVID-19 LATE PAYMENT REVENUE AND INCREMENTAL O&M EXPENSE DEFERRAL AMORTIZATION FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule B-6

SCHEDULE C-3.27 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
			\$000
	PURPOSE and DESCRIPTION: To amortize the accumulated COVID-19 late payment revenue and incremental O&M expense deferral as of March 31, 2021.		
1	UNAMORTIZED BALANCE OF COVID-19 INCREMENTAL LATE PAYMENT REVENUE		
I	AND O&M EXPENSE DEFERRAL	SCH B-6	0
2	AMORTIZATION PERIOD (NUMBER OF YEARS)		5
3	ANNUAL AMORTIZATION (1) / (2)		0

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR DEPRECIATION AND AMORTIZATION EXPENSE ADJUSTMENT FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-2.1a-g and Schedules B-1, B-3.1, B-3.2 and B-6

SCHEDULE C-3.28 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
	PURPOSE and DESCRIPTION: To annualize test year depreciation expense to reflect the new rates applied to the date certain property.		\$000
1	TEST YEAR DEPRECIATION EXPENSE	WPC-2.1a-g	137,137
2	TEST YEAR DEPRECIATION AMORTIZATION - IRP	WPC-2.1a-g	1,451
3	TEST YEAR DEPRECIATION AMORTIZATION - CEP	WPC-2.1a-g	2,696
4	TEST YEAR DEPRECIATION AMORTIZATION - OTHER	WPC-2.1a-g	2,852
5	TOTAL TEST YEAR DEPRECIATION AMORTIZATION (1) + (2) + (3) + (4)		144,136
6	DEPRECIABLE PLANT BALANCE	SCH B-1	5,092,388
7	DEFERRED DEPRECIATION BALANCE - IRP	SCH B-6	35,010
8	DEFERRED DEPRECIATION BALANCE - CEP	SCH B-6	81,677
9	DEFERRED DEPRECIATION BALANCE - OTHER	SCH B-6	13,682
10	TOTAL DEFERRED DEPRECIATION BALANCES (7) + (8) + (9)		130,369
11	TOTAL DEPRECIABLE BALANCES (6) + (10)		5,222,757
12	COMPOSITE DEPRECIATION AND AMORTIZATION RATE	SCH B-3.2	2.984550%
13	TOTAL ANNUALIZED DEPRECIATION (11) X (12)		155,876
14	ENVIRONMENTAL AMORTIZATION (GPA 36210)	SCH B-3.1 & B-3.2	0
15	AMORTIZATION PERIOD (NUMBER OF YEARS)		5
16	ENVIRONMENTAL ANNUAL AMORTIZATION (14) / (15)		0
17	TOTAL ADJUSTMENT TO ANNUALIZE DEPRECIATION ((13) - (5) + (16))		11,740

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR POST IN-SERVICE CARRYING CHARGES AMORTIZATION FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-2.1a-g, Schedules B-3.2 and B-6

SCHEDULE C-3.29 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
	PURPOSE and DESCRIPTION: To amortize date certain balance of deferred Post In-Service Carrying Costs (PISCC).		\$000
1	TEST YEAR POST IN-SERVICE CARRYING COST AMORTIZATION - IRP	WPC-2.1a-g	2,547
2	TEST YEAR POST IN-SERVICE CARRYING COST AMORTIZATION - CEP	WPC-2.1a-g	3,601
3	TEST YEAR POST IN-SERVICE CARRYING COST AMORTIZATION - OTHER	WPC-2.1a-g	0
4	TOTAL TEST YEAR POST IN-SERVICE CARRYING COST (1) + (2) + (3)		6,148
5	DEFERRED POST IN-SERVICE CARRYING COST BALANCE - IRP	SCH B-6	83,248
6	DEFERRED POST IN-SERVICE CARRYING COST BALANCE - CEP	SCH B-6	108,397
7	DEFERRED POST IN-SERVICE CARRYING COST BALANCE - OTHER	SCH B-6	131
8	TOTAL DEFERRED POST IN-SERVICE CARRYING COST BALANCES (5) + (6) + (7)		191,776
9	COMPOSITE DEPRECIATION AND AMORTIZATION RATE	SCH B-3.2	2.984550%
10	TOTAL ANNUALIZED POST IN-SERVICE CARRYING COST (8) X (9)		5,724
11	TOTAL ADJUSTMENT TO ANNUALIZE POST IN-SERVICE CARRYING COST (10) - (4)		(424)

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR PAYROLL TAXES ADJUSTMENT FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-2.1a-g and Schedule WPC-3.30a-d

SCHEDULE C-3.30 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
	PURPOSE and DESCRIPTION: To annualize payroll taxes based on annualized wages as of December 31, 2021.		\$000
1	TEST YEAR PAYROLL TAX EXPENSE	WPC-2.1a-g	4,640
2	ADJUSTED PAYROLL TAXES		4 000
3	TOTAL STAFF ADJUSTMENT TO PAYROLL TAXES (2) - (1)	STAFF WPC-3.30	4,028
			(612)

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR PROPERTY TAX ADJUSTMENT FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

SCHEDULE C-3.31 PAGE 1 OF 1

Schedule WPC-2.1a-g, Staff WPC-3.31a and Schedules B-3.2 and B-6

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
	PURPOSE and DESCRIPTION: To adjust test year property tax to reflect the current rates on date certain property.		\$000
1	TEST YEAR PROPERTY TAX EXPENSE	WPC-2.1a-g	72,355
2	TEST YEAR PROPERTY TAX AMORTIZATION - IRP	WPC-2.1a-g	406
3	TEST YEAR PROPERTY TAX AMORTIZATION - CEP	WPC-2.1a-g	1,460
4	TEST YEAR PROPERTY TAX AMORTIZATION - OTHER	WPC-2.1a-g	105
5	TOTAL TEST YEAR PROPERTY TAX AMORTIZATION (1) + (2) + (3) + (4)		74,325
6	ANNUALIZED PROPERTY TAX	Staff WPC-3.31a	77,241
7	DEFERRED PROPERTY TAX BALANCE - IRP	SCH B-6	14,943
8	DEFERRED PROPERTY TAX BALANCE - CEP	SCH B-6	43,674
9	DEFERRED PROPERTY TAX BALANCE - OTHER	SCH B-6	5,972
10	TOTAL DEFERRED PROPERTY TAX BALANCES (7) + (8) + (9)		64,589
11	COMPOSITE DEPRECIATION AND AMORTIZATION RATE	SCH B-3.2	2.984550%
12	TOTAL ANNUALIZED PROPERTY TAX (6) + (10 x 11)		79,169
13	TOTAL ADJUSTMENT TO ANNUALIZE PROPERTY TAX (12) - (5)		4,843

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ELIMINATION OF STATE INCOME TAX EXPENSE FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-2.1a-g and Schedules C-2 and C-4

SCHEDULE C-3.32 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
	PURPOSE and DESCRIPTION: To eliminate state income taxes related to non-traditional revenue.		\$000
1	TEST YEAR CURRENT STATE INCOME TAX EXPENSE	WPC-2.1a-g	18
2	TEST YEAR DEFERRED STATE INCOME TAX EXPENSE	WPC-2.1a-g	199
3	TEST YEAR CURRENT & DEFERRED STATE INCOME TAX EXPENSE (1) + (2)	SCH C-2	216
4	ELIMINATION OF CURRENT & DEFERRED STATE INCOME TAX EXPENSE	SCH C-4	0
5	TOTAL INCOME TAX ADJUSTMENTS (4) - (3)		(216)

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ELIMINATION OF DISTRIBUTION AND EXCISE TAX EXPENSE FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-2.1a-g

SCHEDULE C-3.33 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
			\$000
	PURPOSE and DESCRIPTION: To remove the level of Distribution and Excise Tax from tax expense.		
1	TEST YEAR DISTRIBUTION TAX EXPENSE	WPC-2.1a-g	25,834
2	TEST YEAR EXCISE TAX EXPENSE	WPC-2.1a-g	47,752
3	ELIMINATION OF DISTRIBUTION AND EXCISE TAX EXPENSE		0
4	ADJUSTMENT TO DISTRIBUTION AND EXCISR TAX EXPENSE (3) - (2) - (1)		(73,586)

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR PUCO & OCC TAX ADJUSTMENT FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

WPC-2.1a-g and WPC-3.34a-d

SCHEDULE C-3.34 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
	PURPOSE and DESCRIPTION: To annualize the level of PUCO and OCC assessments to the latest known level.		
1	TEST YEAR PUCO & OCC TAX EXPENSE	WPC-2.1a-g	1,477
2	CURRENT PUCO & OCC ASSESSMENTS PUCO GPSA ASSESSMENT	WPC-3.34a-d	20
3	PUCO ASSESSMENT ALLOCATED TO BASE RATES	WPC-3.34a-d	1,754
4	OCC ASSESSMENT ALLOCATED TO BASE RATES	WPC-3.34a-d	221
5	TOTAL PUCO AND OCC ASSESSMENTS		1,995
6	TOTAL ADJUSTMENT TO OTHER TAXES (5) - (1)		518

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR FEDERAL STATUTORY DEDUCTIONS ADJUSTMENT FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule C-4, Staff WPC-4.1

SCHEDULE C-3.35 PAGE 1 OF 1

		SUPPORTING SCHEDULE	
LINE	PURPOSE AND DESCRIPTION	OR WORK PAPER	AMOUNT
NO.		REFERENCE NO.	
			\$000
	PURPOSE and DESCRIPTION: To recognize the impact of adjustment of statutory tax deductions.		
1	TEST YEAR FEDERAL INCOME - FLOW THROUGH TAX ITEMS:		
2	INTEREST CHARGES	SCH C-4	(63,987)
3	PERMANENT DIFFERENCES	SCH C-4	1,821
4	TOTAL		(62,166)
5	ADJUSTED FEDERAL INCOME - FLOW THROUGH TAX ITEMS:		
6	INTEREST CHARGES	SCH C-4	(79,998)
7	PERMANENT DIFFERENCES	SCH C-4	1,628
8	TOTAL		(78,370)
9	CHANGE IN STATUTORIES (8) - (4)		(16,204)
10	ADJUSTMENT TO FEDERAL INCOME TAXES RESULTING FROM STATUTO	DRIES (LINE 9 * 21%)	(3,403)
11	ADJUSTMENT TO CORRECT PRE-ACRS FLOW-THROUGH ITEM	STAFF WPC-4.1	208
12	TOTAL ADJUSTMENT TO FEDERAL INCOME TAXES (LINE 10 + LINE 11)		(3,195)

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ADJUSTMENT TO OTHER REVENUE FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-2.1a-g, Staff WPC-3.36

SCHEDULE C-3.36 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE NO.	AMOUNT
	PURPOSE and DESCRIPTION: To adjust Other Revenue to be more representative of a normal year.		\$000
	STAFF ADJUSTMENT TO OTHER REVENUE	WPC-3.36	1,139
	TOTAL ADJUSTMENT TO OTHER REVENUE (2) - (1)	_	1,139

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ADJUST INTEREST EXPENSE ON CUSTOMER DEPOSITS FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPB-6 Cust Dep

SCHEDULE C-3.37 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION OR WORK PAPER REFERENCE NO.		AMOUNT
	PURPOSE and DESCRIPTION: To include in the test year, the interest expense paid on customer deposits.		\$000
1	Interest Expense on Customer Deposits for Twelve Months Ended March 31, 2021	WPB-6 Cust Dep	337

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR OUT OF PERIOD EXPENSES ADJUSTMENT FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-3.38a-k

SCHEDULE C-3.38 PAGE 1 OF 1

LINE NO.	PURPOSE AND DESCRIPTION OR WORK PAPER REFERENCE NO.		AMOUNT
	PURPOSE and DESCRIPTION: To eliminate out of period expenses from the test year.		\$000
1	TOTAL OUT OF PERIOD EXPENSES TO BE REMOVED	WPC-3.38a	(664)

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR ADJUSTED JURISDICTIONAL FEDERAL INCOME TAXES FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-4.1a, Schedules B-1, C-4.1 and D-1

SCHEDULE C-4 PAGE 1 OF 1

		SUPPORTING SCHEDULE	UPPORTING SCHEDULE AT CURRENT RATES AT PROF			AT CURRENT RATES		AT PROPOS	SED RATES
LINE NO.	DESCRIPTION	OR WORKPAPER REFERENCE	UNADJUSTED	SCHEDULE C-3 ADJUSTMENTS	ADJUSTED	PROFORMA ADJUST.	PROFORMA TOTAL		
		REFERENCE	(1)	(2)	(3)	(4)	(5)		
			\$000	\$000	\$000	\$000	\$000		
1 2	Operating Income before Federal Income Taxes		227,660	5,551	233,211	35,198	268,409		
3	Reconciling Items:								
4	Interest Charges	SCH B-1, SCHD-1	(63,987)	(16,011)	(79,998)	0	(79,998		
5	Net Interest Charges		(63,987)	(16,011)	(79,998)	0	(79,998		
6	5						X 1		
7	Tax Accelerated Depreciation		(129,691)	0	(129,691)	0	(129,691		
8	Book Depreciation		150,284	11,316	161,600	0	161,600		
9	Excess of Tax Over Book Depreciation (7) + (8)		20,593	11.316	31,909	0	31,909		
10							,		
11	Other Reconciling Items:								
12	Permanent Differences	WPC-4.1a	1,821	(193)	1,628	0	1,628		
13	Temporary Differences	SCH C-4.1	(149,283)	0	(149,283)	0	(149,283		
14	Non-Ohio State Income Tax	SCH C-4.1	(18)	18) Ó	0	0		
15	Total Other Reconciling Items		(147,480)	(175)	(147,655)	0	(147,655		
16	Total Reconciling Items $(5) + (9) + (15)$		(190,874)		(195,744)	0	(195,744		
17				(<i>i</i> = - <i>i</i>)	<u> </u>		()		
18	Federal Taxable Income (1) + (16)		36,786	681	37,467	35,198	72,665		
19						,	,		
20	Federal Income Taxes @ 21%		7,725	143	7,868	7,392	15,260		
21			1,120		1,000	1,002	10,200		
22	Deferred Income Taxes:								
23	Deferred Income Tax Adjustment - Protected EDIT Amortization		(3,425)	0	(3,425)	0	(3,425		
24	Deferred Income Tax Adjustment - Flow-Through	STAFF WPC-4.1	(410)		(202)	0	(202		
25	Deferred Income Tax Adjustment - Federal effect of State Deferred Taxes	SCH C-4.1	(410)		(202)	0	(202		
26			(12)	12	Ŭ	Ŭ	0		
27	Deferred Income Tax on Depreciation (Line 9 * 21%)		(4,324)	(2,376)	(6,700)	0	(6,700		
28	Other Deferred Income Taxes - Net (Line 13 * 21%)		31,349	(=,0.0)	31,349	0	31,349		
29	Deferred Income Tax Adjustment - Unprotected EDIT Amortization		(5,681)	-	(5,681)	0	(5,681		
30	Amortization of Investment Tax Credit	SCH C-4.1	(453)		(453)	ů 0	(453		
31	Net Deferred Income Taxes Resulting from Depreciation - Sum of (27) - (30)		20,891	(2,376)	18,515	0	18,515		
32			20,001	(2,010)	10,010		10,010		
33	Total Deferred Income Taxes (23) + (24) + (25) + (31)		17,014	(2,126)	14,888	0	14,888		
34				(2,120)	11,000		11,000		
35	Total Federal Income Taxes (20) + (33)		24,739	(1,983)	22,756	7,392	30,148		
36			21,700	(1,000)	22,700	1,002	00,110		
37	Other Tax Deferrals:								
38	- Nothing to Report -								
39	Total Other Tax Deferrals		0	0	0	0	0		
40			0	0	0	0	0		
41	Total Federal Income Taxes (34) + (38)		24,739	(1,983)	22,756	7,392	30,148		
			21,700	(1,000)	22,100	1,002	00,140		

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR DEVELOPMENT OF JURISDICTIONAL FEDERAL INCOME TAXES BEFORE ADJUSTMENTS FOR THE TWELVE MONTHS ENDED 12/31/21

WORK PAPER REFERENCE NO(S):

Schedule WPC-4.1a

SCHEDULE C-4.1 PAGE 1 OF 1

$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	LINE NO.	DESCRIPTION	SUPPORTING SCHEDULE OR WORK PAPER REFERENCE	ACTUALS Jan - Mar 2021	PROJECTED Apr - Dec 2021	UNADJUSTED JURISDICTION
Reconciling items: $64,252$ $9,421$ $153,673$ Interest Charges $(12,273)$ $(51,709)$ $(63,987)$ Net Interest Charges $(12,273)$ $(51,709)$ $(63,987)$ Tax Accelerated Depreciation $(32,423)$ $(97,268)$ $(129,691)$ Book Depreciation $35,712$ $114,572$ $150,284$ Permanent Differences WPC-4.1a 407 1.414 1.821 Permanent Differences WPC-4.1a 407 1.414 1.821 Total Reconciling items: (11) (11) (11) (11) (11) (11) (11) $(12,692)$ $(147,480)$ Total Reconciling items (5) + (9) + (15) $(147,480)$ $(11,47,480)$ $(11,47,480)$ $(11,6,62,24)$ $(11,6,62,24)$ $(11,6,62,24)$ $(12,27)$ $(12,27)$ $(12,27)$ $(14,7,480)$ Total Reconciling items (5) + (9) + (15) $(147,480)$ $(147,480)$ $(147,480)$ $(147,480)$ $(11,23,43,49)$ $(12,27)$ $(14,7,480)$ $(12,27)$ $(13,23,0)$ $(19,62,24)$ $(12,27)$ $(12,27)$ $(14,24,90)$ $(12,24)$ $(12,24)$				\$000	\$000	\$000
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		Operating Income before Federal Income Taxes		76,530	151,130	227,660
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		Reconciling Items:		64.252	99.421	163.673
5 Net Interest Charges $(12,278)$ $(51,709)$ $(63,987)$ 6 Tax Accelerated Depreciation $(32,423)$ $(97,268)$ $(129,691)$ 7 Tax Accelerated Depreciation $(7) + (8)$ $35,712$ $114,572$ $150,284$ 9 Excess of Tax Over Book Depreciation $(7) + (8)$ $32,89$ $17,304$ $20,593$ 11 Other Reconciling Items: 407 1.414 1.821 12 Permanent Differences WPC-4.1a 407 1.414 1.821 13 Temporary Differences WPC-4.1a 407 1.414 1.821 14 Total Reconciling Items (5) + (9) + (15) $(12,534)$ $(99,945)$ $(147,480)$ 16 Total Reconciling Items (5) + (9) + (15) $(47,534)$ $(99,945)$ $(147,480)$ 17 Federal Taxable Income 1ax Adjustment - Protected EDIT Amortization (823) $(2,602)$ $(3,425)$ 18 Federal Income Tax Adjustment - Folderal effect of State Deferred Taxes (18) (24) (42) 20 Deferred Income Tax Adjustment - Folderal effect of State Deferred Taxes (18) (24) (42)					,	,
6 Tax Accelerated Depreciation 7 Tax Accelerated Depreciation 8 Book Depreciation 9 Excess of Tax Over Book Depreciation (7) + (8) 0 The Reconciling Items: 12 Permanent Differences 13 Temporary Differences 14 Permanent Differences 15 Total Reconciling Items 16 Total Reconciling Items (5) + (9) + (15) 17 Tederal Taxable Income Tax 18 Federal Taxable Income (1) + (16) 19 Federal Income Tax Adjustment - Protected EDIT Amortization 10 Deferred Income Tax adjustment - Protected EDIT Amortization 10 Deferred Income Tax on Depreciation (Line 9 * 21%) 11 (421) 12 Deferred Income Tax Adjustment - Sectiat Effect of State Deferred Taxes 10 Deferred Income Tax Adjustment - Protected EDIT Amortization 11 (421) 12 Deferred Income Tax Adjustment - Protected EDIT Amortization 11 (421) 11 (421) 12 Deferred Income Tax Adjustment - Protected EDIT Amortization 11 (421) <	5		-			
8 Book Depreciation 35.712 114.572 150.284 9 Excess of Tax Over Book Depreciation (7) + (8) 3.289 17.304 20.593 10 Other Reconciling Items: 32.89 17.304 20.593 11 Other Reconciling Items: WPC-4.1a 407 1.414 1.821 12 Permanent Differences WPC-4.1a 407 1.414 1.821 13 Temporary Differences WPC-4.1a (47.940) (10.1343) (149.283) 14 Non-Ohio State Income Tax (1) (16) (47.534) (9.945) (147.480) 15 Total Reconciling Items (5) + (9) + (15) (47.534) (9.945) (147.480) 16 Total Reconciling Items (5) + (9) + (15) (47.534) (9.945) (147.480) 16 Total Reconciling Items (5) + (9) + (15) (47.534) (9.945) (147.480) 16 Total Netwer Taxes @ 21% 4.201 3.524 7.725 12 Deferred Income Tax Adjustment - Foderal effect of State Deferred Taxes (18) (24) (42)	6		-	() - /	(- ,)	(
9 Excess of Tax Over Book Depreciation (7) + (8) 3.289 $17,304$ $20,593$ 10 Other Reconciling Items: WPC-4.1a 407 1,414 1,821 13 Temporary Differences WPC-4.1a 407 1,414 1,821 14 Tomporary Differences WPC-4.1a 407 1,414 1,821 15 Total Reconciling Items (1) (16) (18) (11,414,283) (1149,283) 16 Total Reconciling Items (5) + (9) + (15) (16,524) (134,350) (190,874) 17 Federal Income Taxes (21%) (16,780) 36,786 (1147,480) 19 Perfored Income Tax Adjustment - Protected EDIT Amortization (823) (2,602) (3,425) 10 Deferred Income Tax Adjustment - Folderal effect of State Deferred Taxes (18) (24) (42) 20 Deferred Income Tax Adjustment - Folderal EDIT Amortization (823) (2,602) (3,425) 21 Deferred Income Tax Adjustment - Folderal effect of State Deferred Taxes (18) (24) (42) 22 Deferred Income Tax Adjustment - Unprotected EDIT Amortization (13,340) (4,324) </td <td>7</td> <td>Tax Accelerated Depreciation</td> <td></td> <td>(32,423)</td> <td>(97,268)</td> <td>(129,691)</td>	7	Tax Accelerated Depreciation		(32,423)	(97,268)	(129,691)
10 Other Reconciling Items: 11 Other Reconciling Items: 12 Permanent Differences 13 Temporary Differences 14 Non-Ohio State Income Tax 15 Total Reconciling Items 16 Total Reconciling Items (5) + (9) + (15) 17 Federal Taxable Income (1) + (16) 18 Federal Income Taxes: 20 Deferred Income Taxes: 21 Deferred Income Tax Adjustment - Protected EDIT Amortization 22 Deferred Income Tax Adjustment - Flow-Through (A) WPC-4.1a 23 Deferred Income Tax Adjustment - Flow-Through (A) WPC-4.1a 24 Deferred Income Tax Adjustment - Flow-Through (A) WPC-4.1a 27 Deferred Income Tax Adjustment - Flow-Through (A) WPC-4.1a 28 (18) (24) 29 Amortization of Investment Tax Credit (13) 30 Deferred Income Taxes Net (Line 13* 21%) (691) 31 Nuther Deferrals: (13) 32 Other Deferral Income Tax Adjustment - Unprotected EDIT Amortization (14.20) 33 Deferred Income Taxes Resulting from Depreciation - Sum of (8	Book Depreciation		35,712	114,572	150,284
11 Other Reconciling Items: WPC-4.1a 407 1,414 1,821 12 Permanent Differences WPC-4.1a 407 1,414 1,821 13 Temporary Differences WPC-4.1a $(47,940)$ $(101,343)$ $(149,283)$ 14 Non-Ohio State Income Tax (1) (16) (18) $(17,534)$ $(99,945)$ $(147,480)$ 16 Total Reconciling Items (5) + (9) + (15) $(47,534)$ $(99,945)$ $(147,480)$ 17 Federal Taxable Income (1) + (16) $(56,524)$ $(134,350)$ $(190,874)$ 19 Federal Income Taxes @ 21% $4,201$ $3,524$ $7,725$ 20 Deferred Income Tax Adjustment - Protected EDIT Amortization (823) $(2,602)$ $(3,425)$ 21 Deferred Income Tax Adjustment - Foderal effect of State Deferred Taxes (18) (24) (42) 22 Deferred Income Tax Adjustment - Foderal effect of State Deferred Taxes (18) (24) (42) 23 Deferred Income Tax Adjustment - State 21%) (691) $(3,634)$ $(4,324)$ 24 Other Deferred Income Tax Adjustment - Unprotected E	9	Excess of Tax Over Book Depreciation (7) + (8)	-	3,289	17,304	20,593
12 Permanent Differences WPC-4.1a 407 1,414 1,821 13 Temporary Differences WPC-4.1a (47,940) (101,343) (149,283) 14 Non-Ohio State Income Tax (11) (16) (18) (147,460) (15,433) (199,874) 15 Total Reconciling Items (17,544) (99,945) (147,460) (56,524) (147,460) (56,524) (147,460) (15,524) (147,460) (15,524) (190,874) 16 Total Reconciling Items (5) + (9) + (15) (56,524) (134,350) (190,874) 17 Federal Income Taxes @ 21% 4,201 3,524 7,725 16 Deferred Income Taxes (2,602) (3,425) 17 Deferred Income Tax Adjustment - Protected EDIT Amortization (823) (2,602) (3,425) 18 Deferred Income Tax Adjustment - Federal effect of State Deferred Taxes (18) (14) (410) 19 (18) (24) (42) (42) (42) (42) 20 Deferred Income Tax Adjustment - Federal effect of State Deferred Taxes (18) (10,067) (13,34) (4,	10		=			
13 Temporary Differences WPC-4.1a (47,940) (101,343) (149,283) 14 Non-Ohio State Income Tax (1) (16) (18) 15 Total Reconciling Items (99,945) (147,480) (190,874) 16 Total Reconciling Items (5) + (9) + (15) (56,524) (134,350) (190,874) 17 Federal Taxable Income (1) + (16) (56,524) (134,350) (190,874) 19 Federal Income Taxes @ 21% 4,201 3,524 7,725 20 Deferred Income Taxes: 20,006 16,780 36,786 21 Deferred Income Taxes: 4,201 3,524 7,725 23 Deferred Income Tax Adjustment - Protected EDIT Amortization (823) (2,602) (3,425) 24 Deferred Income Tax Adjustment - Foderal effect of State Deferred Taxes (18) (24) (42) 26 Image: Signal Amortization of Investment Tax Credit (10,067 21,282 31,349 27 Deferred Income Taxes - Net (Line 13* 21%) Image: Signal Amortization of Investment Tax Credit (113) (340) (4,324) 28 Amortization of Investment T	11	Other Reconciling Items:				
14Non-Ohio State Income Tax (1) (16) (18) 15Total Reconciling Items $(47,534)$ $(99,945)$ $(147,480)$ 16Total Reconciling Items $(5) + (9) + (15)$ $(47,534)$ $(99,945)$ $(147,480)$ 17Federal Taxable Income $(1) + (16)$ $(56,524)$ $(134,350)$ $(190,874)$ 18Federal Taxable Income $(1) + (16)$ $(20,006)$ $16,780$ $36,786$ 1920Federal Income Taxes @ 21% $4,201$ $3,524$ $7,725$ 21Deferred Income Tax Adjustment - Protected EDIT Amortization (823) $(2,602)$ $(3,425)$ 24Deferred Income Tax Adjustment - Flow-Through (A) WPC-4.1a11 (421) (410) 26Deferred Income Tax Adjustment - Federal effect of State Deferred Taxes (18) (24) (422) 27Deferred Income Taxes - Net (Line 13 * 21%) (691) $(3,634)$ $(4,324)$ 29Amortization of Investment Tax Credit (113) (340) (453) 30Deferred Income Taxes Resulting from Depreciation - Sum of $(26) - (29)$ $7,843$ $13,048$ $20,891$ 32Other Tax Deferrals: 0 0 0 0 33Total Deferred Income Taxes (23) + $(24) + (30) + (34)$ $7,013$ $10,001$ $17,014$	12	Permanent Differences	WPC-4.1a	407	1,414	1,821
15 Total Reconciling Items $(47,534)$ $(99,945)$ $(147,480)$ 16 Total Reconciling Items (5) + (9) + (15) (56,524) (134,350) (190,874) 17 Federal Taxable Income (1) + (16) (56,524) (134,350) (190,874) 18 Federal Taxable Income (1) + (16) 20,006 16,780 36,786 19 Deferred Income Taxes @ 21% 4,201 3,524 7,725 20 Deferred Income Tax Adjustment - Protected EDIT Amortization (823) (2,602) (3,425) 21 Deferred Income Tax Adjustment - Federal effect of State Deferred Taxes (18) (24) (42) 22 Deferred Income Tax Adjustment - Federal effect of State Deferred Taxes (18) (24) (42) 23 Deferred Income Tax on Depreciation (Line 9 * 21%) (691) (3,634) (4,324) 24 Deferred Income Taxes - Net (Line 13 * 21%) 10,067 21,282 31,349 29 Amortization of Investment Tax Credit (14,20) (4,260) (5,681) 25 Other Tax Deferrals: (14,20) (4,260) (5,681) 30 Deferred Income Taxes (23) + (24) + (3	13	Temporary Differences	WPC-4.1a	(47,940)	(101,343)	(149,283)
16 Total Reconciling Items (5) + (9) + (15) $(56,524)$ $(134,350)$ $(190,874)$ 17 Federal Taxable Income (1) + (16) $20,006$ $16,780$ $36,786$ 19 Federal Income Taxes @ 21% $4,201$ $3,524$ $7,725$ 21 Deferred Income Taxes: $4,201$ $3,524$ $7,725$ 23 Deferred Income Tax Adjustment - Flow-Through (A) WPC-4.1a 11 (421) (410) 25 Deferred Income Tax on Depreciation (Line 9 * 21%) (691) $(3,634)$ $(4,324)$ 26 Other Deferred Income Taxes - Net (Line 13 * 21%) (691) $(3,634)$ $(4,324)$ 28 Other Deferred Income Taxe Adjustment - Unprotected EDIT Amortization (1.420) $(4,260)$ $(5,611)$ 31 Net Deferred Income Taxe Resulting from Depreciation - Sum of (26) - (29) $7,843$ $13,048$ $20,891$ 32 Other Tax Deferrals: 0 0 0 0 0 33 Total Other Tax Deferrals: 0 0 0 0 0 34 Nothing to Report - $7,013$ $10,001$ $7,013$ <td< td=""><td>14</td><td>Non-Ohio State Income Tax</td><td></td><td>(1)</td><td>(16)</td><td>(18)</td></td<>	14	Non-Ohio State Income Tax		(1)	(16)	(18)
17In the trace of trac	15	Total Reconciling Items	-	(47,534)	(99,945)	(147,480)
18 Federal Taxable Income $(1) + (16)$ 20,006 16,780 36,786 19 9 Federal Income Taxes @ 21% 4,201 3,524 7,725 21 Deferred Income Tax & djustment - Protected EDIT Amortization (823) (2,602) (3,425) 24 Deferred Income Tax Adjustment - Foderal effect of State Deferred Taxes (18) (24) (42) 26 (18) (24) (42) (42) 27 Deferred Income Tax on Depreciation (Line 9 * 21%) (691) (3,634) (4,324) 28 Other Deferred Income Tax Credit (113) (340) (453) 30 Deferred Income Taxes Resulting from Depreciation - Sum of (26) - (29) 7,843 13,048 20,891 31 Net Deferrals: - Nothing to Report - 0 0 0 0 32 Other Tax Deferrals - Nothing to Report - - 7,013 10,001 17,014 33 Total Deferred Income Taxes (23) + (24) + (30) + (34) 7,013 10,001 17,014	16	Total Reconciling Items (5) + (9) + (15)		(56,524)	(134,350)	(190,874)
19 20Federal Income Taxes @ 21%4,2013,5247,72521 22Deferred Income Taxes: 2324Deferred Income Tax Adjustment - Protected EDIT Amortization 24(823) $(2,602)$ $(3,425)$ 24Deferred Income Tax Adjustment - Flow-Through (A)WPC-4.1a11(421)(410)25Deferred Income Tax Adjustment - Federal effect of State Deferred Taxes(18)(24)(42)260000027Deferred Income Tax on Depreciation (Line 9 * 21%) 24(691) $(3,634)$ (4,324)29Amortization of Investment Tax Credit10,06721,28231,34929Amortization of Investment Tax Credit(113)(340)(453)30Deferred Income Taxes - Net (Line 13 * 21%) $(1,420)$ $(4,260)$ $(5,681)$ 31Net Deferred Income Taxes Resulting from Depreciation - Sum of (26) - (29) $7,843$ 13,04820,89132Other Tax Deferrals: 34- Nothing to Report - 35 0 0 0 0 33Other Tax Deferrals 0 0 0 0 0 34- Nothing to Report - 35 0 0 0 0 0 35Total Deferred Income Taxes (23) + (24) + (30) + (34) $7,013$ $10,001$ $17,014$ 3737 0 0 0 0 0	17					
20 Federal Income Taxes @ 21% 4,201 3,524 7,725 21 Deferred Income Taxes:	18	Federal Taxable Income (1) + (16)	_	20,006	16,780	36,786
21 22Deferred Income Taxes: 23(823)(2,602)(3,425)24Deferred Income Tax Adjustment - Flow-Through (A)WPC-4.1a11(421)(410)25Deferred Income Tax Adjustment - Federal effect of State Deferred Taxes(18)(24)(42)2627Deferred Income Tax on Depreciation (Line 9 * 21%)(691)(3,634)(4,324)28Other Deferred Income Taxes - Net (Line 13 * 21%)10,06721,28231,34929Amortization of Investment Tax Credit(113)(340)(453)30Deferred Income Taxes Resulting from Depreciation - Sum of (26) - (29)7,84313,04820,89132Other Tax Deferrals:34- Nothing to Report35Total Other Tax Deferrals36Total Deferred Income Taxes (23) + (24) + (30) + (34)7,01310,00117,0143737	19		-			
22 Deferred Income Taxes: (823) (2,602) (3,425) 24 Deferred Income Tax Adjustment - Flow-Through (A) WPC-4.1a 11 (421) (410) 25 Deferred Income Tax Adjustment - Federal effect of State Deferred Taxes (18) (24) (42) 26 - - - - - - 27 Deferred Income Tax on Depreciation (Line 9 * 21%) (691) (3,634) (4,324) 28 Other Deferred Income Taxes - Net (Line 13 * 21%) 10,067 21,282 31,349 29 Amortization of Investment Tax Credit (113) (340) (453) 30 Deferred Income Taxes Resulting from Depreciation - Sum of (26) - (29) 7,843 13,048 20,891 32 Other Tax Deferrals: - - - - - 33 Other Tax Deferrals: - - - - - 34 - Nothing to Report - - - - - - 35 Total Other Tax Deferrals - - - - - - - - - <t< td=""><td>20</td><td>Federal Income Taxes @ 21%</td><td></td><td>4,201</td><td>3,524</td><td>7,725</td></t<>	20	Federal Income Taxes @ 21%		4,201	3,524	7,725
23 Deferred Income Tax Adjustment - Protected EDIT Amortization (823) (2,602) (3,425) 24 Deferred Income Tax Adjustment - Flow-Through (A) WPC-4.1a 11 (421) (410) 25 Deferred Income Tax Adjustment - Federal effect of State Deferred Taxes (18) (24) (42) 26 - - - (691) (3,634) (4,324) 27 Deferred Income Tax on Depreciation (Line 9 * 21%) (691) (3,634) (4,324) 28 Other Deferred Income Taxes - Net (Line 13 * 21%) 10,067 21,282 31,349 29 Amortization of Investment Tax Credit (113) (340) (453) 30 Deferred Income Taxes Resulting from Depreciation - Sum of (26) - (29) 7,843 13,048 20,891 32 Other Tax Deferrals: - - - - - 33 Other Tax Deferrals - - - - - 34 - Nothing to Report - - - - - - 35 Total Other Tax Deferrals - - - - - -						
24 Deferred Income Tax Adjustment - Flow-Through (A) WPC-4.1a 11 (421) (410) 25 Deferred Income Tax Adjustment - Federal effect of State Deferred Taxes (18) (24) (42) 26 (691) (3,634) (4,324) 27 Deferred Income Tax on Depreciation (Line 9 * 21%) (691) (3,634) (4,324) 28 Other Deferred Income Taxes - Net (Line 13 * 21%) 10,067 21,282 31,349 29 Amortization of Investment Tax Credit (113) (340) (453) 30 Deferred Income Tax Adjustment - Unprotected EDIT Amortization (1,420) (4,260) (5,681) 31 Net Deferred Income Taxes Resulting from Depreciation - Sum of (26) - (29) 7,843 13,048 20,891 32 Other Tax Deferrals: - - - - 33 Other Tax Deferrals - - - - 34 - Nothing to Report - - - - - 35 Total Deferred Income Taxes (23) + (24) + (30) + (34) 7,013 10,001 17,014 37 - - - -	22	Deferred Income Taxes:				
25 Deferred Income Tax Adjustment - Federal effect of State Deferred Taxes (18) (24) (42) 26 27 Deferred Income Tax on Depreciation (Line 9 * 21%) (691) (3,634) (4,324) 28 Other Deferred Income Taxes - Net (Line 13 * 21%) 10,067 21,282 31,349 29 Amortization of Investment Tax Credit (113) (340) (453) 30 Deferred Income Tax Adjustment - Unprotected EDIT Amortization (1,420) (4,260) (5,681) 31 Net Deferred Income Taxes Resulting from Depreciation - Sum of (26) - (29) 7,843 13,048 20,891 32 Other Tax Deferrals: - - - - 33 Other Tax Deferrals 0 0 0 0 34 - Nothing to Report - - - - - 35 Total Other Tax Deferrals 0 0 0 0 0 0 36 Total Deferred Income Taxes (23) + (24) + (30) + (34) 7,013 10,001 17,014 37 - - - - - - -	23	Deferred Income Tax Adjustment - Protected EDIT Amortization		(823)	(2,602)	(3,425)
26 27 Deferred Income Tax on Depreciation (Line 9 * 21%) (691) (3,634) (4,324) 28 Other Deferred Income Taxes - Net (Line 13 * 21%) 10,067 21,282 31,349 29 Amortization of Investment Tax Credit (113) (340) (453) 30 Deferred Income Tax Adjustment - Unprotected EDIT Amortization (1,420) (4,260) (5,681) 31 Net Deferred Income Taxes Resulting from Depreciation - Sum of (26) - (29) 7,843 13,048 20,891 32 Other Tax Deferrals: - - - Nothing to Report - 33 Other Tax Deferrals 0 0 0 0 36 Total Deferred Income Taxes (23) + (24) + (30) + (34) 7,013 10,001 17,014	24	Deferred Income Tax Adjustment - Flow-Through (A)	WPC-4.1a	11	(421)	(410)
27 Deferred Income Tax on Depreciation (Line 9 * 21%) (691) (3,634) (4,324) 28 Other Deferred Income Taxes - Net (Line 13 * 21%) 10,067 21,282 31,349 29 Amortization of Investment Tax Credit (113) (340) (453) 30 Deferred Income Tax Adjustment - Unprotected EDIT Amortization (1,420) (4,260) (5,681) 31 Net Deferred Income Taxes Resulting from Depreciation - Sum of (26) - (29) 7,843 13,048 20,891 32 Other Tax Deferrals: - - - - - 34 - Nothing to Report - - - - - - 36 Total Deferred Income Taxes (23) + (24) + (30) + (34) 7,013 10,001 17,014 37 - - - - - -	25	Deferred Income Tax Adjustment - Federal effect of State Deferred Taxes		(18)	(24)	(42)
28 Other Deferred Income Taxes - Net (Line 13 * 21%) 10,067 21,282 31,349 29 Amortization of Investment Tax Credit (113) (340) (453) 30 Deferred Income Tax Adjustment - Unprotected EDIT Amortization (1,420) (4,260) (5,681) 31 Net Deferred Income Taxes Resulting from Depreciation - Sum of (26) - (29) 7,843 13,048 20,891 32 33 Other Tax Deferrals: - - Nothing to Report - 34 - Nothing to Report - - - - - 36 Total Deferred Income Taxes (23) + (24) + (30) + (34) 7,013 10,001 17,014 37						
29 Amortization of Investment Tax Credit (113) (340) (453) 30 Deferred Income Tax Adjustment - Unprotected EDIT Amortization (1,420) (4,260) (5,681) 31 Net Deferred Income Taxes Resulting from Depreciation - Sum of (26) - (29) 7,843 13,048 20,891 32 33 Other Tax Deferrals: 7,013 10,001 17,014 34 - Nothing to Report - 0 0 0 35 Total Other Tax Deferrals 0 0 0 36 Total Deferred Income Taxes (23) + (24) + (30) + (34) 7,013 10,001 17,014 37 37 37 340 340 340 340				(691)	(3,634)	(4,324)
30 Deferred Income Tax Adjustment - Unprotected EDIT Amortization (1,420) (4,260) (5,681) 31 Net Deferred Income Taxes Resulting from Depreciation - Sum of (26) - (29) 7,843 13,048 20,891 32 33 Other Tax Deferrals: 7,843 13,048 20,891 34 - Nothing to Report - 5 Total Other Tax Deferrals 0 0 0 36 Total Deferred Income Taxes (23) + (24) + (30) + (34) 7,013 10,001 17,014 37 37 37 36 36 37 36 36 37 37 37 37 37 37	28	Other Deferred Income Taxes - Net (Line 13 * 21%)		10,067	21,282	31,349
31 Net Deferred Income Taxes Resulting from Depreciation - Sum of (26) - (29) 7,843 13,048 20,891 32 33 Other Tax Deferrals: 34 - Nothing to Report - 34 - Nothing to Report - 35 Total Other Tax Deferrals 0 0 0 36 Total Deferred Income Taxes (23) + (24) + (30) + (34) 7,013 10,001 17,014 37 37 37 37 37 37 37	29			(113)		(453)
32 32 33 Other Tax Deferrals: 34 - Nothing to Report - 35 Total Other Tax Deferrals 36 Total Deferred Income Taxes (23) + (24) + (30) + (34) 37 7,013 10,001	30				(4,260)	(5,681)
33 Other Tax Deferrals: 34 - Nothing to Report - 35 Total Other Tax Deferrals 36 Total Deferred Income Taxes (23) + (24) + (30) + (34) 37	31	Net Deferred Income Taxes Resulting from Depreciation - Sum of (26) - (29)		7,843	13,048	20,891
34 - Nothing to Report - 35 Total Other Tax Deferrals 36 Total Deferred Income Taxes (23) + (24) + (30) + (34) 37 7,013	32					
35 Total Other Tax Deferrals 0 0 0 36 Total Deferred Income Taxes (23) + (24) + (30) + (34) 7,013 10,001 17,014 37 37 37 37 37 37 37						
36 Total Deferred Income Taxes (23) + (24) + (30) + (34) 7,013 10,001 17,014 37	34	- Nothing to Report -				
37	35		_			
	36	Total Deferred Income Taxes (23) + (24) + (30) + (34)	_	7,013	10,001	17,014
38 Total Federal Income Taxes (20) + (35) 11,215 13,525 24,739						
	38	Total Federal Income Taxes (20) + (35)	_	11,215	13,525	24,739

(A) Pre 1981 Tax Depreciation and Property Removal Costs ADR Years 1971 - 1980.

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR RATE OF RETURN SUMMARY

SCHEDULE D-1A PAGE 1 OF 1

LINE NO.	CLASS OF CAPITAL	REFERENCE	ACTUAL AMOUNT \$000	% OF TOTAL	(%) COST	WEIGHTED COST %
1	LONG-TERM DEBT	D-3	1,782,926	49.40%	4.67%	2.31%
2	PREFERRED STOCK	D-4	-	0.00%	0.00%	0.00%
3	LOW-END COMMON EQUITY		1,826,055	50.60%	9.04%	4.57%
4	HIGH-END COMMON EQUITY		1,826,055	50.60%	10.05%	5.08%
5	LOW-END TOTAL CAPITAL	-	3,608,981	100.00%		6.88%
6	HIGH-END TOTAL CAPITAL	-	3,652,111	101.20%		7.39%

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR Equity Issuance Cost Adjustment As of March 31, 2021

Staff Schedule D-1.1

Line No.	Adjustment	Amount
1	Retained Earnings ¹	\$1,387,603
2		
3	Total Common Equity ²	\$1,826,055
4		
5	Ratio of (1) to (3)	0.75989
6		
7	Generic Issuance Cost, f	3.50%
8		
9	External Equity Ratio, w [1.0 - (5)]	0.24011
10		
11	Net Adjustment Factor, (w/(1 - f)) + (1 - w)	1.00871
12		
13	Low End Equity Cost [8.96 x Line (11)]	9.04%
14		
15	High End Equity Cost [9.96 x Line (11)]	10.05%

Sources:

1 From Filing in current cas

2 Applicant's Schedule D-1

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR Embedded Cost of Long-Term Debt As of March 31, 2021

Schedule D-1.2 Page 1 of 1

Line No.	Description	Date Issued (Mo/Day/Yr)	Maturity Date (Mo/Day/Yr)	Prir	ncipal Amount	ace Amount Dutstanding	U	namort (Discount) or Premium	namort Debt Expense		nort Gain or (Loss) Reacquired Debt	' (Carrying Value	An	nual Interest Cost ¹
(A)	(B)	(C)	(D)		(E)	(F)		(G)	(H)	-	(I)	(J)	= (F)+(G)-(H)+(I)		(K)
1	First Mortgage Bonds:														
2															
3															
4	Fixed Rate 3.20%	7/31/2020	7/31/2040	\$	140,000,000	140,000,000			\$ 400,000			\$	139,600,000	\$	4,500,000
5	Fixed Rate 3.95%	6/6/2019	6/15/2049	\$	425,000,000	\$ 425,000,000	\$	(2,642,260)	\$ 5,408,076	\$	(8,551,441)	\$	408,398,223	\$	19,852,855
6															
7	Subtotal			\$	565,000,000	\$ 565,000,000	\$	(2,642,260)	\$ 5,808,076	\$	(8,551,441)	\$	547,998,223	\$	24,352,855
8															
9	Other Long-Term Debt:														
10															
11	WPAFB Loan			\$	17,965,335	\$ 17,436,623	\$	-	\$ -	\$	-	\$	17,436,623	\$	732,338
12					-										
13	TOTALS					\$ 582,436,623	\$	(2,642,260)	\$ 5,808,076	\$	(8,551,441)	\$	565,434,846	\$	25,085,193
14															
15	EMBEDDED COST OF LONG-TERM D	EBT											-		4.436%
16													-		
17	EMBEDDED COST OF LONG-TERM D	EBT (excludir	ng WPAFB Loan	n) ²									-		4.444%
			0										=		
1	Annualized interest expense plus (or mir	oue) amortizat	tion of discount of	or											
	Annualized interest expense plus (of fill	,													

premium plus amortization of issue costs minus (or plus) amortization

of gain (or loss) on reacquired debt.

² Equals Line 7 Column K / Column J

		Historical View	
Line No.		Monthly Yield for	Monthly Yield for 30-
Line No.	Date	10-Year U.S.	Year U.S. Treasury
		Treasury Bonds ¹	Bonds ¹
1	9/1/1991	7.47	7.82
2	10/1/1991	7.47	7.91
3	11/1/1991	7.38	7.94
4	12/1/1991	6.71	7.41
5	1/1/1992	7.31	7.77
6	2/1/1992	7.27	7.8
7	3/1/1992	7.54	7.96
8	4/1/1992	7.61	8.06
9	5/1/1992	7.33	7.84
10	6/1/1992	7.14	7.79
11	7/1/1992	6.72	7.46
12	8/1/1992	6.62	7.42
13	9/1/1992	6.37	7.38
14	10/1/1992	6.8	7.63
15	11/1/1992	6.95	7.59
16	12/1/1992	6.7	7.4
17	1/1/1993	6.39	7.21
18	2/1/1993	6.03	6.9
19	3/1/1993	6.03	6.93
20	4/1/1993	6.05	6.95
21	5/1/1993	6.16	6.98
22	6/1/1993	5.8	6.68
23	7/1/1993	5.83	6.57
24	8/1/1993	5.45	6.09
25	9/1/1993	5.4	6.04
26	10/1/1993	5.388	5.965
27	11/1/1993	5.795	6.286
28	12/1/1993	5.783	6.339
29	1/1/1994	5.638	6.224
30	2/1/1994	6.15	6.671
31	3/1/1994	6.774	7.125
32	4/1/1994	7.035	7.302
33	5/1/1994	7.152	7.435
34	6/1/1994	7.329	7.612
35	7/1/1994	7.095	7.379
36	8/1/1994	7.165	7.441

		Historical View	
Line No.		Monthly Yield for	Monthly Yield for 30-
	Date	10-Year U.S.	Year U.S. Treasury
		Treasury Bonds ¹	Bonds ¹
37	9/1/1994	7.599	7.819
38	10/1/1994	7.793	7.962
39	11/1/1994	7.888	7.977
40	12/1/1994	7.827	7.87
41	1/1/1995	7.593	7.69
42	2/1/1995	7.21	7.445
43	3/1/1995	7.189	7.43
44	4/1/1995	7.046	7.333
45	5/1/1995	6.286	6.644
46	6/1/1995	6.203	6.624
47	7/1/1995	6.429	6.855
48	8/1/1995	6.273	6.645
49	9/1/1995	6.157	6.482
50	10/1/1995	6.003	6.317
51	11/1/1995	5.745	6.132
52	12/1/1995	5.575	5.949
53	1/1/1996	5.581	6.023
54	2/1/1996	6.112	6.492
55	3/1/1996	6.334	6.679
56	4/1/1996	6.633	6.877
57	5/1/1996	6.844	6.991
58	6/1/1996	6.711	6.898
59	7/1/1996	6.79	6.966
60	8/1/1996	6.936	7.107
61	9/1/1996	6.699	6.923
62	10/1/1996	6.349	6.65
63	11/1/1996	6.04	6.352
64	12/1/1996	6.407	6.635
65	1/1/1997	6.503	6.797
66	2/1/1997	6.535	6.787
67	3/1/1997	6.907	7.101
68	4/1/1997	6.702	6.951
69	5/1/1997	6.663	6.913
70	6/1/1997	6.502	6.794
71	7/1/1997	6.004	6.294
72	8/1/1997	6.33	6.601
73	9/1/1997	6.107	6.407

		Historical View	
Line No.		Monthly Yield for	Monthly Yield for 30-
	Date	10-Year U.S.	Year U.S. Treasury
		Treasury Bonds ¹	Bonds ¹
74	10/1/1997	5.819	6.144
75	11/1/1997	5.851	6.036
76	12/1/1997	5.739	5.925
77	1/1/1998	5.512	5.805
78	2/1/1998	5.616	5.918
79	3/1/1998	5.662	5.937
80	4/1/1998	5.667	5.946
81	5/1/1998	5.546	5.8
82	6/1/1998	5.434	5.618
83	7/1/1998	5.494	5.717
84	8/1/1998	5.032	5.291
85	9/1/1998	4.41	4.976
86	10/1/1998	4.603	5.143
87	11/1/1998	4.726	5.07
88	12/1/1998	4.638	5.084
89	1/1/1999	4.653	5.086
90	2/1/1999	5.272	5.553
91	3/1/1999	5.234	5.621
92	4/1/1999	5.35	5.673
93	5/1/1999	5.611	5.823
94	6/1/1999	5.81	5.988
95	7/1/1999	5.907	6.104
96	8/1/1999	5.979	6.066
97	9/1/1999	5.885	6.056
98	10/1/1999	6.003	6.149
99	11/1/1999	6.163	6.281
100	12/1/1999	6.435	6.477
101	1/1/2000	6.667	6.491
102	2/1/2000	6.409	6.133
103	3/1/2000	6.023	5.846
104	4/1/2000	6.214	5.962
105	5/1/2000	6.285	6.017
106	6/1/2000	6.018	5.881
107	7/1/2000	6.029	5.78
108	8/1/2000	5.729	5.674
109	9/1/2000	5.778	5.869
110	10/1/2000	5.757	5.784
111	11/1/2000	5.439	5.586
112	12/1/2000	5.11	5.459

		Historical View	
Line No.		Monthly Yield for	Monthly Yield for 30-
	Date	10-Year U.S.	Year U.S. Treasury
		Treasury Bonds ¹	Bonds ¹
113	1/1/2001	5.179	5.536
114	2/1/2001	4.908	5.337
115	3/1/2001	4.915	5.453
116	4/1/2001	5.338	5.772
117	5/1/2001	5.413	5.779
118	6/1/2001	5.39	5.736
119	7/1/2001	5.037	5.502
120	8/1/2001	4.816	5.368
121	9/1/2001	4.575	5.415
122	10/1/2001	4.263	4.873
123	11/1/2001	4.744	5.265
124	12/1/2001	5.032	5.478
125	1/1/2002	5.025	5.426
126	2/1/2002	4.859	5.409
127	3/1/2002	5.406	5.815
128	4/1/2002	5.091	5.594
129	5/1/2002	5.043	5.612
130	6/1/2002	4.824	5.517
131	7/1/2002	4.465	5.305
132	8/1/2002	4.137	4.937
133	9/1/2002	3.607	4.662
134	10/1/2002	3.911	5.007
135	11/1/2002	4.213	5.048
136	12/1/2002	3.818	4.783
137	1/1/2003	3.975	4.847
138	2/1/2003	3.696	4.676
139	3/1/2003	3.823	4.837
140	4/1/2003	3.857	4.778
141	5/1/2003	3.35	4.362
142	6/1/2003	3.528	4.566
143	7/1/2003	4.474	5.41
144	8/1/2003	4.454	5.224
145	9/1/2003	3.937	4.884
146	10/1/2003	4.301	5.145
147	11/1/2003	4.32	5.126
148	12/1/2003	4.257	5.068
149	1/1/2004	4.138	4.965
150	2/1/2004	3.984	4.857
151	3/1/2004	3.837	4.777

		Historical View	
Line No.		Monthly Yield for	Monthly Yield for 30-
	Date	10-Year U.S.	Year U.S. Treasury
		Treasury Bonds ¹	Bonds ¹
152	4/1/2004	4.501	5.282
153	5/1/2004	4.655	5.348
154	6/1/2004	4.617	5.313
155	7/1/2004	4.475	5.205
156	8/1/2004	4.132	4.938
157	9/1/2004	4.119	4.891
158	10/1/2004	4.029	4.794
159	11/1/2004	4.358	5.012
160	12/1/2004	4.216	4.822
161	1/1/2005	4.133	4.59
162	2/1/2005	4.359	4.706
163	3/1/2005	4.496	4.766
164	4/1/2005	4.201	4.519
165	5/1/2005	4.006	4.347
166	6/1/2005	3.945	4.219
167	7/1/2005	4.286	4.474
168	8/1/2005	4.02	4.261
169	9/1/2005	4.328	4.568
170	10/1/2005	4.559	4.755
171	11/1/2005	4.5	4.703
172	12/1/2005	4.395	4.547
173	1/1/2006	4.527	4.685
174	2/1/2006	4.547	4.503
175	3/1/2006	4.853	4.893
176	4/1/2006	5.069	5.169
177	5/1/2006	5.113	5.207
178	6/1/2006	5.138	5.186
179	7/1/2006	4.988	5.07
180	8/1/2006	4.732	4.878
181	9/1/2006	4.633	4.767
182	10/1/2006	4.606	4.719
183	11/1/2006	4.458	4.561
184	12/1/2006	4.71	4.818
185	1/1/2007	4.826	4.926
186	2/1/2007	4.55	4.669
187	3/1/2007	4.648	4.848
188	4/1/2007	4.63	4.817
189	5/1/2007	4.89	5.011
190	6/1/2007	5.033	5.126

		Historical View	
Line No.		Monthly Yield for	Monthly Yield for 30-
Line No.	Date	10-Year U.S.	Year U.S. Treasury
		Treasury Bonds ¹	Bonds ¹
191	7/1/2007	4.771	4.922
192	8/1/2007	4.537	4.831
193	9/1/2007	4.579	4.833
194	10/1/2007	4.475	4.751
195	11/1/2007	3.972	4.403
196	12/1/2007	4.035	4.459
197	1/1/2008	3.639	4.354
198	2/1/2008	3.534	4.421
199	3/1/2008	3.432	4.306
200	4/1/2008	3.759	4.497
201	5/1/2008	4.046	4.707
202	6/1/2008	3.979	4.531
203	7/1/2008	3.979	4.603
204	8/1/2008	3.813	4.412
205	9/1/2008	3.827	4.305
206	10/1/2008	3.97	4.369
207	11/1/2008	2.957	3.487
208	12/1/2008	2.244	2.691
209	1/1/2009	2.844	3.603
210	2/1/2009	3.041	3.722
211	3/1/2009	2.685	3.561
212	4/1/2009	3.124	4.044
213	5/1/2009	3.465	4.338
214	6/1/2009	3.523	4.311
215	7/1/2009	3.501	4.311
216	8/1/2009	3.401	4.181
217	9/1/2009	3.307	4.048
218	10/1/2009	3.392	4.236
219	11/1/2009	3.201	4.194
220	12/1/2009	3.843	4.641
221	1/1/2010	3.609	4.51
222	2/1/2010	3.595	4.529
223	3/1/2010	3.833	4.715
224	4/1/2010	3.663	4.527
225	5/1/2010	3.301	4.214
226	6/1/2010	2.951	3.909
227	7/1/2010	2.907	3.977
228	8/1/2010	2.477	3.533
229	9/1/2010	2.517	3.687

		Historical View	
Line No.		Monthly Yield for	Monthly Yield for 30-
Line No.	Date	10-Year U.S.	Year U.S. Treasury
		Treasury Bonds ¹	Bonds ¹
230	10/1/2010	2.612	4
231	11/1/2010	2.797	4.102
232	12/1/2010	3.305	4.362
233	1/1/2011	3.378	4.571
234	2/1/2011	3.414	4.49
235	3/1/2011	3.454	4.508
236	4/1/2011	3.296	4.406
237	5/1/2011	3.05	4.216
238	6/1/2011	3.158	4.382
239	7/1/2011	2.805	4.132
240	8/1/2011	2.218	3.592
241	9/1/2011	1.924	2.921
242	10/1/2011	2.175	3.199
243	11/1/2011	2.068	3.062
244	12/1/2011	1.871	2.889
245	1/1/2012	1.799	2.934
246	2/1/2012	1.977	3.086
247	3/1/2012	2.216	3.345
248	4/1/2012	1.915	3.109
249	5/1/2012	1.581	2.672
250	6/1/2012	1.659	2.763
251	7/1/2012	1.492	2.577
252	8/1/2012	1.562	2.684
253	9/1/2012	1.637	2.834
254	10/1/2012	1.686	2.851
255	11/1/2012	1.606	2.794
256	12/1/2012	1.756	2.952
257	1/1/2013	1.985	3.17
258	2/1/2013	1.888	3.094
259	3/1/2013	1.852	3.104
260	4/1/2013	1.675	2.884
261	5/1/2013	2.164	3.308
262	6/1/2013	2.478	3.498
263	7/1/2013	2.593	3.646
264	8/1/2013	2.749	3.676
265	9/1/2013	2.615	3.686
266	10/1/2013	2.542	3.631
267	11/1/2013	2.741	3.808
268	12/1/2013	3.026	3.964
269	1/1/2014	2.668	3.622
270	2/1/2014	2.658	3.592
271	3/1/2014	2.723	3.561

		Historical View			
Line No.	Date	Monthly Yield for 10-Year U.S.	Monthly Yield for 30- Year U.S. Treasury		
		Treasury Bonds ¹	Bonds ¹		
272	4/1/2014	2.648	3.458		
273	5/1/2014	2.457	3.314		
274	6/1/2014	2.516	3.338		
275	7/1/2014	2.556	3.311		
276	8/1/2014	2.343	3.08		
277	9/1/2014	2.508	3.212		
278	10/1/2014	2.335	3.06		
279	11/1/2014	2.194	2.91		
280	12/1/2014	2.17	2.749		
281	1/1/2015	1.675	2.251		
282	2/1/2015	2.002	2.6		
283	3/1/2015	1.934	2.544		
284	4/1/2015	2.046	2.753		
285	5/1/2015	2.095	2.847		
286	6/1/2015	2.335	3.104		
287	7/1/2015	2.205	2.927		
288	8/1/2015	2.2	2.931		
289	9/1/2015	2.06	2.88		
290	10/1/2015	2.151	2.933		
291	11/1/2015	2.218	2.99		
292	12/1/2015	2.269	3.015		
293	1/1/2016	1.931	2.758		
294	2/1/2016	1.74	2.615		
295	3/1/2016	1.786	2.62		
296	4/1/2016	1.819	2.666		

		Historical View	
Line No.		Monthly Yield for	Monthly Yield for 30-
Line No.	Date	10-Year U.S.	Year U.S. Treasury
		Treasury Bonds ¹	Bonds ¹
297	5/1/2016	1.834	2.629
298	6/1/2016	1.488	2.307
299	7/1/2016	1.458	2.182
300	8/1/2016	1.568	2.231
301	9/1/2016	1.608	2.336
302	10/1/2016	1.834	2.589
303	11/1/2016	2.368	3.017
304	12/1/2016	2.446	3.063
305	1/1/2017	2.451	3.051
306	2/1/2017	2.358	2.968
307	3/1/2017	2.396	3.018
308	4/1/2017	2.282	2.952
309	5/1/2017	2.196	2.857
310	6/1/2017	2.302	2.84
311	7/1/2017	2.292	2.898
312	8/1/2017	2.121	2.725
313	9/1/2017	2.326	2.857
314	10/1/2017	2.376	2.875
315	11/1/2017	2.417	2.832
316	12/1/2017	2.405	2.739
317	1/1/2018	2.72	2.942
318	2/1/2018	2.868	3.127
319	3/1/2018	2.741	2.972
320	4/1/2018	2.936	3.097
321	5/1/2018	2.822	2.986
322	6/1/2018	2.849	2.983
323	7/1/2018	2.964	3.083
324	8/1/2018	2.853	3.01
325	9/1/2018	3.056	3.197
326	10/1/2018	3.159	3.402
327	11/1/2018	3.013	3.311
328	12/1/2018	2.686	3.02
329	1/1/2019	2.635	3.005
330	2/1/2019	2.711	3.083
331	3/1/2019	2.414	2.822
332	4/1/2019	2.509	2.94
333	5/1/2019	2.142	2.583

		Historical View	
Line No.		Monthly Yield for	Monthly Yield for 30-
	Date	10-Year U.S.	Year U.S. Treasury
		Treasury Bonds ¹	Bonds ¹
334	6/1/2019	2	2.528
335	7/1/2019	2.021	2.527
336	8/1/2019	1.506	1.97
337	9/1/2019	1.675	2.121
338	10/1/2019	1.691	2.176
339	11/1/2019	1.776	2.202
340	12/1/2019	1.919	2.389
341	1/1/2020	1.52	2.015
342	2/1/2020	1.127	1.671
343	3/1/2020	0.698	1.351
344	4/1/2020	0.622	1.266
345	5/1/2020	0.648	1.407
346	6/1/2020	0.653	1.409
347	7/1/2020	0.536	1.198
348	8/1/2020	0.693	1.452
349	9/1/2020	0.677	1.451
350	10/1/2020	0.86	1.64
351	11/1/2020	0.844	1.573
352	12/1/2020	0.917	1.646
353	1/1/2021	1.093	1.858
354	2/1/2021	1.46	2.182
355	3/1/2021	1.746	2.425
356	4/1/2021	1.631	2.301
357	5/1/2021	1.581	2.263
358	6/1/2021	1.443	2.065
359	7/1/2021	1.239	1.897
360	8/1/2021	1.255	1.872
361	9/1/2021	1.297	1.916
362		4.065	4.6345
363			
364	Average	4.35	
365	CADM DE DIMerket Diek		
366	CAPM=RF+B(Market Risk Premium)		
367	Risk Free (RF) =	4.35	
368	Beta	0.80	
369	Market Risk Premium (Fairness Finance)	6.21	
370 371	CAPM=4.35+.8(6.21)	9.32	

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR DCF Price, Dividend, and Growth Rate As of March 31, 2021

				Stoc	k Prices (\$):			
Line No.	Date	AEE	ΑΤΟ	CNP	CMS	EVRG	OGE	PNW
			AIU	011	0110	Lino	002	
1	9/14/2020	74.95	90.95	19.04	59.74	50.93	28.77	69.22
2	9/15/2020	75.46	90.00	18.52	59.44	50.52	28.06	69.15
3	9/16/2020	75.89	91.50	19.24	60.25	50.77	28.30	69.42
4	9/17/2020	75.57	91.05	18.80	59.67	50.36	27.97	69.29
5	9/18/2020	74.83	89.66	18.45	59.43	49.14	27.46	67.62
6	9/21/2020	74.60	89.93	18.42	58.35	48.24	27.31	67.99
7	9/22/2020	75.03	91.34	18.43	59.03	48.69	27.57	68.97
8	9/23/2020	73.62	90.51	18.38	57.94	47.39	27.66	68.10
9	9/24/2020	74.68	91.21	18.42	57.95	47.44	27.69	69.86
10	9/25/2020	76.15	92.83	18.50	59.67	48.51	27.90	70.83
11	9/28/2020	76.35	92.63	18.53	59.72	48.56	28.23	70.95
12	9/29/2020	76.94	92.68	18.51	59.44	48.38	28.24	70.52
13	9/30/2020	77.00	93.16	18.86	59.73	49.03	28.55	71.58
14	10/1/2020	77.75	93.04	18.90	60.00	49.03	28.75	72.32
15	10/2/2020	77.71	93.58	19.42	59.98	50.15	29.56	74.76
16	10/5/2020	78.59	92.80	19.67	59.90	50.68	30.49	76.47
17	10/6/2020	79.16	94.52	20.04	61.17	50.56	30.82	77.89
18	10/7/2020	78.56	93.93	20.12	61.29	50.60	30.50	79.65
19	10/8/2020	79.58	94.33	20.77	62.13	51.48	31.16	80.21
20	10/9/2020	79.89	94.06	20.82	62.58	51.06	30.86	79.27
21	10/12/2020	80.36	94.16	21.06	63.30	51.55	30.95	78.31
22	10/13/2020	79.01	92.99	20.29	62.99	51.05	30.01	77.51
23	10/14/2020	79.21	92.63	20.26	63.02	51.56	29.80	77.06
24	10/15/2020	79.01	92.10	20.38	63.00	52.50	30.31	77.66
25	10/16/2020	80.22	92.09	20.32	63.50	52.98	30.42	77.84
26	10/19/2020	79.49	91.85	20.27	62.98	52.67	30.40	78.55
27	10/20/2020	79.97	91.88	20.79	63.24	53.56	31.04	79.05
28	10/21/2020	80.12	93.11	20.98	63.40	53.92	30.49	80.36
29	10/22/2020	80.84	94.18	21.51	63.96	54.58	31.31	82.31
30	10/23/2020	81.19	95.21	21.66	64.05	54.38	31.96	83.28
31	10/26/2020	81.84	95.00	21.56	64.34	53.72	31.73	83.06
32	10/27/2020	81.97	94.60	21.76	63.89	54.40	31.31	82.44
33	10/28/2020	79.22	90.34	20.76	62.22	53.42	29.95	79.47
34	10/29/2020	79.20	89.74	20.93	61.77	53.38	29.84	79.94
35	10/30/2020	78.98	89.34	20.59	61.60	53.25	29.65	79.11
36	11/2/2020	81.02	93.08	20.92	62.59	54.32	30.62	78.62
37	11/3/2020	82.10	95.15	21.23	63.52	54.97	31.33	79.29
38	11/4/2020	81.25	93.16	21.01	62.80	53.80	31.07	79.72
39	11/5/2020	80.30	92.61	22.09	63.08	53.24	30.81	81.93
40	11/6/2020	79.69	91.26	22.28	62.83	53.10	30.53	81.26
41	11/9/2020	80.85	95.31	23.12	64.74	55.94	31.48	85.29
42	11/10/2020	80.29	99.85	23.48	65.69	56.52	32.98	88.16
43	11/11/2020	80.20	98.18	23.45	65.60	55.28	32.72	86.89
44	11/12/2020	79.20	96.21	22.84	63.46	53.75	31.54	85.19
45	11/13/2020	79.96	99.56	23.63	63.70	55.09	32.73	86.76
46	11/16/2020	82.11	98.71	24.45	64.67	55.60	33.44	87.71
47	11/17/2020	78.48	97.51	24.53	62.48	54.57	32.97	84.16
48	11/18/2020	76.98	93.73	23.28	60.20	53.07	32.07	82.16
49	11/19/2020	76.28	92.68	22.97	59.30	52.30	32.27	81.03
50	11/20/2020	76.38	93.24	23.00	59.96	53.10	32.51	80.74
51	11/23/2020	77.21	94.40	23.51	60.14	53.55	32.83	81.93
52	11/24/2020	76.99	97.73	23.88	60.99	54.36	33.50	83.19
53	11/25/2020	78.46	96.88	24.03	61.38	54.73	33.38	83.91

				Stoc	k Prices (\$):			
Line No.	Date	AEE	ATO	CNP	CMS	EVRG	OGE	PNW
54	11/27/2020	76.91	94.96	23.59	60.67	54.33	32.43	81.41
55	11/30/2020	75.73	94.05	22.73	60.24	53.98	31.22	79.38
56	12/1/2020	76.44	94.78	22.38	60.21	54.13	31.51	79.87
57	12/2/2020	76.42	94.34	22.48	60.49	54.65	31.82	80.39
58	12/3/2020	75.86	94.66	22.34	59.66	54.07	31.44	78.94
59	12/4/2020	75.05	95.40	22.41	58.51	53.50	31.69	79.92
60	12/7/2020	76.14	95.38	22.68	59.42	53.70	31.72	80.09
61	12/8/2020	75.72	95.71	22.06	58.93	54.03	31.36	79.35
62	12/9/2020	76.25	95.87	21.79	58.54	54.07	31.62	78.88
63	12/10/2020	75.80	96.28	21.37	58.19	53.68	31.17	78.30
64	12/11/2020	75.93	97.16	21.32	58.13	53.71	30.99	77.32
65	12/14/2020	75.70	97.60	21.21	57.97	53.00	30.92	76.75
66	12/15/2020	77.16	99.72	21.80	58.73	53.25	31.16	77.62
67	12/16/2020	76.45	97.44	21.44	58.00	52.28	30.81	76.28
68	12/17/2020	77.17	97.18	21.45	58.25	52.64	30.38	76.93
69	12/18/2020	77.29	93.28	21.44	57.98	51.97	30.01	76.28
70	12/21/2020	75.55	90.25	20.63	56.78	51.42	29.38	74.96
71	12/22/2020	75.03	90.55	20.41	56.38	51.29	29.58	75.43
72	12/23/2020	74.21	90.26	21.08	56.39	51.42	29.81	75.07
73	12/24/2020	74.95	90.99	21.15	56.93	52.05	30.02	75.52
74	12/28/2020	75.22	91.61	20.99	57.58	52.44	30.25	76.06
75	12/29/2020	75.05	91.37	20.88	57.91	52.57	29.89	76.68
76	12/30/2020	75.44	91.71	21.00	58.65	52.67	30.41	76.72
77	12/31/2020	76.51	93.59	21.21	59.72	54.08	30.70	77.54
78	1/4/2021	74.61	92.22	20.92	58.35	52.36	30.78	76.70
79	1/5/2021	74.25	90.83	21.14	57.31	52.25	30.80	75.39
80	1/6/2021	74.87	91.91	21.52	58.47	53.31	31.73	78.05
81	1/7/2021	72.76	88.04	20.47	56.73	51.86	31.03	75.59
82	1/8/2021	73.51	87.54	20.30	56.46	51.63	31.30	75.42
83	1/11/2021	73.55	85.98	20.38	55.92	51.09	30.87	74.38
84	1/12/2021	72.76	85.93	20.29	55.18	51.52	30.41	74.11
85	1/13/2021	74.00	86.76	20.41	56.55	52.86	30.40	75.58
86	1/14/2021	72.52	85.95	20.44	56.60	51.93	29.98	74.73
87	1/15/2021	72.91	88.30	21.04	57.38	52.90	30.55	76.18
88	1/19/2021	71.54	88.35	21.26	57.02	52.00	30.34	75.65
89	1/20/2021	71.10	88.36	21.06	57.46	52.50	30.61	75.59
90	1/21/2021	70.31	87.73	21.26	56.88	52.20	30.55	75.19
91	1/22/2021	71.43	87.38	21.02	57.18	52.41	30.61	74.76
92	1/25/2021	73.59	88.70	21.24	58.26	52.86	31.05	76.00
93	1/26/2021	73.71	89.20	21.52	57.54	52.16	30.81	75.16
94	1/27/2021	73.60	89.08	20.45	56.09	51.36	29.98	74.01
95	1/28/2021	72.44	86.87	21.15	56.04	52.45	30.22	74.37
96	1/29/2021	71.27	87.29	20.67	55.68	52.34	29.79	73.78
97	2/1/2021	71.39	86.94	20.82	55.97	52.35	30.07	74.71
98	2/2/2021	71.32	86.95	21.08	56.21	52.48	30.49	75.20
99	2/3/2021	71.29	85.38	20.73	55.99	52.25	30.07	75.23 75.55
100	2/4/2021	72.46	87.07	21.01	56.09	53.58	30.63	75.55
101	2/5/2021	72.72	87.34	20.98	56.67	53.47	30.67	76.26
102	2/8/2021	71.14	87.37	20.61	55.67	52.82	30.27	75.44
103	2/9/2021	71.80	87.88	20.86	55.81	53.29	30.19	75.16 75.61
104	2/10/2021	71.98	90.08	21.04	56.16	53.91	30.94	75.61
105	2/11/2021	71.12	89.29	20.83	55.81	53.31	30.90	75.16
106	2/12/2021	71.82	89.30	20.96	55.61	53.02	30.78	74.70
107	2/16/2021	71.21	89.38	21.11	54.70	53.01	30.87	74.53

				Stoc	k Prices (\$):			
Line No.	Date	AEE	ΑΤΟ	CNP	CMS	EVRG	OGE	PNW
108	2/17/2021	71.84	90.65	21.26	55.07	53.38	31.00	75.64
109	2/18/2021	72.62	91.89	21.53	55.85	53.79	30.99	75.66
110	2/19/2021	70.89	92.38	21.16	55.22	52.83	31.15	74.77
111	2/22/2021	69.59	88.28	20.41	54.03	51.06	30.35	73.13
112	2/23/2021	70.43	88.50	20.52	54.93	52.95	30.64	74.02
113	2/24/2021	69.98	87.55	20.55	53.83	53.14	30.41	71.63
114	2/25/2021	69.99	87.11	19.51	54.31	52.30	28.90	71.61
115	2/26/2021	68.87	83.54	19.20	53.37	52.24	28.57	68.56
116	3/1/2021	70.07	84.67	19.36	54.07	52.57	28.88	70.89
117	3/2/2021	70.48	86.14	19.33	54.13	52.23	29.04	72.28
118	3/3/2021	69.71	87.33	19.21	53.15	52.32	29.37	71.56
119	3/4/2021	69.76	87.78	19.62	53.15	53.40	30.02	73.19
120	3/5/2021	71.41	90.55	20.40	54.62	53.40 54.45	30.02	74.81
120	3/8/2021	71.41	90.55 90.48	20.40	54.02 55.39	54.45 55.36	30.98	76.72
121					55.39 55.76			
	3/9/2021	73.78	88.21	20.64		55.62	31.03	76.06
123	3/10/2021	75.23	89.66	21.06	56.31	56.03	31.36	76.93
124	3/11/2021	75.11	88.74	21.03	55.99	55.84	30.60	75.28
125	3/12/2021	76.33	90.26	21.70	56.76	56.74	31.04	76.80
126	3/15/2021	77.83	92.01	22.29	57.70	58.23	32.35	78.84
127	3/16/2021	77.50	92.61	22.16	57.59	58.64	32.23	78.02
128	3/17/2021	77.13	91.26	21.99	57.08	57.43	31.62	77.65
129	3/18/2021	77.55	92.35	21.67	57.24	57.69	31.71	78.02
130	3/19/2021	77.81	92.90	21.98	57.56	58.57	31.50	79.21
131	3/22/2021	76.99	92.36	21.69	57.70	57.68	31.31	78.17
132	3/23/2021	78.97	92.99	21.61	59.71	57.93	31.24	78.34
133	3/24/2021	79.97	94.64	21.48	60.05	58.08	31.25	78.04
134	3/25/2021	80.56	95.85	22.02	60.27	58.86	31.47	78.70
135	3/26/2021	80.43	96.01	21.70	60.10	58.18	31.62	78.65
136	3/29/2021	81.63	97.60	22.37	61.08	59.18	31.99	79.84
137	3/30/2021	80.31	97.64	22.52	60.19	58.41	31.67	79.14
138	3/31/2021	80.34	97.60	22.37	60.39	58.56	31.58	79.76
139	4/1/2021	80.01	97.00	22.37	60.19	58.96	31.83	80.21
140	4/5/2021	80.46	97.37	22.66	60.64	59.65	32.04	81.43
141	4/6/2021	80.47	97.02	22.95	60.87	60.17	31.91	81.70
142	4/7/2021	80.28	96.99	23.07	60.31	60.27	32.20	80.65
143	4/8/2021	80.09	97.08	22.94	59.78	59.91	31.87	80.22
144	4/9/2021	79.52	97.88	22.95	59.64	59.68	31.82	80.17
145	4/12/2021	79.70	98.10	23.05	59.93	59.94	32.01	80.94
146	4/13/2021	81.24	97.84	23.37	60.82	60.13	32.24	81.43
147	4/14/2021	81.58	98.86	23.42	61.33	60.08	32.47	81.89
148	4/15/2021	82.53	100.04	23.75	62.54	61.15	33.00	82.82
149	4/16/2021	83.18	100.53	23.76	63.21	62.26	33.07	83.24
150	4/19/2021	82.74	100.55	23.49	63.25	62.21	33.16	82.59
151	4/20/2021	84.81	103.27	23.93	64.38	63.76	33.24	84.29
152	4/21/2021	84.01	102.08	23.99	63.85	63.56	32.89	83.49
153	4/22/2021	83.74	102.09	23.87	63.63	63.18	32.55	82.81
154	4/23/2021	83.71	102.04	23.83	63.26	62.45	32.56	82.17
155	4/26/2021	83.14	101.11	23.69	63.08	62.50	32.65	81.70
156	4/27/2021	82.40	100.20	23.51	62.46	61.88	32.24	80.50
157	4/28/2021	82.60	99.03	23.64	62.19	62.23	32.81	80.03
158	4/29/2021	83.08	100.89	24.21	63.08	62.40	33.32	81.94
159	4/30/2021	83.77	102.28	24.19	63.51	62.93	33.16	83.83
160	5/3/2021	84.09	102.28	24.13	64.15	63.02	33.09	83.71
161	5/4/2021	84.12	102.48	24.12	64.15 64.31	63.02 63.21	33.09 33.01	83.81
101	J/4/2021	04.12	102.24	24.20	04.31	05.21	55.01	00.01

				Stoc	k Prices (\$):			
Line No.	Date	AEE	ΑΤΟ	CNP	CMS	EVRG	OGE	PNW
162	5/5/2021	83.29	101.23	23.98	63.33	62.50	33.02	83.68
163	5/6/2021	84.08	102.04	24.08	63.99	62.67	33.62	84.78
164	5/7/2021	83.91	101.70	24.19	63.55	62.78	33.53	85.28
165	5/10/2021	84.76	102.20	24.20	64.46	63.00	33.68	86.91
166	5/11/2021	82.34	100.03	23.66	63.09	61.44	33.02	85.99
167	5/12/2021	81.39	97.99	23.36	62.03	60.51	32.54	82.84
168	5/13/2021	82.46	99.34	24.17	63.09	61.81	33.44	84.62
169	5/14/2021	82.65	99.19	24.71	63.06	61.65	33.99	85.22
170	5/17/2021	82.35	97.26	24.72	62.55	61.11	33.39	84.61
171	5/18/2021	82.87	97.89	24.39	62.86	61.28	33.13	84.71
172	5/19/2021	83.15	96.87	24.33	62.79	61.74	33.18	84.60
173	5/20/2021	83.44	97.08	24.55	63.30	61.42	33.18	84.54
174	5/21/2021	84.04	97.56	24.56	63.71	62.04	33.30	85.14
175	5/24/2021	83.59	97.81	24.88	63.33	62.14	33.51	85.65
176	5/25/2021	82.67	97.67	24.79	62.82	60.95	33.33	85.24
177	5/26/2021	82.88	98.00	24.96	62.52	60.90	33.95	85.57
178	5/27/2021	82.62	98.53	24.93	61.87	60.83	34.16	83.40
179	5/28/2021	83.14	98.54	25.15	62.31	61.51	34.09	83.76
180	6/1/2021	83.12	98.81	24.96	61.88	60.99	33.84	83.63
181	6/2/2021	84.15	99.83	24.94	61.99	61.32	33.64	84.81
182	6/3/2021	84.48	100.55	25.24	62.24	62.02	33.83	86.12
183	6/4/2021	85.05	100.07	25.25	62.19	62.23	33.92	86.18
184	6/7/2021	85.05	100.33	25.43	62.37	62.19	33.82	86.14
185	6/8/2021	84.22	99.65	25.31	59.92	62.10	33.64	86.02
186	6/9/2021	84.83	100.51	25.62	59.52	62.87	34.07	86.31
187	6/10/2021	85.31	100.58	25.80	59.83	63.51	34.48	87.26
188	6/11/2021	85.25	101.15	25.99	60.25	63.69	35.03	86.83
189	6/14/2021	85.30	100.46	25.83	59.89	63.42	34.84	87.22
190	6/15/2021	85.60	100.32	25.84	60.08	64.02	34.77	87.03
191	6/16/2021	83.39	99.93	25.38	59.26	63.72	34.37	85.15
192	6/17/2021	83.96	99.66	25.19	59.10	63.98	34.11	83.77
193	6/18/2021	81.60	97.26	24.48	57.72	62.05	33.03	80.26
194	6/21/2021	82.87	98.41	24.79	58.13	63.22	33.91	81.83
195	6/22/2021	82.00	97.79	24.64	58.21	61.40	33.63	81.46
196	6/23/2021	81.18	96.73	24.55	58.14	60.61	33.43	80.35
197	6/24/2021	80.74	96.84	24.36	58.69	60.90	33.37	80.72
198	6/25/2021	81.23	98.30	24.60	59.72	61.18	33.97	81.83
199	6/28/2021	81.41	98.12	24.48	59.60	61.24	33.76	81.93
200	6/29/2021	79.41	95.80	24.34	58.45	60.17	33.28	80.62
201	6/30/2021	79.54	95.50	24.37	58.67	59.96	33.25	81.17
202	7/1/2021	80.20	96.37	24.58	59.66	60.91	33.58	82.27
203	7/2/2021	80.20	96.49	24.76	59.50	61.10	33.82	82.09
204	7/6/2021	80.89	96.46	24.74	59.40	61.23	33.57	82.66
205	7/7/2021	81.81	97.33	24.86	59.74	61.34	33.70	82.75
206	7/8/2021	81.55	97.04	25.11	59.86	61.33	33.57	82.25
207	7/9/2021	81.41	97.91	25.32	59.90	61.31	33.93	82.84
208	7/12/2021	82.36	98.81	25.06	59.94	61.42	33.95	82.97
209	7/13/2021	82.11	98.17	24.53	59.59	61.01	33.30	82.29
210	7/14/2021	82.70	98.82	24.62	60.06	61.83	33.47	83.32
211	7/15/2021	83.55	100.18	25.17	61.09	62.74	34.00	83.68
212	7/16/2021	84.53	100.60	25.44	61.58	64.06	34.23	85.55
213	7/19/2021	83.46	98.32	24.72	61.03	63.61	33.32	83.49
214	7/20/2021	83.46	98.86	25.09	61.51	63.50	33.89	84.05
215	7/21/2021	81.79	97.63	25.02	60.62	63.41	33.45	82.83

1 i	D-4			Stock	Prices (\$):			
Line No.	Date	AEE	ATO	CNP	CMS	EVRG	OGE	PNW
216	7/22/2021	81.98	97.04	24.88	60.81	63.64	33.21	82.37
217	7/23/2021	82.87	98.82	25.03	61.65	64.57	33.63	83.73
218	7/26/2021	82.73	98.89	25.20	61.55	64.64	33.73	84.06
219	7/27/2021	84.46	100.46	25.54	62.79	65.78	34.22	85.52
220	7/28/2021	83.66	99.71	25.51	61.83	64.70	33.96	84.49
221	7/29/2021	83.74	99.56	25.66	61.92	64.85	34.04	84.57
222	7/30/2021	83.40	97.97	25.31	61.37	64.71	33.75	83.55
223	8/2/2021	84.28	98.91	25.40	62.23	65.30	34.06	83.16
224	8/3/2021	85.08	99.05	25.72	62.81	65.86	34.34	80.98
225	8/4/2021	84.72	98.76	25.55	62.82	65.73	34.10	78.19
226	8/5/2021	85.59	100.67	26.08	63.21	66.53	34.47	79.46
227	8/6/2021	86.32	100.25	26.32	63.27	66.20	35.04	80.34
228	8/9/2021	87.16	100.48	26.38	63.26	66.22	35.21	80.32
229	8/10/2021	87.13	100.40	26.46	62.94	66.40	35.22	80.33
230	8/11/2021	87.61	100.25	26.65	63.19	67.03	35.64	80.33 80.40
230								
	8/12/2021	87.37	99.93	26.59	63.00	66.89	36.07	79.67
232	8/13/2021	88.29	100.83	26.74	63.46	67.57	36.29	79.78
233	8/16/2021	89.05	100.43	26.63	63.87	68.27	35.90	80.14
234	8/17/2021	89.42	100.31	26.69	64.27	68.43	35.95	80.15
235	8/18/2021	88.72	98.36	26.40	63.82	68.33	35.66	80.19
236	8/19/2021	89.01	98.01	25.92	64.01	68.60	35.39	80.08
237	8/20/2021	89.03	98.77	26.34	64.81	69.26	35.88	80.16
238	8/23/2021	87.00	97.82	26.18	64.07	68.91	35.51	78.91
239	8/24/2021	86.60	98.12	25.84	63.54	68.48	35.44	77.76
240	8/25/2021	86.79	97.49	25.72	63.64	68.86	35.69	77.79
241	8/26/2021	87.07	96.70	25.37	63.84	69.11	35.50	76.71
242	8/27/2021	87.47	97.38	25.62	64.16	68.31	35.57	77.31
243	8/30/2021	87.94	97.47	25.38	64.48	67.91	35.49	76.49
244	8/31/2021	87.17	97.51	25.09	64.13	68.45	35.41	76.90
245	9/1/2021	88.21	98.25	25.51	65.05	68.62	35.73	77.78
246	9/2/2021	88.42	98.30	25.77	65.61	68.95	35.96	78.26
247	9/3/2021	87.56	97.50	25.94	64.96	68.50	35.67	77.18
248	9/7/2021	86.14	96.13	25.80	63.52	67.23	35.23	75.78
249	9/8/2021	88.43	97.65	26.47	64.72	68.41	35.71	76.34
250	9/9/2021	87.88	96.19	26.56	64.44	68.19	35.50	75.54
251	9/10/2021	87.01	93.12	26.22	63.61	66.69	35.09	74.55
252	Average Stock Price:	79.50	95.04	20.22 22.79	60.29	57.84	32.12	79.30
253	Average Slock Flice.	79.50	93.04	22.19	00.29	J7.04	32.12	79.30
254	QUARTERLY DIV. ² (\$)	0.495	0.575	0.150	0.408	0.505	0.388	0.783
255		0.515	0.625	0.150	0.408	0.535	0.403	0.830
							0.403	
256		0.550	0.625	0.160	0.435	0.535		0.830
257		0.550	0.625	0.160	0.435	0.535	0.403	0.830
258		0.4400	0.4500	0.0000	4 0050	0.4400	4 5050	0.0705
259	ANNUAL DIVIDEND (\$)	2.1100	2.4500	0.6200	1.6850	2.1100	1.5950	3.2725
260		0.05%	0 = 00/	0 700/	0.000/	0.050/	4.070/	4 4 9 9 4
261	YIELD	2.65%	2.58%	2.72%	2.80%	3.65%	4.97%	4.13%
262								
263								
264	Zack's	7.70%	7.80%	4.60%	5.72%	5.70%	3.90%	0.10%
265	Yahoo	7.34%	7.39%	4.81%	6.91%	5.85%	4.45%	5.00%
266								
267								
268	DCF GROWTH FACTOR	7.52%	7.60%	4.71%	6.32%	5.78%	4.18%	2.55%
200					0.02/0			

Line No.	Date			Stock	Prices (\$):			
Line No.	Date	AEE	ΑΤΟ	CNP	CMS	EVRG	OGE	PNW
270	VALUE LINE ²							
271	22 EARNINGS (EPS)	23.95	25.05	1.65	2.85	3.55	2.45	5.45
272	24-26 EARNINGS (EPS)	25.75	35.50	2.00	3.50	4.25	2.75	6.50
273		1.81%	8.72%	4.81%	5.14%	4.50%	2.89%	4.40%
274								
275	VALUE LINE "BOXED" (Earnings) ²	6.50%	7.00%	9.50%	6.00%	8.00%	4.00%	5.00%
276								
277	VALUE LINE AVERAGE	4.16%	7.86%	7.15%	5.57%	6.25%	3.44%	4.70%
278								
279	DCF GROWTH ESTIMATE	5.84%	7.73%	5.93%	5.94%	6.01%	3.81%	3.63%
280								
281	DCF COST OF EQUITY ESTIMATE	9.06%	9.58%	9.15%	9.24%	10.13%	10.46%	9.67%
282								
283	DCF AVERAGE	9.605%						
284								
285	CAPM RATE	9.32%						
286								
287	DCF & CAPM AVERAGE	9.462%						
288								
289								
290	Sources:							
291	1 Yahoo Finance							
292	2 Value Line Investment Guide							
293	3. Zacks							

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR Growth in U.S. Gross National Product, 1929 to 2019

	N .	GNP	Change	Growth
Line No.	Year	(\$billion)	(\$billion)	(%)
1	1929	105.3	(
2	1930	92.9	-12.40	-11.78%
3	1931	77.9	-15.00	-16.15%
4	1932	59.9	-18.00	-23.11%
5	1933	57.5	-2.40	-4.01%
6	1934	67.1	9.60	16.70%
7	1935	74.6	7.50	11.18%
8	1936	85.1	10.50	14.08%
9	1937	93.4	8.30	9.75%
10	1938	87.7	-5.70	-6.10%
11	1939	93.8	6.10	6.96%
12	1940	103.2	9.40	10.02%
13	1941	129.7	26.50	25.68%
14	1942	166.4	36.70	28.30%
15	1943	203.4	37.00	22.24%
16	1944	224.8	21.40	10.52%
17	1945	228.3	3.50	1.56%
18	1946	228.2	-0.10	-0.04%
19	1947	250.7	22.50	9.86%
20	1948	275.9	25.20	10.05%
21	1949	273.8	-2.10	-0.76%
22	1950	301.3	27.50	10.04%
23	1951	348.8	47.50	15.77%
56	1984	4,073.9	402.80	10.97%
57	1985	4,364.3	290.40	7.13%
58	1986	4,596.6	232.30	5.32%
59	1987	4,872.7	276.10	6.01%
60	1988	5,259.1	386.40	7.93%
61	1989	5,666.4	407.30	7.74%
62	1990	5,997.8	331.40	5.85%
63	1991	6,189.7	191.90	3.20%
64	1992	6,551.4	361.70	5.84%
65	1993	6,889.7	338.30	5.16%
66	1994	7,310.2	420.50	6.10%
67	1995	7,667.7	357.50	4.89%
68	1996	8,104.0	436.30	5.69%
69	1997	8,600.9	496.90	6.13%
70	1998	9,080.2	479.30	5.57%
71	1999	9,656.2	576.00	6.34%
72	2000	10,287.4	631.20	6.54%
73	2001	10,630.6	343.20	3.34%
74	2002	10,981.7	351.10	3.30%
75	2003	11,516.6	534.90	4.87%
76	2004	12,291.9	775.30	6.73%
77	2005	13,114.6	822.70	6.69%
78	2006	13,865.1	750.50	5.72%
79	2007	14,560.9	695.80	5.02%
80	2008	14,867.5	306.60	2.11%
		-		

COLUMBIA GAS OF OHIO, INC. CASE NO. 21-637-GA-AIR Growth in U.S. Gross National Product, 1929 to 2019

Staff Schedule D-1.5

Line No.	Year	GNP	Change	Growth
		(\$billion)	(\$billion)	(%)
81	2009	14,590.9	-276.60	-1.86%
82	2010	15,187.8	596.90	4.09%
83	2011	15,779.0	591.20	3.89%
84	2012	16,429.3	650.30	4.12%
85	2013	17,015.6	586.30	3.57%
86	2014	17,768.3	752.70	4.42%
87	2015	18,458.7	690.40	3.89%
88	2016	18,977.1	518.40	2.81%
89	2017	19,835.3	858.20	4.52%
90	2018	20,896.6	1,061.30	5.35%
91	2019	21,702.9	806.30	3.86%
92	2020	20,893	-809.50	-3.73%
93				
94				
95	Average)		6.41%

Sources: (1) National Income and Product Accounts (NIPA) from the U. S. Bureau of Economic Analysis and Econostats; BEA Data; NIPA Index; Section 1. Domestic Product and Income Table 1.7.5 Relation of Gross Domestic Product, Gross National

96 Product and Income Table 1.7.5 Relation of Gross Domestic Product, Gross Nation Product, Net National Product, National Income, and Personal Income. (2) U.S. Department of Commerce; Survey of Current of the United States Business and Historical Statistics

g=	5.8379%
Non-Constant DCF =	9.0600%
Constant DCF =	8.65%
D=	2.1100
g(e)=	6.41%
P=	-79.50

LINE		GROWTH	
NO.	YEAR	RATE	DIVIDEND
1	1	0.0583791	2.233179994
2	2	0.0583791	2.363551130
3	3	0.0583791	2.501533222
4	4	0.0583791	2.647570590
5	5	0.0583791	2.802133494
6	6	0.0586671	2.966526647
7	7	0.0589551	3.141418616
8	8	0.0592431	3.327526075
9	9	0.0595311	3.525617428
10	10	0.0598191	3.736516739
11	11	0.0601071	3.961107953
12	12	0.0603951	4.200339471
13	13	0.0606831	4.455229073
14	14	0.0609711	4.726869245
15	15	0.0612591	5.016432923
16	16	0.0615471	5.325179710
17	17	0.0618351	5.654462579
18	18	0.0621231	6.005735129
19	19	0.0624111	6.380559422
20	20	0.0626991	6.780614459
21	21	0.0629870	7.207705344
22	22	0.0632750	7.663773199
23	23	0.0635630	8.150905886
24	24	0.0638510	8.671349618
25	25	0.0641390	9.227521514
26	26	0.0641390	9.819365733
27	27	0.0641390	10.449170262
28	28	0.0641390	11.119369838
29	29	0.0641390	11.832555360
30	30	0.0641390	12.591483906
31	31	0.0641390	13.399089387
32	32	0.0641390	14.258493895
33	33	0.0641390	15.173019769
34	34	0.0641390	16.146202439
35	35	0.0641390	17.181804096
36	36	0.0641390	18.283828231

g=	5.8379%
Non-Constant DCF =	9.0600%
Constant DCF =	8.65%
D=	2.1100
g(e)=	6.41%
P=	-79.50

LINE		GROWTH	
NO.	YEAR	RATE	DIVIDEND
37	37	0.0641390	19.456535118
38	38	0.0641390	20.704458280
39	39	0.0641390	22.032422015
40	40	0.0641390	23.445560046
41	41	0.0641390	24.949335371
42	42	0.0641390	26.549561377
43	43	0.0641390	28.252424316
44	44	0.0641390	30.064507221
45	45	0.0641390	31.992815354
46	46	0.0641390	34.044803288
47	47	0.0641390	36.228403723
48	48	0.0641390	38.552058158
49	49	0.0641390	41.024749519
50	50	0.0641390	43.656036890
51	51	0.0641390	46.456092463
52	52	0.0641390	49.435740865
53	53	0.0641390	52.606501007
54	54	0.0641390	55.980630607
55	55	0.0641390	59.571173585
56	56	0.0641390	63.392010483
57	57	0.0641390	67.457912128
58	58	0.0641390	71.784596734
59	59	0.0641390	76.388790666
60	60	0.0641390	81.288293099
61	61	0.0641390	86.502044835
62	62	0.0641390	92.050201515
63	63	0.0641390	97.954211546
64	64	0.0641390	104.236899015
65	65	0.0641390	110.922551922
66	66	0.0641390	118.037016078
67	67	0.0641390	125.607795018
68	68	0.0641390	133.664156324
69	69	0.0641390	142.237244778
70	70	0.0641390	151.360202753
71	71	0.0641390	161.068298342
72	72	0.0641390	171.399061703

g=	5.8379%
Non-Constant DCF =	9.0600%
Constant DCF =	8.65%
D=	2.1100
g(e)=	6.41%
P=	-79.50

LINE		GROWTH	
NO.	YEAR	RATE	DIVIDEND
73	73	0.0641390	182.392430136
74	74	0.0641390	194.090902485
75	75	0.0641390	206.539703426
76	76	0.0641390	219.786958302
77	77	0.0641390	233.883879169
78	78	0.0641390	248.884962774
79	79	0.0641390	264.848201231
80	80	0.0641390	281.835306214
81	81	0.0641390	299.911947521
82	82	0.0641390	319.148006949
83	83	0.0641390	339.617848442
84	84	0.0641390	361.400605579
85	85	0.0641390	384.580487485
86	86	0.0641390	409.247104381
87	87	0.0641390	435.495813995
88	88	0.0641390	463.428090210
89	89	0.0641390	493.151915344
90	90	0.0641390	524.782197594
91	91	0.0641390	558.441215258
92	92	0.0641390	594.259089445
93	93	0.0641390	632.374287103
94	94	0.0641390	672.934156316
95	95	0.0641390	716.095495932
96	96	0.0641390	762.025161719
97	97	0.0641390	810.900711417
98	98	0.0641390	862.911091141
99	99	0.0641390	918.257365829
100	100	0.0641390	977.153496526
101	101	0.0641390	1039.827167529
102	102	0.0641390	1106.520666584
103	103	0.0641390	1177.491821538
104	104	0.0641390	1253.014997062
105	105	0.0641390	1333.382155310
106	106	0.0641390	1418.903984603
107	107	0.0641390	1509.911100509
108	108	0.0641390	1606.755323953

g=	5.8379%
Non-Constant DCF =	9.0600%
Constant DCF =	8.65%
D=	2.1100
g(e)=	6.41%
P=	-79.50

LINE GROWTH	
NO. YEAR RATE DIVIDE	
109 109 0.0641390 1709.8110	41313
110 110 0.0641390 1819.4766	51744
111 111 0.0641390 1936.1761	07330
112 112 0.0641390 2060.3605	52032
113 113 0.0641390 2192.5100	65742
114 114 0.0641390 2333.1355	20207
115 115 0.0641390 2482.7805	53990
116 116 0.0641390 2642.0236	74100
117 117 0.0641390 2811.4804	92421
118 118 0.0641390 2991.8061	05582
119 119 0.0641390 3183.6976	27469
120 120 0.0641390 3387.8968	84174
121 121 0.0641390 3605.1932	81788
122 122 0.0641390 3836.4268	58138
123 123 0.0641390 4082.4915	30259
124 124 0.0641390 4344.3385	50148
125 125 0.0641390 4622.9801	82180
126 126 0.0641390 4919.4936	16376
127 127 0.0641390 5235.0251	32673
128 128 0.0641390 5570.7945	32285
129 129 0.0641390 5928.0998	53285
130 130 0.0641390 6308.3223	88637
131 131 0.0641390 6712.9320	26091
132 132 0.0641390 7143.4929	30560
133 133 0.0641390 7601.6695	90965
134 134 0.0641390 8089.2332	54925
135 135 0.0641390 8608.0687	76149
136 136 0.0641390 9160.1819	01022
137 137 0.0641390 9747.7070	22544
138 138 0.0641390 10372.9154	131598
139 139 0.0641390 11038.2240)97446
140 140 0.0641390 11746.2050	011397
141 141 0.0641390 12499.5951	29771
142 142 0.0641390 13301.3069	954596
143 143 0.0641390 14154.4397	792933
144 144 0.0641390 15062.2917	738373

g=	5.8379%
Non-Constant DCF =	9.0600%
Constant DCF =	8.65%
D=	2.1100
g(e)=	6.41%
P=	-79.50

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	
145	145	0.0641390	16028.372421007
146	146	0.0641390	17056.416575174
147	147	0.0641390	18150.398477427
148	148	0.0641390	19314.547310534
149	149	0.0641390	20553.363512918
150	150	0.0641390	21871.636176725
151	151	0.0641390	23274.461561795
152	152	0.0641390	24767.262797100
153	153	0.0641390	26355.810845803
154	154	0.0641390	28046.246815013
155	155	0.0641390	29845.105696450
156	156	0.0641390	31759.341629821
157	157	0.0641390	33796.354786562
158	158	0.0641390	35964.019977880
159	159	0.0641390	38270.717097680
160	160	0.0641390	40725.363518079
161	161	0.0641390	43337.448562736
162	162	0.0641390	46117.070191259
163	163	0.0641390	49074.974036524
164	164	0.0641390	52222.594945809
165	165	0.0641390	55572.101186325
166	166	0.0641390	59136.441486063
167	167	0.0641390	62929.395091778
168	168	0.0641390	66965.625037658
169	169	0.0641390	71260.734830584
170	170	0.0641390	75831.328771128
171	171	0.0641390	80695.076143489
172	172	0.0641390	85870.779522497
173	173	0.0641390	91378.447461769
174	174	0.0641390	97239.371844012
175	175	0.0641390	103476.210192497
176	176	0.0641390	110113.073261911
177	177	0.0641390	117175.618247198
178	178	0.0641390	124691.147970733
179	179	0.0641390	132688.716431254
180	180	0.0641390	141199.241122603

g=	5.8379%
Non-Constant DCF =	9.0600%
Constant DCF =	8.65%
D=	2.1100
g(e)=	6.41%
P=	-79.50

LINE NO.YEARGROWTH RATEDIVIDEND1811810.0641390150255.6225564841821820.0641390159892.8714512951831830.0641390170148.2440787171841840.0641390181061.3862913171851850.0641390192674.4867879251861860.0641390205032.4402093161871870.0641390218183.020694680
1821820.0641390159892.8714512951831830.0641390170148.2440787171841840.0641390181061.3862913171851850.0641390192674.4867879251861860.0641390205032.440209316
1831830.0641390170148.2440787171841840.0641390181061.3862913171851850.0641390192674.4867879251861860.0641390205032.440209316
1841840.0641390181061.3862913171851850.0641390192674.4867879251861860.0641390205032.440209316
1851850.0641390192674.4867879251861860.0641390205032.440209316
186 186 0.0641390 205032.440209316
187 187 0.0641390 218183.020694680
188 188 0.0641390 232177.066569841
189 189 0.0641390 247068.676881191
190 190 0.0641390 262915.420535130
191 191 0.0641390 279778.558851490
192 192 0.0641390 297723.282391334
193 193 0.0641390 316818.962974646
194 194 0.0641390 337139.421862197
195 195 0.0641390 358763.215138333
196 196 0.0641390 381773.937397933
197 197 0.0641390 406260.544911556
198 198 0.0641390 432317.699518082
199 199 0.0641390 460046.134574291
200 200 0.0641390 489553.044376094
201 201 0.0641390 520952.498556859
202 202 0.0641390 554365.883064840
203 203 0.0641390 589922.369424470
204 204 0.0641390 627759.414095612
205 205 0.0641390 668023.289861230
206 206 0.0641390 710869.651297740
207 207 0.0641390 756464.136514079
208 208 0.0641390 804983.007485737
209 209 0.0641390 856613.831459175
210 210 0.0641390 911556.206060871
211 211 0.0641390 970022.530914142
212 212 0.0641390 1032238.828746720
213 213 0.0641390 1098445.619163370
214 214 0.0641390 1168898.848461410
215 215 0.0641390 1243870.879083720
216 216 0.0641390 1323651.542534310

g=	5.8379%
Non-Constant DCF =	9.0600%
Constant DCF =	8.65%
D=	2.1100
g(e)=	6.41%
P=	-79.50

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	
217	217	0.0641390	1408549.259826770
218	218	0.0641390	1498892.233797330
219	219	0.0641390	1595029.717891640
220	220	0.0641390	1697333.366330230
221	221	0.0641390	1806198.670872450
222	222	0.0641390	1922046.489732800
223	223	0.0641390	2045324.674560720
224	224	0.0641390	2176509.801773040
225	225	0.0641390	2316109.014932580
226	226	0.0641390	2464661.985295000
227	227	0.0641390	2622742.998103260
228	228	0.0641390	2790963.172695010
229	229	0.0641390	2969972.825005360
230	230	0.0641390	3160463.981598460
231	231	0.0641390	3363173.054946430
232	232	0.0641390	3578883.690298230
233	233	0.0641390	3808429.795143770
234	234	0.0641390	4052698.762984990
235	235	0.0641390	4312634.903876460
236	236	0.0641390	4589243.094997440
237	237	0.0641390	4883592.665368120
238	238	0.0641390	5196821.529727800
239	239	0.0641390	5530140.587555870
240	240	0.0641390	5884838.404241800
241	241	0.0641390	6262286.192500760
242	242	0.0641390	6663943.113292380
243	243	0.0641390	7091361.916735260
244	244	0.0641390	7546194.944824230
245	245	0.0641390	8030200.519156020
246	246	0.0641390	8545249.738357460
247	247	0.0641390	9093333.711494030
248	248	0.0641390	9676571.255422180
249	249	0.0641390	10297217.085842400
250	250	0.0641390	10957670.533718200
251	251	0.0641390	11660484.820758100
252	252	0.0641390	12408376.929817600

g=	5.8379%
Non-Constant DCF =	9.0600%
Constant DCF =	8.65%
D=	2.1100
g(e)=	6.41%
P=	-79.50

LINE		GROWTH	
NO.	YEAR	RATE	DIVIDEND
253	253	0.0641390	13204238.108378900
254	254	0.0641390	14051145.045714700
255	255	0.0641390	14952371.766942600
256	256	0.0641390	15911402.289954100
257	257	0.0641390	16931944.094145800
258	258	0.0641390	18017942.453022300
259	259	0.0641390	19173595.686077700
260	260	0.0641390	20403371.388918600
261	261	0.0641390	21712023.704370800
262	262	0.0641390	23104611.701338400
263	263	0.0641390	24586518.932464100
264	264	0.0641390	26163474.246199900
265	265	0.0641390	27841573.933742800
266	266	0.0641390	29627305.296453600
267	267	0.0641390	31527571.724867100
268	268	0.0641390	33549719.386245500
269	269	0.0641390	35701565.623844700
270	270	0.0641390	37991429.177683200
271	271	0.0641390	40428162.343640100
272	272	0.0641390	43021185.195207700
273	273	0.0641390	45780522.000192100
274	274	0.0641390	48716839.973147500
275	275	0.0641390	51841490.513352000
276	276	0.0641390	55166553.087747900
277	277	0.0641390	58704881.928491000
278	278	0.0641390	62470155.725634000
279	279	0.0641390	66476930.507051500
280	280	0.0641390	70740695.910031000
281	281	0.0641390	75277935.062068600
282	282	0.0641390	80106188.302361400
283	283	0.0641390	85244120.990332500
284	284	0.0641390	90711595.663330900
285	285	0.0641390	96529748.822453500
286	286	0.0641390	102721072.643336000
287	287	0.0641390	109309501.927795000
288	288	0.0641390	116320506.632461000

g=	5.8379%
Non-Constant DCF =	9.0600%
Constant DCF =	8.65%
D=	2.1100
g(e)=	6.41%
P=	-79.50

LINE		GROWTH	
NO.	YEAR	RATE	DIVIDEND
289	289	0.0641390	123781190.332108000
290	290	0.0641390	131720394.998329000
291	291	0.0641390	140168812.498609000
292	292	0.0641390	149159103.246839000
293	293	0.0641390	158726022.463963000
294	294	0.0641390	168906554.536854000
295	295	0.0641390	179740055.994842000
296	296	0.0641390	191268407.656613000
297	297	0.0641390	203536176.535664000
298	298	0.0641390	216590788.130215000
299	299	0.0641390	230482709.763626000
300	300	0.0641390	245265645.684093000
301	301	0.0641390	260996744.677846000
302	302	0.0641390	277736820.998452000
303	303	0.0641390	295550589.466314000
304	304	0.0641390	314506915.647213000
305	305	0.0641390	334679082.077072000
306	306	0.0641390	356145071.562097000
307	307	0.0641390	378987868.649533000
308	308	0.0641390	403295780.434440000
309	309	0.0641390	429162777.942719000
310	310	0.0641390	456688859.410104000
311	311	0.0641390	485980436.861509000
312	312	0.0641390	517150747.485209000
313	313	0.0641390	550320291.392152000
314	314	0.0641390	585617297.452721000
315	315	0.0641390	623178219.011824000
316	316	0.0641390	663148261.398650000
317	317	0.0641390	705681943.270404000
318	318	0.0641390	750943693.960058000
319	319	0.0641390	799108489.137430000
320	320	0.0641390	850362527.240919000
321	321	0.0641390	904903949.294927000
322	322	0.0641390	962943604.895661000
323	323	0.0641390	1024705867.326520000
324	324	0.0641390	1090429500.954180000

g=	5.8379%
Non-Constant DCF =	9.0600%
Constant DCF =	8.65%
D=	2.1100
g(e)=	6.41%
P=	-79.50

LINE		GROWTH	
NO.	YEAR	RATE	DIVIDEND
325	325	0.0641390	1160368584.258630000
326	326	0.0641390	1234793492.065430000
327	327	0.0641390	1313991940.777410000
328	328	0.0641390	1398270100.646510000
329	329	0.0641390	1487953779.385630000
330	330	0.0641390	1583389681.696200000
331	331	0.0641390	1684946749.580590000
332	332	0.0641390	1793017588.620950000
333	333	0.0641390	1908019985.738020000
334	334	0.0641390	2030398524.297650000
335	335	0.0641390	2160626302.808610000
336	336	0.0641390	2299206763.856000000
337	337	0.0641390	2446675640.340690000
338	338	0.0641390	2603603026.548620000
339	339	0.0641390	2770595582.056470000
340	340	0.0641390	2948298876.993760000
341	341	0.0641390	3137399887.727640000
342	342	0.0641390	3338629652.618570000
343	343	0.0641390	3552766098.113550000
344	344	0.0641390	3780637046.102160000
345	345	0.0641390	4023123414.161570000
346	346	0.0641390	4281162621.062070000
347	347	0.0641390	4555752210.698390000
348	348	0.0641390	4847953708.456510000
349	349	0.0641390	5158896724.924010000
350	350	0.0641390	5489783322.808400000
351	351	0.0641390	5841892663.945340000
352	352	0.0641390	6216585954.361450000
353	353	0.0641390	6615311706.508550000
354	354	0.0641390	7039611339.012560000
355	355	0.0641390	7491125135.584740000
356	356	0.0641390	7971598586.131740000
357	357	0.0641390	8482889134.578210000
358	358	0.0641390	9026973359.488220000
359	359	0.0641390	9605954615.244610000
360	360	0.0641390	10222071163.326300000

g=	5.8379%
Non-Constant DCF =	9.0600%
Constant DCF =	8.65%
D=	2.1100
g(e)=	6.41%
P=	-79.50

LINE NO.YEARGROWTH RATEDIVIDEND3613610.064139010877704825.1176000003623620.064139011575390189.7004000003633630.064139012317824412.2252000003643640.064139013107877640.7395000003653650.064139013948604111.7842000003663660.064139014843253957.6488000003673670.064139015795285770.9339000003683680.064139016808379974.9923000003693690.064139017886453051.9359000003703700.064139019033672683.2149000003713710.064139020254473861.2976000003723720.064139021553576034.7379000003743740.064139024407094080.9497000003753750.064139025972541259.9313000003763760.064139029411094336.7732000003773770.064139029411094336.7732000003783780.064139031297493205.379200000
3623620.064139011575390189.7004000003633630.064139012317824412.2252000003643640.064139013107877640.7395000003653650.064139013948604111.7842000003663660.064139014843253957.6488000003673670.064139015795285770.9339000003683680.064139016808379974.9923000003693690.064139017886453051.9359000003703700.064139019033672683.2149000003713710.064139020254473861.2976000003723720.064139021553576034.7379000003733730.064139024407094080.9497000003743740.064139025972541259.9313000003763760.064139027638394692.1954000003773770.064139029411094336.773200000
3633630.064139012317824412.2252000003643640.064139013107877640.7395000003653650.064139013948604111.7842000003663660.064139014843253957.6488000003673670.064139015795285770.9339000003683680.064139016808379974.9923000003693690.064139017886453051.9359000003703700.064139019033672683.2149000003713710.064139020254473861.2976000003723720.064139021553576034.7379000003733730.064139022936001352.9114000003743740.064139024407094080.9497000003753750.064139025972541259.9313000003763760.064139029411094336.7732000003773770.064139029411094336.773200000
3643640.064139013107877640.7395000003653650.064139013948604111.7842000003663660.064139014843253957.6488000003673670.064139015795285770.9339000003683680.064139016808379974.9923000003693690.064139017886453051.9359000003703700.064139019033672683.2149000003713710.064139020254473861.2976000003723720.064139021553576034.7379000003733730.064139022936001352.9114000003743740.064139024407094080.9497000003753750.064139025972541259.9313000003763760.064139027638394692.1954000003773770.064139029411094336.773200000
3653650.064139013948604111.7842000003663660.064139014843253957.6488000003673670.064139015795285770.9339000003683680.064139016808379974.9923000003693690.064139017886453051.9359000003703700.064139019033672683.2149000003713710.064139020254473861.2976000003723720.064139021553576034.7379000003733730.064139022936001352.9114000003743740.064139025972541259.9313000003763760.064139027638394692.1954000003773770.064139029411094336.773200000
3663660.064139014843253957.6488000003673670.064139015795285770.9339000003683680.064139016808379974.9923000003693690.064139017886453051.9359000003703700.064139019033672683.2149000003713710.064139020254473861.2976000003723720.064139021553576034.7379000003733730.064139022936001352.9114000003743740.064139025972541259.9313000003763760.064139027638394692.1954000003773770.064139029411094336.773200000
3673670.064139015795285770.933900003683680.064139016808379974.992300003693690.064139017886453051.935900003703700.064139019033672683.2149000003713710.064139020254473861.2976000003723720.064139021553576034.7379000003733730.064139022936001352.9114000003743740.064139024407094080.9497000003753750.064139025972541259.9313000003763760.064139027638394692.1954000003773770.064139029411094336.773200000
3683680.064139016808379974.9923000003693690.064139017886453051.935900003703700.064139019033672683.2149000003713710.064139020254473861.2976000003723720.064139021553576034.7379000003733730.064139022936001352.9114000003743740.064139024407094080.9497000003753750.064139025972541259.9313000003763760.064139027638394692.1954000003773770.064139029411094336.773200000
3693690.064139017886453051.9359000003703700.064139019033672683.2149000003713710.064139020254473861.2976000003723720.064139021553576034.7379000003733730.064139022936001352.9114000003743740.064139024407094080.9497000003753750.064139025972541259.9313000003763760.064139027638394692.1954000003773770.064139029411094336.773200000
3703700.064139019033672683.2149000003713710.064139020254473861.2976000003723720.064139021553576034.7379000003733730.064139022936001352.9114000003743740.064139024407094080.9497000003753750.064139025972541259.9313000003763760.064139027638394692.1954000003773770.064139029411094336.773200000
3713710.064139020254473861.2976000003723720.064139021553576034.7379000003733730.064139022936001352.9114000003743740.064139024407094080.9497000003753750.064139025972541259.9313000003763760.064139027638394692.1954000003773770.064139029411094336.773200000
3723720.064139021553576034.7379000003733730.064139022936001352.9114000003743740.064139024407094080.9497000003753750.064139025972541259.9313000003763760.064139027638394692.1954000003773770.064139029411094336.773200000
3733730.064139022936001352.9114000003743740.064139024407094080.9497000003753750.064139025972541259.9313000003763760.064139027638394692.1954000003773770.064139029411094336.773200000
3743740.064139024407094080.9497000003753750.064139025972541259.9313000003763760.064139027638394692.1954000003773770.064139029411094336.773200000
3753750.064139025972541259.9313000003763760.064139027638394692.1954000003773770.064139029411094336.773200000
3763760.064139027638394692.1954000003773770.064139029411094336.773200000
377 377 0.0641390 29411094336.773200000
378 378 0.0641390 31297493205.379200000
379 379 0.0641390 33304883855.206600000
380 380 0.0641390 35441026580.945300000
381 381 0.0641390 37714179415.008300000
382 382 0.0641390 40133130051.942700000
383 383 0.0641390 42707229820.442000000
384 384 0.0641390 45446429834.290100000
385 385 0.0641390 48361319461.990800000
386 386 0.0641390 51463167263.802300000
387 387 0.0641390 54763964554.433400000
388 388 0.0641390 58276471759.807700000
389 389 0.0641390 62014267747.106200000
390 390 0.0641390 65991802318.79000000
391 391 0.0641390 70224452073.538700000
392 392 0.0641390 74728579850.054900000
393 393 0.0641390 79521597983.535900000
394 394 0.0641390 84622035619.354200000
395 395 0.0641390 90049610344.171400000
396 396 0.0641390 95825304411.401700000

g=	5.8379%
Non-Constant DCF =	9.0600%
Constant DCF =	8.65%
D=	2.1100
g(e)=	6.41%
P=	-79.50

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	
397	397	0.0641390	101971445855.703000000
398	398	0.0641390	108511794810.070000000
399	399	0.0641390	115471635359.226000000
400	400	0.0641390	122877873284.395000000

g=	7.7266%
Non-Constant DCF =	9.5833%
Constant DCF =	10.5037%
D=	2.4500
g(e)=	6.41%
P=	-95.04

LINE		GROWTH	
NO.	YEAR	RATE	DIVIDEND
1	1	0.0772662	2.639302139
2	2	0.0772662	2.843230932
3	3	0.0772662	3.062916523
4	4	0.0772662	3.299576380
5	5	0.0772662	3.554522040
6	6	0.0766098	3.826833339
7	7	0.0759535	4.117494586
8	8	0.0752971	4.427530012
9	9	0.0746407	4.758004165
10	10	0.0739844	5.110022202
11	11	0.0733280	5.484730077
12	12	0.0726717	5.883314597
13	13	0.0720153	6.307003362
14	14	0.0713590	6.757064558
15	15	0.0707026	7.234806599
16	16	0.0700462	7.741577625
17	17	0.0693899	8.278764812
18	18	0.0687335	8.847793525
19	19	0.0680772	9.450126270
20	20	0.0674208	10.087261461
21	21	0.0667645	10.760731970
22	22	0.0661081	11.472103481
23	23	0.0654517	12.222972604
24	24	0.0647954	13.014964774
25	25	0.0641390	13.849731904
26	26	0.0641390	14.738040183
27	27	0.0641390	15.683323688
28	28	0.0641390	16.689236753
29	29	0.0641390	17.759668100
30	30	0.0641390	18.898755869
31	31	0.0641390	20.110903614
32	32	0.0641390	21.400797332
33	33	0.0641390	22.773423573
34	34	0.0641390	24.234088721
35	35	0.0641390	25.788439506
36	36	0.0641390	27.442484831

g=	7.7266%
Non-Constant DCF =	9.5833%
Constant DCF =	10.5037%
D=	2.4500
g(e)=	6.41%
P=	-95.04

NO.I.E.R.KRATEDIDERC37370.064139029.20261900938380.064139031.07564647339390.064139035.18980914741410.064139035.18980914742420.064139039.84865347443430.064139042.40450719344440.064139042.40450719345450.064139045.12429087345450.064139054.37577990048480.064139057.86338932149490.064139061.57469060450500.064139063.72667849452520.064139074.19887956053530.064139074.19887956053530.064139089.4113064556560.0641390101.24863933958580.0641390101.24863933958580.0641390101.24863933958580.0641390101.24863933958580.0641390122.00687526361610.0641390128.3227709462620.0641390122.00687526361610.0641390138.159525563630.0641390177.16361050364640.0641390127.486393956166660.0641390127.486393956166660.0641390127.4861367365650.0641390128.526711467 <tr< th=""><th>LINE</th><th>YEAR</th><th>GROWTH</th><th>DIVIDEND</th></tr<>	LINE	YEAR	GROWTH	DIVIDEND
38 38 0.0641390 31.075646473 39 39 0.0641390 33.068808090 40 40 0.0641390 35.189809147 41 41 0.0641390 37.446849140 42 42 0.0641390 39.848653474 43 43 0.0641390 42.404507193 44 44 0.0641390 45.124290873 45 45 0.0641390 45.124290873 46 46 0.0641390 51.098379726 47 47 0.0641390 51.098379726 47 47 0.0641390 54.375779900 48 48 0.0641390 61.574690604 50 50 0.0641390 69.726678494 52 52 0.0641390 74.198879560 53 53 0.0641390 74.198879560 53 53 0.0641390 84.022207322 55 55 0.0641390 101.248639339 58 58 0.0641390<		I LAN		
39 39 0.0641390 33.068808090 40 40 0.0641390 35.189809147 41 41 0.0641390 37.446849140 42 42 0.0641390 39.48653474 43 43 0.0641390 42.404507193 44 44 0.0641390 45.124290873 45 45 0.0641390 48.018518822 46 46 0.0641390 51.098379726 47 47 0.0641390 51.375779900 48 48 0.0641390 51.574690604 50 50 0.0641390 65.524031127 51 51 0.0641390 74.198879560 53 53 0.0641390 78.95792324 54 54 0.0641390 84.022207322 55 55 0.0641390 95.146063729 57 57 0.0641390 101.248639339 58 58 0.0641390 122.006875263 61 61 0.0641390 </td <td></td> <td></td> <td></td> <td></td>				
40 40 0.0641390 35.189809147 41 41 0.0641390 37.446849140 42 42 0.0641390 39.848653474 43 43 0.0641390 42.404507193 44 44 0.0641390 45.124290873 45 45 0.0641390 45.124290873 46 46 0.0641390 51.098379726 47 47 0.0641390 51.098379726 47 47 0.0641390 57.863389321 48 48 0.0641390 61.574690604 50 50 0.0641390 69.726678494 52 52 0.0641390 74.198879560 53 53 0.0641390 84.02207322 55 55 0.0641390 84.02207322 56 55 0.0641390 99.411309645 56 56 0.0641390 101.248639339 58 58 0.0641390 101.248639339 58 58 0.0641390 </td <td></td> <td></td> <td></td> <td></td>				
41410.064139037.44684914042420.064139039.84865347443430.064139042.40450719344440.064139045.12429087345450.064139048.01851882246460.064139051.09837972647470.064139051.39837972647470.064139057.86338932149490.064139061.57469060450500.064139069.72667849452520.064139074.19887956053530.064139074.19887956053530.064139084.0220732255550.064139095.14606372956560.064139095.14606372957570.0641390107.74262818959590.0641390122.00687526361610.0641390122.83227709462620.0641390122.00687526361610.0641390122.00687526361640.0641390147.02101389964640.0641390156.45079815365650.0641390147.02101389964640.0641390166.48539956166660.0641390177.16361050367670.0641390123.48611367970700.0641390227.17890452571710.0641390241.749937604				
42 42 0.0641390 39.848653474 43 43 0.0641390 42.404507193 44 44 0.0641390 45.124290873 45 45 0.0641390 51.098379726 47 47 0.0641390 54.375779900 48 48 0.0641390 57.863389321 49 49 0.0641390 61.574690604 50 50 0.0641390 69.726678494 52 52 0.0641390 69.726678494 52 52 0.0641390 74.198879560 53 53 0.0641390 84.022207322 54 54 0.0641390 89.411309645 56 55 0.0641390 95.146063729 57 57 0.0641390 107.742628189 59 59 0.0641390 107.742628189 59 59 0.0641390 122.006875263 61 61 0.0641390 122.006875263 61 61 0.0641390 122.006875263 61 61 0.0641390 147.0				
43 43 0.0641390 42.404507193 44 44 0.0641390 45.124290873 45 45 0.0641390 48.018518822 46 46 0.0641390 51.098379726 47 47 0.0641390 54.375779900 48 48 0.0641390 57.863389321 49 49 0.0641390 61.574690604 50 50 0.0641390 65.524031127 51 51 0.0641390 69.726678494 52 52 0.0641390 74.198879560 53 53 0.0641390 78.957923234 54 54 0.0641390 84.022207322 55 55 0.0641390 89.411309645 56 56 0.0641390 101.248639339 58 58 0.0641390 107.742628189 59 59 0.0641390 107.742628189 59 59 0.0641390 122.006875263 61 61 0.0641390 122.0087555 63 63 0.0641390 147.021			0.0641390	37.446849140
44 44 0.0641390 45.124290873 45 45 0.0641390 48.018518822 46 46 0.0641390 51.098379726 47 47 0.0641390 54.375779900 48 48 0.0641390 57.863389321 49 49 0.0641390 61.574690604 50 50 0.0641390 65.524031127 51 51 0.0641390 69.726678494 52 52 0.0641390 74.198879560 53 53 0.0641390 78.957923234 54 54 0.0641390 84.022207322 55 55 0.0641390 84.022207322 55 55 0.0641390 95.146063729 57 57 0.0641390 101.248639339 58 58 0.0641390 107.742628189 59 59 0.0641390 122.006875263 61 61 0.0641390 122.006875263 61 61 0.0641390 129.832277094 62 62 0.0641390 138.1			0.0641390	39.848653474
45450.064139048.01851882246460.064139051.09837972647470.064139054.37577990048480.064139057.86338932149490.064139061.57469060450500.064139065.52403112751510.064139069.72667849452520.064139074.19887956053530.064139078.95792323454540.064139084.02220732255550.064139089.41130964556560.064139095.14606372957570.0641390101.24863933958580.0641390107.74262818959590.0641390122.00687526361610.0641390122.00687526361610.0641390129.83227709462620.0641390138.15959255563630.0641390147.02101389964640.0641390177.16361050367670.0641390177.163610503680.0641390123.48611367969690.0641390213.4861367970700.0641390227.17890452571710.0641390241.749937604	43	43	0.0641390	42.404507193
46 46 0.0641390 51.098379726 47 47 0.0641390 54.375779900 48 48 0.0641390 57.863389321 49 49 0.0641390 61.574690604 50 50 0.0641390 65.524031127 51 51 0.0641390 69.726678494 52 52 0.0641390 74.198879560 53 53 0.0641390 78.95792324 54 54 0.0641390 84.022207322 55 55 0.0641390 89.411309645 56 56 0.0641390 95.146063729 57 57 0.0641390 101.248639339 58 58 0.0641390 107.742628189 59 59 0.0641390 122.006875263 61 61 0.0641390 122.006875263 61 61 0.0641390 128.32277094 62 62 0.0641390 146.540798153 65 65 0.06413	44	44	0.0641390	45.124290873
47470.064139054.37577990048480.064139057.86338932149490.064139061.57469060450500.064139065.52403112751510.064139069.72667849452520.064139074.19887956053530.064139078.95792323454540.064139084.0220732255550.064139089.41130964556560.064139095.14606372957570.064139095.14606372957570.0641390101.24863933958580.0641390107.74262818959590.0641390122.00687526361610.0641390129.83227709462620.0641390147.02101389964640.0641390147.02101389964640.0641390166.48539956165650.0641390177.16361050367670.0641390177.16361050368680.0641390177.16361050369690.0641390213.48611367970700.0641390213.48611367970700.0641390213.48611367970700.0641390241.749937604	45	45	0.0641390	48.018518822
48 48 0.0641390 57.863389321 49 49 0.0641390 61.574690604 50 50 0.0641390 65.524031127 51 51 0.0641390 69.726678494 52 52 0.0641390 74.198879560 53 53 0.0641390 78.957923234 54 54 0.0641390 84.022207322 55 55 0.0641390 89.411309645 56 56 0.0641390 95.146063729 57 57 0.0641390 101.248639339 58 58 0.0641390 107.742628189 59 59 0.0641390 122.006875263 61 61 0.0641390 129.832277094 62 62 0.0641390 129.832277094 62 62 0.0641390 138.159592555 63 63 0.0641390 147.021013899 64 64 0.0641390 177.163610503 65 65 0.0	46	46	0.0641390	51.098379726
49490.064139061.57469060450500.064139065.52403112751510.064139069.72667849452520.064139074.19887956053530.064139078.95792323454540.064139089.41130964556550.064139095.14606372957570.0641390101.24863933958580.0641390107.74262818959590.0641390114.65313514360600.0641390122.00687526361610.0641390129.83227709462620.0641390138.1595925563630.0641390147.02101389964640.0641390156.45079815365650.0641390177.16361050367670.0641390177.16361050367670.0641390213.48611367970700.0641390227.17890452571710.0641390241.749937604	47	47	0.0641390	54.375779900
50500.064139065.52403112751510.064139069.72667849452520.064139074.19887956053530.064139078.95792323454540.064139084.02220732255550.064139089.41130964556560.064139095.14606372957570.0641390101.24863933958580.0641390107.74262818959590.0641390114.65313514360600.0641390122.00687526361610.0641390129.83227709462620.0641390138.15959255563630.0641390147.02101389964640.0641390166.48539956166660.0641390177.16361050367670.0641390177.16361050367670.0641390200.61863063069690.0641390213.48611367970700.0641390227.17890452571710.0641390241.749937604	48	48	0.0641390	57.863389321
51 51 0.0641390 69.726678494 52 52 0.0641390 74.198879560 53 53 0.0641390 78.957923234 54 54 0.0641390 84.022207322 55 55 0.0641390 89.411309645 56 56 0.0641390 95.146063729 57 57 0.0641390 101.248639339 58 58 0.0641390 107.742628189 59 59 0.0641390 114.653135143 60 60 0.0641390 122.006875263 61 61 0.0641390 129.832277094 62 62 0.0641390 138.159592555 63 63 0.0641390 147.021013899 64 64 0.0641390 177.163610503 67 67 0.0641390 177.163610503 67 67 0.0641390 188.526711467 68 68 0.0641390 213.486113679 70 70 0.0641390 227.178904525 71 71 0.0641390 241.749937604	49	49	0.0641390	61.574690604
52520.064139074.19887956053530.064139078.95792323454540.064139084.02220732255550.064139089.41130964556560.064139095.14606372957570.0641390101.24863933958580.0641390107.74262818959590.0641390114.65313514360600.0641390122.00687526361610.0641390129.83227709462620.0641390138.15959255563630.0641390147.02101389964640.0641390166.48539956165650.0641390177.16361050367670.0641390188.52671146768680.0641390213.48611367970700.0641390227.17890452571710.0641390241.749937604	50	50	0.0641390	65.524031127
53530.064139078.95792323454540.064139084.02220732255550.064139089.41130964556560.064139095.14606372957570.0641390101.24863933958580.0641390107.74262818959590.0641390114.65313514360600.0641390122.00687526361610.0641390129.83227709462620.0641390138.15959255563630.0641390147.02101389964640.0641390156.45079815365650.0641390177.16361050367670.0641390177.16361050367670.0641390200.61863063069690.0641390213.48611367970700.0641390241.749937604	51	51	0.0641390	69.726678494
54540.064139084.02220732255550.064139089.41130964556560.064139095.14606372957570.0641390101.24863933958580.0641390107.74262818959590.0641390114.65313514360600.0641390122.00687526361610.0641390129.83227709462620.0641390138.15959255563630.0641390147.02101389964640.0641390156.45079815365650.0641390177.16361050367670.0641390177.16361050367670.0641390200.61863063069690.0641390213.48611367970700.0641390241.749937604	52	52	0.0641390	74.198879560
55550.064139089.41130964556560.064139095.14606372957570.0641390101.24863933958580.0641390107.74262818959590.0641390114.65313514360600.0641390122.00687526361610.0641390129.83227709462620.0641390138.15959255563630.0641390147.02101389964640.0641390156.45079815365650.0641390177.16361050367670.0641390188.52671146768680.0641390200.61863063069690.0641390213.48611367970700.0641390227.17890452571710.0641390241.749937604	53	53	0.0641390	78.957923234
56560.064139095.14606372957570.0641390101.24863933958580.0641390107.74262818959590.0641390114.65313514360600.0641390122.00687526361610.0641390129.83227709462620.0641390138.15959255563630.0641390147.02101389964640.0641390156.45079815365650.0641390166.48539956166660.0641390177.16361050367670.0641390188.52671146768680.0641390213.48611367970700.0641390213.48611367971710.0641390241.749937604	54	54	0.0641390	84.022207322
57570.0641390101.24863933958580.0641390107.74262818959590.0641390114.65313514360600.0641390122.00687526361610.0641390129.83227709462620.0641390138.15959255563630.0641390147.02101389964640.0641390156.45079815365650.0641390166.48539956166660.0641390177.16361050367670.0641390188.52671146768680.0641390200.61863063069690.0641390213.48611367970700.0641390227.17890452571710.0641390241.749937604	55	55	0.0641390	89.411309645
58580.0641390107.74262818959590.0641390114.65313514360600.0641390122.00687526361610.0641390129.83227709462620.0641390138.15959255563630.0641390147.02101389964640.0641390156.45079815365650.0641390166.48539956166660.0641390177.16361050367670.0641390188.52671146768680.0641390200.61863063069690.0641390213.48611367970700.0641390227.17890452571710.0641390241.749937604	56	56	0.0641390	95.146063729
59590.0641390114.65313514360600.0641390122.00687526361610.0641390129.83227709462620.0641390138.15959255563630.0641390147.02101389964640.0641390156.45079815365650.0641390166.48539956166660.0641390177.16361050367670.0641390188.52671146768680.0641390200.61863063069690.0641390213.48611367970700.0641390227.17890452571710.0641390241.749937604	57	57	0.0641390	101.248639339
60600.0641390122.00687526361610.0641390129.83227709462620.0641390138.15959255563630.0641390147.02101389964640.0641390156.45079815365650.0641390166.48539956166660.0641390177.16361050367670.0641390188.52671146768680.0641390200.61863063069690.0641390213.48611367970700.0641390227.17890452571710.0641390241.749937604	58	58	0.0641390	107.742628189
61610.0641390129.83227709462620.0641390138.15959255563630.0641390147.02101389964640.0641390156.45079815365650.0641390166.48539956166660.0641390177.16361050367670.0641390188.52671146768680.0641390200.61863063069690.0641390213.48611367970700.0641390227.17890452571710.0641390241.749937604	59	59	0.0641390	114.653135143
62620.0641390138.15959255563630.0641390147.02101389964640.0641390156.45079815365650.0641390166.48539956166660.0641390177.16361050367670.0641390188.52671146768680.0641390200.61863063069690.0641390213.48611367970700.0641390227.17890452571710.0641390241.749937604	60	60	0.0641390	122.006875263
63630.0641390147.02101389964640.0641390156.45079815365650.0641390166.48539956166660.0641390177.16361050367670.0641390188.52671146768680.0641390200.61863063069690.0641390213.48611367970700.0641390227.17890452571710.0641390241.749937604	61	61	0.0641390	129.832277094
64640.0641390156.45079815365650.0641390166.48539956166660.0641390177.16361050367670.0641390188.52671146768680.0641390200.61863063069690.0641390213.48611367970700.0641390227.17890452571710.0641390241.749937604	62	62	0.0641390	138.159592555
65650.0641390166.48539956166660.0641390177.16361050367670.0641390188.52671146768680.0641390200.61863063069690.0641390213.48611367970700.0641390227.17890452571710.0641390241.749937604	63	63	0.0641390	147.021013899
66660.0641390177.16361050367670.0641390188.52671146768680.0641390200.61863063069690.0641390213.48611367970700.0641390227.17890452571710.0641390241.749937604	64	64	0.0641390	156.450798153
67670.0641390188.52671146768680.0641390200.61863063069690.0641390213.48611367970700.0641390227.17890452571710.0641390241.749937604	65	65	0.0641390	166.485399561
68680.0641390200.61863063069690.0641390213.48611367970700.0641390227.17890452571710.0641390241.749937604	66	66	0.0641390	177.163610503
69690.0641390213.48611367970700.0641390227.17890452571710.0641390241.749937604	67	67	0.0641390	188.526711467
70700.0641390227.17890452571710.0641390241.749937604	68	68	0.0641390	200.618630630
71 71 0.0641390 241.749937604	69	69	0.0641390	213.486113679
	70	70	0.0641390	227.178904525
72 72 0.0641390 257.255542515	71	71	0.0641390	241.749937604
	72	72	0.0641390	257.255542515

g=	7.7266%
Non-Constant DCF =	9.5833%
Constant DCF =	10.5037%
D=	2.4500
g(e)=	6.41%
P=	-95.04

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	
73	73	0.0641390	273.755661782
74	74	0.0641390	291.314082586
75	75	0.0641390	309.998683353
76	76	0.0641390	329.881696166
77	77	0.0641390	351.039986004
78	78	0.0641390	373.555347889
79	79	0.0641390	397.514823097
80	80	0.0641390	423.011035648
81	81	0.0641390	450.142550372
82	82	0.0641390	479.014253954
83	83	0.0641390	509.737760409
84	84	0.0641390	542.431842565
85	85	0.0641390	577.222891221
86	86	0.0641390	614.245403762
87	87	0.0641390	653.642504103
88	88	0.0641390	695.566495985
89	89	0.0641390	740.179451764
90	90	0.0641390	787.653838959
91	91	0.0641390	838.173186986
92	92	0.0641390	891.932796660
93	93	0.0641390	949.140495198
94	94	0.0641390	1010.017439653
95	95	0.0641390	1074.798971874
96	96	0.0641390	1143.735528307
97	97	0.0641390	1217.093608149
98	98	0.0641390	1295.156803592
99	99	0.0641390	1378.226896156
100	100	0.0641390	1466.625023332
101	101	0.0641390	1560.692920059
102	102	0.0641390	1660.794239817
103	103	0.0641390	1767.315960468
104	104	0.0641390	1880.669880255
105	105	0.0641390	2001.294209758
106	106	0.0641390	2129.655265957
107	107	0.0641390	2266.249274946
108	108	0.0641390	2411.604290278

g=	7.7266%
Non-Constant DCF =	9.5833%
Constant DCF =	10.5037%
D=	2.4500
g(e)=	6.41%
P=	-95.04

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	DIVIDEND
109	109	0.0641390	2566.282234343
110	110	0.0641390	2730.881070685
111	111	0.0641390	2906.037115647
112	112	0.0641390	3092.427498280
113	113	0.0641390	3290.772778031
114	114	0.0641390	3501.839730325
115	115	0.0641390	3726.444310818
116	116	0.0641390	3965.454809759
117	117	0.0641390	4219.795208691
118	118	0.0641390	4490.448752428
119	119	0.0641390	4778.461750146
120	120	0.0641390	5084.947620272
121	121	0.0641390	5411.091194801
122	122	0.0641390	5758.153299696
123	123	0.0641390	6127.475629067
124	124	0.0641390	6520.485931973
125	125	0.0641390	6938.703531902
126	126	0.0641390	7383.745200271
127	127	0.0641390	7857.331406631
128	128	0.0641390	8361.292969775
129	129	0.0641390	8897.578135422
130	130	0.0641390	9468.260107871
131	131	0.0641390	10075.545064719
132	132	0.0641390	10721.780685640
133	133	0.0641390	11409.465228188
134	134	0.0641390	12141.257185720
135	135	0.0641390	12919.985564757
136	136	0.0641390	13748.660821539
137	137	0.0641390	14630.486500027
138	138	0.0641390	15568.871616364
139	139	0.0641390	16567.443837659
140	140	0.0641390	17630.063506046
141	141	0.0641390	18760.838562235
142	142	0.0641390	19964.140426242
143	143	0.0641390	21244.620896690
144	144	0.0641390	22607.230134027

g=	7.7266%
Non-Constant DCF =	9.5833%
Constant DCF =	10.5037%
D=	2.4500
g(e)=	6.41%
P=	-95.04

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	
145	145	0.0641390	24057.235797156
146	146	0.0641390	25600.243407478
147	147	0.0641390	27242.218019063
148	148	0.0641390	28989.507278722
149	149	0.0641390	30848.865965136
150	150	0.0641390	32827.482101893
151	151	0.0641390	34933.004745393
152	152	0.0641390	37173.573555045
153	153	0.0641390	39557.850260064
154	154	0.0641390	42095.052144517
155	155	0.0641390	44794.987680069
156	156	0.0641390	47668.094444180
157	157	0.0641390	50725.479470336
158	158	0.0641390	53978.962186302
159	159	0.0641390	57441.120106398
160	160	0.0641390	61125.337454431
161	161	0.0641390	65045.856905250
162	162	0.0641390	69217.834644962
163	163	0.0641390	73657.398962647
164	164	0.0641390	78381.712600098
165	165	0.0641390	83409.039100607
166	166	0.0641390	88758.813413295
167	167	0.0641390	94451.717025939
168	168	0.0641390	100509.757916748
169	169	0.0641390	106956.355634160
170	170	0.0641390	113816.431833577
171	171	0.0641390	121116.506621041
172	172	0.0641390	128884.801076300
173	173	0.0641390	137151.346351592
174	174	0.0641390	145948.099767937
175	175	0.0641390	155309.068357711
176	176	0.0641390	165270.440331141
177	177	0.0641390	175870.724974914
178	178	0.0641390	187150.901523761
179	179	0.0641390	199154.577580507
180	180	0.0641390	211928.157697036

g=	7.7266%
Non-Constant DCF =	9.5833%
Constant DCF =	10.5037%
D=	2.4500
g(e)=	6.41%
P=	-95.04

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	
181	181	0.0641390	225521.022767874
182	182	0.0641390	239985.720929896
183	183	0.0641390	255378.170706159
184	184	0.0641390	271757.877179183
185	185	0.0641390	289188.162029367
186	186	0.0641390	307736.408327851
187	187	0.0641390	327474.321030158
188	188	0.0641390	348478.204177628
189	189	0.0641390	370829.255878298
190	190	0.0641390	394613.882207560
191	191	0.0641390	419924.031242096
192	192	0.0641390	446857.548518436
193	193	0.0641390	475518.555290267
194	194	0.0641390	506017.851046806
195	195	0.0641390	538473.341848303
196	196	0.0641390	573010.496134571
197	197	0.0641390	609762.829768621
198	198	0.0641390	648872.422190530
199	199	0.0641390	690490.465676909
200	200	0.0641390	734777.849829342
201	201	0.0641390	781905.783551337
202	202	0.0641390	832056.456918275
203	203	0.0641390	885423.745499048
204	204	0.0641390	942213.959852205
205	205	0.0641390	1002646.643094040
206	206	0.0641390	1066955.419621930
207	207	0.0641390	1135388.898273940
208	208	0.0641390	1208211.633416230
209	209	0.0641390	1285705.147673640
210	210	0.0641390	1368169.020257260
211	211	0.0641390	1455922.045096190
212	212	0.0641390	1549303.463250840
213	213	0.0641390	1648674.274371920
214	214	0.0641390	1754418.632275200
215	215	0.0641390	1866945.330027050
216	216	0.0641390	1986689.380281880

g=	7.7266%
Non-Constant DCF =	9.5833%
Constant DCF =	10.5037%
D=	2.4500
g(e)=	6.41%
P=	-95.04

LINE		GROWTH	
NO.	YEAR	RATE	DIVIDEND
217	217	0.0641390	2114113.696980950
218	218	0.0641390	2249710.884913630
219	219	0.0641390	2394005.144059420
220	220	0.0641390	2547554.296072580
221	221	0.0641390	2710951.940743520
222	222	0.0641390	2884829.750773520
223	223	0.0641390	3069859.913734020
224	224	0.0641390	3266757.730650890
225	225	0.0641390	3476284.381259220
226	226	0.0641390	3699249.866618970
227	227	0.0641390	3936516.140467060
228	228	0.0641390	4189000.441411330
229	229	0.0641390	4457678.838848180
230	230	0.0641390	4743590.006311880
231	231	0.0641390	5047839.236842860
232	232	0.0641390	5371602.715897750
233	233	0.0641390	5716132.068319730
234	234	0.0641390	6082759.196947120
235	235	0.0641390	6472901.431565600
236	236	0.0641390	6888067.008109160
237	237	0.0641390	7329860.899291680
238	238	0.0641390	7799991.019209550
239	239	0.0641390	8300274.825901380
240	240	0.0641390	8832646.347389520
241	241	0.0641390	9399163.658364910
242	242	0.0641390	10002016.836419300
243	243	0.0641390	10643536.428582500
244	244	0.0641390	11326202.460894700
245	245	0.0641390	12052654.025844400
246	246	0.0641390	12825699.484735300
247	247	0.0641390	13648327.324422100
248	248	0.0641390	14523717.710388200
249	249	0.0641390	15455254.780825300
250	250	0.0641390	16446539.729244000
251	251	0.0641390	17501404.726189700
252	252	0.0641390	18623927.733884200

g=	7.7266%
Non-Constant DCF =	9.5833%
Constant DCF =	10.5037%
D=	2.4500
g(e)=	6.41%
P=	-95.04

LINE		GROWTH	
NO.	YEAR	RATE	DIVIDEND
253	253	0.0641390	19818448.271063600
254	254	0.0641390	21089584.188958300
255	255	0.0641390	22442249.523266500
256	256	0.0641390	23881673.491137300
257	257	0.0641390	25413420.706601300
258	258	0.0641390	27043412.692598200
259	259	0.0641390	28777950.772766700
260	260	0.0641390	30623740.431489800
261	261	0.0641390	32587917.236370400
262	262	0.0641390	34678074.423349100
263	263	0.0641390	36902292.251104200
264	264	0.0641390	39269169.238214900
265	265	0.0641390	41787855.403844700
266	266	0.0641390	44468087.640450800
267	267	0.0641390	47320227.355263600
268	268	0.0641390	50355300.526054700
269	269	0.0641390	53585040.326042200
270	270	0.0641390	57021932.482716100
271	271	0.0641390	60679263.545934300
272	272	0.0641390	64571172.251887400
273	273	0.0641390	68712704.181497500
274	274	0.0641390	73119869.924554100
275	275	0.0641390	77809706.974440200
276	276	0.0641390	82800345.592726000
277	277	0.0641390	88111078.898253100
278	278	0.0641390	93762437.451664600
279	279	0.0641390	99776268.623713500
280	280	0.0641390	106175821.054177000
281	281	0.0641390	112985834.527885000
282	282	0.0641390	120232635.615304000
283	283	0.0641390	127944239.447421000
284	284	0.0641390	136150458.018367000
285	285	0.0641390	144883015.434461000
286	286	0.0641390	154175670.555221000
287	287	0.0641390	164064347.500448000
288	288	0.0641390	174587274.527902000

g=	7.7266%
Non-Constant DCF =	9.5833%
Constant DCF =	10.5037%
D=	2.4500
g(e)=	6.41%
P=	-95.04

LINE	VEAD	GROWTH	
NO.	YEAR	RATE	DIVIDEND
289	289	0.0641390	185785131.818463000
290	290	0.0641390	197701208.740088000
291	291	0.0641390	210381571.198517000
292	292	0.0641390	223875239.721699000
293	293	0.0641390	238234378.966370000
294	294	0.0641390	253514499.379412000
295	295	0.0641390	269774671.793554000
296	296	0.0641390	287077755.787053000
297	297	0.0641390	305490642.690126000
298	298	0.0641390	325084514.177588000
299	299	0.0641390	345935117.447361000
300	300	0.0641390	368123058.048669000
301	301	0.0641390	391734111.491945000
302	302	0.0641390	416859554.845096000
303	303	0.0641390	443596519.598025000
304	304	0.0641390	472048367.159541000
305	305	0.0641390	502325088.438276000
306	306	0.0641390	534543729.052324000
307	307	0.0641390	568828841.811421000
308	308	0.0641390	605312968.220885000
309	309	0.0641390	644137150.868748000
310	310	0.0641390	685451478.676898000
311	311	0.0641390	729415667.124102000
312	312	0.0641390	776199675.683959000
313	313	0.0641390	825984364.864729000
314	314	0.0641390	878962195.391044000
315	315	0.0641390	935337972.230465000
316	316	0.0641390	995329636.341163000
317	317	0.0641390	1059169107.201530000
318	318	0.0641390	1127103179.378820000
319	319	0.0641390	1199394476.602810000
320	320	0.0641390	1276322467.032830000
321	321	0.0641390	1358184543.643040000
322	322	0.0641390	1445297173.902530000
323	323	0.0641390	1537997123.194800000
324	324	0.0641390	1636642756.706180000

g=	7.7266%
Non-Constant DCF =	9.5833%
Constant DCF =	10.5037%
D=	2.4500
g(e)=	6.41%
P=	-95.04

LINE		GROWTH	
NO.	YEAR	RATE	DIVIDEND
325	325	0.0641390	1741615424.816070000
326	326	0.0641390	1853320937.344790000
327	327	0.0641390	1972191132.358230000
328	328	0.0641390	2098685545.594110000
329	329	0.0641390	2233293186.963600000
330	330	0.0641390	2376534430.995990000
331	331	0.0641390	2528963028.534730000
332	332	0.0641390	2691168247.461570000
333	333	0.0641390	2863777150.724740000
334	334	0.0641390	3047457020.477570000
335	335	0.0641390	3242917937.699080000
336	336	0.0641390	3450915527.268840000
337	337	0.0641390	3672253879.108250000
338	338	0.0641390	3907788656.681020000
339	339	0.0641390	4158430404.869810000
340	340	0.0641390	4425148070.016840000
341	341	0.0641390	4708972745.736450000
342	342	0.0641390	5011001658.980490000
343	343	0.0641390	5332402411.765970000
344	344	0.0641390	5674417494.962990000
345	345	0.0641390	6038369091.592720000
346	346	0.0641390	6425664188.204060000
347	347	0.0641390	6837800014.089140000
348	348	0.0641390	7276369829.364730000
349	349	0.0641390	7743069084.295550000
350	350	0.0641390	8239701973.670570000
351	351	0.0641390	8768188411.570580000
352	352	0.0641390	9330571453.490590000
353	353	0.0641390	9929025194.509830000
354	354	0.0641390	10565863174.042800000
355	355	0.0641390	11243547319.662600000
356	356	0.0641390	11964697464.572700000
357	357	0.0641390	12732101475.519800000
358	358	0.0641390	13548726030.301000000
359	359	0.0641390	14417728086.530400000
360	360	0.0641390	15342467086.000200000

g=	7.7266%
Non-Constant DCF =	9.5833%
Constant DCF =	10.5037%
D=	2.4500
g(e)=	6.41%
P=	-95.04

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	
361	361	0.0641390	16326517941.818500000
362	362	0.0641390	17373684858.529100000
363	363	0.0641390	18488016038.639900000
364	364	0.0641390	19673819332.414400000
365	365	0.0641390	20935678891.425200000
366	366	0.0641390	22278472890.249700000
367	367	0.0641390	23707392384.819100000
368	368	0.0641390	25227961380.322500000
369	369	0.0641390	26846058186.246900000
370	370	0.0641390	28567938141.109600000
371	371	0.0641390	30400257794.731400000
372	372	0.0641390	32350100641.538000000
373	373	0.0641390	34425004504.370000000
374	374	0.0641390	36632990674.663700000
375	375	0.0641390	38982594921.654800000
376	376	0.0641390	41482900490.482000000
377	377	0.0641390	44143573216.756500000
378	378	0.0641390	46974898893.346400000
379	379	0.0641390	49987823033.829500000
380	380	0.0641390	53193993186.335100000
381	381	0.0641390	56605803961.355300000
382	382	0.0641390	60236444947.594300000
383	383	0.0641390	64099951701.095600000
384	384	0.0641390	68211260004.760400000
385	385	0.0641390	72586263608.019200000
386	386	0.0641390	77241875669.869600000
387	387	0.0641390	82196094142.810400000
388	388	0.0641390	87468071350.437100000
389	389	0.0641390	93078188027.677100000
390	390	0.0641390	99048132109.892700000
391	391	0.0641390	105400982575.440000000
392	392	0.0641390	112161298665.810000000
393	393	0.0641390	119355214828.257000000
394	394	0.0641390	127010541747.961000000
395	395	0.0641390	135156873860.289000000
396	396	0.0641390	143825703758.794000000

g=	7.7266%
Non-Constant DCF =	9.5833%
Constant DCF =	10.5037%
D=	2.4500
g(e)=	6.41%
P=	-95.04

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
397	397	0.0641390	153050543941.222000000
398	398	0.0641390	162867056364.198000000
399	399	0.0641390	173313190307.418000000
400	400	0.0641390	184429329080.317000000

g=	5.9298%
Non-Constant DCF =	9.1548%
Constant DCF =	8.8110%
D=	0.6200
g(e)=	6.41%
P=	-22.79

NO. YEAR RATE DIVIDEND 1 1 0.0592982 0.656764911 2 2 0.0592982 0.695709916	
2 2 0.0592982 0.695709916	
3 3 0.0592982 0.736964292	
4 4 0.0592982 0.780664980	
5 5 0.0592982 0.826957042	
660.05954030.876194298	
7 7 0.0597823 0.928575227	
8 8 0.0600244 0.984312361	
9 9 0.0602664 1.043633323	
10 10 0.0605084 1.106781945	
11110.06075051.174019477	
12120.06099251.245625879	
13 13 0.0612346 1.321901225	
14140.06147661.403167211	
15 15 0.0617186 1.489768773	
16 16 0.0619607 1.582075848	
17170.06220271.680485256	
18 18 0.0624448 1.785422738	
19 19 0.0626868 1.897345157	
20 20 0.0629288 2.016742865	
21 21 0.0631709 2.144142261	
22 22 0.0634129 2.280108554	
23230.06365492.425248739	
24240.06389702.580214820	
25250.06413902.745707279	
26 26 0.0641390 2.921814262	
27270.06413903.109216576	
28 28 0.0641390 3.308638690	
29 29 0.0641390 3.520851545	
30 30 0.0641390 3.746675525	
31 31 0.0641390 3.986983634	
32 32 0.0641390 4.242704870	
33 33 0.0641390 4.514827817	
34 34 0.0641390 4.804404465	
35 35 0.0641390 5.112554275	
36 36 0.0641390 5.440468514	

g=	5.9298%
Non-Constant DCF =	9.1548%
Constant DCF =	8.8110%
D=	0.6200
g(e)=	6.41%
P=	-22.79

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	
37	37	0.0641390	5.789414851
38	38	0.0641390	6.160742266
39	39	0.0641390	6.555886258
40	40	0.0641390	6.976374400
41	41	0.0641390	7.423832242
42	42	0.0641390	7.899989592
43	43	0.0641390	8.406687209
44	44	0.0641390	8.945883917
45	45	0.0641390	9.519664175
46	46	0.0641390	10.130246139
47	47	0.0641390	10.779990233
48	48	0.0641390	11.471408279
49	49	0.0641390	12.207173203
50	50	0.0641390	12.990129371
51	51	0.0641390	13.823303583
52	52	0.0641390	14.709916776
53	53	0.0641390	15.653396472
54	54	0.0641390	16.657390035
55	55	0.0641390	17.725778765
56	56	0.0641390	18.862692904
57	57	0.0641390	20.072527606
58	58	0.0641390	21.359959925
59	59	0.0641390	22.729966895
60	60	0.0641390	24.187844774
61	61	0.0641390	25.739229516
62	62	0.0641390	27.390118561
63	63	0.0641390	29.146894017
64	64	0.0641390	31.016347335
65	65	0.0641390	33.005705564
66	66	0.0641390	35.122659286
67	67	0.0641390	37.375392353
68	68	0.0641390	39.772613518
69	69	0.0641390	42.323590108
70	70	0.0641390	45.038183846
71	71	0.0641390	47.926888974
72	72	0.0641390	51.000872829

g=	5.9298%
Non-Constant DCF =	9.1548%
Constant DCF =	8.8110%
D=	0.6200
g(e)=	6.41%
P=	-22.79

LINE	YEAR	GROWTH	DIVIDEND
NO.	73	RATE 0.0641390	
73 74	73 74		54.272019006
74		0.0641390	57.752973304
75	75	0.0641390	61.457192612
76	76	0.0641390	65.398996929
77	77	0.0641390	69.593624724
78	78	0.0641390	74.057291851
79	79	0.0641390	78.807254228
80	80	0.0641390	83.861874553
81	81	0.0641390	89.240693289
82	82	0.0641390	94.964504206
83	83	0.0641390	101.055434766
84	84	0.0641390	107.537031664
85	85	0.0641390	114.434351856
86	86	0.0641390	121.774059431
87	87	0.0641390	129.584528681
88	88	0.0641390	137.895953802
89	89	0.0641390	146.740465613
90	90	0.0641390	156.152255774
91	91	0.0641390	166.167708965
92	92	0.0641390	176.825543542
93	93	0.0641390	188.166961222
94	94	0.0641390	200.235806355
95	95	0.0641390	213.078735430
96	96	0.0641390	226.745397433
97	97	0.0641390	241.288625790
98	98	0.0641390	256.764642611
99	99	0.0641390	273.233276038
100	100	0.0641390	290.758191531
101	101	0.0641390	309.407137988
102	102	0.0641390	329.252209659
103	103	0.0641390	350.370124847
104	104	0.0641390	372.842522492
105	105	0.0641390	396.756277776
106	106	0.0641390	422.203837970
107	107	0.0641390	449.283579823
108	108	0.0641390	478.100189874

g=	5.9298%
Non-Constant DCF =	9.1548%
Constant DCF =	8.8110%
D=	0.6200
g(e)=	6.41%
P=	-22.79

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
109	109	0.0641390	508.765069151
110	110	0.0641390	541.396763839
111	111	0.0641390	576.121423557
112	112	0.0641390	613.073289038
113	113	0.0641390	652.395211084
114	114	0.0641390	694.239202810
115	115	0.0641390	738.767027301
116	116	0.0641390	786.150822971
117	117	0.0641390	836.573769020
118	118	0.0641390	890.230793588
119	119	0.0641390	947.329327311
120	120	0.0641390	1008.090105226
121	121	0.0641390	1072.748020099
122	122	0.0641390	1141.553030489
123	123	0.0641390	1214.771127052
124	124	0.0641390	1292.685360825
125	125	0.0641390	1375.596937463
126	126	0.0641390	1463.826381658
127	127	0.0641390	1557.714776240
128	128	0.0641390	1657.625080762
129	129	0.0641390	1763.943534646
130	130	0.0641390	1877.081150335
131	131	0.0641390	1997.475302206
132	132	0.0641390	2125.591417404
133	133	0.0641390	2261.924775115
134	134	0.0641390	2407.002421251
135	135	0.0641390	2561.385205930
136	136	0.0641390	2725.669951653
137	137	0.0641390	2900.491760529
138	138	0.0641390	3086.526469500
139	139	0.0641390	3284.493263028
140	140	0.0641390	3495.157453363
141	141	0.0641390	3719.333439136
142	142	0.0641390	3957.887853712
143	143	0.0641390	4211.742915473
144	144	0.0641390	4481.879992986

g=	5.9298%
Non-Constant DCF =	9.1548%
Constant DCF =	8.8110%
D=	0.6200
g(e)=	6.41%
P=	-22.79

LINE	YEAR	GROWTH	
NO.		RATE	DIVIDEND
145	145	0.0641390	4769.343398842
146	146	0.0641390	5075.244426820
147	147	0.0641390	5400.765647997
148	148	0.0641390	5747.165482404
149	149	0.0641390	6115.783063904
150	150	0.0641390	6508.043417099
151	151	0.0641390	6925.462966276
152	152	0.0641390	7369.655397695
153	153	0.0641390	7842.337897878
154	154	0.0641390	8345.337792013
155	155	0.0641390	8880.599608140
156	156	0.0641390	9450.192594430
157	157	0.0641390	10056.318718610
158	158	0.0641390	10701.321180467
159	159	0.0641390	11387.693470334
160	160	0.0641390	12118.089008578
161	161	0.0641390	12895.331403360
162	162	0.0641390	13722.425366306
163	163	0.0641390	14602.568328316
164	164	0.0641390	15539.162800384
165	165	0.0641390	16535.829527234
166	166	0.0641390	17596.421484625
167	167	0.0641390	18725.038774414
168	168	0.0641390	19926.044474991
169	169	0.0641390	21204.081508330
170	170	0.0641390	22564.090588887
171	171	0.0641390	24011.329323720
172	172	0.0641390	25551.392537667
173	173	0.0641390	27190.233902168
174	174	0.0641390	28934.188951337
175	175	0.0641390	30789.999574255
176	176	0.0641390	32764.840078188
177	177	0.0641390	34866.344923462
178	178	0.0641390	37102.638237234
179	179	0.0641390	39482.365220242
180	180	0.0641390	42014.725567958

g=	5.9298%
Non-Constant DCF =	9.1548%
Constant DCF =	8.8110%
D=	0.6200
g(e)=	6.41%
P=	-22.79

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	
181	181	0.0641390	44709.509035334
182	182	0.0641390	47577.133282648
183	183	0.0641390	50628.684148734
184	184	0.0641390	53875.958507300
185	185	0.0641390	57331.509872016
186	186	0.0641390	61008.696926659
187	187	0.0641390	64921.735167935
188	188	0.0641390	69085.751860629
189	189	0.0641390	73516.844517516
190	190	0.0641390	78232.143130119
191	191	0.0641390	83249.876390889
192	192	0.0641390	88589.442162810
193	193	0.0641390	94271.482468852
194	194	0.0641390	100317.963291182
195	195	0.0641390	106752.259488612
196	196	0.0641390	113599.245160568
197	197	0.0641390	120885.389806926
198	198	0.0641390	128638.860655430
199	199	0.0641390	136889.631552307
200	200	0.0641390	145669.598837009
201	201	0.0641390	155012.704649051
202	202	0.0641390	164955.068143629
203	203	0.0641390	175535.125123281
204	204	0.0641390	186793.776625382
205	205	0.0641390	198774.547039905
206	206	0.0641390	211523.752368689
207	207	0.0641390	225090.679276698
208	208	0.0641390	239527.775627459
209	209	0.0641390	254890.853239243
210	210	0.0641390	271239.303645841
211	211	0.0641390	288636.327696022
212	212	0.0641390	307149.179879274
213	213	0.0641390	326849.428322362
214	214	0.0641390	347813.231461808
215	215	0.0641390	370121.632461882
216	216	0.0641390	393860.872516263

g=	5.9298%
Non-Constant DCF =	9.1548%
Constant DCF =	8.8110%
D=	0.6200
g(e)=	6.41%
P=	-22.79

LINE	YEAR	GROWTH	DIVIDEND
NO.	047	RATE	440400 704044574
217 218	217 218	0.0641390 0.0641390	419122.724244571 446004.846472626
218	218		
		0.0641390	474611.161767967
220	220	0.0641390	505052.258190123
221	221	0.0641390	537445.816808768
222	222	0.0641390	571917.066642455
223	223	0.0641390	608599.268776697
224	224	0.0641390	647634.231532889
225	225	0.0641390	689172.858679674
226	226	0.0641390	733375.732806047
227	227	0.0641390	780413.736111441
228	228	0.0641390	830468.711012681
229	229	0.0641390	883734.163121623
230	230	0.0641390	940416.009311097
231	231	0.0641390	1000733.373761060
232	232	0.0641390	1064919.435062380
233	233	0.0641390	1133222.327653040
234	234	0.0641390	1205906.101071520
235	235	0.0641390	1283251.740735870
236	236	0.0641390	1365558.254194440
237	237	0.0641390	1453143.827047710
238	238	0.0641390	1546347.053009870
239	239	0.0641390	1645528.242865250
240	240	0.0641390	1751070.817380030
241	241	0.0641390	1863382.789553900
242	242	0.0641390	1982898.341941870
243	243	0.0641390	2110079.505144050
244	244	0.0641390	2245417.943952000
245	245	0.0641390	2389436.858056900
246	246	0.0641390	2542693.004667130
247	247	0.0641390	2705778.850854740
248	248	0.0641390	2879324.863951180
249	249	0.0641390	3064001.948846850
250	250	0.0641390	3260524.041616590
251	251	0.0641390	3469650.869497930
252	252	0.0641390	3692190.887891430

g=	5.9298%
Non-Constant DCF =	9.1548%
Constant DCF =	8.8110%
D=	0.6200
g(e)=	6.41%
P=	-22.79

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	
253	253	0.0641390	3929004.405737560
254	254	0.0641390	4181006.911352060
255	255	0.0641390	4449172.611577200
256	256	0.0641390	4734538.197930710
257	257	0.0641390	5038206.854311900
258	258	0.0641390	5361352.521758000
259	259	0.0641390	5705224.436737950
260	260	0.0641390	6071151.960527810
261	261	0.0641390	6460549.718337700
262	262	0.0641390	6874923.068057200
263	263	0.0641390	7315873.919760830
264	264	0.0641390	7785106.928470940
265	265	0.0641390	8284436.084118240
266	266	0.0641390	8815791.724176130
267	267	0.0641390	9381227.996078420
268	268	0.0641390	9982930.798269310
269	269	0.0641390	10623226.230584500
270	270	0.0641390	11304589.586631500
271	271	0.0641390	12029654.922932700
272	272	0.0641390	12801225.241823100
273	273	0.0641390	13622283.327470400
274	274	0.0641390	14496003.276906000
275	275	0.0641390	15425762.770644900
276	276	0.0641390	16415156.130331800
277	277	0.0641390	17468008.213891700
278	278	0.0641390	18588389.201901500
279	279	0.0641390	19780630.332345700
280	280	0.0641390	21049340.644583000
281	281	0.0641390	22399424.797255900
282	282	0.0641390	23836102.029022000
283	283	0.0641390	25364926.335409800
284	284	0.0641390	26991807.939796900
285	285	0.0641390	28723036.141516700
286	286	0.0641390	30565303.629419700
287	287	0.0641390	32525732.354883500
288	288	0.0641390	34611901.064291800

g=	5.9298%
Non-Constant DCF =	9.1548%
Constant DCF =	8.8110%
D=	0.6200
g(e)=	6.41%
P=	-22.79

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	
289	289	0.0641390	36831874.597420300
290	290	0.0641390	39194235.064991800
291	291	0.0641390	41708115.025930000
292	292	0.0641390	44383232.792569200
293	293	0.0641390	47229930.000306000
294	294	0.0641390	50259211.586932400
295	295	0.0641390	53482788.336202600
296	296	0.0641390	56913122.150105000
297	297	0.0641390	60563474.224851000
298	298	0.0641390	64447956.316826800
299	299	0.0641390	68581585.296691800
300	300	0.0641390	72980341.202524500
301	301	0.0641390	77661229.016439900
302	302	0.0641390	82642344.403499500
303	303	0.0641390	87942943.667049700
304	304	0.0641390	93583518.190928600
305	305	0.0641390	99585873.656322100
306	306	0.0641390	105973214.339512000
307	307	0.0641390	112770232.816402000
308	308	0.0641390	120003205.420598000
309	309	0.0641390	127700093.824083000
310	310	0.0641390	135890653.133174000
311	311	0.0641390	144606546.917651000
312	312	0.0641390	153881469.617736000
313	313	0.0641390	163751276.802141000
314	314	0.0641390	174254123.780743000
315	315	0.0641390	185430613.107729000
316	316	0.0641390	197323951.545462000
317	317	0.0641390	209980117.095847000
318	318	0.0641390	223448036.744934000
319	319	0.0641390	237779775.607872000
320	320	0.0641390	253030738.205453000
321	321	0.0641390	269259882.650327000
322	322	0.0641390	286529948.570910000
323	323	0.0641390	304907699.654115000
324	324	0.0641390	324464181.744535000

g=	5.9298%
Non-Constant DCF =	9.1548%
Constant DCF =	8.8110%
D=	0.6200
g(e)=	6.41%
P=	-22.79

LINE		GROWTH	
NO.	YEAR	RATE	DIVIDEND
325	325	0.0641390	345274997.497854000
326	326	0.0641390	367420598.650257000
327	327	0.0641390	390986597.033723000
328	328	0.0641390	416064095.539528000
329	329	0.0641390	442750040.309424000
330	330	0.0641390	471147595.516021000
331	331	0.0641390	501366542.181212000
332	332	0.0641390	533523702.574424000
333	333	0.0641390	567743391.831362000
334	334	0.0641390	604157898.539129000
335	335	0.0641390	642907996.145617000
336	336	0.0641390	684143487.170187000
337	337	0.0641390	728023782.319503000
338	338	0.0641390	774718516.747275000
339	339	0.0641390	824408205.840309000
340	340	0.0641390	877284943.066036000
341	341	0.0641390	933553142.579294000
342	342	0.0641390	993430329.459187000
343	343	0.0641390	1057147980.630960000
344	344	0.0641390	1124952419.723800000
345	345	0.0641390	1197105769.323890000
346	346	0.0641390	1273886964.304140000
347	347	0.0641390	1355592830.147780000
348	348	0.0641390	1442539230.434690000
349	349	0.0641390	1535062287.926280000
350	350	0.0641390	1633519683.969620000
351	351	0.0641390	1738292041.244100000
352	352	0.0641390	1849784395.196050000
353	353	0.0641390	1968427759.849770000
354	354	0.0641390	2094680794.048180000
355	355	0.0641390	2229031574.564450000
356	356	0.0641390	2371999482.939350000
357	357	0.0641390	2524137213.338460000
358	358	0.0641390	2686032909.191380000
359	359	0.0641390	2858312436.872940000
360	360	0.0641390	3041641805.216030000

g=	5.9298%
Non-Constant DCF =	9.1548%
Constant DCF =	8.8110%
D=	0.6200
g(e)=	6.41%
P=	-22.79

LINE	YEAR	GROWTH	DIVIDEND
NO.	IEAR	RATE	DIVIDEND
361	361	0.0641390	3236729740.209660000
362	362	0.0641390	3444330424.835690000
363	363	0.0641390	3665246414.635880000
364	364	0.0641390	3900331740.280720000
365	365	0.0641390	4150495209.133840000
366	366	0.0641390	4416703918.575670000
367	367	0.0641390	4699986994.668200000
368	368	0.0641390	5001439570.613990000
369	369	0.0641390	5322227020.389740000
370	370	0.0641390	5663589463.920930000
371	371	0.0641390	6026846561.214010000
372	372	0.0641390	6413402613.979480000
373	373	0.0641390	6824751994.468150000
374	374	0.0641390	7262484922.507620000
375	375	0.0641390	7728293613.072290000
376	376	0.0641390	8223978818.152420000
377	377	0.0641390	8751456788.212350000
378	378	0.0641390	9312766680.149850000
379	379	0.0641390	9910078440.394720000
380	380	0.0641390	10545701193.621700000
381	381	0.0641390	11222092169.507000000
382	382	0.0641390	11941866202.038700000
383	383	0.0641390	12707805838.103300000
384	384	0.0641390	13522872094.427100000
385	385	0.0641390	14390215904.457900000
386	386	0.0641390	15313190299.437300000
387	387	0.0641390	16295363370.756400000
388	388	0.0641390	17340532063.703900000
389	389	0.0641390	18452736855.930700000
390	390	0.0641390	19636277377.379100000
391	391	0.0641390	20895729032.056500000
392	392	0.0641390	22235960685.915200000
393	393	0.0641390	23662153489.215000000
394	394	0.0641390	25179820906.133400000
395	395	0.0641390	26794830029.056200000
396	396	0.0641390	28513424259.944900000

g=	5.9298%
Non-Constant DCF =	9.1548%
Constant DCF =	8.8110%
D=	0.6200
g(e)=	6.41%
P=	-22.79

LINE	YEAR	GROWTH	DIVIDEND
NO.	I LAN	RATE	BIVIDEND
397	397	0.0641390	30342247446.465700000
398	398	0.0641390	32288369566.186000000
399	399	0.0641390	34359314058.13000000
400	400	0.0641390	36563086907.353500000

g=	5.9415%
Non-Constant DCF =	9.2350%
Constant DCF =	8.9026%
D=	1.6850
g(e)=	6.41%
P=	-60.29

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	
1	1	0.0594152	1.785114694
2	2	0.0594152	1.891177726
3	3	0.0594152	2.003542521
4	4	0.0594152	2.122583497
5	5	0.0594152	2.248697323
6	6	0.0596514	2.382835350
7	7	0.0598876	2.525537702
8	8	0.0601238	2.677382663
9	9	0.0603600	2.838989489
10	10	0.0605962	3.011021442
11	11	0.0608324	3.194189045
12	12	0.0610686	3.389253601
13	13	0.0613048	3.597030975
14	14	0.0615409	3.818395668
15	15	0.0617771	4.054285216
16	16	0.0620133	4.305704921
17	17	0.0622495	4.573732957
18	18	0.0624857	4.859525873
19	19	0.0627219	5.164324524
20	20	0.0629581	5.489460479
21	21	0.0631943	5.836362918
22	22	0.0634305	6.206566086
23	23	0.0636666	6.601717332
24	24	0.0639028	7.023585783
25	25	0.0641390	7.474071716
26	26	0.0641390	7.953451377
27	27	0.0641390	8.463577981
28	28	0.0641390	9.006423608
29	29	0.0641390	9.584086822
30	30	0.0641390	10.198800791
31	31	0.0641390	10.852941914
32	32	0.0641390	11.549039010
33	33	0.0641390	12.289783094
34	34	0.0641390	13.078037779
35	35	0.0641390	13.916850351
36	36	0.0641390	14.809463541

g=	5.9415%
Non-Constant DCF =	9.2350%
Constant DCF =	8.9026%
D=	1.6850
g(e)=	6.41%
P=	-60.29

LINE	VEAD	GROWTH	
NO.	YEAR	RATE	DIVIDEND
37	37	0.0641390	15.759328070
38	38	0.0641390	16.770115983
39	39	0.0641390	17.845734845
40	40	0.0641390	18.990342850
41	41	0.0641390	20.208364895
42	42	0.0641390	21.504509684
43	43	0.0641390	22.883787934
44	44	0.0641390	24.351531745
45	45	0.0641390	25.913415210
46	46	0.0641390	27.575476355
47	47	0.0641390	29.344140479
48	48	0.0641390	31.226244992
49	49	0.0641390	33.229065851
50	50	0.0641390	35.360345684
51	51	0.0641390	37.628323724
52	52	0.0641390	40.041767661
53	53	0.0641390	42.610007535
54	54	0.0641390	45.342971807
55	55	0.0641390	48.251225737
56	56	0.0641390	51.346012235
57	57	0.0641390	54.639295317
58	58	0.0641390	58.143806359
59	59	0.0641390	61.873093317
60	60	0.0641390	65.841573099
61	61	0.0641390	70.064587298
62	62	0.0641390	74.558461504
63	63	0.0641390	79.340568413
64	64	0.0641390	84.429394989
65	65	0.0641390	89.844613931
66	66	0.0641390	95.607159729
67	67	0.0641390	101.739309586
68	68	0.0641390	108.264769547
69	69	0.0641390	115.208766137
70	70	0.0641390	122.598143887
71	71	0.0641390	130.461469110
72	72	0.0641390	138.829140333

g=	5.9415%
Non-Constant DCF =	9.2350%
Constant DCF =	8.9026%
D=	1.6850
g(e)=	6.41%
P=	-60.29

LINE	VEAD	GROWTH	
NO.	YEAR	RATE	DIVIDEND
73	73	0.0641390	147.733505817
74	74	0.0641390	157.208988607
75	75	0.0641390	167.292219610
76	76	0.0641390	178.022179202
77	77	0.0641390	189.440347924
78	78	0.0641390	201.590866837
79	79	0.0641390	214.520708167
80	80	0.0641390	228.279856893
81	81	0.0641390	242.921503982
82	82	0.0641390	258.502252016
83	83	0.0641390	275.082334014
84	84	0.0641390	292.725846279
85	85	0.0641390	311.500996190
86	86	0.0641390	331.480365881
87	87	0.0641390	352.741192833
88	88	0.0641390	375.365668463
89	89	0.0641390	399.441255866
90	90	0.0641390	425.061027932
91	91	0.0641390	452.324027160
92	92	0.0641390	481.335648533
93	93	0.0641390	512.208046969
94	94	0.0641390	545.060570892
95	95	0.0641390	580.020223616
96	96	0.0641390	617.222154326
97	97	0.0641390	656.810180540
98	98	0.0641390	698.937344095
99	99	0.0641390	743.766502780
100	100	0.0641390	791.470959924
101	101	0.0641390	842.235134363
102	102	0.0641390	896.255273375
103	103	0.0641390	953.740211348
104	104	0.0641390	1014.912177104
105	105	0.0641390	1080.007653005
106	106	0.0641390	1149.278289160
107	107	0.0641390	1222.991876270
108	108	0.0641390	1301.433380870

g=	5.9415%
Non-Constant DCF =	9.2350%
Constant DCF =	8.9026%
D=	1.6850
g(e)=	6.41%
P=	-60.29

LINE	YEAR	GROWTH	DIVIDEND
NO.	TEAK	RATE	DIVIDEND
109	109	0.0641390	1384.906046971
110	110	0.0641390	1473.732568358
111	111	0.0641390	1568.256336082
112	112	0.0641390	1668.842765957
113	113	0.0641390	1775.880711215
114	114	0.0641390	1889.783965750
115	115	0.0641390	2010.992863797
116	116	0.0641390	2139.975982194
117	117	0.0641390	2277.231951844
118	118	0.0641390	2423.291385347
119	119	0.0641390	2578.718928276
120	120	0.0641390	2744.115442021
121	121	0.0641390	2920.120326637
122	122	0.0641390	3107.413992669
123	123	0.0641390	3306.720491535
124	124	0.0641390	3518.810314599
125	125	0.0641390	3744.503371794
126	126	0.0641390	3984.672161270
127	127	0.0641390	4240.245142361
128	128	0.0641390	4512.210324872
129	129	0.0641390	4801.619088595
130	130	0.0641390	5109.590247794
131	131	0.0641390	5437.314376387
132	132	0.0641390	5786.058410541
133	133	0.0641390	6157.170546470
134	134	0.0641390	6552.085452378
135	135	0.0641390	6972.329814687
136	136	0.0641390	7419.528239995
137	137	0.0641390	7895.409535579
138	138	0.0641390	8401.813392727
139	139	0.0641390	8940.697498731
140	140	0.0641390	9514.145105033
141	141	0.0641390	10124.373080789
142	142	0.0641390	10773.740482976
143	143	0.0641390	11464.757676183
144	144	0.0641390	12200.096037332

g=	5.9415%
Non-Constant DCF =	9.2350%
Constant DCF =	8.9026%
D=	1.6850
g(e)=	6.41%
P=	-60.29

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	
145	145	0.0641390	12982.598282851
146	146	0.0641390	13815.289458226
147	147	0.0641390	14701.388632403
148	148	0.0641390	15644.321342269
149	149	0.0641390	16647.732835301
150	150	0.0641390	17715.502161589
151	151	0.0641390	18851.757169707
152	152	0.0641390	20060.890464408
153	153	0.0641390	21347.576387820
154	154	0.0641390	22716.789089815
155	155	0.0641390	24173.821757375
156	156	0.0641390	25724.307077331
157	157	0.0641390	27374.239011542
158	158	0.0641390	29129.995968731
159	159	0.0641390	30998.365462525
160	160	0.0641390	32986.570351046
161	161	0.0641390	35102.296759485
162	162	0.0641390	37353.723793595
163	163	0.0641390	39749.555158984
164	164	0.0641390	42299.052808439
165	165	0.0641390	45012.072747353
166	166	0.0641390	47899.103135680
167	167	0.0641390	50971.304833711
168	168	0.0641390	54240.554548417
169	169	0.0641390	57719.490747154
170	170	0.0641390	61421.562516235
171	171	0.0641390	65361.081553232
172	172	0.0641390	69553.277494025
173	173	0.0641390	74014.356788464
174	174	0.0641390	78761.565352267
175	175	0.0641390	83813.255237345
176	176	0.0641390	89188.955578295
177	177	0.0641390	94909.448089336
178	178	0.0641390	100996.847403543
179	179	0.0641390	107474.686564958
180	180	0.0641390	114368.008004087

g=	5.9415%
Non-Constant DCF =	9.2350%
Constant DCF =	8.9026%
D=	1.6850
g(e)=	6.41%
P=	-60.29

LINE	YEAR	GROWTH	DIVIDEND
NO.	404	RATE	
181	181	0.0641390	121703.460348472
182	182	0.0641390	129509.401442603
183	183	0.0641390	137816.007975421
184	184	0.0641390	146655.392139226
185	185	0.0641390	156061.725770970
186	186	0.0641390	166071.372455860
187	187	0.0641390	176723.028103942
188	188	0.0641390	188057.870543146
189	189	0.0641390	200119.718707071
190	190	0.0641390	212955.202032925
191	191	0.0641390	226613.940724480
192	192	0.0641390	241148.737576922
193	193	0.0641390	256615.782105153
194	194	0.0641390	273074.867764687
195	195	0.0641390	290589.623104884
196	196	0.0641390	309227.757748120
197	197	0.0641390	329061.324145827
198	198	0.0641390	350166.996123307
199	199	0.0641390	372626.365290141
200	200	0.0641390	396526.256462065
201	201	0.0641390	421959.063313708
202	202	0.0641390	449023.105559758
203	203	0.0641390	477823.009045390
204	204	0.0641390	508470.110215309
205	205	0.0641390	541082.886525058
206	206	0.0641390	575787.414458475
207	207	0.0641390	612717.856921950
208	208	0.0641390	652016.981899665
209	209	0.0641390	693836.714374889
210	210	0.0641390	738338.723650946
211	211	0.0641390	785695.048342396
212	212	0.0641390	836088.761452529
213	213	0.0641390	889714.678108280
214	214	0.0641390	946780.108688573
215	215	0.0641390	1007505.660257580
216	216	0.0641390	1072126.089401140

g=	5.9415%
Non-Constant DCF =	9.2350%
Constant DCF =	8.9026%
D=	1.6850
g(e)=	6.41%
P=	-60.29

	YEAR	GROWTH RATE	DIVIDEND
NO. 217	217	0.0641390	1140891.209763240
217	217	0.0641390	1214066.857791030
210	210	0.0641390	1291935.920421780
219	219	0.0641390	1374799.428684640
220	220	0.0641390	1462977.721445010
222	222	0.0641390	1556811.683790270
223	223	0.0641390	1656664.064844410
223	223	0.0641390	1762920.880105960
224	225	0.0641390	1875992.903730590
225	225	0.0641390	1996317.256527130
220	220	0.0641390	2124359.095806220
228	228	0.0641390	2260613.413614150
220	229	0.0641390	2405606.950303640
230	230	0.0641390	2559900.230839270
230	230	0.0641390	2724089.731709410
232	232	0.0641390	2898810.186821910
232	232	0.0641390	3084737.041297610
234	234	0.0641390	3282589.062647760
234	235	0.0641390	3493131.119429880
236	236	0.0641390	3717177.138123780
230	230	0.0641390	3955593.249658860
238	238	0.0641390	4209301.137756450
239	239	0.0641390	4479281.602031710
240	240	0.0641390	4766578.349629280
240	241	0.0641390	5072302.030050790
242	242	0.0641390	5397634.528772260
243	243	0.0641390	5743833.536249990
244	244	0.0641390	6112237.409977850
245	245	0.0641390	6504270.348392420
246	246	0.0641390	6921447.896627130
247	247	0.0641390	7365382.805400240
248	248	0.0641390	7837791.265686090
249	249	0.0641390	8340499.543272130
250	250	0.0641390	8875451.038849950
251	251	0.0641390	9444713.800933600
252	252	0.0641390	10050488.520649200

g=	5.9415%
Non-Constant DCF =	9.2350%
Constant DCF =	8.9026%
D=	1.6850
g(e)=	6.41%
P=	-60.29

LINE	VEAD	GROWTH	
NO.	YEAR	RATE	DIVIDEND
253	253	0.0641390	10695117.039302600
254	254	0.0641390	11381091.401614000
255	255	0.0641390	12111063.489618300
256	256	0.0641390	12887855.274474400
257	257	0.0641390	13714469.725815200
258	258	0.0641390	14594102.420813700
259	259	0.0641390	15530153.897841500
260	260	0.0641390	16526242.802481000
261	261	0.0641390	17586219.876708000
262	262	0.0641390	18714182.845328300
263	263	0.0641390	19914492.257214900
264	264	0.0641390	21191788.342587000
265	265	0.0641390	22551008.951498900
266	266	0.0641390	23997408.642884800
267	267	0.0641390	25536578.997957700
268	268	0.0641390	27174470.236488900
269	269	0.0641390	28917414.219534900
270	270	0.0641390	30772148.927537200
271	271	0.0641390	32745844.508422100
272	272	0.0641390	34846130.996402300
273	273	0.0641390	37081127.808633100
274	274	0.0641390	39459475.133757300
275	275	0.0641390	41990367.333679100
276	276	0.0641390	44683588.487696600
277	277	0.0641390	47549550.216398900
278	278	0.0641390	50599331.931552200
279	279	0.0641390	53844723.667573200
280	280	0.0641390	57298271.660172500
281	281	0.0641390	60973326.848366600
282	282	0.0641390	64884096.487362700
283	283	0.0641390	69045699.071842000
284	284	0.0641390	73474222.781970700
285	285	0.0641390	78186787.678079200
286	286	0.0641390	83201611.884448500
287	287	0.0641390	88538082.018059900
288	288	0.0641390	94216828.134575000

g=	5.9415%
Non-Constant DCF =	9.2350%
Constant DCF =	8.9026%
D=	1.6850
g(e)=	6.41%
P=	-60.29

	YEAR	GROWTH	DIVIDEND
NO. 289	289	RATE 0.0641390	100259803.481279000
289 290	289 290	0.0641390	106690369.365299000
290 291	290 291	0.0641390	113533385.465186000
291	291	0.0641390	120815305.934999000
293	293	0.0641390	128564281.672400000
294	294	0.0641390	136810269.146138000
295	295	0.0641390	145585146.203611000
296	296	0.0641390	154922835.306222000
297	297	0.0641390	164859434.668915000
298	298	0.0641390	175433357.810891000
299	299	0.0641390	186685482.056960000
300	300	0.0641390	198659306.563622000
301	301	0.0641390	211401120.480797000
302	302	0.0641390	224960181.899277000
303	303	0.0641390	239388908.275691000
304	304	0.0641390	254743079.071147000
305	305	0.0641390	271082051.386916000
306	306	0.0641390	288468989.430778000
307	307	0.0641390	306971108.701116000
308	308	0.0641390	326659935.832736000
309	309	0.0641390	347611585.108952000
310	310	0.0641390	369907052.708876000
311	311	0.0641390	393632529.827452000
312	312	0.0641390	418879735.878694000
313	313	0.0641390	445746273.070259000
314	314	0.0641390	474336003.720088000
315	315	0.0641390	504759451.773766000
316	316	0.0641390	537134230.074813000
317	317	0.0641390	571585495.039673000
318	318	0.0641390	608246430.495117000
319	319	0.0641390	647258762.548501000
320	320	0.0641390	688773307.481301000
321	321	0.0641390	732950554.784003000
322	322	0.0641390	779961287.586281000
323	323	0.0641390	829987242.880968000
324	324	0.0641390	883221814.094132000

g=	5.9415%
Non-Constant DCF =	9.2350%
Constant DCF =	8.9026%
D=	1.6850
g(e)=	6.41%
P=	-60.29

NO. RATE 325 325 0.0641390 939870798.717330000 326 326 0.0641390 1000153193.892250000 327 327 0.0641390 1064302043.023370000 328 328 0.0641390 113265636.691570000 330 330 0.0641390 1285207769.518250000 331 331 0.0641390 1282507769.518250000 332 332 0.0641390 1452301360.095930000 333 333 0.0641390 1644574240.145740000 334 334 0.0641390 175005525.857750000 336 336 0.0641390 1862302484.638780000 337 337 0.0641390 1862302484.638780000 338 338 0.0641390 2108856176.650590000 340 340 0.0641390 244116152.363650000 341 341 0.0641390 2704210162.870620000 342 342 0.0641390 2704210162.870620000 344 344 0.0641390 326863	LINE	YEAR	GROWTH	DIVIDEND
326 326 0.0641390 1000153193.892250000 327 327 0.0641390 1064302043.023370000 328 328 0.0641390 1205206971.351390000 329 329 0.0641390 1282507769.518250000 331 331 0.0641390 1452301360.095930000 332 332 0.0641390 1452301360.095930000 333 333 0.0641390 1545551.050530000 334 334 0.0641390 1545450551.050530000 335 335 0.0641390 1750056625.857750000 336 336 0.0641390 1862302484.638780000 337 337 0.0641390 1981748747.32450000 338 338 0.0641390 21085617.650590000 340 340 0.0641390 2244116152.363650000 341 341 0.0641390 274210162.87062000 342 342 0.0641390 274210162.87062000 343 343 0.0641390 36222579.340910000 344 <t< th=""><th>NO.</th><th></th><th>RATE</th><th></th></t<>	NO.		RATE	
327 327 0.0641390 1064302043.023370000 328 328 0.0641390 1132565336.691570000 329 329 0.0641390 1282007769.518250000 331 331 0.0641390 128207769.518250000 331 331 0.0641390 1364766565.389460000 332 332 0.0641390 1452301360.095930000 333 333 0.0641390 1644574240.145740000 335 335 0.0641390 1644574240.145740000 336 336 0.0641390 1862302484.638780000 337 337 0.0641390 1862302484.638780000 338 338 0.0641390 2108856176.650590000 339 339 0.0641390 2244116152.363650000 340 0.0641390 2244116152.870620000 342 342 0.0641390 2541218866.467530000 342 343 0.0641390 3258737.50530000 344 344 0.0641390 32585373.750530000 344 344				
328 328 0.0641390 1132565336.691570000 329 329 0.0641390 1205206971.351390000 330 330 0.0641390 1282507769.518250000 331 331 0.0641390 1364766565.389460000 332 332 0.0641390 1452301360.095930000 333 333 0.0641390 1545450551.050530000 334 334 0.0641390 1644574240.145740000 335 335 0.0641390 1862302484.638780000 336 336 0.0641390 1981748747.324500000 337 337 0.0641390 2108856176.65059000 338 338 0.0641390 2244116152.363650000 340 340 0.0641390 2244116152.363650000 341 341 0.0641390 2541218866.467530000 342 342 0.0641390 264225579.340910000 343 343 0.0641390 3256633737.50530000 344 344 0.0641390 325685377.50530000 344				
329 329 0.0641390 1205206971.351390000 330 330 0.0641390 1282507769.518250000 331 331 0.0641390 1364766565.389460000 332 332 0.0641390 1452301360.095930000 333 333 0.0641390 154545051.050530000 334 334 0.0641390 1644574240.145740000 335 335 0.0641390 1862302484.638780000 337 337 0.0641390 1862302484.638780000 338 338 0.0641390 1862302484.638780000 339 339 0.0641390 218856176.650590000 341 341 0.0641390 218856176.85090000 342 342 0.0641390 2244116152.363650000 341 341 0.0641390 2541218866.467530000 342 342 0.0641390 26725561.851710000 344 344 0.0641390 3258633737.505300000 345 345 0.0641390 326726546.998710000 345				
330 330 0.0641390 1282507769.518250000 331 331 0.0641390 1364766565.389460000 332 332 0.0641390 1452301360.095930000 333 333 0.0641390 1452301360.095930000 334 334 0.0641390 1644574240.14574000 335 335 0.0641390 175005625.857750000 336 336 0.0641390 1862302484.638780000 337 337 0.0641390 1981748747.324500000 338 338 0.0641390 2108856176.650590000 339 339 0.0641390 2388051570.82736000 341 341 0.0641390 2541218866.467530000 342 342 0.0641390 28765561.851710000 343 343 0.0641390 3258633737.505300000 344 344 0.0641390 326863737.505300000 345 345 0.0641390 326726546.98710000 345 345 0.0641390 3467639323.126970000 347				
331 331 0.0641390 1364766565.389460000 332 332 0.0641390 1452301360.095930000 333 333 0.0641390 1545450551.050530000 334 334 0.0641390 1644574240.14574000 335 335 0.0641390 1750055625.857750000 336 336 0.0641390 1862302484.638780000 337 337 0.0641390 1981748747.324500000 338 338 0.0641390 2108856176.65059000 339 339 0.0641390 2244116152.363650000 340 340 0.0641390 2388051570.827360000 341 341 0.0641390 2541218866.467530000 342 342 0.0641390 26765561.851710000 344 344 0.0641390 362225579.340910000 345 345 0.0641390 3690050322.900660000 348 348 0.0641390 3467639323.126970000 345 350 0.0641390 3467639323.290060000 346				
332 332 0.0641390 1452301360.095930000 333 333 0.0641390 1545450551.050530000 334 334 0.0641390 1644574240.145740000 335 335 0.0641390 1750055625.857750000 336 336 0.0641390 1862302484.638780000 337 337 0.0641390 1981748747.324500000 338 338 0.0641390 2108856176.65059000 339 339 0.0641390 2244116152.363650000 340 340 0.0641390 2388051570.827360000 341 341 0.0641390 2541218866.467530000 342 342 0.0641390 254633737.50530000 344 344 0.0641390 3256633737.50530000 345 345 0.0641390 326726546.998710000 344 344 0.0641390 3926726546.998710000 345 350 0.0641390 3926726546.998710000 348 348 0.0641390 3926726546.998710000 351				
333 333 0.0641390 1545450551.050530000 334 334 0.0641390 1644574240.145740000 335 335 0.0641390 1750055625.857750000 336 336 0.0641390 1862302484.638780000 337 337 0.0641390 1981748747.324500000 338 338 0.0641390 2108856176.650590000 339 339 0.0641390 2340000 340 340 0.0641390 2348051570.827360000 341 341 0.0641390 2541218866.467530000 342 342 0.0641390 2877655561.851710000 344 344 0.0641390 3258633737.50530000 344 344 0.0641390 3258633737.50530000 345 345 0.0641390 326725561.851710000 344 344 0.0641390 326805322.90660000 345 345 0.0641390 32672546.998710000 347 347 0.0641390 446593182.880410000 350 350				
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3353350.06413901750055625.8577500003363360.06413901862302484.6387800003373370.06413901981748747.3245000003383380.06413902108856176.6505900003393390.06413902244116152.3636500003403400.06413902388051570.8273600003413410.06413902541218866.4675300003423420.06413902704210162.8706200003433430.0641390287765561.8517100003443440.06413903062225579.3409100003453450.06413903258633737.5053000003463460.06413903467639323.1269700003473470.06413903926726546.9987100003483480.06413903926726546.9987100003493490.06413904178582952.978200003503500.06413904178582952.978200003513510.06413905035285930.2491800003523520.06413905358244252.4784000003543540.06413905701916806.1022100003553550.06413906067632181.6932500003563560.06413906870937299.1518100003573570.06413906870937299.1518100003583580.06413907311632507.5302600003593590.0641390731632507.530260000				
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3393390.06413902244116152.3636500003403400.06413902388051570.8273600003413410.06413902541218866.4675300003423420.06413902704210162.8706200003433430.06413902877655561.8517100003443440.06413903062225579.3409100003453450.06413903258633737.5053000003463460.06413903258633737.5053000003473470.06413903690050322.9006600003483480.06413903926726546.9987100003493490.06413904178582952.9782000003503500.06413904178582952.9782000003513510.06413904731793327.1963200003523520.06413905035285930.2491800003533530.06413905701916806.1022100003543540.0641390667632181.6932500003553550.0641390667632181.6932500003563560.06413906870937299.1518100003573570.06413906870937299.1518100003583580.06413907311632507.5302600003593590.0641390780593476.201950000	337	337	0.0641390	1981748747.324500000
3403400.06413902388051570.8273600003413410.06413902541218866.4675300003423420.06413902704210162.8706200003433430.06413902877655561.8517100003443440.06413903062225579.3409100003453450.06413903258633737.505300003463460.06413903258633737.5053000003473470.06413903690050322.9006600003483480.06413903926726546.9987100003493490.06413904178582952.9782000003503500.06413904178582952.978200003513510.06413904731793327.1963200003523520.06413905035285930.2491800003533530.06413905701916806.1022100003543540.06413906067632181.6932500003553550.06413906870937299.1518100003563560.06413906870937299.1518100003573570.06413907311632507.5302600003583580.06413907311632507.5302600003593590.06413907780593476.201950000	338	338	0.0641390	2108856176.650590000
3413410.06413902541218866.4675300003423420.06413902704210162.8706200003433430.0641390287765561.8517100003443440.06413903062225579.3409100003453450.06413903258633737.5053000003463460.06413903467639323.1269700003473470.06413903690050322.9006600003483480.06413903926726546.9987100003493490.06413904178582952.9782000003503500.0641390446593182.8804100003513510.06413904731793327.1963200003523520.06413905035285930.2491800003533530.06413905358244252.4784000003543540.06413905701916806.1022100003553550.06413906067632181.6932500003563560.06413906456804184.3260200003573570.06413906870937299.1518100003583580.06413907311632507.5302600003593590.06413907780593476.201950000	339	339	0.0641390	2244116152.363650000
3423420.06413902704210162.8706200003433430.06413902877655561.8517100003443440.06413903062225579.3409100003453450.06413903258633737.5053000003463460.06413903467639323.1269700003473470.06413903690050322.9006600003483480.06413903926726546.9987100003493490.06413904178582952.9782000003503500.0641390446593182.8804100003513510.06413904731793327.1963200003523520.06413905035285930.2491800003533530.06413905701916806.1022100003543540.06413906067632181.6932500003553550.0641390667632181.6932500003563560.06413906870937299.1518100003573570.06413907311632507.5302600003583580.06413907311632507.5302600003593590.06413907780593476.201950000	340	340	0.0641390	2388051570.827360000
3433430.06413902877655561.8517100003443440.06413903062225579.3409100003453450.06413903258633737.5053000003463460.06413903467639323.1269700003473470.06413903690050322.9006600003483480.06413903926726546.9987100003493490.06413904178582952.9782000003503500.06413904178582952.9782000003513510.06413904446593182.8804100003523520.06413904731793327.1963200003533530.06413905035285930.2491800003543540.06413905701916806.1022100003553550.06413906067632181.6932500003563560.06413906456804184.3260200003573570.06413906870937299.1518100003583580.06413907311632507.5302600003593590.06413907780593476.201950000	341	341	0.0641390	2541218866.467530000
3443440.06413903062225579.3409100003453450.06413903258633737.5053000003463460.06413903467639323.1269700003473470.06413903690050322.9006600003483480.06413903926726546.9987100003493490.06413904178582952.9782000003503500.06413904178582952.9782000003513510.06413904731793327.1963200003523520.06413905035285930.2491800003533530.06413905358244252.4784000003543540.06413905701916806.1022100003553550.06413906456804184.3260200003573570.06413906870937299.1518100003583580.06413907311632507.5302600003593590.06413907780593476.201950000	342	342	0.0641390	2704210162.870620000
3453450.06413903258633737.5053000003463460.06413903467639323.1269700003473470.06413903690050322.9006600003483480.06413903926726546.9987100003493490.06413904178582952.9782000003503500.06413904178582952.9782000003513510.06413904731793327.1963200003523520.06413905035285930.2491800003533530.06413905358244252.4784000003543540.06413905701916806.1022100003553550.06413906067632181.6932500003563560.06413906456804184.3260200003573570.06413906870937299.1518100003583580.06413907311632507.5302600003593590.06413907780593476.201950000	343	343	0.0641390	2877655561.851710000
3463460.06413903467639323.1269700003473470.06413903690050322.9006600003483480.06413903926726546.9987100003493490.06413904178582952.9782000003503500.06413904446593182.8804100003513510.06413904731793327.1963200003523520.06413905035285930.2491800003533530.06413905358244252.4784000003543540.06413905701916806.1022100003553550.06413906067632181.6932500003563560.06413906456804184.3260200003573570.06413906870937299.1518100003583580.06413907311632507.5302600003593590.06413907780593476.201950000	344	344	0.0641390	3062225579.340910000
3473470.06413903690050322.9006600003483480.06413903926726546.9987100003493490.06413904178582952.9782000003503500.06413904446593182.8804100003513510.06413904731793327.1963200003523520.06413905035285930.2491800003533530.06413905358244252.4784000003543540.06413905701916806.1022100003553550.06413906067632181.6932500003563560.06413906456804184.3260200003573570.06413906870937299.1518100003583580.06413907311632507.5302600003593590.06413907780593476.201950000	345	345	0.0641390	3258633737.505300000
3483480.06413903926726546.9987100003493490.06413904178582952.9782000003503500.06413904446593182.8804100003513510.06413904731793327.1963200003523520.06413905035285930.2491800003533530.06413905358244252.4784000003543540.06413905701916806.1022100003553550.06413906067632181.6932500003563560.06413906456804184.3260200003573570.06413906870937299.1518100003583580.06413907311632507.5302600003593590.06413907780593476.201950000	346	346	0.0641390	3467639323.126970000
3493490.06413904178582952.9782000003503500.06413904446593182.8804100003513510.06413904731793327.1963200003523520.06413905035285930.2491800003533530.06413905358244252.4784000003543540.06413905701916806.1022100003553550.06413906067632181.6932500003563560.06413906456804184.3260200003573570.06413906870937299.1518100003583580.06413907311632507.5302600003593590.06413907780593476.201950000	347	347	0.0641390	3690050322.900660000
3503500.06413904446593182.8804100003513510.06413904731793327.1963200003523520.06413905035285930.2491800003533530.06413905358244252.4784000003543540.06413905701916806.1022100003553550.06413906067632181.6932500003563560.06413906456804184.3260200003573570.06413906870937299.1518100003583580.06413907311632507.5302600003593590.06413907780593476.201950000	348	348	0.0641390	3926726546.998710000
3513510.06413904731793327.1963200003523520.06413905035285930.2491800003533530.06413905358244252.4784000003543540.06413905701916806.1022100003553550.06413906067632181.6932500003563560.06413906456804184.3260200003573570.06413906870937299.1518100003583580.06413907311632507.5302600003593590.06413907780593476.201950000	349	349	0.0641390	4178582952.978200000
3523520.06413905035285930.2491800003533530.06413905358244252.4784000003543540.06413905701916806.1022100003553550.06413906067632181.6932500003563560.06413906456804184.3260200003573570.06413906870937299.1518100003583580.06413907311632507.5302600003593590.06413907780593476.201950000	350	350	0.0641390	4446593182.880410000
3533530.06413905358244252.4784000003543540.06413905701916806.1022100003553550.06413906067632181.6932500003563560.06413906456804184.3260200003573570.06413906870937299.1518100003583580.06413907311632507.5302600003593590.06413907780593476.201950000	351	351	0.0641390	4731793327.196320000
3543540.06413905701916806.1022100003553550.06413906067632181.6932500003563560.06413906456804184.3260200003573570.06413906870937299.1518100003583580.06413907311632507.5302600003593590.06413907780593476.201950000	352	352	0.0641390	5035285930.249180000
3553550.06413906067632181.6932500003563560.06413906456804184.3260200003573570.06413906870937299.1518100003583580.06413907311632507.5302600003593590.06413907780593476.201950000	353	353	0.0641390	5358244252.478400000
3563560.06413906456804184.3260200003573570.06413906870937299.1518100003583580.06413907311632507.5302600003593590.06413907780593476.201950000	354	354	0.0641390	5701916806.102210000
3573570.06413906870937299.1518100003583580.06413907311632507.5302600003593590.06413907780593476.201950000	355	355	0.0641390	6067632181.693250000
3583580.06413907311632507.5302600003593590.06413907780593476.201950000	356	356	0.0641390	6456804184.326020000
359 359 0.0641390 7780593476.201950000	357	357	0.0641390	6870937299.151810000
	358	358	0.0641390	7311632507.530260000
360 360 0.0641390 8279633143.428440000	359	359	0.0641390	7780593476.201950000
	360	360	0.0641390	8279633143.428440000

g=	5.9415%
Non-Constant DCF =	9.2350%
Constant DCF =	8.9026%
D=	1.6850
g(e)=	6.41%
P=	-60.29

LINE	YEAR	GROWTH	DIVIDEND
NO.	TEAR	RATE	DIVIDEND
361	361	0.0641390	8810680727.560930000
362	362	0.0641390	9375789185.131600000
363	363	0.0641390	9977143147.299760000
364	364	0.0641390	10617067365.333800000
365	365	0.0641390	11298035697.778300000
366	366	0.0641390	12022680674.048700000
367	367	0.0641390	12793803671.426600000
368	368	0.0641390	13614385744.796500000
369	369	0.0641390	14487599150.991900000
370	370	0.0641390	15416819612.301900000
371	371	0.0641390	16405639366.546400000
372	372	0.0641390	17457881054.170900000
373	373	0.0641390	18577612496.046200000
374	374	0.0641390	19769162419.101100000
375	375	0.0641390	21037137190.582200000
376	376	0.0641390	22386438625.633000000
377	377	0.0641390	23822282937.033300000
378	378	0.0641390	25350220900.356300000
379	379	0.0641390	26976159312.500100000
380	380	0.0641390	28706383826.547100000
381	381	0.0641390	30547583251.230200000
382	382	0.0641390	32506875408.942200000
383	383	0.0641390	34591834652.253000000
384	384	0.0641390	36810521145.309700000
385	385	0.0641390	39171512023.316200000
386	386	0.0641390	41683934550.552100000
387	387	0.0641390	44357501405.114500000
388	388	0.0641390	47202548226.788700000
389	389	0.0641390	50230073573.202000000
390	390	0.0641390	53451781438.727100000
391	391	0.0641390	56880126500.505900000
392	392	0.0641390	60528362266.509400000
393	393	0.0641390	64410592311.766600000
394	394	0.0641390	68541824800.835800000
395	395	0.0641390	72938030507.293400000
396	396	0.0641390	77616204554.536400000

g=	5.9415%
Non-Constant DCF =	9.2350%
Constant DCF =	8.9026%
D=	1.6850
g(e)=	6.41%
P=	-60.29

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	BITIBENB
397	397	0.0641390	82594432116.579200000
398	398	0.0641390	87891958332.836300000
399	399	0.0641390	93529262707.169800000
400	400	0.0641390	99528138278.819500000

g=	6.0123%
Non-Constant DCF =	10.1347%
Constant DCF =	9.8798%
D=	2.1100
g(e)=	6.41%
P=	-57.84

LINE	VEAD	GROWTH	
NO.	YEAR	RATE	DIVIDEND
1	1	0.0601232	2.236859976
2	2	0.0601232	2.371347180
3	3	0.0601232	2.513920188
4	4	0.0601232	2.665065142
5	5	0.0601232	2.825297417
6	6	0.0603240	2.995730663
7	7	0.0605248	3.177046640
8	8	0.0607256	3.369974649
9	9	0.0609264	3.575294984
10	10	0.0611272	3.793842628
11	11	0.0613280	4.026511237
12	12	0.0615287	4.274257423
13	13	0.0617295	4.538105350
14	14	0.0619303	4.819151697
15	15	0.0621311	5.118570977
16	16	0.0623319	5.437621272
17	17	0.0625327	5.777650404
18	18	0.0627335	6.140102572
19	19	0.0629343	6.526525505
20	20	0.0631351	6.938578153
21	21	0.0633359	7.378038974
22	22	0.0635367	7.846814866
23	23	0.0637374	8.346950775
24	24	0.0639382	8.880640056
25	25	0.0641390	9.450235637
26	26	0.0641390	10.056364522
27	27	0.0641390	10.701369922
28	28	0.0641390	11.387745338
29	29	0.0641390	12.118144203
30	30	0.0641390	12.895390138
31	31	0.0641390	13.722487868
32	32	0.0641390	14.602634838
33	33	0.0641390	15.539233576
34	34	0.0641390	16.535904843
35	35	0.0641390	17.596501631
36	36	0.0641390	18.725124061

g=	6.0123%
Non-Constant DCF =	10.1347%
Constant DCF =	9.8798%
D=	2.1100
g(e)=	6.41%
P=	-57.84

LINE	YEAR	GROWTH	DIVIDEND
NO.	TLAN	RATE	DIVIDEND
37	37	0.0641390	19.926135232
38	38	0.0641390	21.204178086
39	39	0.0641390	22.564193361
40	40	0.0641390	24.011438688
41	41	0.0641390	25.551508916
42	42	0.0641390	27.190357745
43	43	0.0641390	28.934320737
44	44	0.0641390	30.790139813
45	45	0.0641390	32.764989312
46	46	0.0641390	34.866503729
47	47	0.0641390	37.102807228
48	48	0.0641390	39.482545050
49	49	0.0641390	42.014916932
50	50	0.0641390	44.709712673
51	51	0.0641390	47.577349982
52	52	0.0641390	50.628914746
53	53	0.0641390	53.876203895
54	54	0.0641390	57.331770999
55	55	0.0641390	61.008974802
56	56	0.0641390	64.922030866
57	57	0.0641390	69.086066524
58	58	0.0641390	73.517179364
59	59	0.0641390	78.232499453
60	60	0.0641390	83.250255568
61	61	0.0641390	88.589845660
62	62	0.0641390	94.271911846
63	63	0.0641390	100.318420208
64	64	0.0641390	106.752745712
65	65	0.0641390	113.599762569
66	66	0.0641390	120.885940402
67	67	0.0641390	128.639446565
68	68	0.0641390	136.890255041
69	69	0.0641390	145.670262316
70	70	0.0641390	155.013410683
71	71	0.0641390	164.955819462
72	72	0.0641390	175.535924630

g=	6.0123%
Non-Constant DCF =	10.1347%
Constant DCF =	9.8798%
D=	2.1100
g(e)=	6.41%
P=	-57.84

	YEAR	GROWTH	DIVIDEND
NO.	73	RATE 0.0641390	186.794627412
74	73	0.0641390	198.775452395
75	75	0.0641390	211.524715793
76	76	0.0641390	225.091704494
70	70	0.0641390	239.528866601
78	78	0.0641390	254.892014187
79	79	0.0641390	271.240539055
80	80	0.0641390	288.637642344
81	81	0.0641390	307.150578847
82	82	0.0641390	326.850917019
83	83	0.0641390	347.814815642
83 84	84	0.0641390	370.123318249
85	85	0.0641390	393.862666428
85 86	85 86	0.0641390	419.124633217
80 87	80 87	0.0641390	446.006877884
88	88	0.0641390	474.613323472
89	88 89	0.0641390	505.054558544
89 90	90	0.0641390	537.448264705
90 91	90 91	0.0641390	571.919671545
91 92	91	0.0641390	608.602040755
92 93	92 93	0.0641390	647.637181303
93 94	93 94	0.0641390	689.175997645
94 95	94 95	0.0641390	733.379073102
95 96	95 96		780.417290650
96 97	96 97	0.0641390 0.0641390	830.472493536
97 98	98	0.0641390	883.738188252
98 99	99		940.420292610
		0.0641390	
100	100	0.0641390	1000.737931786
101	101	0.0641390	1064.924285435
102	102	0.0641390	1133.227489124
103	103	0.0641390	1205.911593594
104	104	0.0641390	1283.257585543
105	105	0.0641390	1365.564473882
106	106	0.0641390	1453.150445660
107	107	0.0641390	1546.354096134
108	108	0.0641390	1645.535737728

g=	6.0123%
Non-Constant DCF =	10.1347%
Constant DCF =	9.8798%
D=	2.1100
g(e)=	6.41%
P=	-57.84

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
109	109	0.0641390	1751.078792956
110	110	0.0641390	1863.391276676
111	111	0.0641390	1982.907373419
112	112	0.0641390	2110.089115892
113	113	0.0641390	2245.428171123
114	114	0.0641390	2389.447741189
115	115	0.0641390	2542.704585833
116	116	0.0641390	2705.791174825
117	117	0.0641390	2879.337978369
118	118	0.0641390	3064.015904411
119	119	0.0641390	3260.538892277
120	120	0.0641390	3469.666672665
121	121	0.0641390	3692.207704658
122	122	0.0641390	3929.022301115
123	123	0.0641390	4181.025954522
124	124	0.0641390	4449.192876157
125	125	0.0641390	4734.559762261
126	126	0.0641390	5038.229801757
127	127	0.0641390	5361.376941030
128	128	0.0641390	5705.250422238
129	129	0.0641390	6071.179612713
130	130	0.0641390	6460.579144107
131	131	0.0641390	6874.954381166
132	132	0.0641390	7315.907241262
133	133	0.0641390	7785.142387181
134	134	0.0641390	8284.473817115
135	135	0.0641390	8815.831877331
136	136	0.0641390	9381.270724617
137	137	0.0641390	9982.976267375
138	138	0.0641390	10623.274616034
139	139	0.0641390	11304.641075476
140	140	0.0641390	12029.709714222
141	141	0.0641390	12801.283547372
142	142	0.0641390	13622.345372680
143	143	0.0641390	14496.069301635
144	144	0.0641390	15425.833030136

g=	6.0123%
Non-Constant DCF =	10.1347%
Constant DCF =	9.8798%
D=	2.1100
g(e)=	6.41%
P=	-57.84

LINE	VEAD	GROWTH	
NO.	YEAR	RATE	DIVIDEND
145	145	0.0641390	16415.230896198
146	146	0.0641390	17468.087775167
147	147	0.0641390	18588.473866159
148	148	0.0641390	19780.720426886
149	149	0.0641390	21049.436517700
150	150	0.0641390	22399.526819580
151	151	0.0641390	23836.210594959
152	152	0.0641390	25365.041864660
153	153	0.0641390	26991.930878980
154	154	0.0641390	28723.166965899
155	155	0.0641390	30565.442844750
156	156	0.0641390	32525.880499349
157	157	0.0641390	34612.058710599
158	158	0.0641390	36832.042355008
159	159	0.0641390	39194.413582387
160	160	0.0641390	41708.304993257
161	161	0.0641390	44383.434944215
162	162	0.0641390	47230.145117761
163	163	0.0641390	50259.440501810
164	164	0.0641390	53483.031933458
165	165	0.0641390	56913.381371450
166	166	0.0641390	60563.750072400
167	167	0.0641390	64448.249856968
168	168	0.0641390	68581.897664211
169	169	0.0641390	72980.673604991
170	170	0.0641390	77661.582738876
171	171	0.0641390	82642.720813348
172	172	0.0641390	87943.344219458
173	173	0.0641390	93583.944434377
174	174	0.0641390	99586.327238609
175	175	0.0641390	105973.697014124
176	176	0.0641390	112770.746449292
177	177	0.0641390	120003.751997400
178	178	0.0641390	127700.675457787
179	179	0.0641390	135891.272072296
180	180	0.0641390	144607.205554924

g=	6.0123%
Non-Constant DCF =	10.1347%
Constant DCF =	9.8798%
D=	2.1100
g(e)=	6.41%
P=	-57.84

LINE	VEAD	GROWTH	
NO.	YEAR	RATE	DIVIDEND
181	181	0.0641390	153882.170499360
182	182	0.0641390	163752.022637629
183	183	0.0641390	174254.917453390
184	184	0.0641390	185431.457685764
185	185	0.0641390	197324.850293908
186	186	0.0641390	209981.073489141
187	187	0.0641390	223449.054480359
188	188	0.0641390	237780.858619853
189	189	0.0641390	253031.890680766
190	190	0.0641390	269261.109044281
191	191	0.0641390	286531.253624574
192	192	0.0641390	304909.088412647
193	193	0.0641390	324465.659576683
194	194	0.0641390	345276.570116713
195	195	0.0641390	367422.272135353
196	196	0.0641390	390988.377854520
197	197	0.0641390	416065.990580431
198	198	0.0641390	442752.056896400
199	199	0.0641390	471149.741444916
200	200	0.0641390	501368.825747891
201	201	0.0641390	533526.132606840
202	202	0.0641390	567745.977723684
203	203	0.0641390	604160.650288059
204	204	0.0641390	642910.924389035
205	205	0.0641390	684146.603228280
206	206	0.0641390	728027.098238519
207	207	0.0641390	774722.045346097
208	208	0.0641390	824411.960760014
209	209	0.0641390	877288.938822624
210	210	0.0641390	933557.394619808
211	211	0.0641390	993434.854221427
212	212	0.0641390	1057152.795607030
213	213	0.0641390	1124957.543527730
214	214	0.0641390	1197111.221763600
215	215	0.0641390	1273892.766458010
216	216	0.0641390	1355599.004446140

g=	6.0123%
Non-Constant DCF =	10.1347%
Constant DCF =	9.8798%
D=	2.1100
g(e)=	6.41%
P=	-57.84

217 217 0.0641390 1442545.800746520 218 218 0.0641390 1535069.279651490 219 219 0.0641390 1738299.958616820 220 220 0.0641390 1738299.958616820 221 221 0.0641390 1788299.958616820 222 222 0.0641390 1968436.725418200 223 223 0.0641390 2096909.034659410 224 224 0.0641390 2229041.727101170 225 225 0.0641390 2372010.286649860 226 226 0.0641390 2858325.45558780 229 229 0.0641390 3246744.482494120 231 231 0.0641390 3236744.482494120 231 232 0.0641390 344346.112675880 232 232 0.0641390 346545.10867820 233 233 0.0641390 3465456.112675880 232 232 0.0641390 346346.112675880 233 233 0.0641390		YEAR	GROWTH RATE	DIVIDEND
2182180.06413901535069.2796514902192190.06413901633527.1241372602202200.06413901738299.5586168202212212210.06413901849792.8203813202222222220.06413901968436.7254182002232230.06413902094690.3346594102242240.06413902270041.7271011702252250.06413902524148.7099884102272270.06413902524148.7099884102272270.06413902858325.4555857802282280.06413903041655.6589363902302300.06413903236744.4824941202312310.06413903444346.1126758802322320.06413903465263.108678202332330.064139041652.65895602342340.064139041652.708502352350.06413904416724.0352708502362360.06413905001462.3505958802382380.0641390502251.2614574202392390.06413906026874.0116017502412410.0641390662681.02578570202402400.0641390772828.8130154402432430.064139077262518.000838002442440.06413907728328.8130154402450.06413908224016.2757855402462460.06413909312809.0968687302482480.064	NO.	217		1442545 800746520
2192190.06413901633527.1241372602202200.06413901738299.9586168202212210.06413901849792.8203813202222220.06413902094690.3346594102232230.06413902294690.3346594102242240.0641390227010.2866498602252250.06413902372010.2866498602262260.06413902524148.7099884102272270.06413902858325.455857802282280.06413902858325.455857802292290.06413903041655.6589363902302300.06413903236744.4824941202312310.0641390344436.1126758802322320.06413903900349.5050632602332330.06413904160514.1133221902352350.06413904416724.0352708502362360.06413904416724.0352708502372370.06413905021462.3505958802382380.0641390662674.0116017502402400.0641390662674.0116017502412410.0641390726251.800838102432430.06413907262518.00838102442440.0641390772828.8130154402450.06413908751496.6483414702472470.06413909312809.068687302482480.0641390910123.577855402462460.064139011222143.282				
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2242240.06413902229041.7271011702252250.06413902372010.2866498602262260.06413902524148.7099884102272270.06413902686045.1432252402282280.06413902858325.4555857802292290.06413903041655.6589363902302300.06413903236744.4824941202312310.0641390344346.1126758802322320.06413903665263.1086788202332330.06413903900349.5050632602342340.06413904150514.1133321902352350.0641390416724.0352708502362360.0641390416724.0352708502362360.0641390502251.2614574202392390.0641390563615.2597870202402400.06413906026874.0116017502412410.0641390663615.2597870202442440.06413907262518.008389002442440.06413907262518.008389002442440.06413908224016.2757855402462460.06413908751496.6483414702472470.06413909123.5776805302482480.0641390910123.5776805302492490.064139011222143.2826020002502500.06413901122143.2826020002512510.064139011941920.593477800				
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2352350.06413904416724.0352708502362360.06413904700008.4016285602372370.06413905001462.3505958802382380.06413905322251.2614574202392390.06413905663615.2597870202402400.06413906026874.0116017502412410.06413906413431.8250082802422420.06413906824783.0790638102432430.06413907262518.0008389002442440.06413907728328.8130154402452450.06413908751496.6483414702462460.06413909312809.0968687302482480.06413909910123.5776805302492490.064139010545749.2259689002502500.064139011222143.2826020002512510.064139011941920.593477800				
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2372370.06413905001462.3505958802382380.06413905322251.2614574202392390.06413905663615.2597870202402400.06413906026874.0116017502412410.06413906413431.8250082802422420.06413906824783.0790638102432430.06413907262518.0008389002442440.06413907728328.8130154402452450.06413908224016.2757855402462460.06413908751496.6483414702472470.06413909312809.0968687302482480.064139010545749.2259689002502500.064139011222143.2826020002512510.064139011941920.593477800				
2382380.06413905322251.2614574202392390.06413905663615.2597870202402400.06413906026874.0116017502412410.06413906413431.8250082802422420.06413906824783.0790638102432430.06413907262518.0008389002442440.06413907728328.8130154402452450.06413908224016.2757855402462460.06413908751496.6483414702472470.06413909312809.0968687302482480.06413909910123.5776805302492490.064139010545749.2259689002502500.064139011222143.2826020002512510.064139011941920.593477800				
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2412410.06413906413431.8250082802422420.06413906824783.0790638102432430.06413907262518.0008389002442440.06413907728328.8130154402452450.06413908224016.2757855402462460.06413908751496.6483414702472470.06413909312809.0968687302482480.06413909910123.5776805302492490.064139010545749.2259689002502500.064139011222143.2826020002512510.064139011941920.593477800				
2422420.06413906824783.0790638102432430.06413907262518.0008389002442440.06413907728328.8130154402452450.06413908224016.2757855402462460.06413908751496.6483414702472470.06413909312809.0968687302482480.06413909910123.5776805302492490.064139010545749.2259689002502500.064139011222143.2826020002512510.064139011941920.593477800				
2432430.06413907262518.0008389002442440.06413907728328.8130154402452450.06413908224016.2757855402462460.06413908751496.6483414702472470.06413909312809.0968687302482480.06413909910123.5776805302492490.064139010545749.2259689002502500.064139011222143.2826020002512510.064139011941920.593477800				
2442440.06413907728328.8130154402452450.06413908224016.2757855402462460.06413908751496.6483414702472470.06413909312809.0968687302482480.06413909910123.5776805302492490.064139010545749.2259689002502500.064139011222143.2826020002512510.064139011941920.593477800				
2452450.06413908224016.2757855402462460.06413908751496.6483414702472470.06413909312809.0968687302482480.06413909910123.5776805302492490.064139010545749.2259689002502500.064139011222143.2826020002512510.064139011941920.593477800				
2462460.06413908751496.6483414702472470.06413909312809.0968687302482480.06413909910123.5776805302492490.064139010545749.2259689002502500.064139011222143.2826020002512510.064139011941920.593477800				
2472470.06413909312809.0968687302482480.06413909910123.5776805302492490.064139010545749.2259689002502500.064139011222143.2826020002512510.064139011941920.593477800				8751496.648341470
2482480.06413909910123.5776805302492490.064139010545749.2259689002502500.064139011222143.2826020002512510.064139011941920.593477800				
2502500.064139011222143.2826020002512510.064139011941920.593477800	248	248	0.0641390	9910123.577680530
2502500.064139011222143.2826020002512510.064139011941920.593477800				
251 251 0.0641390 11941920.593477800				
252 252 0.0641390 12707863.718156100	252	252	0.0641390	12707863.718156100

g=	6.0123%
Non-Constant DCF =	10.1347%
Constant DCF =	9.8798%
D=	2.1100
g(e)=	6.41%
P=	-57.84

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	
253	253	0.0641390	13522933.686850100
254	254	0.0641390	14390281.447358700
255	255	0.0641390	15313260.046195700
256	256	0.0641390	16295437.591003900
257	257	0.0641390	17340611.044365500
258	258	0.0641390	18452820.902334900
259	259	0.0641390	19636366.814437500
260	260	0.0641390	20895824.205520500
261	261	0.0641390	22236061.963712200
262	262	0.0641390	23662261.262871000
263	263	0.0641390	25179935.592286500
264	264	0.0641390	26794952.071067100
265	265	0.0641390	28513554.129611200
266	266	0.0641390	30342385.645845600
267	267	0.0641390	32288516.629539200
268	268	0.0641390	34359470.553983000
269	269	0.0641390	36563253.440697700
270	270	0.0641390	38908384.809605900
271	271	0.0641390	41403930.614318000
272	272	0.0641390	44059538.289855400
273	273	0.0641390	46885474.048300400
274	274	0.0641390	49892662.566552300
275	275	0.0641390	53092729.219618200
276	276	0.0641390	56498045.022705000
277	277	0.0641390	60121774.455853800
278	278	0.0641390	63977926.355999200
279	279	0.0641390	68081408.073196500
280	280	0.0641390	72448083.100375000
281	281	0.0641390	77094832.399408800
282	282	0.0641390	82039619.660581100
283	283	0.0641390	87301560.747726800
284	284	0.0641390	92900997.597519100
285	285	0.0641390	98859576.858584200
286	286	0.0641390	105200333.574451000
287	287	0.0641390	111947780.233847000
288	288	0.0641390	119128001.532584000

g=	6.0123%
Non-Constant DCF =	10.1347%
Constant DCF =	9.8798%
D=	2.1100
g(e)=	6.41%
P=	-57.84

LINE		GROWTH	
NO.	YEAR	RATE	DIVIDEND
289	289	0.0641390	126768755.213394000
290	290	0.0641390	134899579.373519000
291	291	0.0641390	143551906.654910000
292	292	0.0641390	152759185.758478000
293	293	0.0641390	162557010.752146000
294	294	0.0641390	172983258.672592000
295	295	0.0641390	184078235.952637000
296	296	0.0641390	195884834.240340000
297	297	0.0641390	208448696.212182000
298	298	0.0641390	221818392.021338000
299	299	0.0641390	236045607.063176000
300	300	0.0641390	251185341.783847000
301	301	0.0641390	267296124.304408000
302	302	0.0641390	284440236.682442000
303	303	0.0641390	302683955.685883000
304	304	0.0641390	322097809.009835000
305	305	0.0641390	342756847.926891000
306	306	0.0641390	364740937.424976000
307	307	0.0641390	388135064.954344000
308	308	0.0641390	413029668.977314000
309	309	0.0641390	439520988.590856000
310	310	0.0641390	467711435.573637000
311	311	0.0641390	497709990.295793000
312	312	0.0641390	529632623.021974000
313	313	0.0641390	563602742.236351000
314	314	0.0641390	599751671.722751000
315	315	0.0641390	638219158.244249000
316	316	0.0641390	679153911.784830000
317	317	0.0641390	722714180.441627000
318	318	0.0641390	769068362.190178000
319	319	0.0641390	818395655.887722000
320	320	0.0641390	870886754.031200000
321	321	0.0641390	926744579.948079000
322	322	0.0641390	986185072.269881000
323	323	0.0641390	1049438019.721070000
324	324	0.0641390	1116747949.450510000

g=	6.0123%
Non-Constant DCF =	10.1347%
Constant DCF =	9.8798%
D=	2.1100
g(e)=	6.41%
P=	-57.84

LINE	VEAD	GROWTH	
NO.	YEAR	RATE	DIVIDEND
325	325	0.0641390	1188375072.339560000
326	326	0.0641390	1264596288.941410000
327	327	0.0641390	1345706259.940340000
328	328	0.0641390	1432018545.269130000
329	329	0.0641390	1523866816.288440000
330	330	0.0641390	1621606145.714150000
331	331	0.0641390	1725614380.279400000
332	332	0.0641390	1836293601.437760000
333	333	0.0641390	1954071679.754610000
334	334	0.0641390	2079403928.995510000
335	335	0.0641390	2212774866.306310000
336	336	0.0641390	2354700085.289440000
337	337	0.0641390	2505728249.217450000
338	338	0.0641390	2666443212.089400000
339	339	0.0641390	2837466275.729650000
340	340	0.0641390	3019458591.654860000
341	341	0.0641390	3213123716.994260000
342	342	0.0641390	3419210334.344320000
343	343	0.0641390	3638515146.072060000
344	344	0.0641390	3871885954.256310000
345	345	0.0641390	4120224938.173290000
346	346	0.0641390	4384492141.996920000
347	347	0.0641390	4665709186.196920000
348	348	0.0641390	4964963216.982230000
349	349	0.0641390	5283411109.057950000
350	350	0.0641390	5622283937.942990000
351	351	0.0641390	5982891739.137810000
352	352	0.0641390	6366628572.540510000
353	353	0.0641390	6774977911.689670000
354	354	0.0641390	7209518378.667880000
355	355	0.0641390	7671929846.836500000
356	356	0.0641390	8163999934.993740000
357	357	0.0641390	8687630918.061780000
358	358	0.0641390	9244847081.018600000
359	359	0.0641390	9837802544.503810000
360	360	0.0641390	10468789592.351200000

g=	6.0123%
Non-Constant DCF =	10.1347%
Constant DCF =	9.8798%
D=	2.1100
g(e)=	6.41%
P=	-57.84

LINE		GROWTH	
NO.	YEAR	RATE	DIVIDEND
361	361	0.0641390	11140247533.241000000
362	362	0.0641390	11854772130.730100000
363	363	0.0641390	12615125638.114900000
364	364	0.0641390	13424247476.920700000
365	365	0.0641390	14285265600.299000000
366	366	0.0641390	15201508585.261500000
367	367	0.0641390	16176518500.499100000
368	368	0.0641390	17214064599.529100000
369	369	0.0641390	18318157892.108900000
370	370	0.0641390	19493066650.244200000
371	371	0.0641390	20743332908.739300000
372	372	0.0641390	22073790024.074700000
373	373	0.0641390	23489581359.496000000
374	374	0.0641390	24996180168.544000000
375	375	0.0641390	26599410753.896800000
376	376	0.0641390	28305470983.318400000
377	377	0.0641390	30120956249.758500000
378	378	0.0641390	32052884968.229600000
379	379	0.0641390	34108725708.029100000
380	380	0.0641390	36296426065.195700000
381	381	0.0641390	38624443386.816300000
382	382	0.0641390	41101777465.960900000
383	383	0.0641390	43738005333.638000000
384	384	0.0641390	46543318282.272400000
385	385	0.0641390	49528561263.832200000
386	386	0.0641390	52705274814.914100000
387	387	0.0641390	56085739670.861600000
388	388	0.0641390	59683024241.390500000
389	389	0.0641390	63511035131.253000000
390	390	0.0641390	67584570901.249600000
391	391	0.0641390	71919379277.418400000
392	392	0.0641390	76532218029.567000000
393	393	0.0641390	81440919754.493100000
394	394	0.0641390	86664460814.337900000
395	395	0.0641390	92223034696.578900000
396	396	0.0641390	98138130079.259600000

g=	6.0123%
Non-Constant DCF =	10.1347%
Constant DCF =	9.8798%
D=	2.1100
g(e)=	6.41%
P=	-57.84

LINE	YEAR	GROWTH	DIVIDEND
NO.	TEAR	RATE	DIVIDEND
397	397	0.0641390	104432613903.248000000
398	398	0.0641390	111130819772.669000000
399	399	0.0641390	118258642025.250000000
400	400	0.0641390	125843635836.255000000

g=	3.8095%
Non-Constant DCF =	10.4618%
Constant DCF =	8.9650%
D=	1.5950
g(e)=	6.41%
P=	-32.12

LINE	YEAR	GROWTH	DIVIDEND
NO.	ILAN	RATE	DIVIDEND
1	1	0.0380946	1.655760816
2	2	0.0380946	1.718836288
3	3	0.0380946	1.784314592
4	4	0.0380946	1.852287264
5	5	0.0380946	1.922849323
6	6	0.0393968	1.998603393
7	7	0.0406990	2.079944557
8	8	0.0420012	2.167304778
9	9	0.0433034	2.261156550
10	10	0.0446057	2.362016958
11	11	0.0459079	2.470452187
12	12	0.0472101	2.587082529
13	13	0.0485123	2.712587963
14	14	0.0498146	2.847714355
15	15	0.0511168	2.993280370
16	16	0.0524190	3.150185172
17	17	0.0537212	3.319417014
18	18	0.0550235	3.502062822
19	19	0.0563257	3.699318903
20	20	0.0576279	3.912502906
21	21	0.0589301	4.143067210
22	22	0.0602324	4.392613898
23	23	0.0615346	4.662911535
24	24	0.0628368	4.955913974
25	25	0.0641390	5.273781457
26	26	0.0641390	5.612036649
27	27	0.0641390	5.971987199
28	28	0.0641390	6.355024626
29	29	0.0641390	6.762629699
30	30	0.0641390	7.196378164
31	31	0.0641390	7.657946832
32	32	0.0641390	8.149120063
33	33	0.0641390	8.671796666
34	34	0.0641390	9.227997235
35	35	0.0641390	9.819871966
36	36	0.0641390	10.449708964

g=	3.8095%
Non-Constant DCF =	10.4618%
Constant DCF =	8.9650%
D=	1.5950
g(e)=	6.41%
P=	-32.12

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	
37	37	0.0641390	11.119943092
38	38	0.0641390	11.833165382
39	39	0.0641390	12.592133054
40	40	0.0641390	13.399780171
41	41	0.0641390	14.259228985
42	42	0.0641390	15.173802007
43	43	0.0641390	16.147034849
44	44	0.0641390	17.182689896
45	45	0.0641390	18.284770846
46	46	0.0641390	19.457538191
47	47	0.0641390	20.705525689
48	48	0.0641390	22.033557886
49	49	0.0641390	23.446768772
50	50	0.0641390	24.950621623
51	51	0.0641390	26.550930128
52	52	0.0641390	28.253880857
53	53	0.0641390	30.066057183
54	54	0.0641390	31.994464729
55	55	0.0641390	34.046558452
56	56	0.0641390	36.230271462
57	57	0.0641390	38.554045692
58	58	0.0641390	41.026864532
59	59	0.0641390	43.658287557
60	60	0.0641390	46.458487485
61	61	0.0641390	49.438289503
62	62	0.0641390	52.609213111
63	63	0.0641390	55.983516663
64	64	0.0641390	59.574244750
65	65	0.0641390	63.395278629
66	66	0.0641390	67.461389890
67	67	0.0641390	71.788297557
68	68	0.0641390	76.392728855
69	69	0.0641390	81.292483881
70	70	0.0641390	86.506504409
71	71	0.0641390	92.054947121
72	72	0.0641390	97.959261531

g=	3.8095%
Non-Constant DCF =	10.4618%
Constant DCF =	8.9650%
D=	1.5950
g(e)=	6.41%
P=	-32.12

LINE	VEAD	GROWTH	
NO.	YEAR	RATE	DIVIDEND
73	73	0.0641390	104.242272901
74	74	0.0641390	110.928270484
75	75	0.0641390	118.043101423
76	76	0.0641390	125.614270671
77	77	0.0641390	133.671047320
78	78	0.0641390	142.244577755
79	79	0.0641390	151.368006059
80	80	0.0641390	161.076602146
81	81	0.0641390	171.407898104
82	82	0.0641390	182.401833296
83	83	0.0641390	194.100908754
84	84	0.0641390	206.550351487
85	85	0.0641390	219.798289320
86	86	0.0641390	233.895936947
87	87	0.0641390	248.897793926
88	88	0.0641390	264.861855361
89	89	0.0641390	281.849836106
90	90	0.0641390	299.927409346
91	91	0.0641390	319.164460480
92	92	0.0641390	339.635357287
93	93	0.0641390	361.419237424
94	94	0.0641390	384.600314359
95	95	0.0641390	409.268202930
96	96	0.0641390	435.518265785
97	97	0.0641390	463.451982036
98	98	0.0641390	493.177339568
99	99	0.0641390	524.809252503
100	100	0.0641390	558.470005443
101	101	0.0641390	594.289726204
102	102	0.0641390	632.406888874
103	103	0.0641390	672.968849133
104	104	0.0641390	716.132413911
105	105	0.0641390	762.064447582
106	106	0.0641390	810.942517037
107	107	0.0641390	862.955578133
108	108	0.0641390	918.304706173

g=	3.8095%
Non-Constant DCF =	10.4618%
Constant DCF =	8.9650%
D=	1.5950
g(e)=	6.41%
P=	-32.12

LINE	VEAD	GROWTH	
NO.	YEAR	RATE	DIVIDEND
109	109	0.0641390	977.203873233
110	110	0.0641390	1039.880775349
111	111	0.0641390	1106.577712757
112	112	0.0641390	1177.552526597
113	113	0.0641390	1253.079595684
114	114	0.0641390	1333.450897224
115	115	0.0641390	1418.977135557
116	116	0.0641390	1509.988943293
117	117	0.0641390	1606.838159498
118	118	0.0641390	1709.899189849
119	119	0.0641390	1819.570454040
120	120	0.0641390	1936.275926014
121	121	0.0641390	2060.466772989
122	122	0.0641390	2192.623099607
123	123	0.0641390	2333.255803954
124	124	0.0641390	2482.908552619
125	125	0.0641390	2642.159882437
126	126	0.0641390	2811.625437027
127	127	0.0641390	2991.960346794
128	128	0.0641390	3183.861761562
129	129	0.0641390	3388.071545667
130	130	0.0641390	3605.379145898
131	131	0.0641390	3836.624643391
132	132	0.0641390	4082.702001265
133	133	0.0641390	4344.562520559
134	134	0.0641390	4623.218517834
135	135	0.0641390	4919.747238646
136	136	0.0641390	5235.295022028
137	137	0.0641390	5571.081732080
138	138	0.0641390	5928.405473794
139	139	0.0641390	6308.647611347
140	140	0.0641390	6713.278108268
141	141	0.0641390	7143.861210109
142	142	0.0641390	7602.061491606
143	143	0.0641390	8089.650291690
144	144	0.0641390	8608.512561245

g=	3.8095%
Non-Constant DCF =	10.4618%
Constant DCF =	8.9650%
D=	1.5950
g(e)=	6.41%
P=	-32.12

LINE	YEAR	GROWTH	DIVIDEND
NO.	I LAN	RATE	BIVIDEND
145	145	0.0641390	9160.654150061
146	146	0.0641390	9748.209561175
147	147	0.0641390	10373.450202566
148	148	0.0641390	11038.793168101
149	149	0.0641390	11746.810581688
150	150	0.0641390	12500.239540750
151	151	0.0641390	13301.992697465
152	152	0.0641390	14155.169518681
153	153	0.0641390	15063.068268017
154	154	0.0641390	16029.198756504
155	155	0.0641390	17057.295911023
156	156	0.0641390	18151.334213018
157	157	0.0641390	19315.543063292
158	158	0.0641390	20554.423132286
159	159	0.0641390	21872.763759044
160	160	0.0641390	23275.661466143
161	161	0.0641390	24768.539662141
162	162	0.0641390	26357.169607721
163	163	0.0641390	28047.692726594
164	164	0.0641390	29846.644347387
165	165	0.0641390	31760.978968327
166	166	0.0641390	33798.097142361
167	167	0.0641390	35965.874086678
168	168	0.0641390	38272.690127205
169	169	0.0641390	40727.463095792
170	170	0.0641390	43339.682805312
171	171	0.0641390	46119.447735972
172	172	0.0641390	49077.504074634
173	173	0.0641390	52225.287258092
174	174	0.0641390	55574.966180889
175	175	0.0641390	59139.490238580
176	176	0.0641390	62932.639388304
177	177	0.0641390	66969.077420195
178	178	0.0641390	71264.408645565
179	179	0.0641390	75835.238221015
180	180	0.0641390	80699.236341673

g=	3.8095%
Non-Constant DCF =	10.4618%
Constant DCF =	8.9650%
D=	1.5950
g(e)=	6.41%
P=	-32.12

NO. RATE 181 181 0.0641390 85875.206551730 182 182 0.0641390 91383.158436334 183 183 0.0641390 97244.384975885 184 184 0.0641390 103481.544861752 185 185 0.0641390 110118.750091642 186 186 0.0641390 1124697.576366519 187 187 0.0641390 132695.557138067 189 189 0.0641390 132695.557138067 190 190 0.0641390 150263.368917204 191 191 0.0641390 150263.368917204 191 191 0.0641390 150263.368917204 192 192 0.0641390 150263.368917204 191 194 0.0641390 150263.368917204 191 194 0.0641390 159901.114656026 192 192 0.0641390 128194.269021714 195 195 0.0641390 218194.269021714 196	LINE	YEAR	GROWTH	DIVIDEND
1821820.064139091383.1584363341831830.064139097244.3849758851841840.0641390103481.5448617521851850.0641390110118.7500916421861860.0641390117181.6591832451871870.0641390124697.5763665191881880.0641390132695.5571380671891890.0641390150263.3689172041901900.0641390150263.3689172041911910.0641390150263.3689172041921920.0641390170157.0159945501931930.0641390181070.7208292651941940.0641390205043.0105641161961960.0641390218194.2690217141971970.0641390232189.0363535861981980.0641390247081.4143951761991990.0641390279792.9827086592012010.0641390279792.9827086592012010.0641390337156.8029327362042040.0641390358781.7110137632052050.0641390381793.6195807502062060.0641390381793.6195807502062060.0641390432339.9874617142082080.0641390460069.852044861				
1831830.064139097244.3849758851841840.0641390103481.5448617521851850.0641390110118.7500916421861860.0641390117181.6591832451871870.0641390124697.5763665191881880.0641390132695.5571380671891890.0641390141206.5205856701901900.0641390150263.3689172041911910.0641390159901.1146560261921920.0641390170157.0159945501931930.0641390181070.7208292651941940.0641390192684.4200340211951950.0641390232189.0363535861981980.0641390232189.0363535861981980.0641390279792.9827086592012010.06413902797738.6313806152022020.0641390337156.8029327362042040.0641390358781.7110137632052050.0641390358781.7110137632062060.0641390358781.7110137632072070.0641390358781.7110137632082080.0641390460069.852044861				
1841840.0641390103481.5448617521851850.0641390110118.7500916421861860.0641390117181.6591832451871870.064139012697.5763665191881880.0641390132695.5571380671891890.0641390141206.5205856701901900.0641390150263.3689172041911910.0641390159901.1146560261921920.0641390170157.0159945501931930.0641390181070.7208292651941940.0641390122684.4200340211951950.0641390205043.0105641161961960.0641390218194.2690217141971970.0641390232189.0363535861981980.0641390247081.4143951761991990.0641390279792.9827086592012010.06413902797738.6313806152022020.0641390337156.8029327362042040.0641390337156.8029327362052050.0641390381793.6195807502062060.0641390381793.6195807502062060.064139042339.9874617142082080.0641390460069.852044861				
1851850.0641390110118.7500916421861860.0641390117181.6591832451871870.0641390124697.5763665191881880.0641390132695.5571380671891890.0641390141206.5205856701901900.0641390150263.3689172041911910.0641390159901.1146560261921920.0641390170157.0159945501931930.0641390181070.7208292651941940.0641390192684.4200340211951950.0641390218194.2690217141961960.0641390232189.036353861981980.0641390247081.4143951761991990.0641390247081.4143951761991990.0641390279792.9827086592012000.0641390279792.9827086592012010.0641390337156.8023327362022020.0641390358781.7110137632052050.0641390381793.6195807502062060.0641390381793.6195807502062060.0641390381793.6195807502062060.0641390381793.6195807502062060.0641390432339.9874617142082080.0641390460069.852044861				
1861860.0641390117181.6591832451871870.0641390124697.5763665191881880.0641390132695.5571380671891890.0641390141206.5205856701901900.0641390150263.3689172041911910.0641390159901.1146560261921920.0641390170157.0159945501931930.0641390181070.7208292651941940.0641390192684.4200340211951950.0641390205043.0105641161961960.0641390218194.2690217141971970.0641390232189.0363535861981980.0641390247081.4143951761991990.0641390279792.9827086592012010.0641390279792.9827086592012020.0641390337156.8029327362042040.0641390358781.7110137632052050.0641390358781.7110137632062060.0641390342339.9874617142082080.0641390460069.852044861				
1871870.0641390124697.5763665191881880.0641390132695.5571380671891890.0641390141206.5205856701901900.0641390150263.3689172041911910.0641390159901.1146560261921920.0641390170157.0159945501931930.0641390181070.7208292651941940.0641390192684.4200340211951950.0641390205043.0105641161961960.0641390218194.2690217141971970.0641390232189.0363535861981980.0641390247081.4143951761991990.0641390279792.9827086592012010.0641390279792.9827086592022020.0641390337156.8029327362042040.0641390358781.7110137632052050.0641390381793.6195807502062060.0641390432339.9874617142082080.0641390432339.987461714				
1881880.0641390132695.5571380671891890.0641390141206.5205856701901900.0641390150263.3689172041911910.0641390159901.1146560261921920.0641390170157.015945501931930.0641390181070.7208292651941940.0641390192684.4200340211951950.0641390205043.0105641161961960.0641390218194.2690217141971970.0641390232189.0363535861981980.0641390247081.4143951761991990.0641390279792.9827086592012010.0641390279792.9827086592012010.0641390337156.8029327362042040.0641390358781.7110137632052050.0641390381793.6195807502062060.0641390432339.9874617142082080.0641390460069.852044861				
1891890.0641390141206.5205856701901900.0641390150263.3689172041911910.0641390159901.1146560261921920.0641390170157.0159945501931930.0641390181070.7208292651941940.0641390192684.4200340211951950.0641390205043.0105641161961960.0641390218194.2690217141971970.0641390232189.0363535861981980.0641390247081.4143951761991990.0641390279792.9827086592012010.0641390279792.9827086592012010.0641390337156.8029327362042040.0641390358781.7110137632052050.0641390381793.6195807502062060.0641390432339.9874617142082080.0641390460069.852044861				
1901900.0641390150263.3689172041911910.0641390159901.1146560261921920.0641390170157.0159945501931930.0641390181070.7208292651941940.0641390192684.4200340211951950.0641390205043.0105641161961960.0641390232189.0363535861981980.0641390247081.4143951761991990.0641390262928.9750208232002000.0641390279792.9827086592012010.06413902797738.6313806152022020.0641390337156.8029327362042040.0641390358781.7110137632052050.0641390381793.6195807502062060.0641390432339.9874617142082080.0641390460069.852044861				
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1921920.0641390170157.0159945501931930.0641390181070.7208292651941940.0641390192684.4200340211951950.0641390205043.0105641161961960.0641390218194.2690217141971970.0641390232189.0363535861981980.0641390247081.4143951761991990.0641390262928.9750208232002000.0641390279792.9827086592012010.0641390297738.6313806152022020.0641390337156.8029327362042040.0641390358781.7110137632052050.0641390381793.6195807502062060.0641390432339.9874617142082080.0641390432339.987461714				
1931930.0641390181070.7208292651941940.0641390192684.4200340211951950.0641390205043.0105641161961960.0641390218194.2690217141971970.0641390232189.0363535861981980.0641390247081.4143951761991990.0641390262928.9750208232002000.0641390279792.9827086592012010.0641390297738.6313806152022020.0641390316835.2964331102032030.0641390337156.8029327362042040.0641390358781.7110137632052050.0641390381793.6195807502062060.0641390406281.4894903582072070.0641390432339.9874617142082080.0641390460069.852044861				
1941940.0641390192684.4200340211951950.0641390205043.0105641161961960.0641390218194.2690217141971970.0641390232189.0363535861981980.0641390247081.4143951761991990.0641390262928.9750208232002000.0641390279792.9827086592012010.0641390297738.6313806152022020.0641390337156.8029327362032030.0641390358781.7110137632042040.0641390381793.6195807502062060.0641390406281.4894903582072070.0641390432339.9874617142082080.0641390460069.852044861				
1951950.0641390205043.0105641161961960.0641390218194.2690217141971970.0641390232189.0363535861981980.0641390247081.4143951761991990.0641390262928.9750208232002000.0641390279792.9827086592012010.0641390297738.6313806152022020.0641390316835.2964331102032030.0641390337156.8029327362042040.0641390358781.7110137632052050.0641390381793.6195807502062060.0641390432339.9874617142082080.0641390460069.852044861				
1961960.0641390218194.2690217141971970.0641390232189.0363535861981980.0641390247081.4143951761991990.0641390262928.9750208232002000.0641390279792.9827086592012010.0641390297738.6313806152022020.0641390316835.2964331102032030.0641390337156.8029327362042040.0641390358781.7110137632052050.0641390381793.6195807502062060.0641390432339.9874617142082080.0641390460069.852044861				
1971970.0641390232189.0363535861981980.0641390247081.4143951761991990.0641390262928.9750208232002000.0641390279792.9827086592012010.0641390297738.6313806152022020.0641390316835.2964331102032030.0641390337156.8029327362042040.0641390358781.7110137632052050.0641390381793.6195807502062060.0641390406281.4894903582072070.0641390432339.9874617142082080.0641390460069.852044861				
1981980.0641390247081.4143951761991990.0641390262928.9750208232002000.0641390279792.9827086592012010.0641390297738.6313806152022020.0641390316835.2964331102032030.0641390337156.8029327362042040.0641390358781.7110137632052050.0641390381793.6195807502062060.0641390406281.4894903582072070.0641390432339.9874617142082080.0641390460069.852044861	196	196	0.0641390	218194.269021714
1991990.0641390262928.9750208232002000.0641390279792.9827086592012010.0641390297738.6313806152022020.0641390316835.2964331102032030.0641390337156.8029327362042040.0641390358781.7110137632052050.0641390381793.6195807502062060.0641390406281.4894903582072070.0641390432339.9874617142082080.0641390460069.852044861	197	197	0.0641390	232189.036353586
2002000.0641390279792.9827086592012010.0641390297738.6313806152022020.0641390316835.2964331102032030.0641390337156.8029327362042040.0641390358781.7110137632052050.0641390381793.6195807502062060.0641390406281.4894903582072070.0641390432339.9874617142082080.0641390460069.852044861	198	198	0.0641390	247081.414395176
2012010.0641390297738.6313806152022020.0641390316835.2964331102032030.0641390337156.8029327362042040.0641390358781.7110137632052050.0641390381793.6195807502062060.0641390406281.4894903582072070.0641390432339.9874617142082080.0641390460069.852044861	199	199	0.0641390	262928.975020823
2022020.0641390316835.2964331102032030.0641390337156.8029327362042040.0641390358781.7110137632052050.0641390381793.6195807502062060.0641390406281.4894903582072070.0641390432339.9874617142082080.0641390460069.852044861	200	200	0.0641390	279792.982708659
2032030.0641390337156.8029327362042040.0641390358781.7110137632052050.0641390381793.6195807502062060.0641390406281.4894903582072070.0641390432339.9874617142082080.0641390460069.852044861	201	201	0.0641390	297738.631380615
2042040.0641390358781.7110137632052050.0641390381793.6195807502062060.0641390406281.4894903582072070.0641390432339.9874617142082080.0641390460069.852044861	202	202	0.0641390	316835.296433110
2052050.0641390381793.6195807502062060.0641390406281.4894903582072070.0641390432339.9874617142082080.0641390460069.852044861	203	203	0.0641390	337156.802932736
2062060.0641390406281.4894903582072070.0641390432339.9874617142082080.0641390460069.852044861	204	204	0.0641390	358781.711013763
2072070.0641390432339.9874617142082080.0641390460069.852044861	205	205	0.0641390	381793.619580750
208 208 0.0641390 460069.852044861	206	206	0.0641390	406281.489490358
	207	207	0.0641390	432339.987461714
209 209 0.0641390 489578 283062065	208	208	0.0641390	460069.852044861
	209	209	0.0641390	489578.283062065
210 210 0.0641390 520979.356027501	210	210	0.0641390	520979.356027501
211 211 0.0641390 554394.463147421	211	211	0.0641390	554394.463147421
212 212 0.0641390 589952.782605637	212	212	0.0641390	589952.782605637
213 213 0.0641390 627791.777948519	213	213	0.0641390	627791.777948519
214 214 0.0641390 668057.729500056	214	214	0.0641390	668057.729500056
215 215 0.0641390 710906.299861367				
216 216 0.0641390 756503.135680788	216	216	0.0641390	

g=	3.8095%
Non-Constant DCF =	10.4618%
Constant DCF =	8.9650%
D=	1.5950
g(e)=	6.41%
P=	-32.12

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	
217	217	0.0641390	805024.508020912
218	218	0.0641390	856657.993798148
219	219	0.0641390	911603.200929138
220	220	0.0641390	970072.539987366
221	221	0.0641390	1032292.045353060
222	222	0.0641390	1098502.249030870
223	223	0.0641390	1168959.110513310
224	224	0.0641390	1243935.006284780
225	225	0.0641390	1323719.782791420
226	226	0.0641390	1408621.876947330
227	227	0.0641390	1498969.508509090
228	228	0.0641390	1595111.948927940
229	229	0.0641390	1697420.871584900
230	230	0.0641390	1806291.788628690
231	231	0.0641390	1922145.579971000
232	232	0.0641390	2045430.120350020
233	233	0.0641390	2176622.010752300
234	234	0.0641390	2316228.420886180
235	235	0.0641390	2464789.049829850
236	236	0.0641390	2622878.212433300
237	237	0.0641390	2791107.059540120
238	238	0.0641390	2970125.940612210
239	239	0.0641390	3160626.917890800
240	240	0.0641390	3363346.441813450
241	241	0.0641390	3579068.198029570
242	242	0.0641390	3808626.137020810
243	243	0.0641390	4052907.698038280
244	244	0.0641390	4312857.239820030
245	245	0.0641390	4589479.691351290
246	246	0.0641390	4883844.436781060
247	247	0.0641390	5197089.449513290
248	248	0.0641390	5530425.691454760
249	249	0.0641390	5885141.794426340
250	250	0.0641390	6262609.041835450
251	251	0.0641390	6664286.669868110
252	252	0.0641390	7091727.508694250

g=	3.8095%
Non-Constant DCF =	10.4618%
Constant DCF =	8.9650%
D=	1.5950
g(e)=	6.41%
P=	-32.12

LINE	YEAR	GROWTH	DIVIDEND
NO.	TEAR	RATE	DIVIDEND
253	253	0.0641390	7546583.985494440
254	254	0.0641390	8030614.512514890
255	255	0.0641390	8545690.284846070
256	256	0.0641390	9093802.514204190
257	257	0.0641390	9677070.126680350
258	258	0.0641390	10297747.954215900
259	259	0.0641390	10958235.451470700
260	260	0.0641390	11661085.971783600
261	261	0.0641390	12409016.638082800
262	262	0.0641390	13204918.846907500
263	263	0.0641390	14051869.446147700
264	264	0.0641390	14953142.629712000
265	265	0.0641390	15912222.595108700
266	266	0.0641390	16932817.012872000
267	267	0.0641390	18018871.359903000
268	268	0.0641390	19174584.172138600
269	269	0.0641390	20404423.275510100
270	270	0.0641390	21713143.057941100
271	271	0.0641390	23105802.849153600
272	272	0.0641390	24587786.479336900
273	273	0.0641390	26164823.092291300
274	274	0.0641390	27843009.293505200
275	275	0.0641390	29628832.718789400
276	276	0.0641390	31529197.114579900
277	277	0.0641390	33551449.026867100
278	278	0.0641390	35703406.201926700
279	279	0.0641390	37993387.808645900
280	280	0.0641390	40430246.599280100
281	281	0.0641390	43023403.132968900
282	282	0.0641390	45782882.194315400
283	283	0.0641390	48719351.547816900
284	284	0.0641390	51844163.177967900
285	285	0.0641390	55169397.174462300
286	286	0.0641390	58707908.432149700
287	287	0.0641390	62473376.346281800
288	288	0.0641390	66480357.695162500

g=	3.8095%
Non-Constant DCF =	10.4618%
Constant DCF =	8.9650%
D=	1.5950
g(e)=	6.41%
P=	-32.12

	YEAR	GROWTH	DIVIDEND
NO. 289	289	RATE 0.0641390	70744342.914640500
289 290	289	0.0641390	75281815.981992200
290	290	0.0641390	80110318.140698800
291	291	0.0641390	85248515.712467900
292	292	0.0641390	90716272.258652200
293 294	293 294	0.0641390	96534725.370031700
294 295	294 295	0.0641390	102726368.381816000
295 296	295 296	0.0641390	109315137.329769000
297	297 298	0.0641390	116326503.483614000
298 200		0.0641390	123787571.815438000
299	299	0.0641390	131727185.783768000
300	300	0.0641390	140176038.838394000
301	301	0.0641390	149166793.077001000
302	302	0.0641390	158734205.512322000
303	303	0.0641390	168915262.437944000
304	304	0.0641390	179749322.412203000
305	305	0.0641390	191278268.412935000
306	306	0.0641390	203546669.751266000
307	307	0.0641390	216601954.370418000
308	308	0.0641390	230494592.195571000
309	309	0.0641390	245278290.243620000
310	310	0.0641390	261010200.247072000
311	311	0.0641390	277751139.594748000
312	312	0.0641390	295565826.443393000
313	313	0.0641390	314523129.909122000
314	314	0.0641390	334696336.305905000
315	315	0.0641390	356163432.460318000
316	316	0.0641390	379007407.197834000
317	317	0.0641390	403316572.166149000
318	318	0.0641390	429184903.235795000
319	319	0.0641390	456712403.797870000
320	320	0.0641390	486005491.363314000
321	321	0.0641390	517177408.958292000
322	322	0.0641390	550348662.906082000
323	323	0.0641390	585647488.687848000
324	324	0.0641390	623210346.683287000

g=	3.8095%
Non-Constant DCF =	10.4618%
Constant DCF =	8.9650%
D=	1.5950
g(e)=	6.41%
P=	-32.12

LINE	YEAR	GROWTH	DIVIDEND
NO.	ICAR	RATE	DIVIDEND
325	325	0.0641390	663182449.707586000
326	326	0.0641390	705718324.384087000
327	327	0.0641390	750982408.522845000
328	328	0.0641390	799149686.814466000
329	329	0.0641390	850406367.296727000
330	330	0.0641390	904950601.209101000
331	331	0.0641390	962993249.018051000
332	332	0.0641390	1024758695.574440000
333	333	0.0641390	1090485717.554330000
334	334	0.0641390	1160428406.536610000
335	335	0.0641390	1234857151.285900000
336	336	0.0641390	1314059683.038110000
337	337	0.0641390	1398342187.829660000
338	338	0.0641390	1488030490.170310000
339	339	0.0641390	1583471312.635690000
340	340	0.0641390	1685033616.248830000
341	341	0.0641390	1793110026.832450000
342	342	0.0641390	1908118352.846140000
343	343	0.0641390	2030503200.576020000
344	344	0.0641390	2160737692.921250000
345	345	0.0641390	2299325298.421690000
346	346	0.0641390	2446801777.597660000
347	347	0.0641390	2603737254.126070000
348	348	0.0641390	2770738418.859660000
349	349	0.0641390	2948450875.210010000
350	350	0.0641390	3137561634.961040000
351	351	0.0641390	3338801774.161570000
352	352	0.0641390	3552949259.364220000
353	353	0.0641390	3780831955.136580000
354	354	0.0641390	4023330824.471120000
355	355	0.0641390	4281383334.466320000
356	356	0.0641390	4555987080.444840000
357	357	0.0641390	4848203642.519130000
358	358	0.0641390	5159162689.513330000
359	359	0.0641390	5490066346.106740000
360	360	0.0641390	5842193840.081650000

g=	3.8095%
Non-Constant DCF =	10.4618%
Constant DCF =	8.9650%
D=	1.5950
g(e)=	6.41%
P=	-32.12

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	
361	361	0.0641390	6216906447.641010000
362	362	0.0641390	6615652755.914080000
363	363	0.0641390	7039974262.993900000
364	364	0.0641390	7491511337.155820000
365	365	0.0641390	7972009558.294430000
366	366	0.0641390	8483326466.094080000
367	367	0.0641390	9027438741.020420000
368	368	0.0641390	9606449845.893810000
369	369	0.0641390	10222598157.585700000
370	370	0.0641390	10878265620.274200000
371	371	0.0641390	11575986953.710700000
372	372	0.0641390	12318459452.096200000
373	373	0.0641390	13108553411.447800000
374	374	0.0641390	13949323225.765700000
375	375	0.0641390	14844019194.898800000
376	376	0.0641390	15796100089.753900000
377	377	0.0641390	16809246523.426100000
378	378	0.0641390	17887375179.94000000
379	379	0.0641390	19034653955.608700000
380	380	0.0641390	20255518071.544400000
381	381	0.0641390	21554687219.610200000
382	382	0.0641390	22937183808.096200000
383	383	0.0641390	24408352377.655300000
384	384	0.0641390	25973880262.558800000
385	385	0.0641390	27639819577.143800000
386	386	0.0641390	29412610612.450700000
387	387	0.0641390	31299106733.497800000
388	388	0.0641390	33306600873.443000000
389	389	0.0641390	35442853727.054700000
390	390	0.0641390	37716123752.484800000
391	391	0.0641390	40135199097.326100000
392	392	0.0641390	42709431572.375800000
393	393	0.0641390	45448772804.442700000
394	394	0.0641390	48363812707.960800000
395	395	0.0641390	51465820424.134000000
396	396	0.0641390	54766787885.877800000

g=	3.8095%
Non-Constant DCF =	10.4618%
Constant DCF =	8.9650%
D=	1.5950
g(e)=	6.41%
P=	-32.12

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	
397	397	0.0641390	58279476176.973800000
398	398	0.0641390	62017464864.655300000
399	399	0.0641390	65995204496.336500000
400	400	0.0641390	70228072463.430500000

g=	3.6262%
Non-Constant DCF =	9.6651%
Constant DCF =	7.9025%
D=	3.2725
g(e)=	6.41%
P=	-79.30

LINE		GROWTH	
NO.	YEAR	RATE	DIVIDEND
1	1	0.0362617	3.391166284
2	2	0.0362617	3.514135605
3	3	0.0362617	3.641563997
4	4	0.0362617	3.773613154
5	5	0.0362617	3.910450633
6	6	0.0376555	4.057700719
7	7	0.0390494	4.216151485
8	8	0.0404433	4.386666416
9	9	0.0418371	4.570191963
10	10	0.0432310	4.767765937
11	11	0.0446249	4.980526870
12	12	0.0460187	5.209724429
13	13	0.0474126	5.456731039
14	14	0.0488065	5.723054839
15	15	0.0502003	6.010354149
16	16	0.0515942	6.320453624
17	17	0.0529881	6.655362315
18	18	0.0543819	7.017293872
19	19	0.0557758	7.408689154
20	20	0.0571697	7.832241562
21	21	0.0585636	8.290925439
22	22	0.0599574	8.788027929
23	23	0.0613513	9.327184754
24	24	0.0627452	9.912420410
25	25	0.0641390	10.548193374
26	26	0.0641390	11.224744196
27	27	0.0641390	11.944688327
28	28	0.0641390	12.710808972
29	29	0.0641390	13.526067846
30	30	0.0641390	14.393616628
31	31	0.0641390	15.316809143
32	32	0.0641390	16.299214323
33	33	0.0641390	17.344630012
34	34	0.0641390	18.457097643
35	35	0.0641390	19.640917861
36	36	0.0641390	20.900667152

g=	3.6262%
Non-Constant DCF =	9.6651%
Constant DCF =	7.9025%
D=	3.2725
g(e)=	6.41%
P=	-79.30

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
37	37	0.0641390	22.241215532
38	38	0.0641390	23.667745376
39	39	0.0641390	25.185771451
40	40	0.0641390	26.801162236
41	41	0.0641390	28.520162608
42	42	0.0641390	30.349417986
43	43	0.0641390	32.296000017
44	44	0.0641390	34.367433918
45	45	0.0641390	36.571727568
46	46	0.0641390	38.917402459
47	47	0.0641390	41.413526647
48	48	0.0641390	44.069749802
49	49	0.0641390	46.896340517
50	50	0.0641390	49.904226000
51	51	0.0641390	53.105034320
52	52	0.0641390	56.511139361
53	53	0.0641390	60.135708652
54	54	0.0641390	63.992754278
55	55	0.0641390	68.097187043
56	56	0.0641390	72.464874118
57	57	0.0641390	77.112700377
58	58	0.0641390	82.058633673
59	59	0.0641390	87.321794300
60	60	0.0641390	92.922528910
61	61	0.0641390	98.882489168
62	62	0.0641390	105.224715458
63	63	0.0641390	111.973725947
64	64	0.0641390	119.155611379
65	65	0.0641390	126.798135928
66	66	0.0641390	134.930844538
67	67	0.0641390	143.585177137
68	68	0.0641390	152.794590177
69	69	0.0641390	162.594685975
70	70	0.0641390	173.023350348
71	71	0.0641390	184.120899069
72	72	0.0641390	195.930233727

g=	3.6262%
Non-Constant DCF =	9.6651%
Constant DCF =	7.9025%
D=	3.2725
g(e)=	6.41%
P=	-79.30

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	
73	73	0.0641390	208.497007577
74	74	0.0641390	221.869802030
75	75	0.0641390	236.100314460
76	76	0.0641390	251.243558060
77	77	0.0641390	267.358074515
78	78	0.0641390	284.506160319
79	79	0.0641390	302.754107601
80	80	0.0641390	322.172460400
81	81	0.0641390	342.836287384
82	82	0.0641390	364.825472051
83	83	0.0641390	388.225021549
84	84	0.0641390	413.125395300
85	85	0.0641390	439.622854707
86	86	0.0641390	467.819835283
87	87	0.0641390	497.825342656
88	88	0.0641390	529.755373970
89	89	0.0641390	563.733366310
90	90	0.0641390	599.890673897
91	91	0.0641390	638.367075883
92	92	0.0641390	679.311316716
93	93	0.0641390	722.881681171
94	94	0.0641390	769.246606253
95	95	0.0641390	818.585332351
96	96	0.0641390	871.088596158
97	97	0.0641390	926.959368031
98	98	0.0641390	986.413636651
99	99	0.0641390	1049.681243998
100	100	0.0641390	1117.006773895
101	101	0.0641390	1188.650497532
102	102	0.0641390	1264.889379636
103	103	0.0641390	1346.018149186
104	104	0.0641390	1432.350438787
105	105	0.0641390	1524.219997132
106	106	0.0641390	1621.981979232
107	107	0.0641390	1726.014319392
108	108	0.0641390	1836.719192255

g=	3.6262%
Non-Constant DCF =	9.6651%
Constant DCF =	7.9025%
D=	3.2725
g(e)=	6.41%
P=	-79.30

LINE	YEAR	GROWTH	DIVIDEND
NO.	IEAR	RATE	DIVIDEND
109	109	0.0641390	1954.524567551
110	110	0.0641390	2079.885864573
111	111	0.0641390	2213.287712761
112	112	0.0641390	2355.245825215
113	113	0.0641390	2506.308992369
114	114	0.0641390	2667.061203539
115	115	0.0641390	2838.123904547
116	116	0.0641390	3020.158400143
117	117	0.0641390	3213.868410515
118	118	0.0641390	3420.002791780
119	119	0.0641390	3639.358430954
120	120	0.0641390	3872.783326607
121	121	0.0641390	4121.179867111
122	122	0.0641390	4385.508319144
123	123	0.0641390	4666.790539953
124	124	0.0641390	4966.113927713
125	125	0.0641390	5284.635625251
126	126	0.0641390	5623.586993409
127	127	0.0641390	5984.278371309
128	128	0.0641390	6368.104141945
129	129	0.0641390	6776.548122674
130	130	0.0641390	7211.189301452
131	131	0.0641390	7673.707940976
132	132	0.0641390	8165.892074355
133	133	0.0641390	8689.644417394
134	134	0.0641390	9246.989724231
135	135	0.0641390	9840.082614760
136	136	0.0641390	10471.215904087
137	137	0.0641390	11142.829466242
138	138	0.0641390	11857.519666392
139	139	0.0641390	12618.049398031
140	140	0.0641390	13427.358763942
141	141	0.0641390	14288.576442232
142	142	0.0641390	15205.031781363
143	143	0.0641390	16180.267670958
144	144	0.0641390	17218.054238119

g=	3.6262%
Non-Constant DCF =	9.6651%
Constant DCF =	7.9025%
D=	3.2725
g(e)=	6.41%
P=	-79.30

NO. RATE 145 145 0.0641390 18322.403422222 146 146 0.0641390 19497.584484513 147 147 0.0641390 20748.140512486 148 148 0.0641390 22078.905982831 149 149 0.0641390 23495.025450850 150 150 0.0641390 26605.575598638 152 152 0.0641390 28312.031235181 153 153 0.0641390 30127.937269769 154 154 0.0641390 32060.313744046 155 155 0.0641390 34116.630958272 156 156 0.0641390 36304.838350469 157 157 0.0641390 34633.395227851 158 158 0.0641390 43748.142325669 160 160 0.0641390 43748.142325669 160 160 0.0641390 43748.142325669 160 160 0.0641390 52717.490116948 163 163<	LINE	YEAR	GROWTH	DIVIDEND
1461460.064139019497.5844845131471470.064139020748.1405124861481480.064139022078.9059828311491490.064139023495.0254508501501500.064139025001.9734386011511510.06413902605.5755986381521520.064139028312.0312351811531530.064139030127.9372697691541540.064139032060.3137440461551550.064139036304.8383504691571560.064139036633.3952278511581580.064139036633.3952278511581590.064139043748.1423255691601600.064139043748.1423255691611610.064139043748.1423255691621620.064139052717.4901169481631630.064139056098.7384504391641640.064139059696.8567499951651650.064139063525.7548434511661660.064139071936.0477597111681680.064139071936.0477597111681680.064139081459.7950081791701700.064139081459.7950081791701700.064139081459.7950081791711710.064139092244.4088802301721720.064139092244.408880230			RATE	
1471470.064139020748.1405124861481480.064139022078.9059828311491490.064139023495.0254508501501500.064139026005.5755986381511510.064139028312.0312351811531530.064139028312.0312351811531530.064139030127.9372697691541540.064139032060.3137440461551550.064139036304.838504691561560.064139036304.838504691571570.06413903633.395278511581580.064139043633.3852476511581580.064139043748.142325691601600.064139043748.142325691611610.064139049540.0403109911621620.064139052717.4901169481631630.064139056098.7384504391641640.064139059696.8567499951651650.064139063525.7548434511661660.064139076549.9556120351691690.064139076549.9556120351691690.064139081459.7950081791701700.06413908684.5467083621711710.064139092244.408802301721720.064139098160.875182177	145		0.0641390	18322.403422222
1481480.064139022078.9059828311491490.064139023495.0254508501501500.064139025001.9734386011511510.064139026605.5755986381521520.064139028312.0312351811531530.064139030127.9372697691541540.064139032060.3137440461551550.064139034116.6309582721561560.064139036304.8383504691571570.0641390366304.8383504691571570.064139038633.3952278511581580.064139041111.3034693381591590.064139043748.1423255691601600.064139043748.1423255691611610.064139049540.0403109911621620.064139052717.4901169481631630.064139056098.7384504391641640.064139056098.7384504391651650.064139063525.7548434511661660.064139071936.0477597111681680.064139076549.956120351691690.064139076549.956120351691690.064139076549.956120351691690.064139076549.956120351691690.064139076549.956120351691690.064139092244.4088802301711710.06413909244.408880230172 <t< td=""><td></td><td></td><td></td><td></td></t<>				
1491490.064139023495.0254508501501500.064139025001.9734386011511510.064139026605.5755986381521520.064139028312.0312351811531530.064139030127.9372697691541540.064139032060.3137440461551550.064139034116.6309582721561560.064139036304.8383504691571570.064139038633.3952278511581580.064139043748.1423255691601600.064139043748.1423255691601600.06413904554.1054509661611610.064139052717.4901169481631630.064139059696.8567499951651650.064139059696.8567499951651650.064139063525.7548434511661660.064139071936.0477597111681680.064139071936.0477597111681680.064139076549.9556120351691690.064139081459.7950081791701700.064139086884.5467083621711710.064139092244.4088802301721720.064139098160.875182177	147	147	0.0641390	20748.140512486
1501500.064139025001.9734386011511510.064139026605.5755986381521520.064139028312.0312351811531530.064139030127.9372697691541540.064139032060.3137440461551550.064139034116.6309582721561560.064139036304.8383504691571570.064139036304.8383504691571570.064139036304.8383504691571570.064139041111.3034693381581580.064139043748.1423255691601600.06413904554.1054509661611610.06413904554.1054509661611610.064139052717.4901169481621620.064139052717.4901169481631630.064139059696.8567499951651650.064139063525.7548434511661660.064139071936.0477597111681680.064139076549.9556120351691690.064139076549.9556120351691690.064139076549.955081791701700.06413908684.5467083621711710.064139092244.408802301721720.064139098160.875182177	148	148	0.0641390	22078.905982831
1511510.064139026605.5755986381521520.064139028312.0312351811531530.064139030127.9372697691541540.064139032060.3137440461551550.064139034116.6309582721561560.064139036304.8383504691571570.064139038633.3952278511581580.064139043748.1423255691601600.064139043748.1423255691601600.064139049540.0403109911621620.064139049540.0403109911621630.064139050698.7384504391641640.064139056098.7384504391651650.064139063525.7548434511661660.064139071936.0477597111681680.064139076549.9556120351691690.064139081459.7950081791701700.064139086684.5467083621711710.064139092244.4088802301721720.064139098160.875182177	149	149	0.0641390	23495.025450850
1521520.064139028312.0312351811531530.064139030127.9372697691541540.064139032060.3137440461551550.064139034116.6309582721561560.064139036304.8383504691571570.064139038633.3952278511581580.064139041111.3034693381591590.064139043748.1423255691601600.064139046554.1054509661611610.064139049540.0403109911621620.064139052717.4901169481631630.064139056098.7384504391641640.064139063525.7548434511661660.064139067600.2347214131671670.064139071936.0477597111681680.064139076549.9556120351691690.064139081459.7950081791701700.064139092244.4088802301711710.064139092244.4088802301721720.064139098160.875182177	150	150	0.0641390	25001.973438601
1531530.064139030127.9372697691541540.064139032060.3137440461551550.064139034116.6309582721561560.064139036304.8383504691571570.064139038633.3952278511581580.064139041111.3034693381591590.064139043748.1423255691601600.064139046554.1054509661611610.064139049540.0403109911621620.064139052717.4901169481631630.064139056098.7384504391641640.064139059696.8567499951651650.064139063525.7548434511661660.064139071936.0477597111681680.064139076549.9556120351691690.064139081459.7950081791701700.064139081459.7950081791711710.064139092244.4088802301721720.064139098160.875182177	151	151	0.0641390	26605.575598638
1541540.064139032060.3137440461551550.064139034116.6309582721561560.064139036304.8383504691571570.064139038633.3952278511581580.064139041111.3034693381591590.064139043748.1423255691601600.064139046554.1054509661611610.064139049540.0403109911621620.064139052717.4901169481631630.064139056098.7384504391641640.064139059696.8567499951651650.064139063525.7548434511661660.064139071936.0477597111681680.064139076549.9556120351691690.064139081459.7950081791701700.064139086684.5467083621711710.064139092244.408802301721720.064139098160.875182177	152	152	0.0641390	28312.031235181
1551550.064139034116.6309582721561560.064139036304.8383504691571570.064139038633.3952278511581580.064139041111.3034693381591590.064139043748.1423255691601600.064139046554.1054509661611610.064139049540.0403109911621620.064139052717.4901169481631630.064139056098.7384504391641640.064139059696.8567499951651650.064139063525.7548434511661660.064139071936.0477597111681680.064139076549.9556120351691690.064139081459.7950081791701700.064139086684.5467083621711710.064139092244.4088802301721720.064139098160.875182177	153	153	0.0641390	30127.937269769
1561560.064139036304.8383504691571570.064139038633.3952278511581580.064139041111.3034693381591590.064139043748.1423255691601600.064139046554.1054509661611610.064139049540.0403109911621620.064139052717.4901169481631630.064139056098.7384504391641640.064139059696.8567499951651650.064139063525.7548434511661660.064139067600.2347214131671670.064139071936.0477597111681680.064139076549.9556120351691690.064139081459.7950081791701700.064139086684.5467083621711710.064139092244.4088802301721720.064139098160.875182177			0.0641390	32060.313744046
1571570.064139038633.3952278511581580.064139041111.3034693381591590.064139043748.1423255691601600.064139046554.1054509661611610.064139049540.0403109911621620.064139052717.4901169481631630.064139056098.7384504391641640.064139059696.8567499951651650.064139063525.7548434511661660.064139067600.2347214131671670.064139071936.0477597111681680.064139081459.7950081791701700.064139086684.5467083621711710.064139092244.4088802301721720.064139098160.875182177	155	155	0.0641390	34116.630958272
1581580.064139041111.3034693381591590.064139043748.1423255691601600.064139046554.1054509661611610.064139049540.0403109911621620.064139052717.4901169481631630.064139056098.7384504391641640.064139059696.8567499951651650.064139063525.7548434511661660.064139067600.2347214131671670.064139071936.0477597111681680.064139076549.9556120351691690.064139081459.7950081791701700.064139086684.5467083621711710.064139092244.4088802301721720.064139098160.875182177	156	156	0.0641390	36304.838350469
1591590.064139043748.1423255691601600.064139046554.1054509661611610.064139049540.0403109911621620.064139052717.4901169481631630.064139056098.7384504391641640.064139059696.8567499951651650.064139063525.7548434511661660.064139067600.2347214131671670.064139071936.0477597111681680.064139076549.9556120351691690.064139081459.7950081791701700.064139086684.5467083621711710.064139092244.4088802301721720.064139098160.875182177	157	157	0.0641390	38633.395227851
1601600.064139046554.1054509661611610.064139049540.0403109911621620.064139052717.4901169481631630.064139056098.7384504391641640.064139059696.8567499951651650.064139063525.7548434511661660.064139067600.2347214131671670.064139071936.0477597111681680.064139076549.9556120351691690.064139081459.7950081791701700.064139086684.5467083621711710.064139092244.4088802301721720.064139098160.875182177	158	158	0.0641390	41111.303469338
1611610.064139049540.0403109911621620.064139052717.4901169481631630.064139056098.7384504391641640.064139059696.8567499951651650.064139063525.7548434511661660.064139067600.2347214131671670.064139071936.0477597111681680.064139076549.9556120351691690.064139081459.7950081791701700.064139086684.5467083621711710.064139092244.4088802301721720.064139098160.875182177	159	159	0.0641390	43748.142325569
1621620.064139052717.4901169481631630.064139056098.7384504391641640.064139059696.8567499951651650.064139063525.7548434511661660.064139067600.2347214131671670.064139071936.0477597111681680.064139076549.9556120351691690.064139081459.7950081791701700.064139086684.5467083621711710.064139092244.4088802301721720.064139098160.875182177	160	160	0.0641390	46554.105450966
1631630.064139056098.7384504391641640.064139059696.8567499951651650.064139063525.7548434511661660.064139067600.2347214131671670.064139071936.0477597111681680.064139076549.9556120351691690.064139081459.7950081791701700.064139086684.5467083621711710.064139092244.4088802301721720.064139098160.875182177	161	161	0.0641390	49540.040310991
1641640.064139059696.8567499951651650.064139063525.7548434511661660.064139067600.2347214131671670.064139071936.0477597111681680.064139076549.9556120351691690.064139081459.7950081791701700.064139086684.5467083621711710.064139092244.4088802301721720.064139098160.875182177	162	162	0.0641390	52717.490116948
1651650.064139063525.7548434511661660.064139067600.2347214131671670.064139071936.0477597111681680.064139076549.9556120351691690.064139081459.7950081791701700.064139086684.5467083621711710.064139092244.4088802301721720.064139098160.875182177	163	163	0.0641390	56098.738450439
1661660.064139067600.2347214131671670.064139071936.0477597111681680.064139076549.9556120351691690.064139081459.7950081791701700.064139086684.5467083621711710.064139092244.4088802301721720.064139098160.875182177	164	164	0.0641390	59696.856749995
1671670.064139071936.0477597111681680.064139076549.9556120351691690.064139081459.7950081791701700.064139086684.5467083621711710.064139092244.4088802301721720.064139098160.875182177	165	165	0.0641390	63525.754843451
1681680.064139076549.9556120351691690.064139081459.7950081791701700.064139086684.5467083621711710.064139092244.4088802301721720.064139098160.875182177	166	166	0.0641390	67600.234721413
1691690.064139081459.7950081791701700.064139086684.5467083621711710.064139092244.4088802301721720.064139098160.875182177	167	167	0.0641390	71936.047759711
1701700.064139086684.5467083621711710.064139092244.4088802301721720.064139098160.875182177		168	0.0641390	76549.955612035
1711710.064139092244.4088802301721720.064139098160.875182177		169	0.0641390	81459.795008179
172 172 0.0641390 98160.875182177			0.0641390	86684.546708362
			0.0641390	92244.408880230
			0.0641390	98160.875182177
	173	173	0.0641390	104456.817854854
174 174 0.0641390 111156.576142094			0.0641390	111156.576142094
1751750.0641390118286.050383057		175	0.0641390	118286.050383057
1761760.0641390125872.802139365				125872.802139365
177 177 0.0641390 133946.160744287				133946.160744287
178 178 0.0641390 142537.336685885	178	178	0.0641390	142537.336685885
179 179 0.0641390 151679.542262444	179	179	0.0641390	151679.542262444
180 180 0.0641390 161408.119976630	180	180	0.0641390	161408.119976630

g=	3.6262%
Non-Constant DCF =	9.6651%
Constant DCF =	7.9025%
D=	3.2725
g(e)=	6.41%
P=	-79.30

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
181	181	0.0641390	171760.679164713
182	182	0.0641390	182777.241389063
183	183	0.0641390	194500.395155979
184	184	0.0641390	206975.460556959
185	185	0.0641390	220250.664469915
186	186	0.0641390	234377.326997609
187	187	0.0641390	249410.059864076
188	188	0.0641390	265406.977536000
189	189	0.0641390	282429.921885202
190	190	0.0641390	300544.701260772
191	191	0.0641390	319821.344895041
192	192	0.0641390	340334.373626913
193	193	0.0641390	362163.087989127
194	194	0.0641390	385391.874773144
195	195	0.0641390	410110.533256824
196	196	0.0641390	436414.622356011
197	197	0.0641390	464405.830042090
198	198	0.0641390	494192.366453626
199	199	0.0641390	525889.382221796
200	200	0.0641390	559619.413626806
201	201	0.0641390	595512.856306211
202	202	0.0641390	633708.469346416
203	203	0.0641390	674353.911706119
204	204	0.0641390	717606.313045429
205	205	0.0641390	763632.881167407
206	206	0.0641390	812611.548420308
207	207	0.0641390	864731.659559443
208	208	0.0641390	920194.703727818
209	209	0.0641390	979215.093385302
210	210	0.0641390	1042020.993197550
211	211	0.0641390	1108855.202089050
212	212	0.0641390	1179976.091870200
213	213	0.0641390	1255658.606066990
214	214	0.0641390	1336195.322814670
215	215	0.0641390	1421897.585924370
216	216	0.0641390	1513096.708495190

g=	3.6262%
Non-Constant DCF =	9.6651%
Constant DCF =	7.9025%
D=	3.2725
g(e)=	6.41%
P=	-79.30

LINE		GROWTH	
NO.	YEAR	RATE	DIVIDEND
217	217	0.0641390	1610145.253724870
218	218	0.0641390	1713418.397870350
219	219	0.0641390	1823315.380627290
220	220	0.0641390	1940261.048535570
221	221	0.0641390	2064707.497377200
222	222	0.0641390	2197135.819916180
223	223	0.0641390	2338057.965736560
224	224	0.0641390	2488018.720368730
225	225	0.0641390	2647597.811355010
226	226	0.0641390	2817412.149396120
227	227	0.0641390	2998118.213242660
228	228	0.0641390	3190414.587551200
229	229	0.0641390	3395044.663515960
230	230	0.0641390	3612799.512716380
231	231	0.0641390	3844520.945290450
232	232	0.0641390	4091104.764256350
233	233	0.0641390	4353504.228563000
234	234	0.0641390	4632733.738257390
235	235	0.0641390	4929872.756014870
236	236	0.0641390	5246069.980192630
237	237	0.0641390	5582547.785538680
238	238	0.0641390	5940606.948723640
239	239	0.0641390	6321631.676963470
240	240	0.0641390	6727094.959173180
241	241	0.0641390	7158564.260338310
242	242	0.0641390	7617707.581117810
243	243	0.0641390	8106299.906103990
244	244	0.0641390	8626230.065667470
245	245	0.0641390	9179508.037914290
246	246	0.0641390	9768272.718983310
247	247	0.0641390	10394800.191722900
248	248	0.0641390	11061512.524712600
249	249	0.0641390	11770987.135645400
250	250	0.0641390	12525966.755267800
251	251	0.0641390	13329370.030398300
252	252	0.0641390	14184302.807011600

g=	3.6262%
Non-Constant DCF =	9.6651%
Constant DCF =	7.9025%
D=	3.2725
g(e)=	6.41%
P=	-79.30

LINE		GROWTH	
NO.	YEAR	RATE	DIVIDEND
253	253	0.0641390	15094070.137010400
254	254	0.0641390	16062189.055098900
255	255	0.0641390	17092402.175152400
256	256	0.0641390	18188692.158645200
257	257	0.0641390	19355297.111069200
258	258	0.0641390	20596726.965863900
259	259	0.0641390	21917780.919195100
260	260	0.0641390	23323565.982984100
261	261	0.0641390	24819516.727909200
262	262	0.0641390	26411416.292704900
263	263	0.0641390	28105418.740976400
264	264	0.0641390	29908072.851958800
265	265	0.0641390	31826347.437191800
266	266	0.0641390	33867658.280981500
267	267	0.0641390	36039896.808797800
268	268	0.0641390	38351460.594433200
269	269	0.0641390	40811285.823862700
270	270	0.0641390	43428881.841302700
271	271	0.0641390	46214367.911021100
272	272	0.0641390	49178512.337013700
273	273	0.0641390	52332774.091778700
274	274	0.0641390	55689347.115119400
275	275	0.0641390	59261207.454230200
276	276	0.0641390	63062163.427300200
277	277	0.0641390	67106909.004562400
278	278	0.0641390	71411080.613150600
279	279	0.0641390	75991317.585365100
280	280	0.0641390	80865326.484030200
281	281	0.0641390	86051949.553617800
282	282	0.0641390	91571237.561759700
283	283	0.0641390	97444527.312742300
284	284	0.0641390	103694524.132642000
285	285	0.0641390	110345389.644976000
286	286	0.0641390	117422835.176199000
287	287	0.0641390	124954221.152134000
288	288	0.0641390	132968662.869599000

g=	3.6262%
Non-Constant DCF =	9.6651%
Constant DCF =	7.9025%
D=	3.2725
g(e)=	6.41%
P=	-79.30

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	
289	289	0.0641390	141497143.052114000
290	290	0.0641390	150572631.624831000
291	291	0.0641390	160230213.171702000
292	292	0.0641390	170507222.567632000
293	293	0.0641390	181443389.309941000
294	294	0.0641390	193080991.107109000
295	295	0.0641390	205465017.318550000
296	296	0.0641390	218643342.877256000
297	297	0.0641390	232666913.367668000
298	298	0.0641390	247589941.974259000
299	299	0.0641390	263470119.062212000
300	300	0.0641390	280368835.200394000
301	301	0.0641390	298351418.488807000
302	302	0.0641390	317487387.107989000
303	303	0.0641390	337850718.066686000
304	304	0.0641390	359520133.186743000
305	305	0.0641390	382579403.430781000
306	306	0.0641390	407117672.749152000
307	307	0.0641390	433229802.698131000
308	308	0.0641390	461016739.161571000
309	309	0.0641390	490585902.593733000
310	310	0.0641390	522051603.291914000
311	311	0.0641390	555535483.304242000
312	312	0.0641390	591166986.681025000
313	313	0.0641390	629083859.887540000
314	314	0.0641390	669432684.312831000
315	315	0.0641390	712369442.933086000
316	316	0.0641390	758060123.320257000
317	317	0.0641390	806681359.327061000
318	318	0.0641390	858421113.929033000
319	319	0.0641390	913479405.863398000
320	320	0.0641390	972069082.873853000
321	321	0.0641390	1034416644.550510000
322	322	0.0641390	1100763117.946010000
323	323	0.0641390	1171364989.352760000
324	324	0.0641390	1246495195.843480000

g=	3.6262%
Non-Constant DCF =	9.6651%
Constant DCF =	7.9025%
D=	3.2725
g(e)=	6.41%
P=	-79.30

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	
325	325	0.0641390	1326444180.408190000
326	326	0.0641390	1411521014.766660000
327	327	0.0641390	1502054594.196920000
328	328	0.0641390	1598394908.998970000
329	329	0.0641390	1700914397.508830000
330	330	0.0641390	1810009385.893690000
331	331	0.0641390	1926101620.294060000
332	332	0.0641390	2049639897.236030000
333	333	0.0641390	2181101798.616610000
334	334	0.0641390	2320995537.969260000
335	335	0.0641390	2469861925.147190000
336	336	0.0641390	2628276457.019450000
337	337	0.0641390	2796851542.262230000
338	338	0.0641390	2976238868.846190000
339	339	0.0641390	3167131923.371970000
340	340	0.0641390	3370268671.993560000
341	341	0.0641390	3586434413.293350000
342	342	0.0641390	3816464814.137940000
343	343	0.0641390	4061249140.250650000
344	344	0.0641390	4321733693.989850000
345	345	0.0641390	4598925472.623040000
346	346	0.0641390	4893896061.239060000
347	347	0.0641390	5207785775.347860000
348	348	0.0641390	5541808069.182580000
349	349	0.0641390	5897254226.745870000
350	350	0.0641390	6275498353.735250000
351	351	0.0641390	6678002689.645780000
352	352	0.0641390	7106323260.585730000
353	353	0.0641390	7562115894.658380000
354	354	0.0641390	8047142623.164530000
355	355	0.0641390	8563278492.371830000
356	356	0.0641390	9112518812.184440000
357	357	0.0641390	9696986869.735180000
358	358	0.0641390	10318942137.720000000
359	359	0.0641390	10980789009.207100000
360	360	0.0641390	11685086092.688000000

g=	3.6262%
Non-Constant DCF =	9.6651%
Constant DCF =	7.9025%
D=	3.2725
g(e)=	6.41%
P=	-79.30

LINE	YEAR	GROWTH	DIVIDEND
NO.		RATE	BIVIDEND
361	361	0.0641390	12434556103.304000000
362	362	0.0641390	13232096388.486800000
363	363	0.0641390	14080790128.703000000
364	364	0.0641390	14983918256.603100000
365	365	0.0641390	15944972140.653900000
366	366	0.0641390	16967667082.286000000
367	367	0.0641390	18055956678.735600000
368	368	0.0641390	19214048107.104500000
369	369	0.0641390	20446418388.725200000
370	370	0.0641390	21757831696.706400000
371	371	0.0641390	23153357773.567400000
372	372	0.0641390	24638391530.161700000
373	373	0.0641390	26218673901.656300000
374	374	0.0641390	27900314041.193500000
375	375	0.0641390	29689812937.032100000
376	376	0.0641390	31594088544.468900000
377	377	0.0641390	33620502529.697700000
378	378	0.0641390	35776888728.992900000
379	379	0.0641390	38071583433.236900000
380	380	0.0641390	40513457614.868400000
381	381	0.0641390	43111951221.835300000
382	382	0.0641390	45877109671.127700000
383	383	0.0641390	48819622682.971700000
384	384	0.0641390	51950865605.809300000
385	385	0.0641390	55282943391.822400000
386	386	0.0641390	58828737393.004900000
387	387	0.0641390	62601955158.687500000
388	388	0.0641390	66617183427.029000000
389	389	0.0641390	70889944515.328300000
390	390	0.0641390	75436756327.157200000
391	391	0.0641390	80275196208.291700000
392	392	0.0641390	85423968898.300300000
393	393	0.0641390	90902978840.480700000
394	394	0.0641390	96733407129.685500000
395	395	0.0641390	102937793395.506000000
396	396	0.0641390	109540122937.365000000

g=	3.6262%
Non-Constant DCF =	9.6651%
Constant DCF =	7.9025%
D=	3.2725
g(e)=	6.41%
P=	-79.30

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
397	397	0.0641390	116565919448.366000000
398	398	0.0641390	124042343686.361000000
399	399	0.0641390	131998298473.688000000
400	400	0.0641390	140464540431.484000000

RATE SCHEDULE SMALL GENERAL SALES SERVICE (SGS)

THESE DO NO REFLECT STAFF PROPOSED RATES. SEE BILL IMPACTS SECTION OF STAFF REPORT DATA: 3 MOS. ACTUAL & 9 MONTHS ESTIMATED SCHEDULE E-5 SHEET 1 of 19

LINE NO.		USAGE MCF (A)	MOST CURRENT RATE (B)	PROPOSED RATE (C)	INCREASE (D=C-B)	PERCENT OF INCREASE (E=D/B)	CURRENT BILL (F)	PROPOSED BILL (G)	DOLLAR INCREASE (H=G-F)	PERCENT OF INCREASE (I=H/F)	ANNUALIZED FUEL COST ADDITIONS CURRENT BILL (J)	CURRENT BILL INCLUDING FUEL COST (K=F+J)	PROPOSED BILL INCLUDING FUEL COST (L=G+J)	PERCENT OF CHANGE (M=(L-K)/K)
1	SMALL GENERAL SERVICE													
2	ALL GAS USED		0.6320	0.6257	(0.0063)	-1.0%					4.6250			
3	MONTHLY DELIVERY CHARGE		34.92	46.58	11.66	33.4%								
4		0.0					36.66	48.90	12.24	33.4%	-	36.66	48.90	33.4%
5		1.0					37.49	49.73	12.23	32.6%	4.86	42.35	54.58	28.9%
6		5.0					40.82	53.02	12.21	29.9%	24.28	65.09	77.30	18.8%
7		10.0					44.97	57.14	12.18	27.1%	48.56	93.53	105.70	13.0%
8		15.0					49.12	61.27	12.14	24.7%	72.83	121.96	134.10	10.0%
9		20.0					53.28	65.39	12.11	22.7%	97.11	150.39	162.50	8.1%
10		25.0					57.43	69.51	12.08	21.0%	121.39	178.82	190.90	6.8%
11		30.0					61.58	73.63	12.04	19.6%	145.67	207.25	219.30	5.8%
12		35.0					65.74	77.75	12.01	18.3%	169.95	235.69	247.70	5.1%
13		40.0					69.89	81.87	11.98	17.1%	194.23	264.12	276.09	4.5%
14		45.0					74.05	85.99	11.94	16.1%		292.55	304.49	4.1%
15		50.0					78.20	90.11	11.91	15.2%	242.78	320.98	332.89	3.7%
16		60.0					86.51	98.35	11.84	13.7%	291.34	377.85	389.69	3.1%
17		70.0					94.81	106.59	11.78	12.4%	339.90	434.71	446.49	2.7%
18		80.0					103.12	114.83	11.71	11.4%	388.45	491.57	503.29	2.4%
19		90.0					111.43	123.08	11.65	10.5%	437.01	548.44	560.08	2.1%
20		100.0					119.74	131.32	11.58	9.7%		605.30	616.88	1.9%
21		125.0					138.63	150.04	11.41	8.2%		745.58	757.00	1.5%
22		150.0					157.52	168.77	11.25	7.1%		885.86	897.11	1.3%
23		175.0					176.41	187.49	11.08	6.3%		1,026.15	1,037.23	1.1%
24		200.0					195.30	206.22	10.92	5.6%		1,166.43	1,177.35	0.9%
25		225.0					214.19	224.94	10.75	5.0%	1	1,306.71	1,317.46	0.8%
26		250.0					233.08	243.66	10.59	4.5%		1,446.99	1,457.58	0.7%
27		300.0					270.86	281.11	10.26	3.8%	1,456.69	1,727.55	1,737.81	0.6%

28	EXCISE TAX FIRST 100	0.1593
29	EXCISE TAX NEXT 1900	0.0877
30	EXCISE TAX OVER 2000	0.0411
31	GROSS RECEIPTS TAX RATE	4.987%

RATE SCHEDULE SMALL GENERAL SALES SERVICE - SCHOOLS (SGS - SCHOOLS)

THESE DO NO REFLECT STAFF PROPOSED RATES. SEE BILL IMPACTS SECTION OF STAFF REPORT DATA: 3 MOS. ACTUAL & 9 MONTHS ESTIMATED SCHEDULE E-5 SHEET 2 of 19

LINE NO.	CODE M	AGE ICF (A)	MOST CURRENT RATE (B)	PROPOSED RATE (C)	INCREASE (D=C-B)	PERCENT OF INCREASE (E=D/B)	CURRENT BILL (F)	PROPOSED BILL (G)	DOLLAR INCREASE (H=G-F)	PERCENT OF INCREASE (I=H/F)	ANNUALIZED FUEL COST ADDITIONS CURRENT BILL (J)	CURRENT BILL INCLUDING FUEL COST (K=F+J)	PROPOSED BILL INCLUDING FUEL COST (L=G+J)	PERCENT OF CHANGE (M=(L-K)/K)
1	SMALL GENERAL SERVICE - SCHOO	LS												
2	ALL GAS USED		0.6320	0.6257	(0.0063)	-1.0%					4.6250			
3	MONTHLY DELIVERY CHARGE		34.08	44.26	10.18	29.9%								
4		0.0					35.78	46.47	10.69	29.9%	-	35.78	46.47	29.9%
5		1.0					36.61	47.29	10.68	29.2%	4.86	41.47	52.15	25.8%
6		5.0					39.93	50.59	10.65	26.7%	24.28	64.21	74.87	16.6%
7		10.0					44.09	54.71	10.62	24.1%	48.56	92.64	103.27	11.5%
8		15.0					48.24	58.83	10.59	21.9%	72.83	121.08	131.66	8.7%
9		20.0					52.39	62.95	10.56	20.1%	97.11	149.51	160.06	7.1%
10		25.0					56.55	67.07	10.52	18.6%	121.39	177.94	188.46	5.9%
11		30.0					60.70	71.19	10.49	17.3%	145.67	206.37	216.86	5.1%
12		35.0					64.86	75.31	10.46	16.1%	169.95	234.80	245.26	4.5%
13		40.0					69.01	79.43	10.42	15.1%	194.23	263.24	273.66	4.0%
14		45.0					73.16	83.55	10.39	14.2%	218.50	291.67	302.06	3.6%
15		50.0					77.32	87.67	10.36	13.4%	242.78	320.10	330.46	3.2%
16		60.0					85.63	95.92	10.29	12.0%	291.34	376.96	387.26	2.7%
17		70.0					93.93	104.16	10.22	10.9%	339.90	433.83	444.05	2.4%
18		80.0					102.24	112.40	10.16	9.9%	388.45	490.69	500.85	2.1%
19		90.0					110.55	120.64	10.09	9.1%	437.01	547.56	557.65	1.8%
20		100.0					118.86	128.88	10.03	8.4%	485.56	604.42	614.45	1.7%
21		125.0					137.75	147.61	9.86	7.2%	606.96	744.70	754.56	1.3%
22		150.0					156.64	166.33	9.70	6.2%	728.35	884.98	894.68	1.1%
23		175.0					175.53	185.06	9.53	5.4%	849.74	1,025.26	1,034.79	0.9%
24		200.0					194.41	203.78	9.36	4.8%	971.13	1,165.54	1,174.91	0.8%
25		225.0					213.30	222.50	9.20	4.3%	1,092.52	1,305.83	1,315.03	0.7%
26		250.0					232.19	241.23	9.03	3.9%	1,213.91	1,446.11	1,455.14	0.6%
27		300.0					269.97	278.68	8.70	3.2%	1,456.69	1,726.67	1,735.37	0.5%

28	EXCISE TAX FIRST 100	0.1593
29	EXCISE TAX NEXT 1900	0.0877
30	EXCISE TAX OVER 2000	0.0411
31	GROSS RECEIPTS TAX RATE	4.987%

RATE SCHEDULE SMALL GENERAL TRANSPORTATION SERVICE (SGTS)

THESE DO NO REFLECT STAFF PROPOSED RATES. SEE BILL IMPACTS SECTION OF STAFF REPORT DATA: 3 MOS. ACTUAL & 9 MONTHS ESTIMATED SCHEDULE E-5 SHEET 3 of 19

LINE		USAGE	MOST	PROPOSED		PERCENT OF	CURRENT	PROPOSED	DOLLAR	PERCENT OF	ANNUALIZED FUEL COST ADDITIONS	CURRENT BILL INCLUDING	PROPOSED BILL INCLUDING	PERCENT OF
NO.	CODE	MCF (A)	RATE (B)	RATE (C)	INCREASE (D=C-B)	INCREASE (E=D/B)	BILL (F)	BILL (G)	INCREASE (H=G-F)	INCREASE (I=H/F)	CURRENT BILL (J)	FUEL COST (K=F+J)	FUEL COST (L=G+J)	CHANGE (M=(L-K)/K)
		(A)	(6)	(C)	(D=C-B)	(E=D/B)	(F)	(6)	(H=G-F)	(1=11/17)	(3)	(K=F+J)	(L=G+J)	(IVI=(L-K)/K)
1	SMALL GENERAL TRANSPORTATI	ION SERV	ICE											
2	ALL GAS USED		0.3443	0.3443	0.0000	0.0%					4.6250			
2			0.0440	0.0440	0.0000	0.075					4.0200			
3	MONTHLY DELIVERY CHARGE		34.92	46.58	11.66	33.4%								
4		0.0					36.66	48.90	12.24	33.4%		36.66	48.90	
5 6		1.0 5.0					37.19 39.31	49.43 51.55	12.24 12.24	32.9% 31.1%		42.16 64.16	54.40	
6 7		5.0 10.0					41.95	51.55	12.24	29.2%		91.67	76.41 103.91	
8		15.0					41.95	56.83	12.24	29.2%		119.17	131.41	
9		20.0					44.33	59.48	12.24	27.5%		146.67	158.91	
10		20.0					49.88	62.12	12.24	23.5%		174.18	186.42	
11		30.0					52.52	64.76	12.24	23.3%		201.68	213.92	
12		35.0					55.17	67.41	12.24	22.2%		229.18	241.42	
13		40.0					57.81	70.05	12.24	21.2%		256.69	268.93	
14		45.0					60.45	72.70	12.24	20.2%		284.19	296.43	
15		50.0					63.10	75.34	12.24	19.4%	248.59	311.69	323.93	
16		60.0					68.38	80.63	12.24	17.9%	298.31	366.70	378.94	3.3%
17		70.0					73.67	85.91	12.24	16.6%	348.03	421.70	433.94	2.9%
18		80.0					78.96	91.20	12.24	15.5%	397.75	476.71	488.95	2.6%
19		90.0					84.25	96.49	12.24	14.5%	447.47	531.71	543.96	2.3%
20		100.0					89.53	101.77	12.24	13.7%	497.19	586.72	598.96	2.1%
21		125.0					100.87	113.11	12.24	12.1%	621.48	722.36	734.60	1.7%
22		150.0					112.21	124.45	12.24	10.9%	745.78	857.99	870.23	1.4%
23		175.0					123.55	135.79	12.24	9.9%	870.08	993.63	1,005.87	1.2%
24		200.0					134.89	147.13	12.24	9.1%	994.38	1,129.26	1,141.50	1.1%
25		225.0					146.23	158.47	12.24	8.4%		1,264.90	1,277.14	
26		250.0					157.56	169.81	12.24	7.8%	1,242.97	1,400.53	1,412.77	
27		300.0					180.24	192.48	12.24	6.8%	1,491.56	1,671.80	1,684.05	0.7%

28	EXCISE TAX FIRST 100	0.1593
29	EXCISE TAX NEXT 1900	0.0877
30	EXCISE TAX OVER 2000	0.0411
31	GROSS RECEIPTS TAX	4.987%
32	FRANKLIN COUNTY SALES TAX	7.500%

RATE SCHEDULE SMALL GENERAL TRANSPORTATION SERVICE (SGTS - SCHOOLS)

THESE DO NO REFLECT STAFF PROPOSED RATES. SEE BILL IMPACTS SECTION OF STAFF REPORT DATA: 3 MOS. ACTUAL & 9 MONTHS ESTIMATED SCHEDULE E-5 SHEET 4 of 19

LINE NO.	RATE CODE	USAGE MCF (A)	MOST CURRENT RATE (B)	PROPOSED RATE (C)	INCREASE (D=C-B)	PERCENT OF INCREASE (E=D/B)	CURRENT BILL (F)	PROPOSED BILL (G)	DOLLAR INCREASE (H=G-F)	PERCENT OF INCREASE (I=H/F)	ANNUALIZED FUEL COST ADDITIONS CURRENT BILL (J)	CURRENT BILL INCLUDING FUEL COST (K=F+J)	PROPOSED BILL INCLUDING FUEL COST (L=G+J)	PERCENT OF CHANGE (M=(L-K)/K)
				_										
1	SMALL GENERAL TRANSPORT	ATION SERV	ICE - SCHOOL	.5										
2	ALL GAS USED		0.3443	0.3443	0.0000	0.0%					4.6250			
3	MONTHLY DELIVERY CHARGE		34.08	44.26	10.18	29.9%								
4		0.0					35.78	46.47	10.69	29.9%	-	35.78	46.47	29.9%
5		1.0					36.31	47.00	10.69	29.4%	4.97	41.28	51.97	25.9%
6		5.0					38.42	49.11	10.69	27.8%	24.86	63.28	73.97	16.9%
7		10.0					41.07	51.75	10.69	26.0%	49.72	90.79	101.47	11.8%
8		15.0					43.71	54.40	10.69	24.5%	74.58	118.29	128.98	9.0%
9		20.0					46.35	57.04	10.69	23.1%	99.44	145.79	156.48	7.3%
10		25.0					49.00	59.69	10.69	21.8%	124.30	173.29	183.98	6.2%
11		30.0					51.64	62.33	10.69	20.7%	149.16	200.80	211.48	5.3%
12		35.0					54.28	64.97	10.69	19.7%	174.02	228.30	238.99	4.7%
13		40.0					56.93	67.62	10.69	18.8%	198.88	255.80	266.49	4.2%
14		45.0					59.57	70.26	10.69	17.9%	223.73	283.31	293.99	3.8%
15		50.0					62.22	72.90	10.69	17.2%	248.59	310.81	321.50	3.4%
16		60.0					67.50	78.19	10.69	15.8%	298.31	365.81	376.50	2.9%
17		70.0					72.79	83.48	10.69	14.7%	348.03	420.82	431.51	2.5%
18		80.0					78.08	88.76	10.69	13.7%	397.75	475.83	486.51	2.2%
19		90.0					83.36	94.05	10.69	12.8%	447.47	530.83	541.52	2.0%
20		100.0					88.65	99.34	10.69	12.1%	497.19	585.84	596.53	1.8%
21		125.0					99.99	110.68	10.69	10.7%		721.47	732.16	
22		150.0					111.33	122.02	10.69	9.6%		857.11	867.80	1.2%
23		175.0					122.67	133.35	10.69	8.7%	870.08	992.74	1,003.43	1.1%
24		200.0					134.01	144.69	10.69	8.0%	994.38	1,128.38	1,139.07	0.9%
25		225.0					145.34	156.03	10.69	7.4%		1,264.02	1,274.70	
26		250.0					156.68	167.37	10.69	6.8%	1,242.97	1,399.65	1,410.34	0.8%
27		300.0					179.36	190.05	10.69	6.0%	1,491.56	1,670.92	1,681.61	0.6%

28	EXCISE TAX FIRST 100	0.1593
29	EXCISE TAX NEXT 1900	0.0877
30	EXCISE TAX OVER 2000	0.0411
31	GROSS RECEIPTS TAX	4.987%
32	FRANKLIN COUNTY SALES TAX	7.500%

RATE SCHEDULE FULL REQUIREMENTS SMALL GENERAL TRANSPORTATION SERVICE (FRSGTS)

		REFLECT STAFF PROPOSED RATES. SEE BILL IMPACTS SECTION OF STAFF REPORT ACTUAL & 9 MONTHS ESTIMATED SHEET 5 of 1													
LINE NO.	RATE CODE	USAGE MCF (A)	MOST CURRENT RATE (B)	PROPOSED RATE (C)	INCREASE (D=C-B)	PERCENT OF INCREASE (E=D/B)	CURRENT BILL (F)	PROPOSED BILL (G)	DOLLAR INCREASE (H=G-F)	PERCENT OF INCREASE (I=H/F)	ANNUALIZED FUEL COST ADDITIONS CURRENT BILL (J)	CURRENT BILL INCLUDING FUEL COST (K=F+J)	PROPOSED BILL INCLUDING FUEL COST (L=G+J)	PERCENT OF CHANGE (M=(L-K)/K)	
1	FULL REQUIREMENTS SMALL G	GENERAL TR	ANSPORTATI	ON SERVICE											
2	ALL GAS USED		0.6143	0.6143	0.0000	0.0%					4.6250				
3	MONTHLY DELIVERY CHARGE		34.92	46.58	11.66	33.4%									
4		0.0					36.66	48.90	12.24	33.4%		36.66	48.90) 33.4%	
5		1.0					37.47	49.72	12.24	32.7%	4.97	42.45	54.69	28.8%	
6		5.0					40.72	52.96	12.24	30.1%	24.86	65.58	77.82	2 18.7%	
7		10.0					44.78	57.02	12.24	27.3%	49.72	94.50	106.74	1 13.0%	
8		15.0					48.84	61.09	12.24	25.1%	74.58	123.42	135.66	6 9.9%	
9		20.0					52.91	65.15	12.24	23.1%	99.44	152.34	164.58	8 8.0%	

3	MONTHLY DELIVERY CHARGE	34.92	46.58	11.66	33.4%								
4	0.0					36.66	48.90	12.24	33.4%	-	36.66	48.90	33.4%
5	1.0					37.47	49.72	12.24	32.7%	4.97	42.45	54.69	28.8%
6	5.0					40.72	52.96	12.24	30.1%	24.86	65.58	77.82	18.7%
7	10.0					44.78	57.02	12.24	27.3%	49.72	94.50	106.74	13.0%
8	15.0					48.84	61.09	12.24	25.1%	74.58	123.42	135.66	9.9%
9	20.0					52.91	65.15	12.24	23.1%	99.44	152.34	164.58	8.0%
10	25.0					56.97	69.21	12.24	21.5%	124.30	181.26	193.50	6.8%
11	30.0					61.03	73.27	12.24	20.1%	149.16	210.18	222.42	5.8%
12	35.0					65.09	77.33	12.24	18.8%	174.02	239.10	251.34	5.1%
13	40.0					69.15	81.39	12.24	17.7%	198.88	268.02	280.27	4.6%
14	45.0					73.21	85.45	12.24	16.7%	223.73	296.94	309.19	4.1%
15	50.0					77.27	89.51	12.24	15.8%	248.59	325.86	338.11	3.8%
16	60.0					85.39	97.63	12.24	14.3%	298.31	383.70	395.95	3.2%
17	70.0					93.51	105.76	12.24	13.1%	348.03	441.55	453.79	2.8%
18	80.0					101.64	113.88	12.24	12.0%	397.75	499.39	511.63	2.5%
19	90.0					109.76	122.00	12.24	11.2%	447.47	557.23	569.47	2.2%
20	100.0					117.88	130.12	12.24	10.4%	497.19	615.07	627.31	2.0%
21	125.0					136.30	148.55	12.24	9.0%	621.48	757.79	770.03	1.6%
22	150.0					154.73	166.97	12.24	7.9%	745.78	900.51	912.75	1.4%
23	175.0					173.16	185.40	12.24	7.1%	870.08	1,043.23	1,055.47	1.2%
24	200.0					191.58	203.82	12.24	6.4%	994.38	1,185.96	1,198.20	1.0%
25	225.0					210.01	222.25	12.24	5.8%	1,118.67	1,328.68	1,340.92	0.9%
26	250.0					228.43	240.67	12.24	5.4%	1,242.97	1,471.40	1,483.64	0.8%
27	300.0					265.28	277.52	12.24	4.6%	1,491.56	1,756.84	1,769.09	0.7%

28	EXCISE TAX FIRST 100	0.1593
29	EXCISE TAX NEXT 1900	0.0877
30	EXCISE TAX OVER 2000	0.0411
31	GROSS RECEIPTS TAX	4.987%
32	FRANKLIN COUNTY SALES TAX	7.500%

RATE SCHEDULE FULL REQUIREMENTS SMALL GENERAL TRANSPORTATION SERVICE (FRSGTS - SCHOOLS)

	DO NO REFLECT STAFF PROPO 3 MOS. ACTUAL & 9 MONTHS ES RATE CODE		S. SEE BILL IM MOST CURRENT RATE (B)				CURRENT BILL (F)	PROPOSED BILL (G)	DOLLAR INCREASE (H=G-F)	PERCENT OF INCREASE (I=H/F)	ANNUALIZED FUEL COST ADDITIONS CURRENT BILL (J)	CURRENT BILL INCLUDING FUEL COST (K=F+J)		CHEDULE E SHEET 6 of PERCEN [®] OF CHANGE (M=(L-K)/I
		(~)	(2)	(0)	(0=0-0)	(2=0,0)	(1)	(0)	(11=0-1)	(1=111)	(0)	(11=1+0)	(1=0+0)	(m=(E-R)
1	FULL REQUIREMENTS SMALL G	GENERAL TR	RANSPORTATI	ION SERVICE - S	CHOOLS									
2	ALL GAS USED		0.6143	0.6143	0.0000	0.0%					4.6250			
3	MONTHLY DELIVERY CHARGE		34.08	44.26	10.18	29.9%								
4							05 70	40.47	40.00	00.0%		05 70	40.47	29
4 5		0.0 1.0					35.78 36.59	46.47 47.28	10.69 10.69	29.9% 29.2%	- 4.97	35.78 41.56	46.47 52.25	29
5		5.0					39.84	50.53	10.69	29.2%	24.86	64.70	75.39	2
7		10.0					43.90	54.59	10.69	20.0%	49.72	93.62	104.31	1
3		15.0					43.90	58.65	10.69	24.3%	74.58	122.54	133.23	'
, ,		20.0					52.02	62.71	10.69	22.5%	99.44	151.46	162.15	
, D		25.0					56.08	66.77	10.69	19.1%	124.30	180.38	191.07	
1		30.0					60.14	70.83	10.69	17.8%	149.16	209.30	219.99	
2		35.0					64.21	74.89	10.69	16.6%	174.02	238.22	248.91	
3		40.0					68.27	78.95	10.69	15.7%	198.88	267.14	277.83	
4		45.0					72.33	83.02	10.69	14.8%	223.73	296.06	306.75	
5		50.0					76.39	87.08	10.69	14.0%	248.59	324.98	335.67	
6		60.0					84.51	95.20	10.69	12.6%	298.31	382.82	393.51	
7		70.0					92.63	103.32	10.69	11.5%	348.03	440.66	451.35	
В		80.0					100.75	111.44	10.69	10.6%	397.75	498.50	509.19	
9		90.0					108.88	119.56	10.69	9.8%	447.47	556.34	567.03	
20		100.0					117.00	127.69	10.69	9.1%	497.19	614.19	624.87	
1		125.0					135.42	146.11	10.69	7.9%	621.48	756.91	767.59	
2		150.0					153.85	164.54	10.69	6.9%	745.78	899.63	910.32	
23		175.0					172.27	182.96	10.69	6.2%	870.08	1,042.35	1,053.04	
24		200.0					190.70	201.39	10.69	5.6%	994.38	1,185.07	1,195.76	
25		225.0					209.12	219.81	10.69	5.1%	1,118.67	1,327.80	1,338.48	(
26		250.0					227.55	238.24	10.69	4.7%	1,242.97	1,470.52	1,481.21	

264.40

275.09

10.69

4.0%

1,491.56

1,755.96

1,766.65

0.6%

28	EXCISE TAX FIRST 100	0.1593
29	EXCISE TAX NEXT 1900	0.0877
30	EXCISE TAX OVER 2000	0.0411
31	GROSS RECEIPTS TAX	4.987%
32	FRANKLIN COUNTY SALES TAX	7.500%

300.0

27

COLUMBIA GAS OF OHIO, INC. Case No. 21-637-GA-AIR TYPICAL BILL COMPARISON RATE SCHEDULE GENERAL SERVICE (GS)

THESE DO NO REFLECT STAFF PROPOSED RATES. SEE BILL IMPACTS SECTION OF STAFF REPORT DATA: 3 MOS. ACTUAL & 9 MONTHS ESTIMATED

SCHEDULE E-5 SHEET 7 of 19

	0475	118465	MOST	PROPOSE		PERCENT	CUPPENT	PROPOSES		PERCENT	ANNUALIZED FUEL COST	CURRENT BILL	PROPOSED BILL	PERCENT
LINE NO.	RATE CODE	USAGE MCF	CURRENT RATE	PROPOSED RATE	INCREASE	OF INCREASE	CURRENT	PROPOSED BILL	DOLLAR	OF INCREASE	ADDITIONS CURRENT BILL	INCLUDING FUEL COST	INCLUDING FUEL COST	OF CHANGE
NO.	CODE	(A)	(B)	(C)	(D=C-B)	(E=D/B)	(F)	(G)	(H=G-F)	(I=H/F)	(J)	(K=F+J)	(L=G+J)	(M=(L-K)/K)
		(-7	(-/	(-)	(=)	(/_/	(*)	(-)	((* * ** *)	(-)	((,	((=,,
1	GENERAL SERVICE													
2	FIRST 25 MCF		2.0395	3.0689	1.0294	50.5%					4.6250			
3	NEXT 75 MCF		1.6461	2.4120	0.7659	46.5%								
4	OVER 100 MCF		1.3946	1.9859	0.5913	42.4%								
5	CUSTOMER/DELIVERY CHARGE		171.09	75.67	-95.42	-55.8%								
6		0.0					179.62	79.44	(100.18)	-55.8%	-	179.62	79.44	-55.8%
7		1.0					181.93	82.83	(100.18) (99.10)	-53.8%		186.79	87.69	
8		5.0					191.16	96.39	(94.77)	-49.6%		215.44	120.67	-44.0%
9		10.0					202.71	113.34	(89.37)	-44.1%		251.26	161.89	
10		15.0					214.25	130.28	(83.97)	-39.2%		287.08	203.12	
11		20.0					225.79	147.23	(78.56)	-34.8%	97.11	322.90	244.34	-24.3%
12		25.0					237.33	164.17	(73.16)	-30.8%	121.39	358.72	285.56	-20.4%
13		30.0					246.81	177.67	(69.14)	-28.0%	145.67	392.48	323.34	-17.6%
14		35.0					256.29	191.17	(65.12)	-25.4%	169.95	426.24	361.12	-15.3%
15		40.0					265.77	204.67	(61.10)	-23.0%	194.23	459.99	398.89	-13.3%
16		45.0					275.24	218.16	(57.08)	-20.7%	218.50	493.75	436.67	-11.6%
17		50.0					284.72	231.66	(53.06)	-18.6%		527.50	474.44	
18		60.0					303.67	258.66	(45.02)	-14.8%		595.01	549.99	
19		70.0					322.63	285.65	(36.98)	-11.5%		662.52	625.55	
20		80.0					341.58	312.65	(28.94)	-8.5%		730.03	701.10	
21		90.0					360.54	339.64	(20.90)	-5.8%		797.55	776.65	
22		100.0					379.49	366.64	(12.86)	-3.4%		865.06	852.20	
23 24		125.0 150.0					418.40 457.30	421.06 475.48	2.66 18.18	0.6% 4.0%		1,025.35 1,185.65	1,028.02 1,203.83	
24 25		150.0					496.21	475.48 529.91	33.70	4.0%		1,185.65	1,203.83	
26		200.0					535.11	584.33	49.22	9.2%		1,506.24	1,555.46	
27		225.0					574.02	638.76	64.74	11.3%		1,666.54	1,731.28	
28		250.0					612.92	693.18	80.26	13.1%		1,826.84	1,907.10	
29		300.0					690.74	802.03	111.30	16.1%		2,147.43	2,258.73	
30		400.0					846.36	1,019.73	173.37	20.5%	1,942.26	2,788.62	2,961.99	6.2%
31		500.0					1,001.98	1,237.43	235.45	23.5%	2,427.82	3,429.80	3,665.25	6.9%
32		600.0					1,157.60	1,455.13	297.52	25.7%	2,913.39	4,070.99	4,368.52	7.3%
33		700.0					1,313.22	1,672.83	359.60	27.4%	3,398.95	4,712.18	5,071.78	7.6%
34		800.0					1,468.85	1,890.52	421.68	28.7%		5,353.37	5,775.04	7.9%
35		900.0					1,624.47	2,108.22	483.75	29.8%		5,994.55	6,478.31	8.1%
36		1,000.0					1,780.09	2,325.92	545.83	30.7%		6,635.74	7,181.57	
37		1,500.0					2,558.20	3,414.41	856.21	33.5%	1	9,841.68	10,697.89	
38		2,000.0					3,336.31	4,502.90	1,166.59	35.0%		13,047.61	14,214.20	
39		2,500.0					4,089.96	5,566.93	1,476.97	36.1%		16,229.08	17,706.06	
40		3,000.0					4,843.61	6,630.96	1,787.35	36.9%	1	19,410.56	21,197.91	9.2%
41		3,500.0					5,597.26	7,694.99	2,097.73	37.5%		22,592.03	24,689.76	
42 43		4,000.0 4,500.0					6,350.91 7,104.56	8,759.02 9,823.05	2,408.11 2,718.49	37.9% 38.3%		25,773.51 28,954.98	28,181.62 31,673.47	9.3% 9.4%
43 44		4,500.0 5,000.0					7,104.56	9,823.05	2,718.49 3,028.87	38.3% 38.5%		28,954.98 32,136.45	31,673.47 35,165.33	
44		5,000.0					1,000.21	10,007.08	3,020.87	30.5%	24,210.24	32,130.45	33,105.33	9.4%

45	EXCISE TAX FIRST 100	0.1593
46	EXCISE TAX NEXT 1900	0.0877
47	EXCISE TAX OVER 2000	0.0411
48	GROSS RECEIPTS TAX	4.987%

RATE SCHEDULE GENERAL SERVICE SCHOOLS (GS-SCHOOLS)

THESE DO NO REFLECT STAFF PROPOSED RATES. SEE BILL IMPACTS SECTION OF STAFF REPORT	
DATA: 3 MOS. ACTUAL & 9 MONTHS ESTIMATED	

SCHEDULE E-5 SHEET 8 of 19

			MOST			PERCENT				PERCENT	ANNUALIZED FUEL COST	CURRENT BILL	PROPOSED BILL	PERCENT
LINE	RATE	USAGE	CURRENT	PROPOSED		OF	CURRENT	PROPOSED	DOLLAR	OF	ADDITIONS	INCLUDING	INCLUDING	OF
NO.	CODE	MCF	RATE	RATE	INCREASE	INCREASE	BILL	BILL	INCREASE	INCREASE	CURRENT BILL	FUEL COST	FUEL COST	CHANGE
		(A)	(B)	(C)	(D=C-B)	(E=D/B)	(F)	(G)	(H=G-F)	(I=H/F)	(J)	(K=F+J)	(L=G+J)	(M=(L-K)/K)
1	GENERAL SERVICE - SCHOOLS													
2	FIRST 25 MCF		1.9587	2.9363	0.9776	49.9%					4.6250			
3	NEXT 75 MCF		1.5850	2.3303	0.3770	45.9%					4.0230			
4	OVER 100 MCF		1.3461	1.9074	0.5613	41.7%								
5	CUSTOMER/DELIVERY CHARGE		170.03	71.90	(98.13)	-57.7%								
6		0.0					170.03	71.90	(98.13)	-57.7%		170.03	71.90	-57.7%
7		1.0					180.73	78.74	(102.00)	-56.4%	4.86	185.59	83.59	-55.0%
8		5.0					189.63	91.74	(97.89)	-51.6%		213.91	116.01	-45.8%
9		10.0					200.75	107.99	(92.76)	-46.2%	48.56	249.30	156.54	-37.2%
10 11		15.0 20.0					211.86 222.98	124.24 140.49	(87.63) (82.50)	-41.4% -37.0%	72.83 97.11	284.70 320.09	197.07 237.60	-30.8% -25.8%
11 12		20.0 25.0					222.98 234.10	140.49 156.74	(82.50) (77.36)	-37.0%		320.09	237.60 278.13	-25.8% -21.8%
12		30.0					234.10	169.71	(73.55)	-33.0%		388.93	315.38	-21.0%
13		30.0					243.26	182.68	(69.73)	-30.2%	169.95	422.36	352.63	-16.5%
15		40.0					261.57	195.66	(65.91)	-25.2%	194.23	455.80	389.88	-14.5%
16		45.0					270.73	208.63	(62.09)	-22.9%	218.50	489.23	427.14	-12.7%
17		50.0					279.88	221.60	(58.28)	-20.8%	242.78	522.66	464.39	-11.2%
18		60.0					298.20	247.55	(50.64)	-17.0%	291.34	589.53	538.89	-8.6%
19		70.0					316.51	273.50	(43.01)	-13.6%	339.90	656.40	613.40	-6.6%
20		80.0					334.82	299.45	(35.37)	-10.6%	388.45	723.27	687.90	-4.9%
21		90.0					353.13	325.40	(27.74)	-7.9%	437.01	790.14	762.40	-3.5%
22		100.0					371.45	351.34	(20.10)	-5.4%	485.56	857.01	836.91	-2.3%
23		125.0					409.08	403.71	(5.37)	-1.3%	606.96	1,016.04	1,010.67	-0.5%
24		150.0					446.71	456.08	9.36	2.1%		1,175.06	1,184.42	0.8%
25		175.0					484.34	508.44	24.10	5.0%	849.74	1,334.08	1,358.18	1.8%
26		200.0					521.98	560.81	38.83	7.4%	971.13	1,493.11	1,531.94	2.6%
27		225.0					559.61	613.17	53.56	9.6%	1,092.52	1,652.13	1,705.69	3.2%
28 29		250.0					597.24	665.54	68.30	11.4%		1,811.15	1,879.45	3.8%
29 30		300.0 400.0					672.51 823.04	770.27 979.73	97.76 156.70	14.5% 19.0%	1,456.69 1,942.26	2,129.20 2,765.30	2,226.97 2,921.99	4.6% 5.7%
30		400.0 500.0					973.57	1,189.20	215.63	22.1%		3,401.39	3,617.02	6.3%
32		600.0					1,124.10	1,398.66	274.56	24.4%	2,913.39	4,037.49	4,312.05	6.8%
33		700.0					1,274.63	1,608.13	333.50	26.2%		4,673.58	5,007.08	7.1%
34		800.0					1,425.16	1,817.59	392.43	27.5%		5,309.68	5,702.11	7.4%
35		900.0					1,575.69	2,027.05	451.36	28.6%	4,370.08	5,945.77	6,397.14	7.6%
36		1,000.0					1,726.22	2,236.52	510.30	29.6%	4,855.65	6,581.87	7,092.17	7.8%
37		1,500.0					2,478.87	3,283.84	804.96	32.5%	7,283.47	9,762.34	10,567.31	8.2%
38		2,000.0					3,231.52	4,331.15	1,099.63	34.0%	9,711.30	12,942.82	14,042.45	8.5%
39		2,500.0					3,959.71	5,354.01	1,394.30	35.2%	12,139.12	16,098.84	17,493.13	8.7%
40		3,000.0					4,687.90	6,376.87	1,688.97	36.0%	14,566.95	19,254.85	20,943.81	8.8%
41		3,500.0					5,416.09	7,399.73	1,983.63	36.6%	16,994.77	22,410.86	24,394.50	8.9%
42		4,000.0					6,144.28	8,422.58	2,278.30	37.1%		25,566.88	27,845.18	8.9%
43		4,500.0					6,872.47	9,445.44	2,572.97	37.4%	21,850.42	28,722.89	31,295.86	9.0%
44		5,000.0					7,600.66	10,468.30	2,867.63	37.7%	24,278.24	31,878.91	34,746.54	9.0%

45	EXCISE TAX FIRST 100	0.1593
46	EXCISE TAX NEXT 1900	0.0877
47	EXCISE TAX OVER 2000	0.0411
48	GROSS RECEIPTS TAX	4.987%

RATE SCHEDULE GENERAL TRANSPORTATION SERVICE (GTS)

	E DO NO REFLECT STAFF PROF 3 MOS. ACTUAL & 9 MONTHS I		6. SEE BILL IM	PACTS SECTION	N OF STAFF REF				,					SCHEDULE E-5 SHEET 9 of 19
LINE NO.	RATE CODE	USAGE MCF (A)	MOST CURRENT RATE (B)	PROPOSED RATE (C)	INCREASE (D=C-B)	PERCENT OF INCREASE (E=D/B)	CURRENT BILL (F)	PROPOSED BILL (G)	DOLLAR INCREASE (H=G-F)	PERCENT OF INCREASE (I=H/F)	ANNUALIZED FUEL COST ADDITIONS CURRENT BILL (J)	CURRENT BILL INCLUDING FUEL COST (K=F+J)	PROPOSED BILL INCLUDING FUEL COST (L=G+J)	PERCENT OF CHANGE (M=(L-K)/K)
1	GENERAL TRANSPORTATION	SERVICE	1.7518	2.7875	1.0357	59.1%					4.6250			
	NEXT 75 MCF OVER 100 MCF		1.3584 1.1069	2.1306 1.7045	0.7722	56.8% 54.0%					1.0200			

5	CUSTOMER/DELIVERY CHARGE	171.09	75.67	(95.42)	-55.8%								
6	0.0					179.62	79.44	(100.18)	-55.8%	-	179.62	79.44	-55.8%
7	1.0					181.63	82.54	(99.09)	-54.6%	4.97	186.60	87.51	-53.1%
8	5.0					189.65	94.91	(94.74)	-50.0%	24.86	214.51	119.77	-44.2%
9	10.0					199.69	110.38	(89.31)	-44.7%	49.72	249.41	160.10	-35.8%
10	15.0					209.72	125.85	(83.87)	-40.0%	74.58	284.30	200.43	-29.5%
11	20.0					219.75	141.32	(78.43)	-35.7%	99.44	319.19	240.76	-24.6%
12	25.0					229.78	156.79	(72.99)	-31.8%	124.30	354.08	281.08	-20.6%
13	30.0					237.75	168.81	(68.94)	-29.0%	149.16	386.91	317.96	-17.8%
14	35.0					245.72	180.83	(64.89)	-26.4%	174.02	419.73	354.84	-15.5%
15	40.0					253.68	192.85	(60.83)	-24.0%	198.88	452.56	391.72	-13.4%
16	45.0					261.65	204.87	(56.78)	-21.7%	223.73	485.38	428.60	-11.7%
17	50.0					269.62	216.89	(52.73)	-19.6%	248.59	518.21	465.48	-10.2%
18	60.0					285.55	240.93	(44.62)	-15.6%	298.31	583.86	539.24	-7.6%
19	70.0					301.48	264.97	(36.51)	-12.1%	348.03	649.52	613.00	-5.6%
20	80.0					317.42	289.01	(28.41)	-8.9%	397.75	715.17	686.76	-4.0%
21	90.0					333.35	313.05	(20.30)	-6.1%	447.47	780.82	760.52	-2.6%
22	100.0					349.29	337.09	(12.19)	-3.5%	497.19	846.47	834.28	-1.4%
23	125.0					380.64	384.13	3.49	0.9%	621.48	1,002.13	1,005.62	0.3%
24	150.0					412.00	431.17	19.17	4.7%	745.78	1,157.78	1,176.95	1.7%
25	175.0					443.35	478.21	34.86	7.9%	870.08	1,313.43	1,348.29	2.7%
26	200.0					474.70	525.25	50.54	10.6%	994.38	1,469.08	1,519.62	3.4%
27	225.0					506.06	572.29	66.23	13.1%	1,118.67	1,624.73	1,690.96	4.1%
28	250.0					537.41	619.32	81.91	15.2%	1,242.97	1,780.38	1,862.29	4.6%
29	300.0					600.12	713.40	113.28	18.9%	1,491.56	2,091.68	2,204.96	5.4%
30	400.0					725.54	901.56	176.02	24.3%	1,988.75	2,714.29	2,890.31	6.5%
31	500.0					850.96	1,089.71	238.76	28.1%	2,485.94	3,336.89	3,575.65	7.2%
32	600.0					976.37	1,277.87	301.49	30.9%	2,983.13	3,959.50	4,260.99	7.6%
33	700.0					1,101.79	1,466.02	364.23	33.1%	3,480.31	4,582.10	4,946.33	7.9%
34	800.0					1,227.21	1,654.18	426.97	34.8%	3,977.50	5,204.71	5,631.68	8.2%
35	900.0					1,352.63	1,842.33	489.71	36.2%	4,474.69	5,827.31	6,317.02	8.4%
36	1,000.0					1,478.04	2,030.49	552.44	37.4%	4,971.88	6,449.92	7,002.36	8.6%
37	1,500.0					2,105.13	2,971.26	866.13	41.1%	7,457.81	9,562.94	10,429.07	9.1%
38	2,000.0					2,732.22	3,912.04	1,179.82	43.2%	9,943.75	12,675.97	13,855.79	9.3%
39	2,500.0					3,334.84	4,828.35	1,493.51	44.8%	12,429.69	15,764.53	17,258.04	9.5%
40	3,000.0					3,937.47	5,744.66	1,807.19	45.9%	14,915.63	18,853.09	20,660.29	9.6%
41	3,500.0					4,540.09	6,660.98	2,120.88	46.7%	17,401.56	21,941.66	24,062.54	9.7%
42	4,000.0					5,142.72	7,577.29	2,434.57	47.3%	19,887.50	25,030.22	27,464.79	9.7%
43	4,500.0					5,745.35	8,493.60	2,748.26	47.8%	22,373.44	28,118.78	30,867.04	9.8%
44	5,000.0					6,347.97	9,409.92	3,061.95	48.2%	24,859.38	31,207.35	34,269.29	9.8%

45	EXCISE TAX FIRST 100	0.1593
46	EXCISE TAX NEXT 1900	0.0877
47	EXCISE TAX OVER 2000	0.0411
48	GROSS RECEIPTS TAX	4.987%
49	FRANKLIN COUNTY SALES TAX	7.500%

RATE SCHEDULE GENERAL TRANSPORTATION SERVICE - SCHOOLS (GTS - SCHOOLS)

NATE USATE USATE USATE PERCENT OF CURRENT PROPOSED DOLAR PROF NOREASE NOREASE	RENT PROPOSED LL BILL IDING INCLUDING COST FUEL COST *+J) (L=G+J) 178.51 75.44 185.40 83.4' 212.98 115.1' 247.44 154.7' 281.91 194.34'	41 -55 12 -45 75 -37
2 FIRST 25 MCF 1.6710 2.6649 0.9839 58.9% 4.6250 3 NEXT 75 MCF 1.2973 2.0308 0.7335 56.5% 55.8% 56.5% 55.8% 55.9% 55.9% 57.7% - 7 50.9% 57.7% - 57.7% - 57.7% - 57.7% - 57.7% - 57.7% - 57.7% - 57.7% - 57.7% - 57.7% - 57.7% - 57.7% - 57.7% - - 57.7% - - 57.7% - - 57.7% - - 57.7% - - 57.7% - - 57.3% 17.8% 129.3% 129.52.0% 24.86 57.3	185.40 83.4 212.98 115.12 247.44 154.75	41 -55 12 -45 75 -37
2 FIRST 25 MCF 1.6710 2.6549 0.9839 56.5% 4.6250 3 NEXT 75 MCF 1.0584 1.9200 0.5676 53.6% 56.5% 5 CUSTOMER/DELIVERY CHARGE 170.03 71.90 (98.13) -57.7% - 6 0.0 170.03 71.90 (98.13) -57.7% - 7 1.0 180.43 75.49 (103.02) -57.7% - 7 1.0 180.43 76.44 (101.99) -56.5% 4.46 9 10.0 180.43 78.44 (101.99) -56.5% 4.46 9 10.0 197.73 106.03 (92.69) -46.9% 49.72 10 15.0 207.33 118.01 (87.53) -42.2% 74.86 12 25.0 26.55 149.35 (67.35) -31.3% 149.16 13 30.0 24.24 24.84 172.34 (69.50) -28.7% 174.02 14 35.0 26.55 149.35 (67.35) -31.3% 149.16 149.	185.40 83.4 212.98 115.12 247.44 154.75	41 -55 12 -45 75 -37
3 NEXT 75 MCF 1.297 1.293 1.626 56.5% 4 OVER 100 MCF 1.054 1.626 56.5% 5 CUSTOMERDELIVERY CHARGE 170.3 71.90 68.13 -7.7% 6 0.0 178.51 75.49 (103.02) -57.7% - 7 0.0 188.12 90.26 (97.86) 52.0% 24.86 9 10.0 15.0 178.73 115.03 (92.69) 46.9% 49.72 10 10.0 15.0 197.73 105.03 (92.69) 46.9% 49.72 11 20.0 10.6 10.9 14.84 (82.36) -38.0% 99.44 12 20.2 16.84 143.58 (82.36) -38.0% 99.44 12 20.2 16.85 172.34 (69.05) -28.7% 142.40 13 40.0 14.24 234.20 160.85 77.30 -31.3% 149.16 14 40.0 14.94 172.34 (69.05) -28.3% 149.84 149.16 28.31	185.40 83.4 212.98 115.12 247.44 154.75	41 -55 12 -45 75 -37
40VER 100 MCF1.0541.02600.65765.36%5CUSTOMERDELIVERY CHARGE170.371.90(98.1)-57.7%-60.0178.5175.49(103.02)-57.7%-71.0180.4378.44(101.99)-56.5%4.4780.00188.120.063(97.86)-6.6%4.5791.00197.73106.03(92.66)-46.9%-271010.0197.73106.03(92.66)-46.9%-92.461120.0197.73106.03(97.80)-42.2%74.581220.03118.8120.66.5149.35-42.2%74.581320.024.24149.46134.86(82.36)-38.0%99.441420.024.24149.45149.45149.45149.451420.024.184172.34(66.50)-28.3%174.021540.024.24264.78264.78266.83(77.9)-21.9%283.11640.024.24264.78266.73169.53262.917.9%288.311750.024.9%265.6%262.82(42.4)14.4%386.751860.0260.728.9365.2517.9%288.311970.020.0128.9626.2626.8214.4%14.2%1970.020.0126.5%26.5%26.5%26.5%26.5%26.5% </td <td>185.40 83.4 212.98 115.12 247.44 154.75</td> <td>41 -55 12 -45 75 -37</td>	185.40 83.4 212.98 115.12 247.44 154.75	41 -55 12 -45 75 -37
5 CUSTOMERDELIVERY CHARGE 17.0.3 71.90 (9.1.3) -57.7% 6 0.0 178.51 75.49 (103.02) -57.7% - 7 1.0 180.43 78.44 (101.9) -56.5% 4.97 8 5.0 188.12 90.26 (97.86) -62.0% 24.86 9 10.0 197.73 105.03 (92.69) -66.5% 4.97 10 15.0 207.33 119.00 (87.53) -22.0% 99.44 12 20.0 21.614 134.58 (82.36) -83.0% 99.44 12 20.0 26.55 149.35 (77.2) -34.1% 124.30 13 30.0 24.24 172.44 (69.56) -26.3% 198.94 14 35.0 27.13 195.34 (61.80) -24.0% 198.94 14 45.0 26.713 195.34 (61.80) -24.9% 198.94 15 40.0 26.73	185.40 83.4 212.98 115.12 247.44 154.75	41 -55 12 -45 75 -37
6 0.0 178.51 75.49 (103.02) $-57.7%$ $-$ 7 1.0 180.43 78.44 (101.99) $-56.5%$ 4.97 8 5.0 188.12 90.26 (97.86) $-52.0%$ 24.86 9 10.0 197.73 105.03 (92.69) $-46.9%$ 49.72 10 15.0 207.33 119.80 (87.53) $-42.2%$ 74.58 11 20.0 216.94 134.58 (82.36) $-38.0%$ 99.44 12 50.0 226.55 149.35 (77.20) $-34.1%$ 124.30 13 30.0 234.20 160.85 (73.35) $-31.3%$ 149.16 14 35.0 241.84 172.34 (69.50) $-28.7%$ 174.02 15 40.0 275.713 195.34 (61.80) $-24.3%$ 273.33 17 50.0 264.78 206.83 (57.95) $-21.9%$ 248.59 18 60.0 295.36 292.83 (50.25) $-17.9%$ 288.31 19 70.0 295.36 252.82 (42.54) $-14.4%$ 348.03 20 80.0 30.56 252.81 (27.14) $-8.3%$ 447.47	185.40 83.4 212.98 115.12 247.44 154.75	41 -55 12 -45 75 -37
7 1.0 180.43 78.44 101.9 -56.5% 4.97 8 5.0 188.12 90.26 (97.86) -52.0% 24.86 9 10.0 197.73 105.03 (92.69) -46.9% 49.72 10 15.0 207.33 119.80 (87.53) -42.2% 74.58 11 20.0 216.94 143.45 (82.36) -38.0% 99.44 12 25.0 226.55 149.35 (77.20) -34.1% 124.30 13 30.0 224.20 160.85 (73.35) -31.3% 149.16 14 35.0 241.84 172.34 (69.50) -28.7% 174.02 15 40.0 249.49 183.84 (66.65) -26.3% 198.84 16 45.0 257.13 195.34 (61.80) -24.0% 223.73 17 50.0 264.78 206.83 (57.95) -21.9% 248.59 18 60.0 280.07 229.83 (50.25) -17.9% 298.31 19	185.40 83.4 212.98 115.12 247.44 154.75	41 -55 12 -45 75 -37
100 100 100 100 100 100 100 197.73 105.03 (92.69) $-46.9%$ 49.72 100 15.0 207.33 119.80 (87.53) $-42.2%$ 74.58 11 20.0 216.94 134.58 (82.36) $-38.0%$ 99.44 12 25.0 226.55 149.35 (77.20) $-34.1%$ 124.30 13 30.0 234.20 160.85 (73.35) $-31.3%$ 149.16 14 35.0 241.84 172.34 (69.50) $-28.7%$ 174.02 15 40.0 275.13 195.34 (61.80) $-24.0%$ 223.73 17 50.0 264.78 206.83 (57.95) $-21.9%$ 248.59 18 60.0 280.07 228.33 (50.25) $-17.9%$ 288.11 19 70.0 295.36 252.82 (42.54) $-14.4%$ 348.03 20 80.0 30.66 275.81 (34.84) $-11.2%$ 37.75 21 90.0 325.95 28.81 (27.14) $-8.3%$ 447.47	212.98 115.12 247.44 154.75	12 -45 75 -37
9 10.0 197.73 105.03 192.69 46.9% 49.72 10 15.0 207.33 119.80 (87.53) -42.2% 74.58 11 20.0 216.94 134.58 (82.36) -38.0% 99.44 12 25.0 26.55 14.95 (77.20) -34.1% 124.30 13 30.0 234.20 160.85 (73.35) -31.3% 149.16 14 35.0 241.84 172.34 (69.50) -28.7% 174.02 15 40.0 249.49 183.84 (65.65) -26.3% 198.88 16 45.0 25.73 155.4 (61.80) -24.9% 243.94 (61.80) -24.9% 248.59 17 50.0 264.78 206.83 (57.95) -21.9% 248.59 18 60.0 280.07 228.34 (50.25) 17.9% 288.31 19 70.0 295.36 252.82 (42.54) 14.4% 37.	247.44 154.75	75 -37
1015.0207.33119.80(87.53)-42.2%74.581120.0216.94134.58(82.36)-38.0%99.441225.0226.55149.35(77.20)-34.1%124.301330.0234.20160.85(73.35)-31.3%149.161435.0214.84172.34(69.50)-26.7%174.021540.0249.49183.84(65.65)-26.3%198.881645.0257.13195.34(61.80)-24.0%223.731750.028.0729.83(57.95)-21.9%248.591860.0280.07229.83(50.25)-17.9%298.311970.0295.36252.82(42.54)-14.4%348.032080.030.66275.81(34.84)-11.2%397.752190.0325.95298.81(27.14)-8.3%447.47		
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1225.026.55149.3577.20-34.1%124.301330.0234.20160.85(73.35)-31.3%149.161435.0241.84172.34(69.50)-26.7%174.021540.0249.49183.84(65.65)-26.3%198.881645.0257.13195.34(61.80)-24.0%223.731750.0264.78206.83(57.95)-21.9%248.591860.0280.07229.83(50.25)-11.9%298.311970.0295.6225.22(42.54)-14.4%348.032080.0310.66275.81(34.84)-11.2%37.752190.0325.95298.81(27.14)-8.3%447.47		
13 30.0 234.20 160.85 73.35 -31.3% 149.16 14 35.0 241.84 172.34 (69.50) -28.7% 174.02 15 40.0 249.49 183.84 (65.65) -26.3% 198.88 16 45.0 257.13 195.44 (61.60) -24.7% 223.73 17 50.0 264.78 206.83 (57.95) -21.9% 248.59 18 60.0 280.07 229.83 (50.25) -17.9% 288.31 19 70.0 295.36 252.82 (42.54) -14.4% 348.03 20 80.0 30.06 258.81 (34.84) -11.2% 37.75 21 90.0 325.95 28.81 (27.14) -8.3% 447.47	316.38 234.01	
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19 70.0 295.36 252.82 42.54 -14.4% 348.03 20 80.0 310.66 275.81 (34.84) -11.2% 397.75 21 90.0 325.95 298.81 (27.14) -8.3% 447.47	513.37 455.43	
20 80.0 310.66 275.81 (34.84) -11.2% 397.75 21 90.0 325.95 298.81 (27.14) -8.3% 447.47	578.38 528.14 643.40 600.85	
21 90.0 325.95 298.81 (27.14) -8.3% 447.47	708.41 673.56	
	773.42 746.28	
22 100.0 341.24 321.80 (19.44) -5.7% 497.19	838.43 818.99	
23 125.0 371.32 366.78 (4.54) -1.2% 621.48	992.81 988.26	
24 150.0 401.40 411.76 10.36 2.6% 745.78	,147.19 1,157.54	
25 175.0 431.49 456.74 25.25 5.9% 870.08	,301.56 1,326.82	
26 200.0 461.57 501.72 40.15 8.7% 994.38	,455.94 1,496.10	
27 225.0 491.65 546.70 55.05 11.2% 1,118.67	,610.32 1,665.37	37 3
28 250.0 521.73 591.68 69.95 13.4% 1,242.97	,764.70 1,834.65	65 4
29 300.0 581.89 681.64 99.75 17.1% 1,491.56	2,073.46 2,173.20	20 4
30 400.0 702.22 861.56 159.34 22.7% 1,988.75	2,690.97 2,850.3	31 5
31 500.0 822.54 1,041.48 218.94 26.6% 2,485.94	3,308.48 3,527.42	42 6
32 600.0 942.87 1,221.40 278.53 29.5% 2,983.13	0,02111	53 7
33 700.0 1,063.20 1,401.32 338.13 31.8% 3,480.31	3,925.99 4,204.53	64 7

38	EXCISE TAX FIRST 100	0.1593
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40	EXCISE TAX OVER 2000	0.0411
41	GROSS RECEIPTS TAX	4.987%
42	FRANKLIN COUNTY SALES TAX	7.500%

800.0

900.0

1,000.0

1,500.0

2,000.0

2,500.0

3,000.0

3,500.0

4,000.0

4,500.0

5,000.0

34

35

36

37

38

39

40

41

42

43

44

1,183.52

1,303.85

1,424.17

2,025.80

2,627.43

3,204.59

3,781.76

4,358.93

4,936.09

5,513.26

6,090.42

1,581.24

1,761.16

1,941.08

2,840.69

3,740.29

4,615.43

5,490.57

6,365.71

7,240.85

8,115.99

8,991.13

397.72

457.32

516.91

814.89

1,112.86

1,410.83

1,708.81

2,006.78

2,304.76

2,602.73

2,900.70

33.6%

35.1%

36.3%

40.2%

42.4%

44.0%

45.2%

46.0%

46.7%

47.2%

47.6%

3,977.50

4,474.69

4,971.88

7,457.81

9,943.75

12,429.69

14,915.63

17,401.56

19,887.50

22,373.44

24,859.38

5,161.02

5,778.53

6,396.05

9,483.61

12,571.18

15,634.28

18,697.39

21,760.49

24,823.59

27,886.70

30,949.80

5,558.74

6,235.85

6,912.96

10,298.50

13,684.04

17,045.12

20,406.19

23,767.27

27,128.35

30,489.43

33,850.50

7.7%

7.9%

8.1%

8.6%

8.9%

9.0%

9.1%

9.2%

9.3%

9.3%

9.4%

RATE SCHEDULE FULL REQUIREMENTS GENERAL TRANSPORTATION SERVICE (FRGTS)

	0.175	1101.05	MOST			PERCENT		22020022		PERCENT	ANNUALIZED	CURRENT BILL	PROPOSED BILL	PERCEN
INE 10.	RATE CODE	USAGE MCF (A)	CURRENT RATE (B)	PROPOSED RATE (C)	INCREASE (D=C-B)	OF INCREASE (E=D/B)	CURRENT BILL (F)	PROPOSED BILL (G)	DOLLAR INCREASE (H=G-F)	OF INCREASE (I=H/F)	ADDITIONS CURRENT BILL (J)	INCLUDING FUEL COST (K=F+J)	INCLUDING FUEL COST (L=G+J)	OF CHANGI (M=(L-K)/
									· ·					
1	FULL REQUIREMENTS GENERAL	TRANSPO	RTATION SER	VICE										
2	FIRST 25 MCF		2.0218	3.0575	1.0357	51.2%					4.6250			
	NEXT 75 MCF		1.6284	2.4006	0.7722	47.4%								
4	OVER 100 MCF		1.3769	1.9745	0.5976	43.4%								
5	CUSTOMER/DELIVERY CHARGE		171.09	75.67	(95.42)	-55.8%								
		0.0					179.62	79.44	(100.18)	-55.8%	-	179.62	79.44	-55
		1.0					181.91	82.82	(99.09)	-54.5%	4.97	186.88	87.79	-53
		5.0					191.07	96.33	(94.74)	-49.6%	24.86	215.93	121.19	-4
		10.0					202.52	113.22	(89.31)	-44.1%	49.72	252.24	162.93	-3
		15.0					213.97	130.10	(83.87)	-39.2%	74.58	288.55	204.68	-2
		20.0 25.0					225.42 236.87	146.99 163.87	(78.43) (72.99)	-34.8% -30.8%	99.44	324.86 361.17	246.43 288.17	-2 -2
		30.0					246.25	177.31	(68.94)	-30.8%	124.30 149.16	395.41	326.47	-1
		35.0					255.64	190.75	(64.89)	-20.0%	174.02	429.65	364.77	-
		40.0					265.02	204.19	(60.83)	-23.0%	198.88	463.90	403.06	-1
		45.0					274.41	217.62	(56.78)	-20.7%	223.73	498.14	441.36	-1
		50.0					283.79	231.06	(52.73)	-18.6%	248.59	532.38	479.66	
		60.0					302.56	257.94	(44.62)	-14.7%	298.31	600.87	556.25	
		70.0					321.33	284.81	(36.51)	-11.4%	348.03	669.36	632.84	
		80.0					340.10	311.69	(28.41)	-8.4%	397.75	737.85	709.44	
		90.0					358.86	338.56	(20.30)	-5.7%	447.47	806.33	786.03	
		100.0					377.63	365.44	(12.19)	-3.2%	497.19	874.82	862.63	
		125.0					416.07	419.56	3.49	0.8%	621.48	1,037.56	1,041.05	
		150.0					454.51	473.69	19.17	4.2%	745.78	1,200.30	1,219.47	
		175.0					492.96	527.81	34.86	7.1%	870.08	1,363.03	1,397.89	
		200.0 225.0					531.40 569.84	581.94	50.54	9.5%	994.38	1,525.77	1,576.32	
		225.0					509.84 608.28	636.07 690.19	66.23 81.91	11.6% 13.5%	1,118.67 1,242.97	1,688.51 1,851.25	1,754.74 1,933.16	
		300.0					685.16	798.44	113.28	16.5%	1,491.56	2,176.72	2,290.00	
		400.0					838.92	1,014.94	176.02	21.0%	1,988.75	2,827.67	3,003.69	
		500.0					992.69	1,231.44	238.76	24.1%	2,485.94	3,478.63	3,717.38	
		600.0					1,146.45	1,447.95	301.49	26.3%	2,983.13	4,129.58	4,431.07	
		700.0					1,300.22	1,664.45	364.23	28.0%	3,480.31	4,780.53	5,144.76	
		800.0					1,453.98	1,880.95	426.97	29.4%	3,977.50	5,431.48	5,858.45	
		900.0					1,607.74	2,097.45	489.71	30.5%	4,474.69	6,082.43	6,572.14	
		1,000.0					1,761.51	2,313.95	552.44	31.4%	4,971.88	6,733.38	7,285.83	
		1,500.0					2,530.33	3,396.46	866.13	34.2%	7,457.81	9,988.14	10,854.27	
		2,000.0					3,299.15	4,478.97	1,179.82	35.8%	9,943.75	13,242.90	14,422.72	
		2,500.0 3,000.0					4,043.51	5,537.01	1,493.51	36.9%	12,429.69	16,473.19	17,966.70	
		3,000.0					4,787.86 5,532.22	6,595.06 7,653.10	1,807.19 2,120.88	37.7% 38.3%	14,915.63 17,401.56	19,703.49 22,933.78	21,510.68 25,054.67	
		4,000.0					6,276.58	8,711.15	2,120.88	38.8%	19,887.50	26,164.08	28,598.65	
		4,000.0					7,020.94	9,769.20	2,434.57	30.0%	22,373.44	29,394.37	32,142.63	
		4,000.0					1,020.34	3,103.20	2,740.20	33.176	22,010.44	20,004.07	32,142.03	

38	EXCISE TAX FIRST 100	0.1593
39	EXCISE TAX NEXT 1900	0.0877
40	EXCISE TAX OVER 2000	0.0411
41	GROSS RECEIPTS TAX	4.987%
42	FRANKLIN COUNTY SALES TAX	7.500%

44

5,000.0

7,765.30

10,827.24

3,061.95

39.4%

24,859.38

32,624.67

35,686.62

9.4%

RATE SCHEDULE FULL REQUIREMENTS GENERAL TRANSPORTATION SERVICE-SCHOOLS (FRGTS-SCHOOLS)

												CHEDULE E-5 HEET 12 of 19		
.INE NO.	RATE CODE	USAGE MCF	MOST CURRENT RATE	PROPOSED RATE		PERCENT OF INCREASE	CURRENT BILL	PROPOSED BILL	DOLLAR INCREASE	PERCENT OF INCREASE	ANNUALIZED FUEL COST ADDITIONS CURRENT BILL	CURRENT BILL INCLUDING FUEL COST	PROPOSED BILL INCLUDING FUEL COST	PERCENT OF CHANGE
		(A)	(B)	(C)	(D=C-B)	(E=D/B)	(F)	(G)	(H=G-F)	(I=H/F)	(J)	(K=F+J)	(L=G+J)	(M=(L-K)/I
1	FULL REQUIREMENTS GENER	AL TRANSPO	RTATION SER	VICE - SCHOOL	S									
2	FIRST 25 MCF		1.9410	2.9249	0.9839	50.7%					4.6250			
3	NEXT 75 MCF		1.5673	2.3008	0.7335	46.8%								
4	OVER 100 MCF		1.3284	1.8960	0.5676	42.7%								
5	CUSTOMER/DELIVERY CHARG	E	170.03	71.90	(98.13)	-57.7%								
6		0.0					178.51	75.49	(103.02)	-57.7%		178.51	75.49	-57.
7		1.0					180.71	78.72	(101.99)	-56.4%	4.97	185.69	83.70	-54
В		5.0					189.53	91.68	(97.86)	-51.6%	24.86	214.39	116.54	-45
)		10.0					200.56	107.87	(92.69)	-46.2%	49.72	250.28	157.58	-37
0		15.0					211.59	124.06	(87.53)	-41.4%	74.58	286.16	198.63	-30
1		20.0					222.61	140.25	(82.36)	-37.0%	99.44	322.05	239.68	-25
2		25.0					233.64	156.44	(77.20)	-33.0%	124.30	357.93	280.73	-21
3		30.0					242.70	169.35	(73.35)	-30.2%	149.16	391.86	318.51	-18
1		35.0					251.76	182.26	(69.50)	-27.6%	174.02	425.78	356.28	-16
5		40.0					260.83	195.18	(65.65)	-25.2%	198.88	459.70	394.05	-14
6		45.0					269.89	208.09	(61.80)	-22.9%	223.73	493.62	431.83	-12
7		50.0					278.95	221.01	(57.95)	-20.8%	248.59	527.55	469.60	-11
3		60.0					297.08	246.83	(50.25)	-16.9%	298.31	595.39	545.15	-8
Э		70.0					315.21	272.66	(42.54)	-13.5%	348.03	663.24	620.69	-6
)		80.0					333.33	298.49	(34.84)	-10.5%	397.75	731.08	696.24	-4
		90.0					351.46	324.32	(27.14)	-7.7%	447.47	798.93	771.79	-
2		100.0					369.59	350.15	(19.44)	-5.3%	497.19	866.78	847.33	-2
3		125.0					406.76	402.21	(4.54)	-1.1%	621.48	1,028.24	1,023.70	-(
4		150.0					443.92	454.28	10.36	2.3%	745.78	1,189.71	1,200.06	0
5		175.0 200.0					481.09 518.26	506.35	25.25	5.2% 7.7%	870.08 994.38	1,351.17	1,376.42	
5 7		200.0					555.43	558.41 610.48	40.15 55.05	9.9%	1,118.67	1,512.64 1,674.10	1,552.79 1,729.15	2
3		225.0					592.60	662.55	69.95	9.9%	1,242.97	1,835.57	1,905.52	
,		300.0					666.93	766.68	99.75	15.0%	1,491.56	2,158.50	2,258.24	
)		400.0					815.60	974.95	159.34	19.5%	1,988.75	2,804.35	2,963.70	
í		500.0					964.28	1,183.21	218.94	22.7%	2,485.94	3,450.21	3,669.15	
2		600.0					1,112.95	1,391.48	278.53	25.0%	2,983.13	4,096.07	4,374.61	(
3		700.0					1,261.62	1,599.75	338.13	26.8%	3,480.31	4,741.93	5,080.06	÷
1		800.0					1,410.29	1,808.01	397.72	28.2%	3,977.50	5,387.79	5,785.51	
		900.0					1,558.97	2,016.28	457.32	29.3%	4,474.69	6,033.65	6,490.97	
		1,000.0					1,707.64	2,224.55	516.91	30.3%	4,971.88	6,679.51	7,196.42	
,		1,500.0					2,451.00	3,265.88	814.89	33.2%	7,457.81	9,908.81	10,723.70	:
3		2,000.0					3,194.36	4,307.22	1,112.86	34.8%	9,943.75	13,138.11	14,250.97	:
9		2,500.0					3,913.26	5,324.09	1,410.83	36.1%	12,429.69	16,342.94	17,753.78	
)		3,000.0					4,632.16	6,340.96	1,708.81	36.9%	14,915.63	19,547.78	21,256.59	
I		3,500.0					5,351.05	7,357.84	2,006.78	37.5%	17,401.56	22,752.62	24,759.40	8
2		4,000.0					6,069.95	8,374.71	2,304.76	38.0%	19,887.50	25,957.45	28,262.21	8
3		4,500.0					6,788.85	9,391.58	2,602.73	38.3%	22,373.44	29,162.29	31,765.02	8
4		5,000.0					7,507.75	10,408.45	2,900.70	38.6%	24,859.38	32,367.12	35,267.83	9

38	EXCISE TAX FIRST 100	0.1593
39	EXCISE TAX NEXT 1900	0.0877
40	EXCISE TAX OVER 2000	0.0411
41	GROSS RECEIPTS TAX	4.987%
42	FRANKLIN COUNTY SALES TAX	7.500%

COLUMBIA GAS OF OHIO, INC. Case No. 21-637-GA-AIR TYPICAL BILL COMPARISON RATE SCHEDULE LARGE GENERAL SERVICE (LGS)

THESE DO NO REFLECT STAFF PROPOSED RATES. SEE BILL IMPACTS SECTION OF STAFF REPORT

DATA: 3 MOS. ACTUAL & 9 MONTHS ESTIMATED

SCHEDULE E-5 SHEET 13 of 19

LINE NO.	RATE USAGE CODE MCF (A)	MOST CURRENT RATE (B)	PROPOSED RATE (C)	INCREASE (D=C-B)	PERCENT OF INCREASE (E=D/B)	CURRENT BILL (F)	PROPOSED BILL (G)	DOLLAR INCREASE (H=G-F)	PERCENT OF INCREASE (I=H/F)	ANNUALIZED FUEL COST ADDITIONS CURRENT BILL (J)	CURRENT BILL INCLUDING FUEL COST (K=F+J)	PROPOSED BILL INCLUDING FUEL COST (L=G+J)	PERCENT OF CHANGE (M=(L-K)/K)
1	LARGE GENERAL SERVICE												
2	FIRST 2,000 MCF	0.7375	1.9105	1.1730	159.1%					4.6250			
3	NEXT 13,000 MCF	0.5880	1.3057	0.7177	122.1%								
4	NEXT 85,000 MCF	0.5578	1.1811	0.6233	111.7%								
5	OVER 100,000 MCF	0.5145	1.0060	0.4915	95.5%								
6	CUSTOMER/DELIVERY CHARGE	5,005.78	719.04	(4286.74)	-85.6%								
7	0.0					5.255.42	754.90	(4,500.52)	-85.6%	-	5.255.42	754.90	-85.6%
8	1,000.0					6,129.29	2,860.27	(3,269.02)	-53.3%	4,855.65	10,984.94	7,715.91	-29.8%
9	1,500.0					6,562.46	3,909.19	(2,653.27)	-40.4%	7,283.47	13,845.94	11,192.66	-19.2%
10	2,000.0					6,995.64	4,958.12	(2,037.52)	-29.1%	9,711.30	16,706.94	14,669.41	-12.2%
11	3,000.0					7,656.11	6,372.07	(1,284.05)	-16.8%	14,566.95	22,223.06	20,939.01	-5.8%
12	5,000.0					8,977.06	9,199.97	222.91	2.5%	24,278.24	33,255.30	33,478.22	0.7%
13	10,000.0					12,279.43	16,269.73	3,990.30	32.5%	48,556.49	60,835.91	64,826.22	6.6%
14	15,000.0					15,581.79	23,339.49	7,757.70	49.8%	72,834.73	88,416.52	96,174.22	8.8%
15	17,500.0					17,153.71	26,547.38	9,393.67	54.8%	84,973.85	102,127.56	111,521.24	9.2%
16	20,000.0					18,725.63	29,755.27	11,029.65	58.9%	97,112.98	115,838.60	126,868.25	9.5%
17	50,000.0					37,588.64	68,249.97	30,661.33	81.6%	242,782.44	280,371.08	311,032.41	10.9%
18	70,000.0					50,163.99	93,913.10	43,749.12	87.2%	339,895.41	390,059.40	433,808.52	11.2%
19	85,000.0					59,595.49	113,160.45	53,564.96	89.9%	412,730.14	472,325.64	525,890.60	11.3%
20	100,000.0					69,027.00	132,407.80	63,380.80	91.8%	485,564.88	554,591.87	617,972.68	11.4%
21	150,000.0					98,192.39	187,372.58	89,180.19	90.8%	728,347.31	826,539.70	915,719.89	10.8%
22	200,000.0					127,357.78	242,337.36	114,979.58	90.3%	971,129.75	1,098,487.53	1,213,467.11	10.5%
23	250,000.0					156,523.17	297,302.14	140,778.97	89.9%	1,213,912.19	1,370,435.35	1,511,214.33	10.3%
24	300,000.0					185,688.55	352,266.92	166,578.36	89.7%	1,456,694.63	1,642,383.18	1,808,961.54	10.1%
25	350,000.0					214,853.94	407,231.70	192,377.75	89.5%	1,699,477.06	1,914,331.01	2,106,708.76	10.0%
26	400,000.0					244,019.33	462,196.48	218,177.15	89.4%	1,942,259.50	2,186,278.83	2,404,455.98	10.0%
27	450,000.0					273,184.72	517,161.26	243,976.54	89.3%	2,185,041.94	2,458,226.66	2,702,203.19	9.9%
28	500,000.0					302,350.11	572,126.04	269,775.93	89.2%	2,427,824.38	2,730,174.48	2,999,950.41	9.9%

29	EXCISE TAX FIRST 100	0.1593
30	EXCISE TAX NEXT 1900	0.0877
31	EXCISE TAX OVER 2000	0.0411
32	GROSS RECEIPTS TAX	4.987%

RATE SCHEDULE LARGE GENERAL SERVICE -SCHOOLS (LGS-SCHOOLS)

														SCHEDULE E-S
LINE NO.	RATE CODE	USAGE MCF	MOST CURRENT RATE	PROPOSED RATE	INCREASE	PERCENT OF INCREASE	CURRENT BILL	PROPOSED BILL	DOLLAR	PERCENT OF INCREASE	ANNUALIZED FUEL COST ADDITIONS CURRENT BILL	CURRENT BILL INCLUDING FUEL COST	PROPOSED BILL INCLUDING FUEL COST	PERCENT OF CHANGE
		(A)	(B)	(C)	(D=C-B)	(E=D/B)	(F)	(G)	(H=G-F)	(I=H/F)	(J)	(K=F+J)	(L=G+J)	(M=(L-K)/K)
1	LARGE GENERAL SERVICE	SCHOOLS												
2	FIRST 2,000 MCF		0.7182	1.8322	1.1140	155.1%					4.6250			
3	NEXT 13,000 MCF		0.5762	1.2576	0.6815	118.3%								
4	NEXT 85,000 MCF		0.5475	1.1393	0.5918	108.1%								
5	OVER 100,000 MCF		0.5063	0.9729	0.4666	92.2%								

6	CUSTOMER/DELIVERY CHARGE	4,977.80	683.10	(4294.70)	-86.3%								
7	0.0					5,226.05	717.17	(4,508.88)	-86.3%	-	5,226.05	717.17	-86.3%
8	1,000.0					6,079.63	2,740.34	(3,339.29)	-54.9%	4,855.65	10,935.28	7,595.99	-30.5%
9	1,500.0					6,502.66	3,748.17	(2,754.49)	-42.4%	7,283.47	13,786.13	11,031.64	-20.0%
10	2,000.0					6,925.69	4,756.00	(2,169.69)	-31.3%	9,711.30	16,636.99	14,467.29	-13.0%
11	3,000.0					7,573.72	6,119.50	(1,454.22)	-19.2%	14,566.95	22,140.67	20,686.45	-6.6%
12	5,000.0					8,869.79	8,846.52	(23.27)	-0.3%	24,278.24	33,148.03	33,124.76	-0.1%
13	10,000.0					12,109.95	15,664.05	3,554.10	29.3%	48,556.49	60,666.44	64,220.53	5.9%
14	15,000.0					15,350.11	22,481.58	7,131.47	46.5%	72,834.73	88,184.84	95,316.31	8.1%
15	17,500.0					16,894.89	25,579.71	8,684.82	51.4%	84,973.85	101,868.74	110,553.56	8.5%
16	20,000.0					18,439.67	28,677.83	10,238.16	55.5%	97,112.98	115,552.64	125,790.81	8.9%
17	50,000.0					36,977.01	65,855.35	28,878.34	78.1%	242,782.44	279,759.45	308,637.79	10.3%
18	70,000.0					49,335.24	90,640.37	41,305.13	83.7%	339,895.41	389,230.66	430,535.78	10.6%
19	85,000.0					58,603.92	109,229.13	50,625.22	86.4%	412,730.14	471,334.06	521,959.27	10.7%
20	100,000.0					67,872.59	127,817.89	59,945.30	88.3%	485,564.88	553,437.46	613,382.77	10.8%
21	150,000.0					96,608.84	181,047.03	84,438.19	87.4%	728,347.31	824,956.15	909,394.34	10.2%
22	200,000.0					125,345.10	234,276.17	108,931.08	86.9%	971,129.75	1,096,474.85	1,205,405.92	9.9%
23	250,000.0					154,081.35	287,505.31	133,423.96	86.6%	1,213,912.19	1,367,993.54	1,501,417.50	9.8%
24	300,000.0					182,817.60	340,734.45	157,916.85	86.4%	1,456,694.63	1,639,512.23	1,797,429.08	9.6%
25	350,000.0					211,553.86	393,963.59	182,409.73	86.2%	1,699,477.06	1,911,030.92	2,093,440.65	9.5%
26	400,000.0					240,290.11	447,192.73	206,902.62	86.1%	1,942,259.50	2,182,549.61	2,389,452.23	9.5%
27	450,000.0					269,026.37	500,421.87	231,395.51	86.0%	2,185,041.94	2,454,068.30	2,685,463.81	9.4%
28	500,000.0					297,762.62	553,651.01	255,888.39	85.9%	2,427,824.38	2,725,587.00	2,981,475.39	9.4%

29	EXCISE TAX FIRST 100	0.1593
30	EXCISE TAX NEXT 1900	0.0877
31	EXCISE TAX OVER 2000	0.0411
32	GROSS RECEIPTS TAX	4.987%

RATE SCHEDULE LARGE GENERAL TRANSPORTATION SERVICE (LGTS)

														SCHEDULE E-5 SHEET 15 of 19
			MOST			PERCENT				PERCENT	ANNUALIZED FUEL COST	CURRENT BILL	PROPOSED BILL	PERCENT
LINE NO.	RATE CODE	USAGE MCF	CURRENT RATE	PROPOSED RATE	INCREASE	OF INCREASE	CURRENT	PROPOSED BILL	DOLLAR	OF INCREASE	ADDITIONS CURRENT BILL	INCLUDING FUEL COST	INCLUDING	OF
NO.	CODE	(A)	(B)	(C)	(D=C-B)	(E=D/B)	(F)	(G)	(H=G-F)	(I=H/F)	(J)	(K=F+J)	FUEL COST (L=G+J)	CHANGE (M=(L-K)/K)
1	LARGE GENERAL TRANSPORT	ATION SERV	/ICE											
2	FIRST 2,000 MCF		0.4498	1.6291	1.1793	262.2%					4.6250			
3	NEXT 13,000 MCF		0.3003	1.0243	0.7240	241.1%								
4	NEXT 85,000 MCF		0.2701	0.8997	0.6296	233.1%								
5	OVER 100,000 MCF		0.2268	0.7246	0.4978	219.5%								
6	CUSTOMER/DELIVERY CHARGE		5,005.78	719.04	(4286.74)	-85.6%								

7	0.0	5,005.78	719.04	(4,286.74)	-85.6%	-	5,005.78	719.04	-85.6%
8	1,000.0	5,827.24	2,564.83	(3,262.41)	-56.0%	4,971.88	10,799.12	7,536.71	-30.2%
9	1,500.0	6,109.39	3,466.04	(2,643.35)	-43.3%	7,457.81	13,567.21	10,923.85	-19.5%
10	2,000.0	6,391.55	4,367.25	(2,024.30)	-31.7%	9,943.75	16,335.30	14,311.00	-12.4%
11	3,000.0	6,749.97	5,485.77	(1,264.20)	-18.7%	14,915.63	21,665.60	20,401.39	-5.8%
12	5,000.0	7,466.82	7,722.80	255.98	3.4%	24,859.38	32,326.20	32,582.18	0.8%
13	10,000.0	9,258.95	13,315.40	4,056.45	43.8%	49,718.75	58,977.70	63,034.15	6.9%
14	15,000.0	11,051.08	18,907.99	7,856.91	71.1%	74,578.13	85,629.20	93,486.11	9.2%
15	17,500.0	11,867.88	21,377.30	9,509.42	80.1%	87,007.81	98,875.69	108,385.11	9.6%
16	20,000.0	12,684.68	23,846.61	11,161.93	88.0%	99,437.50	112,122.18	123,284.11	10.0%
17	50,000.0	22,486.26	53,478.30	30,992.04	137.8%	248,593.75	271,080.01	302,072.05	11.4%
18	70,000.0	29,020.65	73,232.76	44,212.11	152.3%	348,031.25	377,051.90	421,264.01	11.7%
19	85,000.0	33,921.45	88,048.61	54,127.16	159.6%	422,609.38	456,530.82	510,657.99	11.9%
20	100,000.0	38,822.24	102,864.46	64,042.22	165.0%	497,187.50	536,009.74	600,051.96	11.9%
21	150,000.0	52,885.25	143,057.57	90,172.32	170.5%	745,781.25	798,666.50	888,838.82	11.3%
22	200,000.0	66,948.26	183,250.68	116,302.42	173.7%	994,375.00	1,061,323.26	1,177,625.68	11.0%
23	250,000.0	81,011.27	223,443.78	142,432.52	175.8%	1,242,968.75	1,323,980.02	1,466,412.53	10.8%
24	300,000.0	95,074.27	263,636.89	168,562.62	177.3%	1,491,562.50	1,586,636.77	1,755,199.39	10.6%
25	350,000.0	109,137.28	303,830.00	194,692.72	178.4%	1,740,156.25	1,849,293.53	2,043,986.25	10.5%
26	400,000.0	123,200.29	344,023.11	220,822.82	179.2%	1,988,750.00	2,111,950.29	2,332,773.11	10.5%
27	450,000.0	137,263.30	384,216.22	246,952.92	179.9%	2,237,343.75	2,374,607.05	2,621,559.97	10.4%
28	500,000.0	151,326.31	424,409.33	273,083.02	180.5%	2,485,937.50	2,637,263.81	2,910,346.83	10.4%

29	EXCISE TAX FIRST 100	0.1593
30	EXCISE TAX NEXT 1900	0.0877
31	EXCISE TAX OVER 2000	0.0411
32	GROSS RECEIPTS TAX	4.987%
33	FRANKLIN COUNTY SALES TAX	7.500%

COLUMBIA GAS OF OHIO, INC. TYPICAL BILL COMPARISON

RATE SCHEDULE FULL REQUIREMENTS LARGE GENERAL TRANSPORTATION SERVICE -SCHOOLS (FRLGTS-SCHOOLS)

THESE DO NO REFLECT STAFF PROPOSED RATES. SEE BILL IMPACTS SECTION OF STAFF REPORT

TYPIC/ 3 MOS. ACTUAL & 9 MONTHS ESTIMATED

SCHEDULE E-5 SHEET 16 of 19

LINE NO.	RATE USAGE CODE MCF (A)	MOST CURRENT RATE (B)	PROPOSED RATE (C)	INCREASE (D=C-B)	PERCENT OF INCREASE (E=D/B)	CURRENT BILL (F)	PROPOSED BILL (G)	DOLLAR INCREASE (H=G-F)	PERCENT OF INCREASE (I=H/F)	ANNUALIZED FUEL COST ADDITIONS CURRENT BILL (J)	CURRENT BILL INCLUDING FUEL COST (K=F+J)	PROPOSED BILL INCLUDING FUEL COST (L=G+J)	PERCENT OF CHANGE (M=(L-K)/K)
1	LARGE GENERAL TRANSPORTATION SERV		•										
1	LARGE GENERAL TRANSPORTATION SERV	ICE -SCHOOL	.5										
2	FIRST 2,000 MCF	0.4305	1.5508	1.1203	260.3%					4.6250			
3	NEXT 13,000 MCF	0.2885	0.9762	0.6878	238.4%								
4	NEXT 85,000 MCF	0.2598	0.8579	0.5981	230.3%								
5	OVER 100,000 MCF	0.2186	0.6915	0.4729	216.3%								
6	CUSTOMER/DELIVERY CHARGE	4,977.80	683.10	(4294.70)	-86.3%								
7	0.0					5,226.05	717.17	(4,508.88)	-86.3%	-	5,226.05	717.17	-86.3%
8	1,000.0					5,777.58	2,444.91	(3,332.67)	-57.7%	4,971.88	10,749.46	7,416.78	-31.0%
9	1,500.0					6,049.59	3,305.02	(2,744.57)	-45.4%	7,457.81	13,507.40	10,762.83	-20.3%
10	2,000.0					6,321.60	4,165.13	(2,156.47)	-34.1%	9,943.75	16,265.35	14,108.88	-13.3%
11	3,000.0					6,667.58	5,233.20	(1,434.38)	-21.5%	14,915.63	21,583.21	20,148.83	-6.6%
12	5,000.0					7,359.55	7,369.35	9.80	0.1%	24,859.38	32,218.93	32,228.72	0.0%
13	10,000.0					9,089.47	12,709.71	3,620.24	39.8%	49,718.75	58,808.22	62,428.46	6.2%
14	15,000.0					10,819.40	18,050.08	7,230.68	66.8%	74,578.13	85,397.52	92,628.20	8.5%
15	17,500.0					11,609.06	20,409.62	8,800.56	75.8%	87,007.81	98,616.87	107,417.43	8.9%
16	20,000.0					12,398.72	22,769.16	10,370.45	83.6%	99,437.50	111,836.22	122,206.66	9.3%
17	50,000.0					21,874.63	51,083.68	29,209.05	133.5%	248,593.75	270,468.38	299,677.43	10.8%
18	70,000.0					28,191.91	69,960.03	41,768.12	148.2%	348,031.25	376,223.16	417,991.28	11.1%
19	85,000.0					32,929.87	84,117.29	51,187.42	155.4%	422,609.38	455,539.24	506,726.67	11.2%
20	100,000.0					37,667.83	98,274.55	60,606.72	160.9%	497,187.50	534,855.33	595,462.05	11.3%
21	150,000.0					51,301.70	136,732.02	85,430.32	166.5%	745,781.25	797,082.95	882,513.27	10.7%
22	200,000.0					64,935.58	175,189.49	110,253.91	169.8%	994,375.00	1,059,310.58	1,169,564.49	10.4%
23	250,000.0					78,569.45	213,646.96	135,077.51	171.9%	1,242,968.75	1,321,538.20	1,456,615.71	10.2%
24	300,000.0					92,203.32	252,104.43	159,901.10	173.4%	1,491,562.50	1,583,765.82	1,743,666.93	10.1%
25	350,000.0					105,837.20	290,561.90	184,724.70	174.5%	1,740,156.25	1,845,993.45	2,030,718.15	10.0%
26	400,000.0					119,471.07	329,019.37	209,548.29	175.4%	1,988,750.00	2,108,221.07	2,317,769.37	9.9%
27	450,000.0					133,104.95	367,476.83	234,371.89	176.1%	2,237,343.75	2,370,448.70	2,604,820.58	9.9%
28	500,000.0					146,738.82	405,934.30	259,195.48	176.6%	2,485,937.50	2,632,676.32	2,891,871.80	9.8%
		0.4500											

29	EXCISE TAX FIRST 100	0.1593
30	EXCISE TAX NEXT 1900	0.0877
31	EXCISE TAX OVER 2000	0.0411
32	GROSS RECEIPTS TAX	4.987%
33	FRANKLIN COUNTY SALES TAX	7.500%

RATE SCHEDULE FULL REQUIREMENTS LARGE GENERAL TRANSPORTATION SERVICE (FRLGTS)

											CHEDULE HEET 17 o			
NE IO.	RATE CODE	USAGE MCF (A)	MOST CURRENT RATE (B)	PROPOSED RATE (C)	INCREASE (D=C-B)	PERCENT OF INCREASE (E=D/B)	CURRENT BILL (F)	PROPOSED BILL (G)	DOLLAR INCREASE (H=G-F)	PERCENT OF INCREASE (I=H/F)	ANNUALIZED FUEL COST ADDITIONS CURRENT BILL (J)	CURRENT BILL INCLUDING FUEL COST (K=F+J)	PROPOSED BILL INCLUDING FUEL COST (L=G+J)	PERCEN OF CHANG (M=(L-K)
	FULL REQUIREMENTS LARGE O	GENERAL TR	ANSPORTATI	ON SERVICE										
2 1	FIRST 2,000 MCF		0.7198	1.8991	1.1793	163.8%					4.6250			
3 1	NEXT 13,000 MCF		0.5703	1.2943	0.7240	126.9%								
- 1	NEXT 85,000 MCF		0.5401	1.1697	0.6296	116.6%								
5 (OVER 100,000 MCF		0.4968	0.9946	0.4978	100.2%								
6 (CUSTOMER/DELIVERY CHARGE		5,005.78	719.04	(4286.74)	-85.6%								
		0.0					5,255.42	754.90	(4,500.52)	-85.6%	-	5,255.42	754.90	-1
		1,000.0					6,110.71	2,848.30	(3,262.41)	-53.4%	4,971.88	11,082.58	7,820.17	
		1,500.0					6,534.59	3,891.24	(2,643.35)	-40.5%	7,457.81	13,992.40	11,349.05	-
)		2,000.0					6,958.48	4,934.18	(2,024.30)	-29.1%	9,943.75	16,902.23	14,877.93	-
		3,000.0					7,600.37	6,336.16	(1,264.20)	-16.6%	14,915.63	22,515.99	21,251.79	
		5,000.0					8,884.15	9,140.13	255.98	2.9%	24,859.38	33,743.52	33,999.50	
		10,000.0					12,093.60	16,150.05	4,056.45	33.5%	49,718.75	61,812.35	65,868.80	
		15,000.0					15,303.05	23,159.96	7,856.91	51.3%	74,578.13	89,881.18	97,738.09	
		17,500.0					16,828.51	26,337.93	9,509.42	56.5%	87,007.81	103,836.33	113,345.75	
		20,000.0					18,353.97	29,515.90	11,161.93	60.8%	99,437.50	117,791.47	128,953.40	
		50,000.0					36,659.51	67,651.55	30,992.04	84.5%	248,593.75	285,253.26	316,245.30	
		70,000.0					48,863.20	93,075.31	44,212.11	90.5%	348,031.25	396,894.45	441,106.56	
		85,000.0					58,015.96	112,143.13	54,127.16	93.3%	422,609.38	480,625.34	534,752.50	
		100,000.0					67,168.73	131,210.95	64,042.22	95.3%	497,187.50	564,356.23	628,398.45	
		150,000.0					95,404.98	183,101.08	87,696.10	91.9%	745,781.25	841,186.23	928,882.33	
		200,000.0					123,641.24	237,467.43	113,826.20	92.1%	994,375.00	1,118,016.24	1,231,842.43	
		250,000.0					151,877.49	291,833.79	139,956.30	92.2%	1,242,968.75	1,394,846.24	1,534,802.54	
		300,000.0					180,113.74	346,200.14	166,086.39	92.2%	1,491,562.50	1,671,676.24	1,837,762.64	
		350,000.0					208,350.00	400,566.49	192,216.49	92.3%	1,740,156.25	1,948,506.25	2,140,722.74	
		400,000.0					236,586.25	454,932.85	218,346.59	92.3%	1,988,750.00	2,225,336.25	2,443,682.85	
		450,000.0					264,822.51	509,299.20	244,476.69	92.3%	2,237,343.75	2,502,166.26	2,746,642.95	
		500,000.0					293,058.76	563,665.55	270,606.79	92.3%	2,485,937.50	2,778,996.26	3,049,603.05	

29	EXCISE TAX FIRST 100	0.1593
30	EXCISE TAX NEXT 1900	0.0877
31	EXCISE TAX OVER 2000	0.0411
32	GROSS RECEIPTS TAX	4.987%
33	FRANKLIN COUNTY SALES TAX	7.500%

RATE SCHEDULE FULL REQUIREMENTS LARGE GENERAL TRANSPORTATION SERVICE -SCHOOLS (FRLGTS-SCHOOLS)

THESE DO NO REFLECT STAFF PROPOSED RATES. SEE BILL IMPACTS SECTION OF STAFF REPORT DATA: 3 MOS. ACTUAL & 9 MONTHS ESTIMATED											CHEDULE E-			
-INE NO.	CODE M	SAGE ICF (A)	MOST CURRENT RATE (B)	PROPOSED RATE (C)	INCREASE (D=C-B)	PERCENT OF INCREASE (E=D/B)	CURRENT BILL (F)	PROPOSED BILL (G)	DOLLAR INCREASE (H=G-F)	PERCENT OF INCREASE (I=H/F)	ANNUALIZED FUEL COST ADDITIONS CURRENT BILL (J)	CURRENT BILL INCLUDING FUEL COST (K=F+J)	PROPOSED BILL INCLUDING FUEL COST (L=G+J)	PERCEN OF CHANG (M=(L-K)
1	FULL REQUIREMENTS LARGE GENE	RALIR	CANSPORTATI	ION SERVICE -S	CHOOLS									
2	FIRST 2,000 MCF		0.7005	1.8208	1.1203	159.9%					4.6250			
3	NEXT 13,000 MCF		0.5585	1.2462	0.6878	123.2%								
4	NEXT 85,000 MCF		0.5298	1.1279	0.5981	112.9%								
5	OVER 100,000 MCF		0.4886	0.9615	0.4729	96.8%								
6	CUSTOMER/DELIVERY CHARGE		4,977.80	683.10	(4294.70)	-86.3%								
7		0.0					5,226.05	717.17	(4,508.88)	-86.3%	-	5,226.05	717.17	-1
8	1	1,000.0					6,061.04	2,728.37	(3,332.67)	-55.0%	4,971.88	11,032.92	7,700.25	-:
9	1	1,500.0					6,474.79	3,730.22	(2,744.57)	-42.4%	7,457.81	13,932.60	11,188.03	-
10	2	2,000.0					6,888.53	4,732.06	(2,156.47)	-31.3%	9,943.75	16,832.28	14,675.81	-
1	3	3,000.0					7,517.98	6,083.60	(1,434.38)	-19.1%	14,915.63	22,433.60	20,999.22	
2	5	5,000.0					8,776.87	8,786.67	9.80	0.1%	24,859.38	33,636.25	33,646.05	
3	10	0,000,0					11,924.12	15,544.36	3,620.24	30.4%	49,718.75	61,642.87	65,263.11	
4	15	5,000.0					15,071.37	22,302.05	7,230.68	48.0%	74,578.13	89,649.50	96,880.18	
5	17	7,500.0					16,569.69	25,370.26	8,800.56	53.1%	87,007.81	103,577.50	112,378.07	
6	20	0,000.0					18,068.01	28,438.46	10,370.45	57.4%	99,437.50	117,505.51	127,875.96	
7	50	0,000.0					36,047.88	65,256.93	29,209.05	81.0%	248,593.75	284,641.63	313,850.68	
8	70	0,000.0					48,034.45	89,802.57	41,768.12	87.0%	348,031.25	396,065.70	437,833.82	
9	85	5,000.0					57,024.39	108,211.81	51,187.42	89.8%	422,609.38	479,633.76	530,821.18	
20	100	0,000.0					66,014.32	126,621.04	60,606.72	91.8%	497,187.50	563,201.82	623,808.54	
1		0,000.0					93,821.44	176,899.34	83,077.91	88.5%	745,781.25	839,602.69	922,680.59	
2	200	0,000.0					121,628.56	229,530.06	107,901.50	88.7%	994,375.00	1,116,003.56	1,223,905.06	
3		0,000.0					149,435.68	282,160.77	132,725.10	88.8%	1,242,968.75	1,392,404.43	1,525,129.52	
4		0,000.0					177,242.79	334,791.48	157,548.69	88.9%	1,491,562.50	1,668,805.29	1,826,353.98	
25		0,000.0					205,049.91	387,422.20	182,372.28	88.9%	1,740,156.25	1,945,206.16	2,127,578.45	
6		0,000.0					232,857.03	440,052.91	207,195.88	89.0%	1,988,750.00	2,221,607.03	2,428,802.91	
27		0,000.0					260,664.15	492,683.63	232,019.47	89.0%	2,237,343.75	2,498,007.90	2,730,027.38	
28	500	0,000.0					288,471.27	545,314.34	256,843.07	89.0%	2,485,937.50	2,774,408.77	3,031,251.84	

29	EXCISE TAX FIRST 100	0.1593
30	EXCISE TAX NEXT 1900	0.0877
31	EXCISE TAX OVER 2000	0.0411
32	GROSS RECEIPTS TAX	4.987%
33	FRANKLIN COUNTY SALES TAX	7.500%

COLUMBIA GAS OF OHIO, INC. Case No. 21-637-GA-AIR

TYPICAL BILL COMPARISON

IESE	DO NO REFLECT STAFF PF	ROPOSED RATES	S. SEE BILL IM	PACTS SECTIO	N OF STAFF REF		E FULL REQUIREM	ENTS COOPERATIVE T	RANSPORTATION S	ERVICE (FRCTS	5)		S	CHEDUL	
TA:	3 MOS. ACTUAL & 9 MONTH												SF	SHEET 19 of	
ine Io.	RATE CODE	USAGE MCF (A)	MOST CURRENT RATE (B)	PROPOSED RATE (C)	INCREASE (D=C-B)	PERCENT OF INCREASE (E=D/B)	CURRENT BILL (F)	PROPOSED BILL (G)	DOLLAR INCREASE (H=G-F)	PERCENT OF INCREASE (I=H/F)	ANNUALIZED FUEL COST ADDITIONS CURRENT BILL (J)	CURRENT BILL INCLUDING FUEL COST (K=F+J)	PROPOSED BILL INCLUDING FUEL COST (L=G+J)	PERCI OF CHAN (M=(L-I	
1	FULL REQUIREMENTS COO	OPERATIVE TRAM	SPORTATION	SERVICE											
2	FIRST 25 MCF		1.4190	1.5166	0.0976	6.9%					4.6250				
	OVER 25 MCF		1.3471	1.4352	0.0881	6.5%					1.0200				
ı	CUSTOMER CHARGE		0.27	30.27	30.00	100.0%									
		25.0					37.53	71.59	34.06	90.8%	124.30	161.82	195.88		
		30.0					44.60	79.12	34.52	77.4%	149.16	193.76	228.28		
		35.0					51.67	86.65	34.98	67.7%	174.02	225.69	260.67		
		40.0					58.74	94.19	35.45	60.3%	198.88	257.62	293.06		
		45.0					65.81	101.72	35.91	54.6%	223.73	289.55	325.46		
		50.0					72.88	109.25	36.37	49.9%	248.59	321.48	357.85		
		60.0					87.03	124.32	37.30	42.9%	298.31	385.34	422.63		
		70.0					101.17	139.39	38.22	37.8%	348.03	449.20	487.42		
		80.0					115.31	154.46	39.14	33.9%	397.75	513.06	552.21		
		90.0					129.46	169.53	40.07	31.0%	447.47	576.92	616.99		
		100.0					143.60	184.59	40.99	28.5%	497.19	640.79	681.78		
		125.0					178.96	222.26	43.31	24.2%	621.48	800.44	843.75		
		150.0					214.31	259.93	45.62	21.3%	745.78	960.09	1,005.71		
		175.0					249.67	297.60	47.93	19.2%	870.08	1,119.75	1,167.68		
		200.0					285.03	335.27	50.24	17.6%	994.38	1,279.40	1,329.65		
		225.0					320.38	372.94	52.56	16.4%	1,118.67	1,439.06	1,491.61		
		250.0					355.74	410.61	54.87	15.4%	1,242.97	1,598.71	1,653.58		
		300.0					426.45	485.95	59.49	14.0%	1,491.56	1,918.02	1,977.51		
		400.0					567.88	636.63	68.74	12.1%	1,988.75	2,556.63	2,625.38		
		500.0					709.31	787.30	77.99	11.0%	2,485.94	3,195.25	3,273.24		
		600.0					850.74	937.98	87.24	10.3%	2,983.13	3,833.86	3,921.11		
6 7		700.0 800.0					992.17 1,133.59	1,088.66 1,239.33	96.49 105.74	9.7% 9.3%	3,480.31 3,977.50	4,472.48 5,111.09	4,568.97 5,216.83		
		900.0					1,133.59	1,239.33	105.74	9.3%	4,474.69	5,749.71	5,216.83		
		1,000.0					1,275.02	1,540.69	114.99	9.0%	4,474.69	6,388.33	5,864.70		
		1,500.0					2,123.59	2,294.08	170.49	8.0%		9,581.40	9,751.89		
		2,000.0					2,123.39	3,047.46	216.73	7.7%	9,943.75	12,774.48	12,991.21		
		2,500.0					3,537.87	3,800.85	262.98	7.4%	12,429.69	15,967.56	16,230.54		
		3,000.0					4,245.01	4,554.24	309.23	7.3%	14,915.63	19,160.64	19,469.86		
		3,500.0					4,952.15	5,307.62	355.47	7.2%	17,401.56	22,353.71	22,709.19		
5		4,000.0					5,659.29	6,061.01	401.72	7.1%	19,887.50	25,546.79	25,948.51		
5		4,500.0					6,366.43	6,814.40	447.97	7.0%	22,373.44	28,739.87	29,187.83		
7		5,000.0					7,073.57	7,567.78	494.21	7.0%	24,859.38	31,932.94	32,427.16		

31	EXCISE TAX FIRST 100	0.0000
32	EXCISE TAX NEXT 1900	0.0000
33	EXCISE TAX OVER 2000	0.0000
34	GROSS RECEIPTS TAX	4.987%
35	FRANKLIN COUNTY SALES TAX	7.500%

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in

Case No(s). 21-0637-GA-AIR, 21-0638-GA-ALT, 21-0639-GA-UNC, 21-0640-GA-AAM

Summary: Staff Report of Investigation electronically filed by Zee Molter on behalf of PUCO Staff