JUNE 23, 2017
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INFRASTRUCTURE

MOODY'S
INVESTORS SERVICE

RATING
METHODOLOGY

Regulated Electric and Gas Utilities

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This rating methodology replaces "Regulated Electric and Gas Utilities" last revised on December 23, 2013. We have updated some outdated links and removed certain issuer-specific information.

Summary

This rating methodology explains our approach to assessing credit risk for regulated electric and gas utilities globally. This document does not include an exhaustive treatment of all factors that are reflected in our ratings but should enable the reader to understand the qualitative considerations and financial information and ratios that are usually most important for ratings in this sector.[1]

This report includes a detailed rating grid which is a reference tool that can be used to approximate credit profiles within the regulated electric and gas utility sector in most cases. The grid provides summarized guidance for the factors that are generally most important in assigning ratings to companies in the regulated electric and gas utility industry. However, the grid is a summary that does not include every rating consideration. The weights shown for each factor in the grid represent an approximation of their importance for rating decisions but actual importance may vary substantially. In addition, the grid in this document uses historical results while ratings are based on our forward-looking expectations. As a result, the grid-indicated rating is not expected to match the actual rating of each company.

THIS METHODOLOGY WAS UPDATED ON AUGUST 2, 2018. WE HAVE MADE MINOR FORMATTING ADJUSTMENTS THROUGHOUT THE METHODOLOGY.

THIS RATING METHODOLOGY WAS UPDATED ON FEBRUARY 15, 2018. WE HAVE CORRECTED THE FORMATTING OF THE FACTOR 4: FINANCIAL STRENGTH TABLE ON PAGE 34.

THIS RATING METHODOLOGY WAS UPDATED ON SEPTEMBER 27, 2017. WE REMOVED A DUPLICATE FOOTNOTE THAT WAS PLACED IN THE MIDDLE OF THE TEXT ON PAGE 7.

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[1] This update may not be effective in some jurisdictions until certain requirements are met.

About the Rated Universe

The Regulated Electric and Gas Utilities rating methodology applies to rate-regulated[2] electric and gas utilities that are not Networks[3]. Regulated Electric and Gas Utilities are companies whose predominant[4] business is the sale of electricity and/or gas or related services under a rate-regulated framework, in most cases to retail customers. Also included under this methodology are rate-regulated utilities that own generating assets as any material part of their business, utilities whose charges or bills to customers include a meaningful component related to the electric or gas commodity, utilities whose rates are regulated at a sub-sovereign level (e.g. by provinces, states or municipalities), and companies providing an independent system operator function to an electric grid. Companies rated under this methodology are primarily rate-regulated monopolies or, in certain circumstances, companies that may not be outright monopolies but where government regulation effectively sets prices and limits competition.

This rating methodology covers regulated electric and gas utilities worldwide. These companies are engaged in the production, transmission, coordination, distribution and/or sale of electricity and/or natural gas, and they are either investor owned companies, commercially oriented government owned companies or, in the case of independent system operators, not-for-profit or similar entities. As detailed in Appendix C, this methodology covers a wide variety of companies active in the sector, including vertically integrated utilities, transmission and distribution utilities with retail customers and/or sub-sovereign regulation, local gas distribution utility companies (LDCs), independent system operators, and regulated generation companies. These companies may be operating companies or holding companies.

An over-arching consideration for regulated utilities is the regulatory environment in which they operate. While regulation is also a key consideration for networks, a utility's regulatory environment is in comparison often more dynamic and more subject to political intervention. The direct relationship that a regulated utility has with the retail customer, including billing for electric or gas supply that has substantial price volatility, can lead to a more politically charged rate-setting environment. Similarly, regulation at the sub-sovereign level is often more accessible for participation by interveners, including disaffected customers and the politicians who want their votes. Our views of regulatory environments evolve over time in accordance with our observations of regulatory, political, and judicial events that affect issuers in the sector.

This methodology pertains to regulated electric and gas utilities and excludes the following types of issuers, which are covered by separate rating methodologies: Regulated Networks, Unregulated Utilities and Power Companies, Public Power Utilities, Municipal Joint Action Agencies, Electric Cooperatives, Regulated Water Companies and Natural Gas Pipelines.[5]

The Regulated Electric and Gas Utility sector is predominantly investment grade, reflecting the stability generally conferred by regulation that typically sets prices and also limits competition, such that defaults have been lower than in many other non-financial corporate sectors. However, the nature of regulation can

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[2] Companies in many industries are regulated. We use the term rate-regulated to distinguish companies whose rates (by which we also mean tariffs or revenues in general) are set by regulators.

[3] Regulated Electric and Gas Networks are companies whose predominant business is purely the transmission and/or distribution of electricity and/or natural gas without involvement in the procurement or sale of electricity and/or gas; whose charges to customers thus do not include a meaningful commodity cost component; which sell mainly (or in many cases exclusively) to non-retail customers; and which are rate-regulated under a national framework.

[4] We generally consider a company to be predominantly a regulated electric and gas utility when a majority of its cash flows, prospectively and on a sustained basis, are derived from regulated electric and gas utility businesses. Since cash flows can be volatile (such that a company might have a majority of utility cash flows simply due to a cyclical downturn in its non-utility businesses), we may also consider the breakdown of assets and/or debt of a company to determine which business is predominant.

[5] A link to credit rating methodologies covering these and other sectors can be found in the Related Research section of this report.

Our ratings are forward-looking and reflect our expectations for future financial and operating performance. However, historical results are helpful in understanding patterns and trends of a company's performance as well as for peer comparisons. We utilize historical data (in most cases, an average of the last three years of reported results) in the rating grid. However, the factors in the grid can be assessed using various time periods. For example, rating committees may find it analytically useful to examine both historic and expected future performance for periods of several years or more, or for individual twelve month periods.

3. Mapping Factors to the Rating Categories

After estimating or calculating each sub-factor, the outcomes for each of the sub-factors are mapped to a broad Moody's rating category (Aaa, Aa, A, Baa, Ba, B, or Caa).

4. Assumptions, Limitations and Rating Considerations Not Included in the Grid

This section discusses limitations in the use of the grid to map against actual ratings, some of the additional factors that are not included in the grid but can be important in determining ratings, and limitations and assumptions that pertain to the overall rating methodology.

5. Determining the Overall Grid-Indicated Rating[8]

To determine the overall grid-indicated rating, we convert each of the sub-factor ratings into a numeric value based upon the scale below.

Aaa	Aa	A	Baa	Ba	B	Caa	Ca
1	3	6	9	12	15	18	20

The numerical score for each sub-factor is multiplied by the weight for that sub-factor with the results then summed to produce a composite weighted-factor score. The composite weighted factor score is then mapped back to an alphanumeric rating based on the ranges in the table below.

Grid-Indicated Rating

Grid-Indicated Rating	Aggregate Weighted Total Factor Score
Aaa	x < 1.5
Aa1	1.5 ≤ x < 2.5
Aa2	2.5 ≤ x < 3.5
Aa3	3.5 ≤ x < 4.5
A1	4.5 ≤ x < 5.5
A2	5.5 ≤ x < 6.5
A3	6.5 ≤ x < 7.5
Baa1	7.5 ≤ x < 8.5
Baa2	8.5 ≤ x < 9.5
Baa3	9.5 ≤ x < 10.5

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[8] In general, the grid-indicated rating is oriented to the Corporate Family Rating (CFR) for speculative-grade issuers and the senior unsecured rating for investment-grade issuers. For issuers that benefit from ratings uplift due to parental support, government ownership or other institutional support, the grid-indicated rating is oriented to the baseline credit assessment. For an explanation of baseline credit assessment, please refer to our rating methodology on government-related issuers. Individual debt instrument ratings also factor in decisions on notching for seniority level and collateral. The documents that provide broad guidance for these notching decisions are our rating methodologies on loss given default for speculative grade non-financial companies and for aligning corporate instrument ratings based on differences in security and priority of claim. The link to these and other sector and cross-sector credit rating methodologies can be found in the Related Research section of this report.

Utility rates[9] are set in a political/regulatory process rather than a competitive or free-market process; thus, the Regulatory Framework is a key determinant of the success of utility. The Regulatory Framework has many components: the governing body and the utility legislation or decrees it enacts, the manner in which regulators are appointed or elected, the rules and procedures promulgated by those regulators, the judiciary that interprets the laws and rules and that arbitrates disagreements, and the manner in which the utility manages the political and regulatory process. In many cases, utilities have experienced credit stress or default primarily or at least secondarily because of a break-down or obstacle in the Regulatory Framework – for instance, laws that prohibited regulators from including investments in uncompleted power plants or plants not deemed "used and useful" in rates, or a disagreement about rate-making that could not be resolved until after the utility had defaulted on its debts.

How We Assess Legislative and Judicial Underpinnings of the Regulatory Framework for the Grid

For this sub-factor, we consider the scope, clarity, transparency, supportiveness and granularity of utility legislation, decrees, and rules as they apply to the issuer. We also consider the strength of the regulator's authority over rate-making and other regulatory issues affecting the utility, the effectiveness of the judiciary or other independent body in arbitrating disputes in a disinterested manner, and whether the utility's monopoly has meaningful or growing carve-outs. In addition, we look at how well developed the framework is – both how fully fleshed out the rules and regulations are and how well tested it is – the extent to which regulatory or judicial decisions have created a body of precedent that will help determine future rate-making. Since the focus of our scoring is on each issuer, we consider how effective the utility is in navigating the regulatory framework – both the utility's ability to shape the framework and adapt to it.

A utility operating in a regulatory framework that is characterized by legislation that is credit supportive of utilities and eliminates doubt by prescribing many of the procedures that the regulators will use in determining fair rates (which legislation may show evidence of being responsive to the needs of the utility in general or specific ways), a long history of transparent rate-setting, and a judiciary that has provided ample precedent by impartially adjudicating disagreements in a manner that addresses ambiguities in the laws and rules will receive higher scores in the Legislative and Judicial Underpinnings sub-factor. A utility operating in a regulatory framework that, by statute or practice, allows the regulator to arbitrarily prevent the utility from recovering its costs or earning a reasonable return on prudently incurred investments, or where regulatory decisions may be reversed by politicians seeking to enhance their populist appeal will receive a much lower score.

In general, we view national utility regulation as being less liable to political intervention than regulation by state, provincial or municipal entities, so the very highest scoring in this sub-factor is reserved for this category. However, we acknowledge that states and provinces in some countries may be larger than small nations, such that their regulators may be equally "above-the-fray" in terms of impartial and technically-oriented rate setting, and very high scoring may be appropriate.

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[9] In jurisdictions where utility revenues include material government subsidy payments, we consider utility rates to be inclusive of these payments, and we thus evaluate sub-factors 1a, 1b, 2a and 2b in light of both rates and material subsidy payments. For example, we would consider the legal and judicial underpinnings and consistency and predictability of subsidies as well as rates.

Factor 1a: Legislative and Judicial Underpinnings of the Regulatory Framework (12.5%)

Aaa	Aa	A	Baa
Utility regulation occurs under a fully developed framework that is national in scope based on legislation that provides the utility a nearly absolute monopoly (see note 1) within its service territory, an unquestioned assurance that rates will be set in a manner that will permit the utility to make and recover all necessary investments, an extremely high degree of clarity as to the manner in which utilities will be regulated and prescriptive methods and procedures for setting rates. Existing utility law is comprehensive and supportive such that changes in legislation are not expected to be necessary; or any changes that have occurred have been strongly supportive of utilities credit quality in general and sufficiently forward-looking so as to address problems before they occurred. There is an independent judiciary that can arbitrate disagreements between the regulator and the utility should they occur, including access to national courts, very strong judicial precedent in the interpretation of utility laws, and a strong rule of law. We expect these conditions to continue.	Utility regulation occurs under a fully developed national, state or provincial framework based on legislation that provides the utility an extremely strong monopoly (see note 1) within its service territory, a strong assurance, subject to limited review, that rates will be set in a manner that will permit the utility to make and recover all necessary investments, a very high degree of clarity as to the manner in which utilities will be regulated and reasonably prescriptive methods and procedures for setting rates. If there have been changes in utility legislation, they have been timely and clearly credit supportive of the issuer in a manner that shows the utility has had a strong voice in the process. There is an independent judiciary that can arbitrate disagreements between the regulator and the utility, should they occur including access to national courts, strong judicial precedent in the interpretation of utility laws, and a strong rule of law. We expect these conditions to continue.	Utility regulation occurs under a well developed national, state or provincial framework based on legislation that provides the utility a very strong monopoly (see note 1) within its service territory, an assurance, subject to reasonable prudency requirements, that rates will be set in a manner that will permit the utility to make and recover all necessary investments, a high degree of clarity as to the manner in which utilities will be regulated, and overall guidance for methods and procedures for setting rates. If there have been changes in utility legislation, they have been mostly timely and on the whole credit supportive for the issuer, and the utility has had a clear voice in the legislative process. There is an independent judiciary that can arbitrate disagreements between the regulator and the utility, should they occur, including access to national courts, clear judicial precedent in the interpretation of utility law, and a strong rule of law. We expect these conditions to continue.	Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation that provides the utility a strong monopoly within its service territory that may have some exceptions such as greater self-generation (see note 1), a general assurance that, subject to prudency requirements that are mostly reasonable, rates will be set will be set in a manner that will permit the utility to make and recover all necessary investments, reasonable clarity as to the manner in which utilities will be regulated and overall guidance for methods and procedures for setting rates; or (ii) under a new framework where independent and transparent regulation exists in other sectors. If there have been changes in utility legislation, they have been credit supportive or at least balanced for the issuer but potentially less timely, and the utility had a voice in the legislative process. There is either (i) an independent judiciary that can arbitrate disagreements between the regulator and the utility, including access to courts at least at the state or provincial level, reasonably clear judicial precedent in the interpretation of utility laws, and a generally strong rule of law; or (ii) regulation has been applied (under a well developed framework) in a manner such that redress to an independent arbiter has not been required. We expect these conditions to continue.

Ba	B	Caa
Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation or government decree that provides the utility a monopoly within its service territory that is generally strong but may have a greater level of exceptions (see note 1), and that, subject to prudency requirements which may be stringent, provides a general assurance (with somewhat less certainty) that rates will be set will be set in a manner that will permit the utility to make and recover necessary investments; or (ii) under a new framework where the jurisdiction has a history of less independent and transparent regulation in other sectors. Either: (i) the judiciary that can arbitrate disagreements between the regulator and the utility may not have clear authority or may not be fully independent of the regulator or other political pressure, but there is a reasonably strong rule of law; or (ii) where there is no independent arbiter, the regulation has mostly been applied in a manner such redress has not been required. We expect these conditions to continue.	Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation or government decree that provides the utility monopoly within its service territory that is reasonably strong but may have important exceptions, and that, subject to prudency requirements which may be stringent or at times arbitrary, provides more limited or less certain assurance that rates will be set in a manner that will permit the utility to make and recover necessary investments; or (ii) under a new framework where we would expect less independent and transparent regulation, based either on the regulator's history in other sectors or other factors. The judiciary that can arbitrate disagreements between the regulator and the utility may not have clear authority or may not be fully independent of the regulator or other political pressure, but there is a reasonably strong rule of law. Alternately, where there is no independent arbiter, the regulation has been applied in a manner that often requires some redress adding more uncertainty to the regulatory framework. There may be a periodic risk of creditor-unfriendly government intervention in utility markets or rate-setting.	Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation or government decree that provides the utility a monopoly within its service territory, but with little assurance that rates will be set in a manner that will permit the utility to make and recover necessary investments; or (ii) under a new framework where we would expect unpredictable or adverse regulation, based either on the jurisdiction's history of in other sectors or other factors. The judiciary that can arbitrate disagreements between the regulator and the utility may not have clear authority or is viewed as not being fully independent of the regulator or other political pressure. Alternately, there may be no redress to an effective independent arbiter. The ability of the utility to enforce its monopoly or prevent uncompensated usage of its system may be limited. There may be a risk of creditor-unfriendly nationalization or other significant intervention in utility markets or rate-setting.

Note 1: The strength of the monopoly refers to the legal, regulatory and practical obstacles for customers in the utility's territory to obtain service from another provider. Examples of a weakening of the monopoly would include the ability of a city or large user to leave the utility system to set up their own system, the extent to which self-generation is permitted (e.g. cogeneration) and/or encouraged (e.g., net metering, DSM generation). At the lower end of the ratings spectrum, the utility's monopoly may be challenged by pervasive theft and unauthorized use. Since utilities are generally presumed to be monopolies, a strong monopoly position in itself is not sufficient for a strong score in this sub-factor, but a weakening of the monopoly can lower the score.

Factor 1b: Consistency and Predictability of Regulation (12.5%)

Aaa	Aa	A	Baa
The issuer's interaction with the regulator has led to a strong, lengthy track record of predictable, consistent and favorable decisions. The regulator is highly credit supportive of the issuer and utilities in general. We expect these conditions to continue.	The issuer's interaction with the regulator has a led to a considerable track record of predominantly predictable and consistent decisions. The regulator is mostly credit supportive of utilities in general and in almost all instances has been highly credit supportive of the issuer. We expect these conditions to continue.	The issuer's interaction with the regulator has led to a track record of largely predictable and consistent decisions. The regulator may be somewhat less credit supportive of utilities in general, but has been quite credit supportive of the issuer in most circumstances. We expect these conditions to continue.	The issuer's interaction with the regulator has led to an adequate track record. The regulator is generally consistent and predictable, but there may some evidence of inconsistency or unpredictability from time to time, or decisions may at times be politically charged. However, instances of less credit supportive decisions are based on reasonable application of existing rules and statutes and are not overly punitive. We expect these conditions to continue.

Ba	B	Caa
We expect that regulatory decisions will demonstrate considerable inconsistency or unpredictability or that decisions will be politically charged, based either on the issuer's track record of interaction with regulators or other governing bodies, or our view that decisions will move in this direction. The regulator may have a history of less credit supportive regulatory decisions with respect to the issuer, but we expect that the issuer will be able to obtain support when it encounters financial stress, with some potentially material delays. The regulator's authority may be eroded at times by legislative or political action. The regulator may not follow the framework for some material decisions.	We expect that regulatory decisions will be largely unpredictable or even somewhat arbitrary, based either on the issuer's track record of interaction with regulators or other governing bodies, or our view that decisions will move in this direction. However, we expect that the issuer will ultimately be able to obtain support when it encounters financial stress, albeit with material or more extended delays. Alternately, the regulator is untested, lacks a consistent track record, or is undergoing substantial change. The regulator's authority may be eroded on frequent occasions by legislative or political action. The regulator may more frequently ignore the framework in a manner detrimental to the issuer.	We expect that regulatory decisions will be highly unpredictable and frequently adverse, based either on the issuer's track record of interaction with regulators or other governing bodies, or our view that decisions will move in this direction. Alternately, decisions may have credit supportive aspects, but may often be unenforceable. The regulator's authority may have been seriously eroded by legislative or political action. The regulator may consistently ignore the framework to the detriment of the issuer.

How We Assess Timeliness of Recovery of Operating and Capital Costs for the Grid

The criteria we consider include provisions and cost recovery mechanisms for operating costs, mechanisms that allow actual operating and/or capital expenditures to be trued-up periodically into rates without having to file a rate case (this may include formula rates, rider and trackers, or the ability to periodically adjust rates for construction work in progress) as well as the process and timeframe of general tariff/base rate cases – those that are fully reviewed by the regulator, generally in a public format that includes testimony of the utility and other stakeholders and interest groups. We also look at the track record of the utility and regulator for timeliness. For instance, having a formula rate plan is positive, but if the actual process has included reviews that are delayed for long periods, it may dampen the benefit to the utility. In addition, we seek to estimate the lag between the time that a utility incurs a major construction expenditures and the time that the utility will start to recover and/or earn a return on that expenditure.

How We Assess Sufficiency of Rates and Returns for the Grid

The criteria we consider include statutory protections that assure full cost recovery and a reasonable return for the utility on its investments, the regulatory mechanisms used to determine what a reasonable return should be, and the track record of the utility in actually recovering costs and earning returns. We examine outcomes of rate cases/tariff reviews and compare them to the request submitted by the utility, to prior rate cases/tariff reviews for the same utility and to recent rate/tariff decisions for a peer group of comparable utilities. In this context, comparable utilities are typically utilities in the same or similar jurisdiction. In cases where the utility is unique or nearly unique in its jurisdiction, comparison will be made to other peers with an adjustment for local differences, including prevailing rates of interest and returns on capital, as well as the timeliness of rate-setting. We look at regulatory disallowances of costs or investments, with a focus on their financial severity and also on the reasons given by the regulator, in order to assess the likelihood that such disallowances will be repeated in the future.

Factor 2b: Sufficiency of Rates and Returns (12.5%)

Aaa	Aa	A	Baa
Sufficiency of rates to cover costs and attract capital is (and will continue to be) unquestioned.	Rates are (and we expect will continue to be) set at a level that permits full cost recovery and a fair return on all investments, with minimal challenges by regulators to companies' cost assumptions. This will translate to returns (measured in relation to equity, total assets, rate base or regulatory asset value, as applicable) that are strong relative to global peers.	Rates are (and we expect will continue to be) set at a level that generally provides full cost recovery and a fair return on investments, with limited instances of regulatory challenges and disallowances. In general, this will translate to returns (measured in relation to equity, total assets, rate base or regulatory asset value, as applicable) that are generally above average relative to global peers, but may at times be average.	Rates are (and we expect will continue to be) set at a level that generally provides full operating cost recovery and a mostly fair return on investments, but there may be somewhat more instances of regulatory challenges and disallowances, although ultimate rate outcomes are sufficient to attract capital without difficulty. In general, this will translate to returns (measured in relation to equity, total assets, rate base or regulatory asset value, as applicable) that are average relative to global peers, but may at times be somewhat below average.

Ba	B	Caa
Rates are (and we expect will continue to be) set at a level that generally provides recovery of most operating costs but return on investments may be less predictable, and there may be decidedly more instances of regulatory challenges and disallowances, but ultimate rate outcomes are generally sufficient to attract capital. In general, this will translate to returns (measured in relation to equity, total assets, rate base or regulatory asset value, as applicable) that are generally below average relative to global peers, or where allowed returns are average but difficult to earn. Alternately, the tariff formula may not take into account all cost components and/or remuneration of investments may be unclear or at times unfavorable.	We expect rates will be set at a level that at times fails to provide recovery of costs other than cash costs, and regulators may engage in somewhat arbitrary second-guessing of spending decisions or deny rate increases related to funding ongoing operations based much more on politics than on prudency reviews. Return on investments may be set at levels that discourage investment. We expect that rate outcomes may be difficult or uncertain, negatively affecting continued access to capital. Alternately, the tariff formula may fail to take into account significant cost components other than cash costs, and/or remuneration of investments may be generally unfavorable.	We expect rates will be set at a level that often fails to provide recovery of material costs, and recovery of cash costs may also be at risk. Regulators may engage in more arbitrary second-guessing of spending decisions or deny rate increases related to funding ongoing operations based primarily on politics. Return on investments may be set at levels that discourage necessary maintenance investment. We expect that rate outcomes may often be punitive or highly uncertain, with a markedly negative impact on access to capital. Alternately, the tariff formula may fail to take into account significant cash cost components, and/or remuneration of investments may be primarily unfavorable.

has a high dependence on one or two sectors, especially highly cyclical industries, will generally score lower in this sub-factor, as will issuers with meaningful exposure to economic dislocations caused by natural disasters.

For issuers that are vertically integrated utilities having a meaningful amount of generation, this sub- factor has a weighting of 5%. For electric transmission and distribution utilities without meaningful generation and for natural gas local distribution companies, this sub-factor has a weighting of 10%.

How We Assess Generation and Fuel Diversity for the Grid

Criteria include the fuel type of the issuer's generation and important power purchase agreements, the ability of the issuer economically to shift its generation and power purchases when there are changes in fuel prices, the degree to which the utility and its rate-payers are exposed to or insulated from changes in commodity prices, and exposure to Challenged Source and Threatened Sources (see the explanations for how we generally characterize these generation sources in the table below). A regulated utility's capacity mix may not in itself be an indication of fuel diversity or the ability to shift fuels, since utilities may keep old and inefficient plants (e.g., natural gas boilers) to serve peak load. For this reason, we do not incorporate set percentages reflecting an "ideal" or "sub-par" mix for capacity or even generation. In addition to looking at a utility's generation mix to evaluate fuel diversity, we consider the efficiency of the utility's plants, their placement on the regional dispatch curve, and the demonstrated ability/inability of the utility to shift its generation mix in accordance with changing commodity prices.

Issuers having a balanced mix of hydro, coal, natural gas, nuclear and renewable energy as well as low exposure to challenged and threatened sources of generation will score more highly in this sub-factor. Issuers that have concentration in one or two sources of generation, especially if they are threatened or challenged sources, will incur lower scores.

In evaluating an issuer's degree of exposure to challenged and threatened sources, we will consider not only the existence of those plants in the utility's portfolio, but also the relevant factors that will determine the impact on the utility and on its rate-payers. For instance, an issuer that has a fairly high percentage of its generation from challenged sources could be evaluated very differently if its peer utilities face the same magnitude of those issues than if its peers have no exposure to challenged or threatened sources. In evaluating threatened sources, we consider the utility's progress in its plan to replace those sources, its reserve margin, the availability of purchased power capacity in the region, and the overall impact of the replacement plan on the issuer's rates relative to its peer group. Especially if there are no peers in the same jurisdiction, we also examine the extent to which the utility's generation resources plan is aligned with the relevant government's fuel/energy policy.

Generation and Fuel Diversity	5.00% **	Modest diversification in generation and/or fuel sources such that the utility or rate-payers have greater exposure to commodity price changes. Exposure to Challenged and Threatened Sources may be more pronounced, but the utility will be able to access alternative sources without undue financial stress.	Operates with little diversification in generation and/or fuel sources such that the utility or rate-payers have high exposure to commodity price changes. Exposure to Challenged and Threatened Sources may be high, and accessing alternate sources may be challenging and cause more financial stress, but ultimately feasible.	Operates with high concentration in generation and/or fuel sources such that the utility or rate-payers have exposure to commodity price shocks. Exposure to Challenged and Threatened Sources may be very high, and accessing alternate sources may be highly uncertain.	Threatened Sources are generation plants that are not currently able to operate due to major unplanned outages or issues with licensing or other regulatory compliance, and plants that are highly likely to be required to de-activate, whether due to the effectiveness of currently existing or expected rules and regulations or due to economic challenges. Some recent examples would include coal fired plants in the US that are not economic to retro-fit to meet mercury and air toxics standards, plants that cannot meet the effective date of those standards, nuclear plants in Japan that have not been licensed to re-start after the Fukushima Dai-ichi accident, and nuclear plants that are required to be phased out within 10 years (as is the case in some European countries).

* 10% weight for issuers that lack generation **0% weight for issuers that lack generation

CFO Pre-Working Capital Plus Interest/Interest or Cash Flow Interest Coverage

The cash flow interest coverage ratio is an indicator for a utility's ability to cover the cost of its borrowed capital. The numerator in the ratio calculation is the sum of CFO Pre-WC and interest expense, and the denominator is interest expense.

CFO Pre-Working Capital / Debt

This important metric is an indicator for the cash generating ability of a utility compared to its total debt. The numerator in the ratio calculation is CFO Pre-WC, and the denominator is total debt.

CFO Pre-Working Capital Minus Dividends / Debt

This ratio is an indicator for financial leverage as well as an indicator of the strength of a utility's cash flow after dividend payments are made. Dividend obligations of utilities are often substantial, quasi- permanent outflows that can affect the ability of a utility to cover its debt obligations, and this ratio can also provide insight into the financial policies of a utility or utility holding company. The higher the level of retained cash flow relative to a utility's debt, the more cash the utility has to support its capital expenditure program. The numerator of this ratio is CFO Pre-WC minus dividends, and the denominator is total debt.

Debt/Capitalization

This ratio is a traditional measure of balance sheet leverage. The numerator is total debt and the denominator is total capitalization. All of our ratios are calculated in accordance with our standard adjustments[10], but we note that our definition of total capitalization includes deferred taxes in addition to total debt, preferred stock, other hybrid securities, and common equity. Since the presence or absence of deferred taxes is a function of national tax policy, comparing utilities using this ratio may be more meaningful among utilities in the same country or in countries with similar tax policies. High debt levels in comparison to capitalization can indicate higher interest obligations, can limit the ability of a utility to raise additional financing if needed, and can lead to leverage covenant violations in bank credit facilities or other financing agreements[11]. A high ratio may result from a regulatory framework that does not permit a robust cushion of equity in the capital structure, or from a material write-off of an asset, which may not have impacted current period cash flows but could affect future period cash flows relative to debt.

There are two sets of thresholds for three of these ratios based on the level of the issuer's business risk – the Standard Grid and the Lower Business Risk (LBR) Grid. In our view, the different types of utility entities covered under this methodology (as described in Appendix E) have different levels of business risk.

Generation utilities and vertically integrated utilities generally have a higher level of business risk because they are engaged in power generation, so we apply the Standard Grid. We view power generation as the highest-risk component of the electric utility business, as generation plants are typically the most expensive part of a utility's infrastructure (representing asset concentration risk) and are subject to the greatest risks in both construction and operation, including the risk that incurred costs will either not be recovered in rates or recovered with material delays.

Other types of utilities may have lower business risk, such that we believe that they are most appropriately assessed using the LBR Grid, due to factors that could include a generally greater transfer of risk to customers, very strong insulation from exposure to commodity price movements, good protection from volumetric risks, fairly limited capex needs and low exposure to storms, major accidents and natural

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[10] In certain circumstances, analysts may also apply specific adjustments.

[11] We also examine debt/capitalization ratios as defined in applicable covenants (which typically exclude deferred taxes from capitalization) relative to the covenant threshold level.

streamed by the OpCos[12]. Under normal circumstances, these dividends are made from net income, after payment of the OpCo's interest and preferred dividends. In most non- financial corporate sectors where cash often moves freely between the entities in a single issuer family, this distinction may have less of an impact. However, in the regulated utility sector, barriers to movement of cash among companies in the corporate family can be much more restrictive, depending on the regulatory framework. These barriers can lead to significantly different probabilities of default for HoldCos and OpCos. Structural subordination also affects loss given default. Under most default[13] scenarios, an OpCo's creditors will be satisfied from the value residing at that OpCo before any of the OpCo's assets can be used to satisfy claims of the HoldCo's creditors. The prevalence of debt issuance at the OpCo level is another reason that structural subordination is usually a more serious concern in the utility sector than for investment grade issuers in other non-financial corporate sectors.

The grids for factors 1-4 are primarily oriented to OpCos (and to some degree for HoldCos with minimal current structural subordination; for example, there is no current structural subordination to debt at the operating company if all of the utility family's debt and preferred stock is issued at the HoldCo level, although there is structural subordination to other liabilities at the OpCo level). The additional risk from structural subordination is addressed via a notching adjustment to bring grid outcomes (on average) closer to the actual ratings of HoldCos.

How We Assess It

Grid-indicated ratings of holding companies may be notched down based on structural subordination. The risk factors and mitigants that impact structural subordination are varied and can be present in different combinations, such that a formulaic approach is not practical and case-by-case analyst judgment of the interaction of all pertinent factors that may increase or decrease its importance to the credit risk of an issuer are essential.

Some of the potentially pertinent factors that could increase the degree and/or impact of structural subordination include the following:

- Regulatory or other barriers to cash movement from OpCos to HoldCo
- Specific ring-fencing provisions
- Strict financial covenants at the OpCo level
- Higher leverage at the OpCo level
- Higher leverage at the HoldCo level[14]
- Significant dividend limitations or potential limitations at an important OpCo
- HoldCo exposure to subsidiaries with high business risk or volatile cash flows

Strained liquidity at the HoldCo level

- The group's investment program is primarily in businesses that are higher risk or new to the group

Some of the potentially mitigating factors that could decrease the degree and/or impact of structural subordination include the following:

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[12] The HoldCo and OpCo may also have intercompany agreements, including tax sharing agreements, that can be another source of cash to the HoldCo.

[13] Actual priority in a default scenario will be determined by many factors, including the corporate and bankruptcy laws of the jurisdiction, the asset value of each OpCo, specific financing terms, inter-relationships among members of the family, etc.

[14] While higher leverage at the HoldCo does not increase structural subordination per se, it exacerbates the impact of any structural subordination that exists

Ratings may include additional factors that are difficult to quantify or that have a meaningful effect in differentiating credit quality only in some cases, but not all. Such factors include financial controls, exposure to uncertain licensing regimes and possible government interference in some countries.

Regulatory, litigation, liquidity, technology and reputational risk as well as changes to consumer and business spending patterns, competitor strategies and macroeconomic trends also affect ratings. While these are important considerations, it is not possible precisely to express these in the rating methodology grid without making the grid excessively complex and significantly less transparent.

Ratings may also reflect circumstances in which the weighting of a particular factor will be substantially different from the weighting suggested by the grid.

This variation in weighting rating considerations can also apply to factors that we choose not to represent in the grid. For example, liquidity is a consideration frequently critical to ratings and which may not, in other circumstances, have a substantial impact in discriminating between two issuers with a similar credit profile. As an example of the limitations, ratings can be heavily affected by extremely weak liquidity that magnifies default risk. However, two identical companies might be rated the same if their only differentiating feature is that one has a good liquidity position while the other has an extremely good liquidity position.

Other Rating Considerations

We consider other factors in addition to those discussed in this report, but in most cases understanding the considerations discussed herein should enable a good approximation of our view on the credit quality of companies in the regulated electric and gas utilities sector. Ratings consider our assessment of the quality of management, corporate governance, financial controls, liquidity management, event risk and seasonality. The analysis of these factors remains an integral part of our rating process.

Liquidity and Access to Capital Markets

Liquidity analysis is a key element in the financial analysis of electric and gas utilities, and it encompasses a company's ability to generate cash from internal sources as well as the availability of external sources of financing to supplement these internal sources. Liquidity and access to financing are of particular importance in this sector. Utility assets can often have a very long useful life- 30, 40 or even 60 years is not uncommon, as well as high price tags. Partly as a result of construction cycles, the utility sector has experienced prolonged periods of negative free cash flow – essentially, the sum of its dividends and its capital expenditures for maintenance and growth of its infrastructure frequently exceeds cash from operations, such that a portion of capital expenditures must routinely be debt financed. Utilities are among the largest debt issuers in the corporate universe and typically require consistent access to the capital markets to assure adequate sources of funding and to maintain financial flexibility. Substantial portions of capex are non-discretionary (for example, maintenance, adding customers to the network, or meeting environmental mandates); however, utilities were swift to cut or defer discretionary spending during the 2007-2009 recession. Dividends represent a quasi-permanent outlay, since utilities typically only rarely will cut their dividend. Liquidity is also important to meet maturing obligations, which often occur in large chunks, and to meet collateral calls under any hedging agreements.

Due to the importance of liquidity, incorporating it as a factor with a fixed weighting in the grid would suggest an importance level that is often far different from the actual weight in the rating. In normal circumstances most companies in the sector have good access to liquidity. The industry generally requires, and for the most part has, large, syndicated, multi-year committed credit facilities. In addition, utilities have demonstrated strong access to capital markets, even under difficult conditions. As a result, liquidity these into Factor 3, for some issuers these considerations may be sufficiently important that the rating reflects a greater weight for these risks. While construction projects always carry the risk of cost over-runs and delays, these risks are materially heightened for projects that are very large relative to the size of the utility.

Interaction of Utility Ratings with Government Policies and Sovereign Ratings

Compared to most industrial sectors, regulated utilities are more likely to be impacted by government actions. Credit impacts can occur directly through rate regulation, and indirectly through energy, environmental and tax policies. Government actions affect fuel prices, the mix of generating plants, the certainty and timing of revenues and costs, and the likelihood that regulated utilities will experience financial stress. While our evolving view of the impact of such policies and the general economic and financial climate is reflected in ratings for each utility, some considerations do not lend themselves to incorporation in a simple ratings grid.[15]

Diversified Operations at the Utility

A small number of regulated utilities have diversified operations that are segments within the utility company, as opposed to the more common practice of housing such operations in one or more separate affiliates. In general, we will seek to evaluate the other businesses that are material in accordance with the appropriate methodology and the rating will reflect considerations from such methodologies. There may be analytical limitations in evaluating the utility and non-utility businesses when segment financial results are not fully broken out and these may be addressed through estimation based on available information. Since regulated utilities are a relatively low risk business compared to other corporate sectors, in most cases diversified non-utility operations increase the business risk profile of a utility. Reflecting this tendency, we note that assigned ratings are typically lower than grid- indicated ratings for such companies.

Event Risk

We also recognize the possibility that an unexpected event could cause a sudden and sharp decline in an issuer's fundamental creditworthiness. Typical special events include mergers and acquisitions, asset sales, spin-offs, capital restructuring programs, litigation and shareholder distributions.

Corporate Governance

Among the areas of focus in corporate governance are audit committee financial expertise, the incentives created by executive compensation packages, related party transactions, interactions with outside auditors, and ownership structure.

Investment and Acquisition Strategy

In our credit assessment we take into consideration management's investment strategy. Investment strategy is benchmarked with that of the other companies in the rated universe to further verify its consistency. Acquisitions can strengthen a company's business. Our assessment of a company's tolerance for acquisitions at a given rating level takes into consideration (1) management's risk appetite, including the likelihood of further acquisitions over the medium term; (2) share buy-back activity; (3) the company's commitment to specific leverage targets; and (4) the volatility of the underlying businesses, as well as that of the business acquired. Ratings can often hold after acquisitions even if leverage temporarily climbs above normally acceptable ranges. However, this depends on (1) the strategic fit; (2) pro-forma

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[15] See also the cross-sector methodology "How Sovereign Credit Quality May Affect Other Ratings." A link to this and other sector and cross-sector credit rating methodologies can be found in the Related Research section of this report.

Appendix A: Regulated Electric and Gas Utilities Methodology Factor Grid

Factor 1a: Legislative and Judicial Underpinnings of the Regulatory Framework (12.5%)

Aaa	Aa	A	Baa
Utility regulation occurs under a fully developed framework that is national in scope based on legislation that provides the utility a nearly absolute monopoly (see note 1) within its service territory, an unquestioned assurance that rates will be set in a manner that will permit the utility to make and recover all necessary investments, an extremely high degree of clarity as to the manner in which utilities will be regulated and prescriptive methods and procedures for setting rates. Existing utility law is comprehensive and supportive such that changes in legislation are not expected to be necessary; or any changes that have occurred have been strongly supportive of utilities credit quality in general and sufficiently forward- looking so as to address problems before they occurred. There is an independent judiciary that can arbitrate disagreements between the regulator and the utility should they occur, including access to national courts, very strong judicial precedent in the interpretation of utility laws, and a strong rule of law. We expect these conditions to continue.	Utility regulation occurs under a fully developed national, state or provincial framework based on legislation that provides the utility an extremely strong monopoly (see note 1) within its service territory, a strong assurance, subject to limited review, that rates will be set in a manner that will permit the utility to make and recoverall necessary investments, a very high degree of clarity as to the manner in which utilities will be regulated and reasonably prescriptive methods and procedures forsetting rates. If there have been changes in utility legislation,they have been timely and clearly credit supportive of the issuer in a manner that shows the utility has had a strong voice in the process. There is an independent judiciary that can arbitrate disagreements between the regulator and the utility, should they occur including access to national courts, strong judicial precedent in the interpretation of utility laws, and a strong rule of law. We expect these conditions to continue.	Utility regulation occurs under a well developed national, state or provincial framework based on legislation that provides the utility a very strong monopoly (see note 1) within its service territory, an assurance, subject to reasonable prudency requirements, that rates will be set in a manner that will permit the utility to make and recover all necessary investments, a high degree of clarity as to the manner in which utilities will be regulated, and overall guidance for methods and procedures for setting rates. If there have been changes in utility legislation, they have been mostly timely and on the whole credit supportive for the issuer, and the utility has had a clear voice in the legislative process. There is an independent judiciary that can arbitrate disagreements between the regulator and the utility, should they occur, including access to national courts, clear judicial precedent in the interpretation of utility law, and a strong rule of law. We expect these conditions to continue.	Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation that provides the utility a strong monopoly within its service territory that may have some exceptions such as greater self-generation (see note 1), a general assurance that, subject to prudency requirements that are mostly reasonable, rates will be set will be set in a manner that will permit the utility to make and recover all necessary investments, reasonable clarity as to the manner in which utilities will be regulated and overall guidance for methods and procedures for setting rates; or (ii) under a new framework where independent and transparent regulation exists in other sectors. If there have been changes in utility legislation, they have been credit supportive or at least balanced for the issuer but potentially less timely, and the utility had a voice in the legislative process. There is either (i) an independent judiciary that can arbitrate disagreements between the regulator and the utility, including access to courts at least at the state or provincial level, reasonably clear judicial precedent in the interpretation of utility laws, and a generally strong rule of law; or (ii) regulation has been applied (under a well developed framework) in a manner such that redress to an independent arbiter has not been required. We expect these conditions to continue.

Ba	B	Caa
Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation or government decree that provides the utility a monopoly within its service territory that is generally strong but may have a greater level of exceptions (see note 1), and that, subject to prudency requirements which may be stringent, provides a general assurance (with somewhat less certainty) that rates will be set will be set in a manner that will permit the utility to make and recover necessary investments; or (ii) under a new framework where the jurisdiction has a history of less independent and transparent regulation in other sectors. Either: (i) the judiciary that can arbitrate disagreements between the regulator and the utility may not have clear authority or may not be fully independent of the regulator or other political pressure, but there is a reasonably strong rule of law; or (ii) where there is no independent arbiter, the regulation has mostly been applied in a manner such redress has not been required. We expect these conditions to continue.	Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation or government decree that provides the utility monopoly within its service territory that is reasonably strong but may have important exceptions, and that, subject to prudency requirements which may be stringent or at times arbitrary, provides more limited or less certain assurance that rates will be set in a manner that will permit the utility to make and recover necessary investments; or (ii) under a new framework where we would expect less independent and transparent regulation, based either on the regulator's history in other sectors or other factors. The judiciary that can arbitrate disagreements between the regulator and the utility may not have clear authority or may not be fully independent of the regulator or other political pressure, but there is a reasonably strong rule of law. Alternately, where there is no independent arbiter, the regulation has been applied in a manner that often requires some redress adding more uncertainty to the regulatory framework. There may be a periodic risk of creditor-unfriendly government intervention in utility markets or rate-setting.	Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation or government decree that provides the utility a monopoly within its service territory, but with little assurance that rates will be set in a manner that will permit the utility to make and recover necessary investments; or (ii) under a new framework where we would expect unpredictable or adverse regulation, based either on the jurisdiction's history of in other sectors or other factors. The judiciary that can arbitrate disagreements between the regulator and the utility may not have clear authority or is viewed as not being fully independent of the regulator or other political pressure. Alternately, there may be no redress to an effective independent arbiter. The ability of the utility to enforce its monopoly or prevent uncompensated usage of its system may be limited. There may be a risk of creditor- unfriendly nationalization or other significant intervention in utility markets or rate-setting.

Note 1: The strength of the monopoly refers to the legal, regulatory and practical obstacles for customers in the utility's territory to obtain service from another provider. Examples of a weakening of the monopoly would include the ability of a city or large user to leave the utility system to set up their own system, the extent to which self-generation is permitted (e.g. cogeneration) and/or encouraged (e.g., net metering, DSM generation). At the lower end of the ratings spectrum, the utility's monopoly may be challenged by pervasive theft and unauthorized use. Since utilities are generally presumed to be monopolies, a strong monopoly position in itself is not sufficient for a strong score in this sub-factor, but a weakening of the monopoly can lower the score.

* 10% weight for issuers that lack generation **0% weight for issuers that lack generation

Factor 2a: Timeliness of Recovery of Operating and Capital Costs (12.5%)

Aaa	Aa	A	Baa
Tariff formulas and automatic cost recovery mechanisms provide full and highly timely recovery of all operating costs and essentially contemporaneous return on all incremental capital investments, with statutory provisions in place to preclude the possibility of challenges to rate increases or cost recovery mechanisms. By statute and by practice, general rate cases are efficient, focused on an impartial review, quick, and permit inclusion of fully forward -looking costs.	Tariff formulas and automatic cost recovery mechanisms provide full and highly timely recovery of all operating costs and essentially contemporaneous or near-contemporaneous return on most incremental capital investments, with minimal challenges by regulators to companies' cost assumptions. By statute and by practice, general rate cases are efficient, focused on an impartial review, of a very reasonable duration before non-appealable interim rates can be collected, and primarily permit inclusion of forward- looking costs.	Automatic cost recovery mechanisms provide full and reasonably timely recovery of fuel, purchased power and all other highly variable operating expenses. Material capital investments may be made under tariff formulas or other rate-making permitting reasonably contemporaneous returns, or may be submitted under other types of filings that provide recovery of cost of capital with minimal delays. Instances of regulatory challenges that delay rate increases or cost recovery are generally related to large, unexpected increases in sizeable construction projects. By statute or by practice, general rate cases are reasonably efficient, primarily focused on an impartial review, of a reasonable duration before rates (either permanent or non- refundable interim rates) can be collected, and permit inclusion of important forward -looking costs.	Fuel, purchased power and all other highly variable expenses are generally recovered through mechanisms incorporating delays of less than one year, although some rapid increases in costs may be delayed longer where such deferrals do not place financial stress on the utility. Incremental capital investments may be recovered primarily through general rate cases with moderate lag, with some through tariff formulas. Alternately, there may be formula rates that are untested or unclear. Potentially greater tendency for delays due to regulatory intervention, although this will generally be limited to rates related to large capital projects or rapid increases in operating costs.

Ba	B	Caa
There is an expectation that fuel, purchased power or other highly variable expenses will eventually be recovered with delays that will not place material financial stress on the utility, but there may be some evidence of an unwillingness by regulators to make timely rate changes to address volatility in fuel, or purchased power, or other market-sensitive expenses. Recovery of costs related to capital investments may be subject to delays that are somewhat lengthy, but not so pervasive as to be expected to discourage important investments.	The expectation that fuel, purchased power or other highly variable expenses will be recovered may be subject to material delays due to second-guessing of spending decisions by regulators or due to political intervention. Recovery of costs related to capital investments may be subject to delays that are material to the issuer, or may be likely to discourage some important investment.	The expectation that fuel, purchased power or other highly variable expenses will be recovered may be subject to extensive delays due to second-guessing of spending decisions by regulators or due to political intervention. Recovery of costs related to capital investments may be uncertain, subject to delays that are extensive, or that may be likely to discourage even necessary investment.

Note: Tariff formulas include formula rate plans as well as trackers and riders related to capital investment.

Factor 3: Diversification (10%)

Weighting 10%	Sub-Factor Weighting	Aaa	Aa	A	Baa
Market Position	5% *	A very high degree of multinational and regional diversity in terms of regulatory regimes and/or service territory economies.	Material operations in three or more nations or substantial geographic regions providing very good diversity of regulatory regimes and/or service territory economies.	Material operations in two to three nations, states, provinces or regions that provide good diversity of regulatory regimes and service territory economies. Alternately, operates within a single regulatory regime with low volatility, and the service territory economy is robust, has a very high degree of diversity and has demonstrated resilience in economic cycles.	May operate under a single regulatory regime viewed as having low volatility, or where multiple regulatory regimes are not viewed as providing much diversity. The service territory economy may have some concentration and cyclicality, but is sufficiently resilient that it can absorb reasonably foreseeable increases in utility rates.
Generation and Fuel Diversity	5% **	A high degree of diversity in terms of generation and/or fuel sources such that the utility and rate-payers are well insulated from commodity price changes, no generation concentration, and very low exposures to Challenged or Threatened Sources (see definitions below).	Very good diversification in terms of generation and/or fuel sources such that the utility and rate-payers are affected only minimally by commodity price changes, little generation concentration, and low exposures to Challenged or Threatened Sources.	Good diversification in terms of generation and/or fuel sources such that the utility and rate-payers have only modest exposure to commodity price changes; however, may have some concentration in a source that is neither Challenged nor Threatened. Exposure to Threatened Sources is low. While there may be some exposure to Challenged Sources, it is not a cause for concern.	Adequate diversification in terms of generation and/or fuel sources such that the utility and rate-payers have moderate exposure to commodity price changes; however, may have some concentration in a source that is Challenged. Exposure to Threatened Sources is moderate, while exposureto Challenged Sources is manageable.

	Sub-Factor Weighting	Ba	B	Caa	Definitions
Market Position	5% *	Operates in a market area with somewhat greater concentration and cyclicality in the service territory economy and/or exposure to storms and other natural disasters, and thus less resilience to absorbing reasonably foreseeable increases in utility rates. May show somewhat greater volatility in the regulatory regime(s).	Operates in a limited market area with material concentration and more severe cyclicality in service territory economy such that cycles are of materially longer duration or reasonably foreseeable increases in utility rates could present a material challenge to the economy. Service territory may have geographic concentration that limits its resilience to storms and other natural disasters, or may be an emerging market. May show decided volatility in the regulatory regime(s).	Operates in a concentrated economic service territory with pronounced concentration, macroeconomic risk factors, and/or exposure to natural disasters.	Challenged Sources are generation plants that face higher but not insurmountable economic hurdles resulting from penalties or taxes on their operation, or from environmental upgrades that are required or likely tobe required. Some examples are carbon-emitting plants that incur carbontaxes, plants that must buy emissions credits to operate, and plants that must install environmental equipment to continue to operate, in each wherethe taxes/credits/upgrades are sufficient to have a material impact on those plants' competitiveness relative to other generation types or on the utility's rates, but where the impact is not so severe as to be likely require plant closure.
Generation and Fuel Diversity	5% **	Modest diversification in generation and/or fuel sources such that the utility or rate- payers have greater exposure to commodity price changes. Exposure to Challenged and Threatened Sources may be more pronounced, but the utility will be able to access alternative sources without undue financial stress.	Operates with little diversification in generation and/or fuel sources such that the utility or rate-payers have high exposure to commodity price changes. Exposure to Challenged and Threatened Sources may be high, and accessing alternate sources may be challenging and cause more financial stress, but ultimately feasible.	Operates with high concentration in generation and/or fuel sources such that the utility or rate-payers have exposure to commodity price shocks. Exposure to Challenged and Threatened Sources maybe very high, and accessing alternate sources may be highly uncertain.	Threatened Sources are generation plants that are not currently able to operate due to major unplanned outages or issues with licensing or other regulatory compliance, and plants that are highly likely to be required to de- activate, whether due to the effectiveness of currently existing or expected rules and regulations or due to economic challenges. Some recent examples would include coal fired plants in the US that are not economic to retro-fit to meet mercury and air toxics standards, plants that cannot meet theeffective date of those standards, nuclear plants in Japan that have not been licensed to re-start after the Fukushima Dai-ichi accident, and nuclear plants that are required to be phased out within 10 years (as is the case in some European countries).

* 10% weight for issuers that lack generation **0% weight for issuers that lack generation

Appendix B: Approach to Ratings within a Utility Family

Typical Composition of a Utility Family

A typical utility company structure consists of a holding company ("HoldCo") that owns one or more operating subsidiaries (each an "OpCo"). OpCos may be regulated utilities or non-utility companies. Financing of these entities varies by region, in part due to the regulatory framework. A HoldCo typically has no operations – its assets are mostly limited to its equity interests in subsidiaries, and potentially other investments in subsidiaries or minority interests in other companies. However, in certain cases there may be material operations at the HoldCo level. Financing can occur primarily at the OpCo level, primarily at the HoldCo level, or at both HoldCo and OpCos in varying proportions. When a HoldCo has multiple utility OpCos, they will often be located in different regulatory jurisdictions. A HoldCo may have both levered and unlevered OpCos.

General Approach to a Utility Family

In our analysis, we generally consider the stand-alone credit profile of an OpCo and the credit profile of its ultimate parent HoldCo (and any intermediate HoldCos), as well as the profile of the family as a whole, while acknowledging that these elements can have cross-family credit implications in varying degrees, principally based on the regulatory framework of the OpCos and the financing model (which has often developed in response to the regulatory framework).

In addition to considering individual OpCos under this (or another applicable) methodology, we typically[16] approach a HoldCo rating by assessing the qualitative and quantitative factors in this methodology for the consolidated entity and each of its utility subsidiaries. Ratings of individual entities in the issuer family may be pulled up or down based on the interrelationships among the companies in the family and their relative credit strength.

In considering how closely aligned or how differentiated ratings should be among members of a utility family, we assess a variety of factors, including:

- Regulatory or other barriers to cash movement among OpCos and from OpCos to HoldCo
- Differentiation of the regulatory frameworks of the various OpCos
- Specific ring-fencing provisions at particular OpCos
- Financing arrangements – for instance, each OpCo may have its own financing arrangements, or the sole liquidity facility may be at the parent; there may be a liquidity pool among certain but not all members of the family; certain members of the family may better be able to withstand a temporary hiatus of external liquidity or access to capital markets
- Financial covenants and the extent to which an Event of Default by one OpCo limits availability of liquidity to another member of the family
- The extent to which higher leverage at one entity increases default risk for other members of the family
- An entity's exposure to or insulation from an affiliate with high business risk
- Structural features or other limitations in financing agreements that restrict movements of funds, investments, provision of guarantees or collateral, etc.
- The relative size and financial significance of any particular OpCo to the HoldCo and the family

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[16] See paragraph at the end of this section for approaches to Hybrid HoldCos.

While most of the regulatory barriers to cash movement are very real, they are not absolute. Furthermore, while it is not usually in the interest of an insolvent parent or its creditors to bring an operating utility into a bankruptcy proceeding, such an occurrence is not impossible.

The greatest separateness occurs where strong regulatory insulation is supplemented by effective ring-fencing provisions that fully separate the management and operations of the OpCo from the rest of the family and limit the parent's ability to cause the OpCo to commence bankruptcy proceedings as well as limiting dividends and cash transfers. Typically, most entities in US utility families (including HoldCos and OpCos) are rated within 3 notches of each other. However, it is possible for the HoldCo and OpCos in a family to have much wider notching due to the combination of regulatory imperatives and strong ring-fencing that includes a significant minority shareholder who must agree to important corporate decisions, including a voluntary bankruptcy filing.

Lower Barriers to Cash Movement with Financing Predominantly at the OpCos

Our approach to rating issuers within a family where there are lower regulatory barriers to movement of cash from OpCos to HoldCos (e.g., many parts of Asia and Europe) places greater emphasis on the credit profile of the consolidated group. Individual OpCos are considered based on their individual characteristics and their importance to the family, and their assigned ratings are typically banded closely around the consolidated credit profile of the group due to the expectation that cash will transit relatively freely among family entities.

Some utilities may have OpCos in jurisdictions where cash movement among certain family members is more restricted by the regulatory framework, while cash movement from and/or among OpCos in other jurisdictions is less restricted. In these situations, OpCos with more restrictions may vary more widely from the consolidated credit profile while those with fewer restrictions may be more tightly banded around the other entities in the corporate family group.

Regulated Generation Utility: Regulated generation utilities (Regulated Gencos) are utilities that almost exclusively have generation assets, but their activities are generally regulated like those of vertically integrated utilities. In the US, this means that the purchasers of their output (typically other investor-owned, municipal or cooperative utilities) pay a regulated rate based on the total allowed costs of the Regulated Genco, including a return on equity based on a capital structure designated by the regulator (primarily FERC). Companies that have been included in this group include certain generation companies (including in Korea and China) that are not rate regulated in the usual sense of recovering costs plus a regulated rate of return on either equity or asset value. Instead, we have looked at a combination of governmental action with respect to setting feed-in tariffs and directives on how much generation will be built (or not built) in combination with a generally high degree of government ownership, and we have concluded that these companies are currently best rated under this methodology. Future evolution in our view of the operating and/or regulatory environment of these companies could lead us to conclude that they may be more appropriately rated under a related methodology (for example, Unregulated Utilities and Power Companies).

Independent System Operator: An Independent System Operator (ISO) is an organization formed in certain regional electricity markets to act as the sole chief coordinator of an electric grid. In the areas where an ISO is established, it coordinates, controls and monitors the operation of the electrical power system to assure that electric supply and demand are balanced at all times, and, to the extent possible, that electric demand is met with the lowest-cost sources. ISOs seek to assure adequate transmission and generation resources, usually by identifying new transmission needs and planning for a generation reserve margin above expected peak demand. In regions where generation is competitive, they also seek to establish rules that foster a fair and open marketplace, and they may conduct price-setting auctions for energy and/or capacity. The generation resources that an ISO coordinates may belong to vertically integrated utilities or to independent power producers. ISOs may not be rate-regulated in the traditional sense, but fall under governmental oversight. All participants in the regional grid are required to pay a fee or tariff (often volumetric) to the ISO that is designed to recover its costs, including costs of investment in systems and equipment needed to fulfill their function. ISOs may be for profit or not-for-profit entities.

In the US, most ISOs were formed at the direction or recommendation of the Federal Energy Regulatory Commission (FERC), but the ISO that operates solely in Texas falls under state jurisdiction. Some US ISOs also perform certain additional functions such that they are designated as Regional Transmission Organizations (or RTOs).

Transmission-Only Utility: Transmission-only utilities are solely focused on owning and operating transmission assets. The transmission lines these utilities own are typically high-voltage and allow energy producers to transport electric power over long distances from where it is generated (or received) to the transmission or distribution system of a T&D or vertically integrated utility. Unlike most of the other utilities rated under this methodology, transmission-only utilities primarily provide services to other utilities and ISOs. Transmission-only utilities in most parts of the world other than the US have been rated under the Regulated Networks methodology.

Utility Holding Company (Utility HoldCo): As detailed in Appendix B, regulated electric and gas utilities are often part of corporate families under a parent holding company. The operating subsidiaries of Utility HoldCos are overwhelmingly regulated electric and gas utilities.

Hybrid Holding Company (Hybrid HoldCo): Some utility families contain a mix of regulated electric and gas utilities and other types of companies, but the regulated electric and gas utilities represent the majority of the consolidated cash flows, assets and debt. The parent company is thus a Hybrid HoldCo.

When financial markets are volatile, utilities often have greater capital market access than industrial companies in competitive sectors, as was the case in the 2007-2009 recession. However, regulated electric and gas utilities are by no means immune to a protracted or severe recession.

Severe economic malaise can negatively affect utility credit profiles in several ways. Falling demand for electricity or natural gas may negatively impact margins and debt service protection measures, especially when rates are designed such that a substantial portion of fixed costs is in theory recovered through volumetric charges. The decrease in demand in the 2007-2009 recession was notable in comparison to prior recessions, especially in the residential sector. Poor economic conditions can make it more difficult for regulators to approve needed rate increases or provide timely cost recovery for utilities, resulting in higher cost deferrals and longer regulatory lag. Finally, recessions can coincide with a lack of confidence in the utility sector that impacts access to capital markets for a period of time. For instance, in the Great Depression and (to a lesser extent) in the 2001 recession, access for some issuers was curtailed due to the sector's generally higher leverage than other corporate sectors, combined with a concerns over a lack of transparency in financial reporting.

Fuel Price Volatility and the Global Impact of Shale Gas

The ability of most utilities to pass through their fuel costs to end users may insulate a utility from exposure to price volatility of these fuels, but it does not insulate consumers. Consumers and regulators complained vociferously about utility rates during the run-up in hydro-carbon prices in 2005-2008 (oil, natural gas and, to a lesser extent, coal). The steep decline in US natural gas prices since 2009, caused in large part by the development of shale gas and shale oil resources, has been a material benefit to US utilities, because many have been able to pass through substantial base rate increases during a period when all-in rates were declining. Shale hydro-carbons have also had a positive impact, albeit one that is less immediate and direct, on non-US utilities. In much of the eastern hemisphere, natural gas prices under long-term contracts have generally been tied to oil prices, but utilities and other industrial users have started to have some success in negotiating to de-link natural gas from oil. In addition, increasing US production of oil has had a noticeable impact on world oil prices, generally benefitting oil and gas users.

Not all utilities will benefit equally. Utilities that have locked in natural gas under high-priced long- term contracts that they cannot re-negotiate are negatively impacted if they cannot pass through their full contracted cost of gas, or if the high costs cause customer dissatisfaction and regulatory backlash. Utilities with large coal fleets or utilities constructing nuclear power plants may also face negative impacts on their regulatory environment, since their customers will benefit less from lower natural gas prices.

Distributed Generation Versus the Central Station Paradigm

The regulation and the financing of electric utilities are based on the premise that the current model under which electricity is generated and distributed to customers will continue essentially unchanged for many decades to come. This model, called the central station paradigm (because electricity is generated in large, centrally located plants and distributed to a large number of customers, who may in fact be hundreds of miles away), has been in place since the early part of the 20th century. The model has worked because the economies of scale inherent to very large power plants has more than offset the cost and inefficiency (through power losses) inherent to maintaining a grid for transmitting and distributing electricity to end users.

Despite rate structures that only allow recovery of invested capital over many decades (up to 60 years), utilities can attract capital because investors assume that rates will continue to be collected for at least that long a period. Regulators and politicians assume that taxes and regulatory charges levied on electricity usage will be paid by a broad swath of residences and businesses and will not materially discourage usage of power from 50 reactors, but all are currently either idled or shut down, and utilities in the country face materially higher costs of replacement power, a credit negative.

Fukushima Daiichi also had global consequences. Germany's response was to require that all nuclear power plants in the country be shut by 2022. Switzerland opted for a phase-out by 2031. (Most European nuclear plants are owned by companies rated under other the Unregulated Utilities and Power Companies methodology.) Even in countries where the regulatory response was more moderate, increased regulatory scrutiny has raised operating costs, a credit negative, especially in the US, where low natural gas prices have rendered certain primarily smaller nuclear plants uneconomic. Nonetheless, we view robust and independent nuclear safety regulation as a credit-positive for the industry.

Other general issues for nuclear operators include higher costs and lower reliability related to the increasing age of the fleet. In 2013, Duke Energy Florida, Inc. decided to shut permanently Crystal River Unit 3 after it determined that a de-lamination (or separation) in the concrete of the outer wall of the containment building was uneconomic to repair. San Onofre Nuclear Generating Station was closed permanently in 2013 after its owners, including Southern California Edison Company (A3, RUR-up) and San Diego Gas & Electric Company (A2, RUR-up), decided not to pursue a re-start in light of operating defects in two steam generators that had been replaced in 2010 and 2011.

Korea Hydro and Nuclear Power Company Limited and its parent, Korea Electric Power Corporation, faced a scandal related to alleged corruption and acceptance of falsified safety documents provided by its parts suppliers for nuclear plants. Korean prosecutors' widening probe into KHNP's use of substandard parts at many of its 23 nuclear power plants caused three plants to be shut down temporarily.

lower than the utility's cost of debt and much lower than its all-in cost of capital, which reduces the revenue requirement associated with the cost recovery.

In the presentation of US securitization debt in published financial ratios, we make our own assessment of the appropriate credit representation but in most cases follows the accounting in audited statements under US Generally Accepted Accounting Principles (GAAP), which in turn considers the terms of enabling legislation. As a result, accounting treatment may vary. In most states utilities have been required to consolidate securitization debt under GAAP, even though it is technically non- recourse.

In general, we view securitization debt of utilities as being on-credit debt, in part because the rates associated with it reduce the utility's headroom to increase rates for other purposes while keeping all-in rates affordable to customers. Thus, where accounting treatment is off balance sheet, we seek to adjust the company's ratios by including the securitization debt and related revenues for our analysis. Where the securitized debt is on balance sheet, our credit analysis also considers the significance of ratios that exclude securitization debt and related revenues. Since securitization debt amortizes mortgage-style, including it makes ratios look worse in early years (when most of the revenue collected goes to pay interest) and better in later years (when most of the revenue collected goes to pay principal).

Strong levels of government ownership in Asia Pacific (ex-Japan) provide rating uplift

Strong levels of government ownership have dominated the credit profiles of utilities in Asia Pacific (excluding Japan), generally leading to ratings that are a number of notches above the Baseline Credit Assessment. Regulated electric and gas utilities with significant government ownership are rated using this methodology in conjunction with the Joint Default Analysis approach in our methodology for Government-Related Issuers.[19]

Support system for large corporate entities in Japan can provide ratings uplift, with limits

Our ratings for large corporate entities in Japan reflect the unique nature of the country's support system, and they are higher than they would otherwise be if such support were disregarded. This is reflected in the tendency for ratings of Japanese utilities to be higher than their grid implied ratings. However, even for large prominent companies, our ratings consider that support will not be endless and is less likely to be provided when a company has questionable viability rather than being in need of temporary liquidity assistance.

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[19] A link to this and other sector and cross-sector credit rating methodologies can be found in the Related Research section of this report.

Additional considerations for PPAs

PPAs have a wide variety of financial and regulatory characteristics, and each particular circumstance may be treated differently by Moody's. Factors which determine where on the continuum we treat a particular PPA include the following:

» Risk management: An overarching principle is that PPAs have normally been used by utilities as a risk management tool and we recognize that this is the fundamental reason for their existence. Thus, we will not automatically penalize utilities for entering into contracts for the purpose of reducing risk associated with power price and availability. Rather, we will look at the aggregate commercial position, evaluating the risk to a utility's purchase and supply obligations. In addition, PPAs are similar to other long-term supply contracts used by other industries and their treatment should not therefore be fundamentally different from that of other contracts of a similar nature.

» Pass-through capability: Some utilities have the ability to pass through the cost of purchasing power under PPAs to their customers. As a result, the utility takes no risk that the cost of power is greater than the retail price it will receive. Accordingly we regard these PPA obligations as operating costs with no long-term debt-like attributes. PPAs with no pass-through ability have a greater risk profile for utilities. In some markets, the ability to pass through costs of a PPA is enshrined in the regulatory framework, and in others can be dictated by market dynamics. As a market becomes more competitive or if regulatory support for cost recovery deteriorates, the ability to pass through costs may decrease and, as circumstances change, our treatment of PPA obligations will alter accordingly.

» Price considerations: The price of power paid by a utility under a PPA can be substantially above or below the market price of electricity. A below-market price will motivate the utility to purchase power from the IPP in excess of its retail requirements, and to sell excess electricity in the spot market. This can be a significant source of cash flow for some utilities. On the other hand, utilities that are compelled to pay capacity payments to IPPs when they have no demand for the power or at an above-market price may suffer a financial burden if they do not get full recovery in retail rates. We will focus particularly on PPAs that have mark-to-market losses, which typically indicates that they have a material impact on the utility's cash flow.

» Excess Reserve Capacity: In some jurisdictions there is substantial reserve capacity and thus a significant probability that the electricity available to a utility under PPAs will not be required by the market. This increases the risk to the utility that capacity payments will need to be made when there is no demand for the power. We may determine that all of a utility's PPAs represent excess capacity, or that a portion of PPAs are needed for the utility's supply obligations plus a normal reserve margin, while the remaining portion represents excess capacity. In the latter case, we may impute debt to specific PPAs that are excess or take a proportional approach to all of the utility's PPAs.

» Risk-sharing: Utilities that own power plants bear the associated operational, fuel procurement and other risks. These must be balanced against the financial and liquidity risk of contracting for the purchase of power under a PPA. We will examine on a case-by case basis the relative credit risk associated with PPAs in comparison to plant ownership.

» Purchase requirements: Some PPAs are structured with either options or requirements to purchase the asset at the end of the PPA term. If the utility has an economically meaningful requirement to purchase, we would most likely consider it to be a debt obligation. In most such cases, the obligation would already receive on-balance sheet treatment under relevant accounting standards.

» Default provisions: In most cases, the remedies for default under a PPA do not include acceleration of amounts due, and in many cases PPAs would not be considered as debt in a bankruptcy scenario and could potentially be cancelled. Thus, PPAs may not materially increase Loss Given Default for the

Moody's Related Research

The credit ratings assigned in this sector are primarily determined by this credit rating methodology. Certain broad methodological considerations (described in one or more credit rating methodologies) may also be relevant to the determination of credit ratings of issuers and instruments in this sector. Potentially related sector and cross-sector credit rating methodologies can be found here.

For data summarizing the historical robustness and predictive power of credit ratings assigned using this credit rating methodology, see link.

Please refer to Moody's Rating Symbols & Definitions, which is available here, for further information. Definitions of Moody's most common ratio terms can be found in "Moody's Basic Definitions for Credit Statistics, User's Guide", accessible via this link.

Report Number: 1072530

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Southwest Gas Holdings, Inc.
ATO 111.44 -1.10
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-1.54 -1.36%
^TYX 2.0720 -0.0330 -1.5677%
Treasury Yield 30 Years

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Fed's Williams Sees Signs of Economy Slowing From Strong Pace

Bloomberg Matthew Boesler, Bloomberg · October 2, 2019

(Bloomberg) -- Explore what's moving the global economy in the new season of the Stephanomics podcast. Subscribe via Pocket Cast or iTunes.

New York Fed President John Williams said the U.S. economy looks strong from the rear view mirror while the outlook is more mixed because of numerous uncertainties and risks.

"We have seen signs of the economy slowing somewhat," Williams said Wednesday during a talk in La Jolla, California. "We want to get monetary policy positioned to keep the economy growing at a sustainable pace."

Williams and his colleagues on the U.S. central bank's policy-setting Federal Open Market Committee voted Sept. 18 to cut their benchmark interest rate for a second time this year, following an initial reduction in July that marked the first since the financial crisis in 2008. They cited slowing global growth, trade policy uncertainty and muted inflation as key considerations.

U.S. stocks tumbled to the lowest since August Wednesday amid concerns about the health of global manufacturing. A closely-watched indicator of growth in U.S. manufacturing slumped in September to the lowest

Quote Lookup

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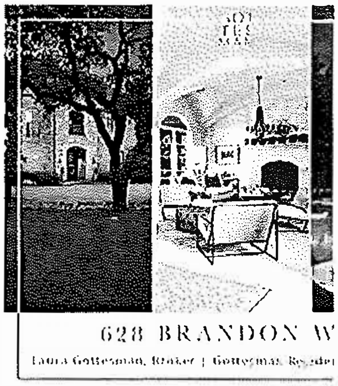
Symbol	Last Price	Change	% Change
NG=F NG=F	2.2610	-0.0220	-0.96%
SWX Southwest Gas Holdings, Inc.	88.97	-1.10	-1.22%
ATO Atmos Energy Corporation	111.44	-1.54	-1.36%
^TYX Treasury Yield 30 Years	2.072	-0.033	-1.5677%



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monetary policy, gradually drained reserves from the banking system over that period. Now, Fed officials are saying they may have to resume expansion of the balance sheet soon to ensure appropriate liquidity.

Williams said that today the U.S. economy is in a "favorable place," but pointed to numerous uncertainties and risks that the Fed is navigating.

“Looking ahead, there are a number of crosscurrents, if you will, that are leading to slower U.S. growth,” he said. “We’ve seen the effects of the trade tensions and other geopolitical tensions lead to higher uncertainty about the future, and that seems to have contributed to a pullback in business investment, in the U.S. and abroad. And we’re seeing a pullback in international trade as well."

(Updates with additional comments from Williams starting in fifth paragraph.)

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Yahoo Finance LIVE - Oct 02

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Yahoo Finance LIVE - Oct 02

U.S. stocks tumbled sharply Wednesday, extending Tuesday's declines after a weak batch of economic data sparked concerns over the pace of global and domestic growth.

Here were the main moves in the market as of 12:12 p.m. ET:

- S&P 500 (^GSPC): -1.84%, or 54.08 points
- Dow (^DJI): -1.9%, or 507.61 points
- Nasdaq (^IXIC): -1.76%, or 139.13 points
- U.S. crude oil prices (CL=F): -2.1% to $52.49 per barrel

JPMorgan study: Minority small businesses fare worse than white counterparts

Why 'substance' of China trade deal matters more than Trump impeachment probe: Expert

growth.

“Global trade remains the most significant issue, as demonstrated by the contraction in new export orders that began in July 2019,” Timothy Fiore, chair of the ISM survey committee, said in a statement of the U.S. economic results. “Overall, sentiment this month remains cautious regarding near-term growth.”

While manufacturing activity comprises only about 11% of domestic GDP, according to a recent Goldman Sachs report, the sector’s measurable deceleration this year has become a paragon for the impact of ongoing trade tensions.

[illegible]

Independently, other portions of the domestic economy have firmed, with positive quarterly earnings results from homebuilder Lennar (LEN) on Wednesday underscoring strengthening demand in the housing market as mortgage rates decline. Last week, a 30-year fixed rate mortgage fell to 3.64%, down from 4.72% a year earlier, according to Freddie Mac. During the same period, mortgage applications rose by 8.1%, the Mortgage Bankers Association said Wednesday.

Lennar said contracts to purchase homes increased 9% during the quarter ending in August, far exceeding consensus analyst expectations for a 3.5% rise.

shown in the following table:

Table 1

Cost of Equity Estimates[1]

MODEL	RANGE	MIDPOINT
Discounted Cash Flow DCF	8.98% - 9.28%	9.13%
Two-stage DCF	8.55% - 9.25%	8.90%
Capital Asset Pricing Model CAPM	8.68% - 8.87%	8.78%
Empirical CAPM	9.54% -9.68%	9.61%
Bond Yield Risk Premium	8.99% - 9.07%	9.03%
Average DCF Models		9.09%

Based on thes DCF model results an equity return of 9.1% is appropriate in this case. The 9.1% recommendation is based on the DCF and risk premium model results, and consideration of business and financial risks. All of these model results and risks considerations are discussed in the following pages. When the 9.1% equity return recommendation is combined with the Company's capital structure and debt cost rate projected at December 31, 2020, results in a recommended return on rate base investment as follows for the DEU request:

MOODY'S
INVESTORS SERVICE

CREDIT OPINION
30 January 2019

Update

Rate this Research

RATINGS

Questar Gas Company

Domicile	Salt Lake City, Utah, United States
Long Term Rating	A2
Type	Senior Unsecured - Dom Curr
Outlook	Negative

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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Questar Gas Company

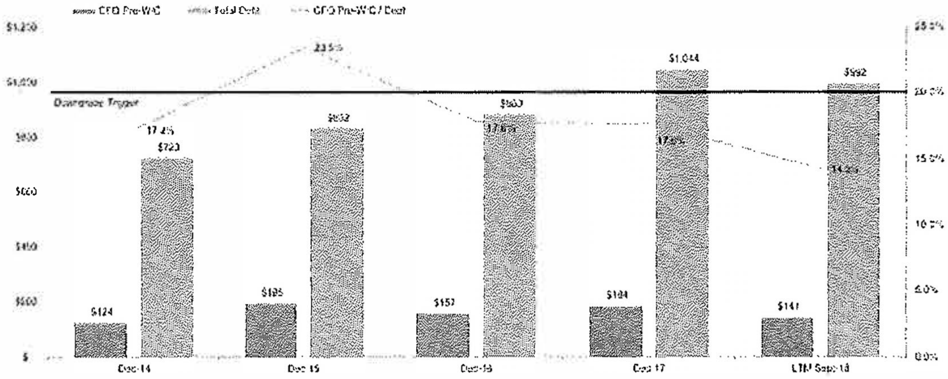
Update to credit analysis

Summary

Questar Gas Company's (A2 negative) credit profile reflects 1) low-risk operations as a local gas distribution company (LDC), 2) supportive regulators in Utah and Wyoming, 3) stable cash flow production through its suite of cost recovery mechanisms and 4) an expectation for more conservative financial policies with regard to capital structure over the next 12-18 months.

The Questar Gas credit profile is constrained by 1) very weak financial metrics versus peers, 2) a base rate freeze and tax reform impacts that will reduce cash flow metrics through 2020 and 3) a highly levered parent company (i.e., Dominion Energy Inc. (DEI, Baa2 stable).

Exhibit 1
Historical CFO Pre-WC, Total Debt and CFO Pre-WC to Debt
($MM)



Source: Moody's Financial Metrics

Credit strengths

» Stable and predictable cash flow derived from cost recovery mechanisms on around $1 billion of rate base

» Cooperative relationships with regulators in Utah and Wyoming

» Management financial policies are improving the capital structure

» Ring-fencing like provisions helps offset some risk of its highly levered parent

Detailed credit considerations

Supportive regulatory environments with key cost recovery features

Questar Gas' credit profile is underpinned by its low-risk gas distribution operations in very supportive regulatory environments. The PSCU and PSCW provide Questar Gas with cost recovery provisions that allow the company to recover prudently incurred costs on a timely basis.

Some of the key regulatory provisions include the company's revenue decoupling mechanism and weather normalization adjustment, which help to provide revenue and cash flow certainty despite fluctuations in customer use patterns. Importantly, the decoupling mechanism also helps Questar Gas to recover its fixed charges in a flat to declining demand environment, which mitigates volume risk. We note that while the company is experiencing declining use on a per-customer basis, the overall service territory demand is experiencing growth of around 2.0% per year - a credit positive.

The company's infrastructure rider accelerates the recovery of certain distribution system investments, once the projects are complete. This will be particularly helpful as the company makes capital expenditures associated with a multi-year high-pressure natural gas feeder-line replacement program. We expect this replacement program to continue to keep Questar Gas' capital expenditures elevated for several years, therefore the rider will accelerate the recovery of this investment and help to maintain a stronger financial profile than would otherwise be possible.

While timely cost recovery has been the norm in Utah and Wyoming, we note that a condition of the Dominion acquisition approval included a base rate freeze for Questar Gas, in both jurisdictions, through 2020. This is credit negative which we expect to result in declining financial metrics over the next two years, but assume that rates and cash flow would increase thereafter.

Weakened cash flow will persist over the next 18 months, but managing financial policies should help improve metrics

At about 14%, Questar Gas' ratio of CFO pre-WC to debt through LTM 3Q18, is much lower than A2 LDC peers that have averaged around 23% over the same period. We expect that Questar Gas' financial profile will remain relatively weak through 2020 as a result of the Utah and Wyoming base rate freezes, a robust capital plan and cash flow headwinds due to December 2017 tax reform. For example, we expect cash flow from operations to stagnate around $180 million.

However, management has taken steps to stabilize and improve the company's financial profile until new rates can begin in mid-2020. For example, Questar Gas has made no dividend payments since 4Q16 and has received approval from the UPSC to temporarily increase the equity component of the LDC's capital structure, as a means to improve financial credit metrics. In January 2019, Questar Gas received commission approval to exceed the 55% equity layer of capitalization that was ordered in the 2016 merger approval. This should help stave off the pace of increasing debt during the cash flow stagnation and keep CFO pre-WC to debt - and CFO pre-WC less dividends to debt - between 16-18%.

Despite the greater retained cash flow, the company's financial profile remains weak compared to peer LDCs that have similar cost recovery mechanisms and operate in very supportive regulatory jurisdictions. Exhibit 3 shows a comparison of CFO pre-WC to debt and CFO pre-WC less dividends to debt for Questar Gas and its peers.

adverse change clause for borrowings but do contain a maximum 67.5% debt to capitalization covenant (Questar Gas' specific covenant is 65%), and all four borrowers have reported that they remain comfortably in compliance with this covenant restriction.

Questar's P-1 CP rating is currently derived from Questar Gas' A2 long-term rating and recognizes that sub-limits for Dominion subsidiaries can be changed at the option of Dominion multiple times per year.

We also note that while it is common practice for Dominion and its subsidiaries to limit CP issuances to amounts available under the revolver backstop, the program documentation has no overt language that restricts CP issuance in this manner. We expect Dominion to continue its practice of maintaining 100% backup, at all times, for funded commercial paper in the form of cash balances and its $6.0 billion of committed bank credit facility. Should there be a deviation of this practice, the P-1 of Questar Gas would be downgraded and could result in negative ratings implications for its long-term debt as well.

Questar Gas also has $40 million and $110 million in notes maturing in December 2024 and December 2027, respectively.

Exhibit 4

Dominion's credit facility profile as of 30 September 2018 [1]

Company	Current Sub-Limit	CP Outstanding	Letters of Credit	Total Use as % of Sub-Limit	Sub-Limit Available
Total	**$ 6,000**	**$ 2,928**	**$ 132**	**51%**	**$ 2,940**
DEI	$ 3,500	$ 1,743	$ 71	52%	$ 1,686
VEPCO	$ 1,500	$ 934	$ 61	66%	$ 505
DEGH	$ 750	$ 141	$ -	19%	$ 609
Questar Gas	$ 250	$ 110	$ -	44%	$ 140

Dominion represents Dominion Energy Inc.'s parent and unregulated operations

[1] This does not incorporate any of the cash receipts from the sale of Blue Racer, merchant assets, and settlement of forward equity sale.

Source: Company reports

Appendix

Exhibit 6

Cash Flow and Credit Metrics [1]

CF Metrics	Dec-14	Dec-15	Dec-16	Dec-17	LTM Sept-18
As Adjusted					
FFO	162	179	157	184	141
+/- Other	(37)	16			
CFO Pre-WC	124	195	157	184	141
+/- ΔWC	5	(63)	44	(43)	63
CFO	129	132	201	141	205
Div	27	47	30		
Capex	175	217	240	215	252
FCF	(72)	(132)	(69)	(74)	(47)
(CFO Pre-W/C) / Debt	17.2%	23.5%	17.8%	17.6%	14.3%
(CFO Pre-W/C - Dividends) / Debt	13.5%	17.8%	14.4%	17.6%	14.3%
FFO / Debt	22.3%	21.5%	17.8%	17.6%	14.3%
RCF / Debt	18.6%	15.9%	14.4%	17.6%	14.3%
Revenue	961	918	921	947	948
Cost of Good Sold	603	553	528	550	561
Interest Expense	30	30	31	35	39
Net Income	56	60	65	70	70
Total Assets	1,969	2,193	2,507	2,698	2,695
Total Liabilities	1,372	1,571	1,853	1,977	1,929
Total Equity	597	621	654	721	766

[1] All figures and ratios are calculated using Moody's estimates and standard adjustments. Periods are Financial Year-End unless indicated. LTM = Last Twelve Months.
Source: Moody's Financial Metrics

Exhibit 7

Peer Comparison Table [1]

	Questar Gas Company			[illegible] Gas Company			UGI Utilities, Inc.			ONE Gas, Inc			Public Service Co. of North Carolina, Inc		
	A2 Negative			A2 Negative			A2 Stable			A2 Stable			A3 Negative		
	FYE	FYE	LTM				FYE			FYE			FYE	FYE	LTM
(In US millions)	Dec-16	Dec-17	Sept-18	[illegible]	[illegible]	[illegible]	Sep-16	[illegible]	[illegible]	Dec-16	[illegible]	[illegible]	Dec-16	Dec-17	Sept-18
Revenue	921	947	948	461	517	535	768	889	1,092	1,427	1,540	1632	423	470	498
CFO Pre-W/C	157	184	141	118	172	200	215	298	344	296	376	462	128	157	123
Total Debt	883	1,044	992	837	984	1,060	1,000	1,095	1,138	1,608	1,702	1,621	572	747	866
CFO Pre-W/C / Debt	17.8%	17.6%	14.3%	14.1%	17.5%	18.9%	21.4%	27.2%	30.2%	18.4%	22.1%	28.5%	22.4%	21.0%	13.8%
CFO Pre-W/C - Dividends / Debt	14.4%	17.6%	14.3%	14.1%	15.4%	17.0%	16.7%	22.0%	25.8%	13.9%	16.9%	22.6%	16.5%	16.2%	9.0%
Debt / Capitalization	43.9%	51.2%	48.8%	39.3%	45.4%	45.2%	40.5%	40.3%	43.3%	35.6%	40.0%	39.0%	34.9%	43.3%	47.1%

[1] All figures & ratios calculated using Moody's estimates & standard adjustments. FYE = Financial Year-End. LTM = Last Twelve Months.
Source: Moody's Financial Metrics

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REPORT NUMBER 1157877

S&P Global
Ratings

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Research Update:

Questar Gas Co. Ratings Affirmed, Stand-Alone Credit Profile Revised To 'a-' On Tax Reform; Outlook Remains Negative

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tax reform. On a forward-looking basis, we expect funds from operations (FFO) to debt at about 18%, previously we expected FFO to debt of about 20%.

Our stand-alone business risk assessment of QGC reflects the utility's low-risk regulated natural gas distribution business, above-average size, and its effective management of regulatory risk.

QGC serves approximately 1 million customers in Utah (about 97%), southwestern Wyoming, and southeastern Idaho. Constructive regulation in Utah strengthens the company's management of regulatory risk incorporating a credit supportive rate design and the use of multiple regulatory mechanisms including a fuel cost adjustment, a weather normalization adjustment, decoupling, and an infrastructure cost tracking adjustment. QGC cash flows are generally stable and largely insulated from fluctuations in gas prices, weather, and usage. Furthermore, most of the customer base is residential and commercial, providing an additional measure of cash flow stability. Marginally affecting the company's business risk profile is the general lack of business or regulatory diversity.

QGC has good access to gas supply due to its relationship with Wexpro (65% of the utility's supply), a cost-of-service exploration and production operation company providing natural gas to QGC at cost plus a fixed return. This relationship minimizes QGC's price risk compared to peers.

We assess the company's financial measures using more moderate financial benchmarks compared to the typical corporate issuer, reflecting its low-risk regulated utility business and its effective management of regulatory risk.

Under our base-case scenario, which includes improving economic conditions in the company's service territory, a rate case increase in 2020, tax reform, capital spending of about $220 million, and dividends of about $40 million, we expect financial measures consistent with the middle of the range the company's financial risk category. Specifically, we expect FFO to debt of about 18%. Prior to tax reform we expected FFO to debt of about 20%.

Liquidity

QGC has adequate liquidity, in our view, and can more than cover its needs for the next 12 months even if EBITDA declines by 10%. We expect the company's liquidity sources will exceed uses by more than 1.1x over the next 12 months, which is the minimum threshold for an adequate liquidity assessment under our criteria. Under our stress scenario, we do not expect the company would require access to the capital markets during that period to meet liquidity needs. Our assessment also reflects the company's stable cash flow generation, generally prudent risk management, sound relationships with banks, and a generally satisfactory standing in the credit markets.

Principal liquidity sources:

- FFO of about $175 million;
- Credit facility sub-limit of $250 million; and

- Management and governance: Satisfactory (no impact)
- Comparable rating analysis: Neutral (no impact)

Stand-alone credit profile: a-
- Group credit profile: bbb+
- Entity status within group: Core (-1 notch from SACP)

Issue Ratings--Subordination Risk Analysis

We rate Questar Gas' unsecured debt the same as the issuer credit rating because it is unsecured debt of a qualifying investment-grade regulated utility.

Related Criteria

- Criteria - Corporates - General: Reflecting Subordination Risk In Corporate Issue Ratings, Sept. 21, 2017
- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings , April 7, 2017
- Criteria - Corporates - General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- Criteria - Corporates - Industrials: Key Credit Factors For The Midstream Energy Industry, Dec. 19, 2013
- Criteria - Corporates - General: Corporate Methodology: Ratios And Adjustments, Nov. 19, 2013
- Criteria - Corporates - General: Corporate Methodology, Nov. 19, 2013
- Criteria - Corporates - Utilities: Key Credit Factors For The Regulated Utilities Industry, Nov. 19, 2013
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- General Criteria: Group Rating Methodology, Nov. 19, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities And Insurers, Nov. 13, 2012
- General Criteria: Use Of CreditWatch And Outlooks, Sept. 14, 2009
- Criteria - Insurance - General: Hybrid Capital Handbook: September 2008 Edition, Sept. 15, 2008

Ratings List

Ratings Affirmed

Questar Gas Co.	
Corporate Credit Rating	BBB+/Negative/A-2
Senior Unsecured	BBB+
Commercial Paper	A-2

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January 1 through March 31, 2019

AGA

Rate & Regulatory Update

A Summary of State Rate & Regulatory Activity

A Publication for AGA Members

This document is intended to provide AGA members with a summary of information relative to state rate and regulatory proceedings and other related matters on a timely basis. Additional information and archived versions of the Rate & Regulatory Update can be found at the following web link: https://www.aga.org/rate-alerts

Rate Case Data for this Period

Orders Issued	9
Average ROE	9.55%

Trends and Analysis

The average ROE authorized gas utilities was 9.55% in the first quarter of 2019 compared to 9.59% in full year 2018. In the first three months of 2019, only four gas cases included an ROE determination. The median authorized ROE was 9.7% up from 9.6% in 2018.

Increased costs associated with environmental compliance, infrastructure upgrades and expansion, storm and disaster recovery, cybersecurity and employee benefits argue for the continuation of an active rate case agenda over the next several years. Additionally, the need to address the impacts of the 2017 Tax Cuts and Jobs Act has cased rate case agendas to be more active than previously anticipated.

Furthermore, raising interest rates may also play a role in increased rate case activity. In 2015, the Federal Reserve began to gradually raise the federal funds rate. Subsequent to that hike, the Federal Reserve has increased rates by 25 basis points eight times, the most recent hike occurring in December 2018, bringing the federal funds rate to the range of 2.25 to 2.5%. While additional increases were anticipated in 2019, comments from the Federal Reserve indicate a willingness to remain patient about hikes in 2019 due to the slowdown in the global economy and low inflationary pressures.

To counter the negative cash flow impact of the Tax Cuts and Jobs Act, many utilities sought higher common equity rations, and the average authorized equity ratio adopted by utility commissions in the first three months of 2019 was modestly higher than levels observed in 2018 and 2017. The average allowed equity ratio for gas utilities nationwide was 51.40% in the first three months of 2019; compared to 50.09% in 2018 and 49.88% in 2017. The aforementioned averages include allowed equity ratios adopted by utility commissions in Arkansas, Florida, Indiana and Michigan – jurisdictions that authorize capital structures that include cost-free items or tax credit balances. For gas utilities, there were no determinations from the aforementioned states to-date in 2019, however, excluding these jurisdictions from prior years, the average allowed equity ratio was 51.47% in 2018 and 51.13% in 2017.

M&A Activity

PA: Aqua America Inc./Peoples Natural Gas Co. LLC

On January 18, the Pennsylvania Public Utility Commission scheduled a prehearing conference to set rules for its review of the proposed acquisition of Peoples Natural Gas Co. LLC and its Pennsylvania subsidiaries by Aqua America Inc.

IN/OH: CenterPoint Energy Inc./Vectren Corp.

While CenterPoint Energy Inc.'s proposed acquisition of Vectren Corp. did not require approval from the Indiana Utility Regulatory Commission, the commission said in an order issued on January 16 that it "appreciates" the information that the companies submitted for review. The Public Utilities Commission of Ohio signed off on the proposed acquisition on January 30. They were the only remaining regulatory approval required before the transition could be completed.

ID/WA/OR: Hydro One Ltd./Avista Corp.

On January 3, the Idaho Public Utilities Commission, in a final order, rejected the merger application citing a state law that bars the transaction due to the Ontario government's control of Hydro One and a post-acquisition Avista. The Washington Utilities and Transportation Commission effectively denied a petition for reconsideration and rehearing by taking no action on the matter. The Oregon Public Utility Commission suspended the merger proceeding indefinitely on January 14 due to the rejections dealt by the Idaho and Washington commissions.

On January 23, Avista and Hydro One announced that they terminated their proposed $5.3 billion merger.

Rate Case Decisions

January 4, 2019

Company	Baltimore Gas and Electric Company
State	Maryland
Docket Number	C-9484
Approved Increase	$64.9 Million ($85 Million requested)
Approved ROE	9.8%
Intervenors	Maryland Office of People's Council (OPC)

Case Summary

On January 4, 2019, the Maryland Public Service Commission authorized Baltimore Gas & Electric Company, a subsidiary of Exelon, a $64.4 million rate increase, which went into effect immediately.

Baltimore Gas & Electric filed a request with the Maryland PSC for an $85 million base rate increase on June 8, 2018 – this increase included $21.7 million being collected through the recently re-approved Strategic Infrastructure Development and Enhancement (STRIDE) rider, under which BG&E will implement accelerated replacement or cast iron and bare steel mains, bare steel and cooper services, and any pre-1970 .75 inch, high-pressure steel services from 2019-2023. Recovering the costs of major investments in infrastructure improvements under the STRIDE program coupled with a low growth of customers and rising costs were BGE's major drivers in filing

Docket No. 19-057-02
Exhibit (OCS-3.13)

January 1 through March 31, 2019

Rate & Regulatory Update

State	Massachusetts
Docket Number	DPU 18-40
Approved Increase	$2.39 Million ($4.5 million requested)
Approved ROE	9.7%
Intervenors	Low-income Weatherization and Fuel Assistance Program Network (Low Income Network), Massachusetts Department of Energy Resources (DOER)

Case Summary

On May 17, 2018, Berkshire Gas Company filed a petition with the Massachusetts Department of Public Utilities (DPU) for an increase of $4,065,485 and a 10.5% ROE.

On December 4, 2018, Berkshire Gas and the Attorney General filed for an approval of a settlement agreement to address issues brought up during initial testimony. The settlement proposed the following;

1. A proposed distribution rate increase to be rolled out in two phases; a $1.69 million increase to go into effect on February 1, 2019 and a subsequent increase of up to $0.70 million effective on December 1, 2019.
2. A distribution rate increase to go into effect on February 1, 2019, which contained adjustments to Berkshire Gas Company's initial filing. These adjustments included a $0.8 million exclusion of any charges associated with BGC's headcount, an exclusion of $0.02 million (medical insurance expenses), an exclusion of $0.04 million (rate case expense), an exclusion of $0.10 million (recalculation of the return portion of the shared services capital asset costs), and an exclusion of $0.05 million (BGC's proposed changes in deprecation accrual rates to remove any deprecation expenses associated with land-related property accounts)
3. Tax-related adjustments to take effect on February 1, 2019 which are designed to return a regulatory liability of $1.47 million over 15 months (associated with savings resulting from the Tax Cuts and Jobs Act of 2017) to ratepayers.
    a. An amortization period of 19.9 years to return $11.37 million to ratepayers in excess accumulated deferred income taxes resulting from the Tax Cuts and Jobs Act.
    b. An adjustment of base rates by May 1, 2020 as a reflection of the completion of tax savings
    c. An inclusion of distribution rates designed to return $11.37 million over an amortization period of 19.9 years to ratepayers in excess accumulated deferred income taxes resulting from the Tax Cuts and Jobs Act.
4. An approved and agreed upon ROE of 9.7%

Upon review, the staff recommended an approval of the settlement agreement, and the settlement terms were approved by the DPU on January 18, 2019.

improvements to communication between the company and municipalities, nor did it update plans for any standing TDSIC projects that would require a change in the standing CSIA rate schedule.

Ultimately, on January, 29, 2019, the IURC approved the update 7-year plan and recommended a more collaborative relationship between The Southern Indiana Gas & Electric Company and the OUCC in order to help reduce costs to rate payers further. The request to recover 80% of costs in connected with the 7-year plan in the amount of $17,277,135 through the CSIA and defer 20% of incurred costs in the amount of $4,319,283 in the company's next rate case was approved as were general updates to the company's 7-year plan resulting in rate decrease of $801,955.

February 5, 2019	
Company	Kansas Gas Service Company, Inc.
State	Kansas
Docket Number	D-18-KGSG-560-RTS
Approved Increase	$21.5 million
Approved ROE	
Intervenors	Commission staff, Citizens Utility Ratepayer Board

Case Summary

The Kansas Corporation Commission approved a settlement agreement for Kansas Gas Service Co. Inc. which resulted in new rates set to take effect February 6. The approved annual increase of $21.5 million will result in customers seeing a $2.40 increase on their monthly bill as part of the agreement.

A decision on whether Kansas Gas Service will be permitted to keep savings resulting from the federal tax overhaul was not included in the commission's decision. The company has requested to keep the estimated $17.9 million in savings.

February 21, 2019	
Company	Puget Sound Energy, Inc.
State	Washington
Docket Number	D-UG-180900
Approved Increase	$21.5 million
Approved ROE	9.5%
Intervenors	The Public Counsel, The Alliance of Western Energy Consumers, The Energy Project, federal executive agencies, Nucor Steel Seattle

Case Summary

In an expedited rate filing for Puget Sound Energy, the Washington Utilities Commission conditionally approved a settlement on February 21 authorizing the company to implement a gas rate increase of $21.5 million, or 2.9%, effective March 1.

In November 2018, PSE submitted an ERF seeking to implement a $21.7 million, or 2.7%, gas rate increase. The rate change reflected return parameters established in the company's last base rate case, namely a 9.5% return on equity and 7.49% overall return.

January 1 through March 31, 2019

Rate & Regulatory Update

AGA

Company	Duke Energy Kentucky, Inc.
State	Kentucky
Docket Number	C-2018-00261
Approved Increase	$7.4 million
Approved ROE	
Intervenors	Kentucky Attorney General

Case Summary

The Kentucky Public Service Commission largely adopted a March 27 settlement permitting Duke Energy Kentucky Inc, to implement a $7.4 million, or 7.7% gas distribution base rate increase. Minor modifications to the settlement, adopted by the commission, pertained to rate design.

The primary impetus for the rate case filing was to recover recent infrastructure investments, including the Big Bone gas pipeline and digital metering equipment.

The company's proposed weather normalization adjustment rider is to be put into place for residential and general service customers but not for commercial customers, as proposed.

The authorized rate increase is premised upon a 9.7% return on equity and a $313.4 million rate base. The settlement and the PSC order do not explicitly identify the stipulated capital structure but did provide for adoption of a 7.07% overall return and a capital structure that includes a 50.76% common equity component.

January 1 through March 31, 2017

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https://www.aga.org/rate-alerts

Rate Case Data for this Period	
Orders Issued	6
Average ROE	9% (4 available results)
Innovative Rate Mechanisms	Laclede/Missouri Gas Energy Infrastructure System Replacement Surcharge (ISRS), Atmos Gas System Reliability Surcharge (GSRS), WGL PROJECTpipes surcharge, Columbia Gas of Virginia Steps to Advance Virginia's Energy Plan (SAVE) surcharge

Trends and Analysis

Return on Equity

As noted in the 2016 year-end update, average return on equity (ROE) saw a slight decline in 2016, finishing at an average of 9.58% for the year (based on information from publicly available cases).

Gas Distribution ROE 2012-2016	
2012	9.93% (34 cases)
2013	9.68% (21 cases)
2014	9.78% (26 cases)
2015	9.63% (17 cases)
2016	9.58% (24 cases)

Based on publicly reported cases

Notably, during the 1st quarter of 2017, the Federal Reserve raised interest rates twice, marking a continued trend that has resulted in an increase in the cost of capital in some jurisdictions. As a result, AGA predicted that ROE would be more likely to remain stable to address uncertainty and increased risk. However, as outlined above, average awarded ROE saw a slight decline. Still, the pace at which the Federal Reserve intends to raise rates remains uncertain. Future ROE figures will continue to be influenced by this activity, as well as other jurisdictional factors. In particular, there has been significant Commission turnover in the past several months, which is likely to impact ROE awards in the future. AGA staff will continue to monitor this activity and report on any trends that may emerge.

January 1 through March 31, 2017

Rate & Regulatory Update

Other Regulatory Developments

Commission Changes & Updates

Colorado: On January 4, Governor John Hickenlooper appointed Jeff Ackermann and Wendy Moser to the Colorado Public Utilities Commission and designated Ackermann as the chair.

Illinois: On January 20, Governor Bruce Rauner appointed Sadzi Martha Oliva to the Illinois Commerce Commission.

North Dakota: On February 28, Governor Doug Burgum appointed Brian Kroshus to the North Dakota Public Service Commission to fill the vacancy left by the resignation of Brian Kalk in January.

Ohio: On February 16, Governor John Kasich appointed Lawrence Friedeman and Daniel Conway to the Public Utilities Commission of Ohio.

Oregon: On February 13, Governor Kate Brown appointed Megan Walseth Decker to the Oregon Public Service Commission to fill the seat vacated by Commissioner John Savage.

Washington: On February 27, Governor Jay Inslee appointed Jay Balasbas to the Washington Utilities and Transportation Commission to replace Commissioner Phil Jones.

Wisconsin: On February 23, Governor Scott Walker appointed Lon Roberts to the Public Service Commission of Wisconsin to replace Commissioner Phil Montgomery.

Wyoming: On February 28, the Wyoming Senate confirmed Governor Matt Mead's appointment of Robin Sessions Cooley to the Wyoming Public Service Commission.

Other Noteworthy Regulatory Action

On February 21, the Georgia Public Service Commission approved an alternative rate plan for Atlanta Gas Light Company. Known as the Georgia Rate Adjustment Mechanism, the initial application permits the company to implement a $20.4 million rate increase that took effect on March 1.

On March 16, Peoples Natural Gas Company and Delta Natural Gas Company filed with the Kentucky Public Service Commission for approval of Peoples' proposed $217 million acquisition of Delta.

The following companies filed rate cases during the first quarter of 2017: South Jersey Gas Company, UGI Penn Natural Gas Inc., Puget Sound Energy, Delta Natural Gas Company, Northern Illinois Gas (Nicor), CenterPoint Energy Resources, Oklahoma Natural Gas.

On January 18, 2017, the Missouri Public Service Commission authorized Missouri Gas Energy (MGE), a subsidiary of Spire Inc., a $3.2 million rate increase in the context of the company's semi-annual update to its infrastructure system replacement surcharge (ISRS).

On September 30, 2016, MGE filed a request to adjust its ISRS rate schedule to recover costs incurred in connection with eligible infrastructure replacement replacements made during the period March 1, 2016 through August 31, 2016, with pro forma ISRS costs updated through October 31, 2016. A 9.75% pre-tax weighted average cost of capital is to be used to calculate ISRS-related rate adjustments as per the terms of the PSC-approved settlement in MGE's most recent base rate proceeding (GR-2014-0007).

During the proceedings, Public Counsel objected to certain portions of plastic mains and service lines were replaced, claiming that those were not worn out or deteriorated under the requirements of the ISRS statute. Counsel also objected to certain hydrostatic testing costs as not eligible to be included in the company's ISRS change request.

The company's aggregate ISRS-related revenue requirement now stands at approximately $13.4 million.

January 24, 2017	
Company	Consolidated Edison Company of New York
State	New York
Docket Number	C-16-G-0061
Approved Increase	$5.3 million net reduction ($159 million increase requested)
Approved ROE	9%
Intervenors	New York City, Public Utility Law Project of New York (PULP), Community Housing Improvement Program (CHIP), Consumer Power Advocates (CPA), New York Energy Consumers Council (NYECC), County of Westchester, Metropolitan Transportation Authority (MTA), New York Power Authority (NYPA), SolarCity Corporation, Time Warner Cable, Utility Workers Union of America, Environmental Defense Fund, Pace Energy and Climate Center

Case Summary

On January 24, 2017, the New York Public Service Commission approved a three-year Joint Proposal for Consolidated Edison Company of New York's (CECONY) electric and gas operations. The approved Joint Proposal incorporates a $5.3 million net gas rate reduction, and the rate changes reflect a 9% return on equity (48% of capital) and overall returns of 6.82% on $4.847 billion.

Con Ed had initially sought a $159 million gas rate increase, which it stated would be used to upgrade the gas system and improve its performance through a greater use of remote operated valves, enhanced interconnects, and the expanded use of Area Growth Plans. Additionally, the company noted that the increase would be used to better manage risk via more frequent and efficient leak detection surveys and the development of a new section for Gas Compliance and Quality. Con Ed also proposed the continuation of new performance measures and incentives as

February 9, 2017	
Company	Atmos Energy Corporation
State	Kansas
Docket Number	D-17-ATMG-141-TAR
Approved Increase	$0.8 million ($0.86 million requested)
Approved ROE	n/a
Intervenors	Citizens' Utility Ratepayer Board (CURB)

Case Summary

On February 9, the Kansas Corporation Commission authorized Atmos Energy Corporation a $0.8 million rate increase in the context of the company's gas system reliability surcharge (GSRS). This is the first annual update to the company's GSRS since its most recent base rate case. The filing reflects incremental investments made from April 1, 2015 through September 30, 2016. As specified in KCC-approved settlement (16-ATMG-079-RTS), an 11.04% pre-tax rate of return is to be used to calculate the revenue requirement in the company's GSRS proceeding.

Atmos initially requested a $0.86 million increase. However, Staff filed a corrected recommendation which stated that Atmos could only recover $0.8 million of revenue annually, due to limits placed on the increase of monthly charges as written in Kansas statute which states "A GSRS shall be charged to customers as a monthly fixed charge and not based on volumetric consumption. Such monthly charge shall not increase more than $0.40 per residential customer over the base rates in effect for the initial filing of a GSRS. Thereafter, each filing shall not increase the monthly charge more than $0.40 per residential customer over the most recent filing of a GSRS."

March 1, 2017	
Company	Washington Gas Light Company
State	District of Columbia
Docket Number	FC-1137
Approved Increase	$8.5 million ($17.2 million requested)
Approved ROE	9.25%
Intervenors	District of Columbia Office of People's Counsel (OPC)

Case Summary

On March 1, 2017, the District of Columbia Public Service Commission authorized WGL Holdings Inc. an $8.5 million base rate increase, premised on a 9.25% return on equity (55.7% of capital) and a 7.56% return on a rate base valued at $255.7 million.

In its initial filing. WGL requested a $17.4 million increase based on a 10.25% return on equity. However, following the DC PSC's approval of the Architecture of the Capitol Special Contract, the Company agreed to remove that project's projected revenues (approximately $2.6 million) from the revenue requirement.

The approved rate increase reflects the inclusion in rate base of the company's Vintage Mechanical Couplings Replacement (VMCR) program and PROJECTpipes investment. PROJECTpipes, as

parties on rules for natural gas service and natural gas meter placement, and on implementing service quality measures for Idaho customers.

Of note, the settlement was signed and supported by all parties except for Sierra Club and Idaho Conservation League.

December 29, 2017	
Company	Northern Indiana Public Service Company
State	Indiana
Docket Number	Ca-44403-TDSIC-7
Approved Increase	$14.6 million ($14.6 million requested)
Approved ROE	n/a
Intervenors	n/a

Case Summary

On December 29, the Indiana Utility Regulatory Commission (IURC) authorized Northern Indiana Public Service Company (NIPSCO), a subsidiary of parent NiSource, Inc., a $14.6 million rate increase.

The proceeding was the 7th to establish the rates to be charged to customers under NIPSCO's transmission, distribution and storage system improvement charge (TDSIC) rate adjustment mechanism and reflects investments made between January 2017 and June 30, 2017. As required by state law, the increase was calculated using a 9.9% return on equity established and authorized by the Commission in NIPSCO's most recent gas base rate proceeding (Cause No. 43894). New rates are to be effective January 2018 through June 2018.

Per the adopted settlement, SGC is also directed to implement a distribution integrity management program (DIMP) and an associated mechanism that will remain in place until the company's next rate case. The mechanism will be reconciled annually.

Finally, the PURA order and amended settlement contained certain provisions for the deferral of differences in state and federal income taxes and municipal property taxes as a result of changes in tax rates or applicable laws.

December 13, 2017

Company	Columbia Gas of Virginia
State	Virginia
Docket Number	C-PUR-2017-00095 (SAVE)
Approved Increase	$3.2 million revenue requirement ($3.2 million requested)
Approved ROE	n/a
Intervenors	n/a

Case Summary

On December 13, the Virginia State Corporation Commission authorized Columbia Gas of Virginia, a subsidiary of parent NiSource Inc., a $3.2 million revenue requirement increase under the company's Steps to Advance Virginia's Energy (SAVE) plan.

By way of background, Virginia passed the SAVE Act in 2010—legislation that authorizes an LDC that invests in eligible infrastructure replacement projects to recover, through a rider, a return on investment, a revenue conversion factor, depreciation, property taxes and carrying costs on any over/under recovery of these costs. The riders reflect ROEs authorized by the Commission in the companies' most recent base rate case.

As per state law, the ROE and capital structure approved in the Company's prior base rate case was 9.75% with a 42.01% equity ratio.

December 21, 2017

Company	Virginia Natural Gas
State	Virginia
Docket Number	C-PUE-2016-00143
Approved Increase	$34.1 million ($44.1 million requested)
Approved ROE	n/a (10.25% requested)
Intervenors	Virginia Industrial Gas Users' Association, Office of the Attorney General's Division of Consumer Counsel, Doswell Limited Partnership

Case Summary

On December 21, the Virginia State Corporation Commission (SCC) approved a settlement agreement thereby authorizing Virginia Natural Gas Inc (VNG), a subsidiary of Southern Company, a $34.1 million permanent gas distribution base rate increase. The stipulated increase includes $13.4 million that is currently being collected through the Company's SAVE rider.

Docket No. 19-057-02
Exhibit (OCS-3.13)

As you might recall, Virginia passed the SAVE Act in 2010—legislation that authorizes an LDC that invests in eligible infrastructure replacement projects to recover, through a rider, a return on investment, a revenue conversion factor, depreciation, property taxes and carrying costs on any over/under recovery of these costs. The riders reflect ROEs authorized by the Commission in the companies' most recent base rate case.

The prior case was the final step of a five-year plan for WGL that was updated several times and was set to expire on 12/31/17. In base rate Case No. PUE-2016-00001, completed in September 2017, the SCC permitted the company to roll SAVE-related rate base and revenue through November 30, 217 into base rates. Investment through 12/31/17 was reflected in the prior SAVE rider adjustment.

In the current proceeding, WGL proposed an updated SAVE plan covering years 2018-2022.

December 5, 2017	
Company	Puget Sound Energy
State	Washington
Docket Number	D-UG-170034
Approved Increase	$16.6 million ($22.8 million requested)
Approved ROE	9.5% (9.8% requested)
Intervenors	Industrial Customers of Northwest Utilities, NW Energy Coalition, Renewable Northwest, Natural Resource Defense Council, the Energy Project, Sierra Club, Kroger Co. state of Montana, Northwest Industrial Gas Users

Case Summary

On December 5, the Washington Utilities and Transportation Commission adopted a settlement providing for a $16.6 million gas rate increase for Puget Sound Energy, Inc. (PSE). The increase is premised on a 9.5% return on equity.

Proceedings were initiated in January 2017 when PSE filed for 2.8% gas base rate increase premised on a 9.8% return on equity. PSE subsequently filed updated testimony supporting a $22.8 million gas base rate increase.

On September 15, the following parties filed a settlement agreement with the UTC: PSE, UTC Staff, Industrial Customers of Northwest Utilities, NW Energy Coalition, Renewable Northwest, Natural Resource Defense Council, The Energy Project, Sierra Club, several federal agencies, The Kroger Co., the state of Montana, Northwest Industrial Gas Users. The settlement resolved all issues in the case, except for decoupling and the company's proposed electric cost recovery mechanism for the recovery of expenditures related to reliability.

With respect to decoupling, the UTC authorized the continued use of the company's electric and gas decoupling mechanisms. In its final order, the UTC agreed with Staff that it would be prudent to review the operation of the mechanisms again after they have operated for four more years given several modifications being undertaken by the Company. The UTC will again review PSE's specific

Letter in order to establish the Company's cost of capital parameters for 2018. The order incorporates the 10.25% ROE as authorized by the CPUC in July 2017 for the year 2018.

October 26, 2017

Company	San Diego Gas & Electric Co.
State	California
Docket Number	Advise No. 2611-G
Approved Increase	$2 million decrease (gas)
Approved ROE	n/a
Intervenors	n/a

Case Summary

On October 26, the CPUC ordered San Diego Gas & Electric Company, a subsidiary of parent company Sempra, to reduce gas rates by $2 million. The order approves a company compliance filing through an Advise Letter to establish the SDG&E's cost of capital parameters for 2018. Rate base was not an issue in the proceeding and the filing incorporates a 10.2% ROE as authorized by the CPUC in July for the year 2018.

October 27, 2017

Company	Atmos Energy Corporation
State	Kentucky
Docket Number	C-2017-00308 (PRP)
Approved Increase	$10.6 million
Approved ROE	n/a
Intervenors	Kentucky Attorney General via Office of Rate Intervention

Case Summary

On October 27, the Kentucky Public Service Commission issued an order relative to Atmos Energy Corporation's pipe replacement program rider, authorizing the Company a $10.6 million gas rate increase. Atmos filed in July 2017 to establish Pipe Replacement Program (PRP) rates for the period beginning October 1, 3027.

Of note, in its order, the Commission found that when the Company's PRP Rider was approved in 2010, the 15-year program included the replacement of 250 miles of bare steel pipelines and services to be replaced at a cost estimated to be $124 million. Subsequently, Atmos determined that there were an additional 100 miles of bare steel pipe to be replace—and added two additional replacement projects equaling $21.7 million and $5.7 million. As such, the Company now estimates the cost of the program to be $438 million for 350 miles of pipes and services, more than doubling the total estimated cost per mile for replacement. As a result, the Commission determined that a more detailed review of the program is warranted and will conduct said review in the Company's currently pending rate case.

October 30, 2017

Company	Southern California Gas Co.
State	California

had a rate case within the last three years in which a new ROE was set. The report affirmed previously approved ROEs of 9.55% for electric utility DSICs and 9.8% for gas utility DSICs.

The following companies initiated rate-related proceedings during the 4th quarter: San Diego Gas & Electric Co. (California), Southern California Gas Co. (California), Columbia Gas of Kentucky (Kentucky), Minnesota Energy Resources (Minnesota), Boston Gas Co. (Massachusetts), DTE Gas Co. (Michigan), Black Hills Northwest Wyoming (Wyoming), Atlanta Gas Light (Georgia), Baltimore Gas and Electric (Maryland), Black Hills Energy (Arkansas), NW Natural (Oregon).

M&A Activity

AltaGas Ltd. /WGL Holdings, Inc.

DC: On October 27, WGL Holdings Inc. filed testimony with the District of Columbia Public Service Commission relative to its proposed merger with AltaGas Ltd. In it, WGL offered a series of more specific commitments after several intervernors voiced concerns regarding the acquisition.

MD: On December 4, the Maryland Public Service Commission considered and approved a stipulation filed by WGL Holdings and AltaGas Ltd.that extends the procedural schedule for consideration of the proposed merger. A final decision is now expected on or before April 4, 2018

VA: On October 20, the Virginia State Corporation Commission approved the proposed acquisition by AltaGas Ltd. Of WGL Holdings, Inc. subject to the conditions agreed to by the companies.

South Jersey Industries/Elizabethtown Gas

NJ: On December 21, South Jersey Industries filed for approval of its proposal to acquire Elizabethtown Gas with the New Jersey Board of Public Utilities. New Jersey law does not specify a deadline for a decision on proposed mergers.

Rate Case Decisions

October 19, 2017

Company	CenterPoint Energy Resources
State	Oklahoma
Docket Number	PUD20170078
Approved Increase	$2.2 million ($2.2 million requested)
Approved ROE	n/a
Intervenors	n/a

Case Summary

The Oklahoma Corporation Commission authorized CenterPoint Energy Resources, a subsidiary of CenterPoint Energy, a $2.2 million gas rate increase in the company's most recent performance based ratemaking (PBR) proceeding for the period ending on December 31, 2016.

- Columbia Gas of Kentucky Accelerated Main Replacement Rider (AMRP)—Kentucky
- NISPCO Transmission Distribution Storage System Improvement Charge (TDSIC)—Indiana

We expect this trend to continue, as pipeline safety and pipeline replacement continues to be of focus and concern to public utility commissions around the country. Accelerated pipeline replacement programs and their facilitating regulatory mechanisms have gained so much traction and are so prevalent across the country that they may no longer need to be deemed innovative.

Tax Cuts and Jobs Act of 2017

On December 22, 2017, President Donald Trump signed the federal Tax Cuts and Jobs Act (TCJA) of 2017 into law. The TCJA has at least two significant changes to business income tax that will impact investor-owned utilities and consumers. First, the law calls for a reduction in the corporate Federal Income Tax (FIT) rate from 35% to 21%. Additionally, it will result in an excess deferred tax balance.

Both the National Association of Regulatory Utility Commissioners (NARUC) and the National Association of State Utility Consumer Advocates (NASUCA) passed resolutions addressing this issue at their respective annual meetings held in Baltimore in November.

NARUC resolution
NASUCA resolution

Additionally, NASUCA sent a letter to Congress stating:
"*The authority to set retail utility rates for a regulated utility, and with it, the authority to determine how reductions in the corporate income tax rate, refunds of accumulated deferred income tax balances and any other changes in the tax code are addressed in consumer rates rests squarely and unequivocally with the State Public Utility Commissions. NASUCA member represent utility customers in rate proceedings before the State Public Utility Commissions, and therefore have an interest in ensuring that no law, rule or action by Congress in any way restricts a NASUCA member's ability to make the full range of appropriate arguments in a proceeding to determine how to appropriately implement a reduction in the corporate income tax rate or any other change in tax reform legislation.*"

Since the law passed, many states have already moved to address these issues. AGA's State Affairs team is actively tracking how state commissions, consumer advocates and, in some instances, governors are handling the implications of the new tax law. A preliminary compendium on the topic can be found here. We hope to gather and aggregate as much information as we can as it relates to this issue.

EXHIBIT____
SCHEDULE (DJL-11)
PAGE 3 OF 3

YEAR	AUTHORIZED ROE	OBSERVATIONS
1980		
1981	15.11%	60
1982	15.62%	83
1983	15.25%	65
1984	15.31%	39
1985	14.75%	34
1986	13.46%	25
1987	12.74%	29
1988	12.85%	31
1989	12.88%	31
1990	12.67%	31
1991	12.46%	35
1992	12.01%	29
1993	11.35%	45
1994	11.35%	28
1995	11.43%	16
1996	11.19%	20
1997	11.29%	13
1998	11.51%	10
1999	10.66%	9
2000	11.39%	12
2001	10.95%	7
2002	11.03%	21
2003	10.99%	25
2004	10.59%	20
2005	10.46%	26
2006	10.43%	16
2007	10.24%	37
2008	10.37%	30
2009	10.19%	29
2010	10.08%	36
2011	9.92%	
2012	9.93%	34.00
2013	9.68%	21.00
2014	9.78%	26.00
2015	9.63%	17.00
2016	9.58%	24.00
2017	9.72%	
2018	9.59%	
2019	9.55%	

1981 - 2011 per RRA data base, 2012 - 2019 per American Gas Association Rate and Regulatory Updates
2019 reflects 1st Quarter

DOMINION ENERGY UTAH
DOCKET NO. 19-057-02
FILED JULY 1, 2019

TESTIMONY
JORDAN STEPHENSON
DOMINION ENERGY SERVICES, INC (DES)
Manager Regulation
TEST PERIOD 12 Months Ending December 2020
Base Test Period 12 Months December 2018
(See § 54-4-4(3)(a) Utah Utility Code
* Commission may use a forecasted test year data not exceeding 20 months from the date of the rate filing.
This case has 18-months of projected data.
SEE DEU Exhibit 3.02
* Need Mendenhall Testimony
Forecast Driver:
(1) Growth in rate base since last case
3:78 claim $1.4 bil since last case.

4:89 O&M has decreased 128.5mm ↓ 119.7mm since last case.

→ 15% INCREASE IN CUSTOMERS SINCE LAST CASE
→ Corp allocation decrease 48mm Questar / $34mm DES.

2

4:97 INFRASTRUCTURE RATE ADJUSTMENT TRACKER
$ 300 mm since last case about
$ 32.6 mm incremental revenues.

P.8 Use per Customer declining - but why the change 2018 - 2020 looks high.

P.20

Debt cost 4.34% in 2020
down from 5.25% last case

ROE 10.50%

LT DEBT	45.0%	4.34%	1.95%
EQUITY	55.0%	10.50%	5.78%
TOTAL	100.00%	—	7.73%

Revenue Requirement $397.6 mm
Deficiency 18 - 30 mm ???
How is this calculated. ???

Merger Docket 16-057-01 Stipulation

Mendenhall Testimony –

Purpose

1:23 Address compliance w/ ¶ 33 of the Docket 16-057-01 Stipulation.

2:49 Rev. Deficiency $19.2 mm

3:63 Projected 2020 Rate Base of $1.8 Bil is about $800mm higher than the 2014 test period, Return, deprec., property taxes driving the request rate increase.

3:67 Offsets: • O&M costs have decreased about $8.8 mm
- TCJA lowered taxes
- Customer growth increased revenue about $85 mm

LAST RATE CASE ROR

QUESTAR

(6) Bond Rating/Financial Integrity

The Division disputes Questar's assertion that Questar's bond rating is in jeopardy of downgrade. In support of this assertion, the Division points to the November 8, 2013, decision by Moody's to possibly upgrade many of the regulated utilities in the U.S. including Questar Gas Corporation and Questar, due to a more favorable view of credit supportiveness of the U.S. regulatory environment.[52] The report cited by the Division states "[o]ur placement of these issuers on review considers improving regulatory trends in the US, including better cost recovery provisions, reduced regulatory lag, and generally fair and open relationships between utilities and regulators."[53]

Office

The Office recommends a return on equity of 9.25[54] percent for Questar. The Office's recommendation is based in part on returns ranging from 9.01 percent to 9.91 percent, derived from financial models and data similar to those used by Questar and the Division, including single and two-stage DCF models; the empirical CAPM; and a risk premium model.[55]

(1) Proxy Group

The Office applied the financial models discussed above to the same group of proxy companies utilized by Questar.[56]

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[52] *See* Wheelwright Surrebuttal at p.5.

[53] *See* Wheelwright Surrebuttal at p.5, citing Moody's Investor Service, Rating Action: Moody's places rating of most US regulated utilities on review for upgrade, November 8, 2013.

[54] The Office recommends a 9.3 percent return on equity with a 5 basis point reduction if the Commission approves Questar's proposed expansion of the infrastructure tracker pilot program as we have done with our approval of the Revenue Stipulation above. *See* Lawton Direct at pp. 40-41; Lawton Surrebuttal at p.2.

[55] *See* Lawton Surrebuttal at p.2.

[56] *See* Lawton Direct at p.17.

although a size premium may be relevant for non-regulated companies, financial literature suggests that size becomes less relevant for regulated companies.[61]

(4) Authorized Returns on Equity

As with the Division, the Office testifies that regulatory authorities around the country have recognized the declining cost of equity and debt and capital in setting rates. Specifically, the Office indicates regulatory authority cost-of-equity decisions for calendar year 2012 averaged about 10 percent for electric utilities and 9.94 percent for gas utilities.[62] Also like the Division, the Office criticizes Questar's use of the recent return on equity decision for Alabama Gas Corporation in its updated analysis of authorized returns on equity for comparable companies. The Office points out that the Alabama decision provides an incorrect comparison to other general rate case decisions because Alabama does not follow a formal rate case process.[63]

(5) Bond Rating/Financial Integrity

The Office argues there is no evidence to support Questar's claim of financial harm or lowering of Questar's bond rating in this case and points to the regulatory framework in Utah that affords Questar risk-reducing regulatory mechanisms such as revenue decoupling, infrastructure adjustments, and use of a forecasted test year.[64]

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[61] *See* Lawton Direct at pp. 38-39, citing Wong, Annie. "Utility Stocks and Size Effect: An Empirical Analysis." *Journal of the Midwest Finance Association* (1993) at 98.

[62] *See* Lawton Direct at p.13.

[63] *See* Lawton Surrebuttal at p.7.

[64] *See* Lawton Direct at p.13.

We begin with Questar's request for continued authorization of the 10.35 percent return on equity we approved as part of a settlement stipulation in Questar's last general rate case in Docket No. 09-057-16 ("2009 Rate Case").[66] At hearing, the Division cross-examined Questar's cost-of-capital witness regarding the calculation of his recommended 10.35 percent return on equity. In response, he testified:

> The 10.35 is what we are currently allowed to earn in Utah. And my belief is that we should be able to continue to be allowed to earn that 10.35. There's not a mathematical--it's not any sort of average of these numbers. There's certainly a range, it's within the range of these numbers. And so, you know, as we put this case together, you know, what we're asking for is we're not asking for something much greater than we're allowed today. We're asking to be allowed to continue to earn the 10.35.[67]

Questar's cost of capital witness was also cross-examined by FEA regarding his return on equity testimony in the 2009 Rate Case. In that testimony Questar's witness provided an overview of the then-current U.S. economy, still suffering from the most significant recession since the Great Depression, and its effect on the various data inputs and financial models utilized by Questar to arrive at a recommended return on equity for the 2009 Rate Case.[68]

With reference to the testimony of Questar's cost of capital witness above, we note our approval of Questar's 10.35 percent return on equity in the 2009 Rate Case was based on our approval of the settlement stipulation as just and reasonable in result. Parties to that case did not agree on each component of the settlement and indeed, the Office explicitly rejected the stipulated 10.35 percent return on equity component. There is no finding regarding the return on equity component of that settlement stipulation *per se*, but rather our determination the

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[66] *See In the Matter of the Application of Questar Gas Company to Increase Distribution Non-Gas Rates and Charges and Make Tariff Modifications,* Docket No. 09-057-16 (Report and Order; June 3, 2010).

[67] Tr. 257: 11-19.

[68] *See* 2009 Rate Case, Curtis Direct at p.3.

Questar's recommended 10.35 percent return on equity is based on the assertion that Questar has slightly higher risk as compared to the average risk of its proxy companies and therefore a higher allowed return on equity is appropriate. Both the Division and the Office counter this assertion and argue that as a result of the various Commission-approved revenue-stabilization and rate-recovery mechanisms, Questar actually has similar to lower risk than other natural gas distribution companies.

According to the Office, regulatory mechanisms such as revenue decoupling, infrastructure adjustments, and use of a forecasted test year reduce Questar's risks through enhancing cash flow and improving the timing of cost recovery. The Office further testifies that the benefits of these regulatory mechanisms are viewed as important attributes by credit rating agencies in evaluating risk and creditworthiness.[71] For example, the Office and Division note that both Moody's and Standard & Poor's view the regulatory mechanisms in Utah as credit supportive to Questar.[72]

As further evidence of Questar's lower risk profile, the Division points to the last column of its DPU Exhibit 1.6 SR, which calculates the standard deviation of the returns on equity over the 2004-2012 time period. As explained by the Division, standard deviation is a common statistical measure of variability; the higher the standard deviation, the more risk there is to the expected return, and *vice versa*. The Division notes that Questar has a standard deviation that is one-third of the average, thus supporting the view that Questar has less risk than the typical company for the proxy group.[73]

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[71] *See* Lawton Direct at 15.

[72] *See* Lawton Direct at p.16; Wheelwright Direct at p.34.

[73] *See* Wheelwright Surrebuttal at p.11; DPU Exhibit 1.6 SR.

evidence of record shows a 9.25 or 9.45 return on equity is too low to support properly Questar's operations. In surrebuttal testimony, the Division's witness provides 2013 authorized returns on equity for natural gas distribution companies through December 27, 2013, resulting in a range from 9.08 percent to 10.25 percent, with a mean of 9.66 percent.[75] When looking at authorized returns on equity for the last quarter of 2013, there appears to be an upward trend in authorized returns on equity with an average authorized return on equity of 9.81 percent.[76]

These data support a return on equity that is meaningfully higher than the proposals of the Office and the Division. Moreover, this conclusion is consistent with the range of model results presented by the various expert witnesses.

Questar presents testimony that Questar delivers safe, reliable, natural gas service to its customers at rates that are among the lowest in the country. Furthermore, Questar testifies that based on the results of customer satisfaction surveys, Questar's customers are very satisfied with the service they receive. We are pleased with these results and believe Questar's ability to obtain capital at reasonable cost is a key component to continuing this success.

Based on our consideration of the testimony and evidence in this case, we conclude that an allowed return on equity for Questar of 9.85 percent is just and reasonable. This return on equity is well within the range of returns of 9.25 percent to 10.35 percent recommended by the experts on the record and will allow Questar to raise capital in the market on reasonable terms. Our conclusions regarding the cost of debt, return on equity, and capital structure result in an overall return on capital of 7.64 percent. This is the allowed return on which Questar's revenue requirement in this case is set and its financial performance shall be reported and evaluated.

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[75] *See* DPU Exhibit 1.1 SR.

[76] *See* DPU Exhibit 1.2 SR.

TABLE 2: MONTHLY FIXED CHARGES

Description	Current Charges	Approved March 1, 2014 Charges	$ Change	% Change
Basic Service Fees:				
GS, FS, FT-1, MT				
Category 1	$5.00	$6.75	$1.75	35%
Category 2	$21.00	$18.25	($2.75)	-13%
Category 3	$55.00	$63.50	$8.50	15%
Category 4	$244.00	$420.25	$176.25	72%
IS, TS				
Category 1	$5.00	$6.75	$1.75	35%
Category 2	$29.00	$18.25	($10.75)	-37%
Category 3	$67.00	$63.50	($3.50)	-5%
Category 4	$274.00	$420.25	$146.25	53%
Administrative Charges:				
Primary	$375.00	$375.00	$0.00	0%
Secondary	$187.50	$187.50	$0.00	0%

Table 3 presents approved Base DNG Rates and also provides a comparison of current base DNG rates to approved base DNG rates in Steps 1 and 2. The bill impact for a typical GS customer using 80 decatherms per year is attached as Appendix C to this document. Bill impacts to other GS customers and rate schedules will depend on the unique demand and usage characteristics of each customer.

UTAH UTILITY
19-057-02

		WFIT
Rate Base	1,816,213,951	
ROR	7.73%	9.263
	140,393,384	168,235,898
Current Income	125,936,075	
	14,457,309	

Cost of Capital

Debt	45.0	4.34%	1.953	1.953
Equity	55.0	10.50%	5.775	7.310
TOTAL	100.0%	—	7.728	9.263

Per Rate Case Model

RB 1,816,213,951
ROR 7.73% = 7.728
140,357,014
deficiency 14,450,439

UT Tax Gross-up Factor 1.332075
w/ average state tax rate 4.74693%
FIT at 21%
Combined Federal & State 24.7501
w/ bad debt expense
1.332075 X

= 1/(1-(Tax Rate + (Bad Debt Rate * (1-Tax Rate))))

Hevert

2:35 ROE range 9.9 - 10.75
2:39 ROE point 10.50
2:41 ROR 7.73%
2:42-43 55% Equity 45% debt
3:48 debt cost 4.34%
3:54-59 DCF, CAPM/ECAPM, RP corroborated by Expected earnings. support 9.9 - 10.75
* 3-60-63 risk of electrification, capital expend. rate mechanisms/
•• flotation?, business, financial conditions
5:105 DCF results only considers mean & high
6-114 CAPM-ECAPM/ RP
7-118 Concluded 9.9 - 10.75 10.50 point

Rating # 15

	S&P	Moody's
Parent	BBB+	Baa2
DEU	BBB+	A2

** 25:441 Electrification
27:487 - 28:495 Claims Forecast TY doesn't reduce risks alternatives are used
* 28:508 → 1.10 bil Cap Ex 2019-2023
29:519 CAP EX Significant

* 31:565 FLOTATION P.34 5 basis points
34:639 NO FLOTATION INCLUDED-

Docket No. 19-057-02 Exhibit OCS 2.1

DANIEL J. LAWTON
B.A. ECONOMICS, MERRIMACK COLLEGE
M.A. ECONOMICS, TUFTS UNIVERSITY
J.D. LAW, TEXAS SOUTHERN UNIVERSITY

Prior to beginning his own consulting practice Diversified Utility Consultants, Inc., in 1986 where he practiced as a firm principal through December 31, 2005, Mr. Lawton had been in the utility consulting business with R.W. Beck and Associates a national engineering and consulting firm. In addition, Mr. Lawton has been employed as a senior analyst and statistical analyst with the Department of Public Service with the Public Utilities Commission of Minnesota. Prior to Mr. Lawton's involvement in utility regulation and consulting he taught economics, econometrics and statistics at Doane College.

Mr. Lawton has conducted numerous revenue requirements, fuel reconciliation reviews, financial, and cost of capital studies on electric, gas and telephone utilities for various interveners before local, state and federal regulatory bodies. In addition, Mr. Lawton has provided studies, analyses, and expert testimony on statistics, econometrics, accounting, forecasting, and cost of service issues. Other projects in which Mr. Lawton has been involved include rate design and analyses, prudence analyses, fuel cost reviews and regulatory policy issues for electric, gas and telephone utilities. Mr. Lawton has developed software systems, databases and management systems for cost of service analyses.

Mr. Lawton has developed and numerous forecasts of energy and demand used for utility generation expansion studies as well as municipal financing. Mr. Lawton has represented numerous municipalities as a negotiator in utility related matters. Such negotiations ranges from the settlement of electric rate cases to the negotiation of provisions in purchase power contracts.

In addition to rate consulting work Mr. Lawton through the Lawton Law Firm represents numerous municipalities in Texas before regulatory authorities in electric and gas proceedings. Mr. Lawton also represents municipalities in various contract and franchise matters involving gas and electric utility matters.

A list of cases in which Mr. Lawton has provided testimony is attached.

UTILITY RATE PROCEEDINGS IN WHICH TESTIMONY HAS BEEN PRESENTED BY DANIEL J. LAWTON

ALASKA REGULATORY COMMISSION		
Beluga Pipe Line Company	P-04-81	Cost of Capital
Municipal Light & Power	U-13-184	Cost of Capital
Enstar Natural Gas Co.	U-14-111	Cost of Capital & Revenue Requirements
Enstar Natural Gas Co.	U-16-066	Cost of Capital & Revenue Requirements
Municipal Light & Power	U-16-094	Cost of Capital
PUBLIC UTILITIES COMMISSION OF CALIFORNIA		
Southern California Edison	12-0415	Cost of Capital
San Diego Gas and Electric	12-0416	Cost of Capital
Southern California Gas	12-0417	Cost of Capital
Pacific Gas and Electric	12-0418	Cost of Capital
PUBLIC UTILITIES COMMISSION OF COLORADO		
Public Service Company of Colorado	19AL-0268E	Cost of Capital
GEORGIA PUBLIC SERVICE COMMISSION		
Georgia Power Co.	25060-U	Cost of Capital

Docket No. 19-057-02 Exhibit OCS 2.1

FEDERAL ENERGY REGULATORY COMMISSION		
Alabama Power Company	ER83-369-000	Cost of Capital
Arizona Public Service Company	ER84-450-000	Cost of Capital
Florida Power & Light	EL83-24-000	Cost Allocation, Rate Design
Florida Power & Light	ER84-379-000	Cost of Capital, Rate Design, Cost of Service
Southern California Edison	ER82-427-000	Forecasting

LOUISIANA PUBLIC SERVICE COMMISSION		
Louisiana Power & Light	U-15684	Cost of Capital, Depreciation
Louisiana Power & Light	U-16518	Interim Rate Relief
Louisiana Power & Light	U-16945	Nuclear Prudence, Cost of Service

MARYLAND PUBLIC SERVICE COMMISSION		
Baltimore Gas and Electric Company	9173	Financial
Baltimore Gas and Electric Company	9326	Financial

MINNESOTA PUBLIC UTILITIES COMMISSION		
Continental Telephone	P407/GR-81-700	Cost of Capital
Interstate Power Co.	E001/GR-81-345	Financial
Montana Dakota Utilities	G009/GR-81-448	Financial, Cost of Capital
New ULM Telephone Company	P419/GR81767	Financial
Norman County Telephone	P420/GR-81-230	Rate Design, Cost of Capital
Northern States Power	G002/GR80556	Statistical Forecasting, Cost of Capital

Northwestern Bell	P421/GR80911	Rate Design, Forecasting

MISSOURI PUBLIC SERVICE COMMISSION		
Missouri Gas Energy	GR-2009-0355	Financial
Ameren UE	ER-2010-0036	Financial

FLORIDA PUBLIC SERVICE COMMISSION		
Progress Energy	070052-EI	Cost Recovery
Florida Power and Light	080677-EI	Financial
Florida Power and Light	090130-EI	Depreciation
Progress Energy	090079-EI	Depreciation
Florida Power and Light	120015-EI	Financial Metrics
Florida Power and Light	140001-EI	Economic and Regulatory Policy Issues
Florida Power and Light	150001-EI	Economic and Regulatory Policy Issues Financial Gas Hedging
Florida Power and Light	160001-EI	Economic and Regulatory Policy Issues Financial Gas Hedging
Florida Power and Light	160021-EI	Equity Bonus Rewards & Financial Metrics
Florida Power and Light	20170057-EI	Economic and Regulatory Policy Issues Financial Gas Hedging

NORTH CAROLINA UTILITIES COMMISSION		
North Carolina Natural Gas	G-21, Sub 235	Forecasting, Cost of Capital, Cost of Service

OKLAHOMA PUBLIC SERVICE COMMISSION		
Arkansas Oklahoma Gas Corporation	200300088	Cost of Capital
Public Service Company of Oklahoma	200600285	Cost of Capital
Public Service Company of Oklahoma	200800144	Cost of Capital
Public Service Company of Oklahoma	201200054	Financial and Earnings Related
Oklahoma Natural Gas	201500213	Return on Equity, Financial, capital Structure

PUBLIC SERVICE COMMISSION OF INDIANA		
Kokomo Gas & Fuel Company	38096	Cost of Capital

PUBLIC UTILITIES COMMISSION OF NEVADA		
Nevada Bell	99-9017	Cost of Capital

Nevada Power Company	99-4005	Cost of Capital
Sierra Pacific Power Company	99-4002	Cost of Capital
Nevada Power Company	08-12002	Cost of Capital
Southwest Gas Corporation	09-04003	Cost of Capital
Sierra Pacific Power Company	10-06001 & 10-06002	Cost of Capital & Financial
Nevada Power Co. and Sierra Pacific Power Co.	11-06006 11-06007 11-06008	Cost of Capital
Southwest Gas Corp.	12-04005	Cost of Capital
Sierra Power Company	13-06002 13-06003 13-06003	Cost of Capital
NV Energy & MidAmerican Energy Holdings Co.	13-07021	Merger and Public Interest Financial
Sierra Pacific Power Company	16-06006	Cost of Capital
Nevada Power Company	17-06003	Cost of Capital
Nevada Power & Sierra Pacific	18-02012 Consolidated	Tax Cut and Jobs Act Issues
Southwest Gas	18-05031	Cost of Capital
Sierra Pacific Power Company	19-06002	Cost of Capital

PUBLIC SERVICE COMMISSION OF UTAH		
PacifiCorp	04-035-42	Cost of Capital
Rocky Mountain Power	08-035-38	Cost of Capital

Rocky Mountain Power	09-035-23	Cost of Capital
Rocky Mountain Power	10-035-124	Cost of Capital
Rocky Mountain Power	11-035-200	Cost of Capital
Questar Gas Company	13-057-05	Cost of Capital
Rocky Mountain Power	13-035-184	Cost of Capital
Dominion Energy Utah	19-057-13	Capital Structure & Imputed Debt
Dominion Energy Utah	19-057-02	Cost of Capital

SOUTH CAROLINA PUBLIC SERVICE COMMISSION		
Piedmont Municipal Power	82-352-E	Forecasting

PUBLIC UTILITY COMMISSION OF TEXAS		
Central Power & Light Company	6375	Cost of Capital, Financial Integrity
Central Power & Light Company	9561	Cost of Capital, Revenue Requirements
Central Power & Light Company	7560	Deferred Accounting
Central Power & Light Company	8646	Rate Design, Excess Capacity
Central Power & Light Company	12820	STP Adj. Cost of Capital, Post Test-year adjustments, Rate Case Expenses
Central Power & Light Company	14965	Salary & Wage Exp., Self-Ins. Reserve, Plant Held for Future use, Post Test Year Adjustments, Demand Side Management, Rate Case Exp.
Central Power & Light	21528	Securitization of Regulatory Assets

Company		
El Paso Electric Company	9945	Cost of Capital, Revenue Requirements, Decommissioning Funding
El Paso Electric Company	12700	Cost of Capital, Rate Moderation Plan, CWIP, Rate Case Expenses
El Paso Electric Company	46831	Cost of Capital, Decommissioning Funding, Allocation
Entergy Gulf States Incorporated	16705	Cost of Service, Rate Base, Revenues, Cost of Capital, Quality of Service
Entergy Gulf States Incorporated	21111	Cost Allocation
Entergy Gulf States Incorporated	21984	Unbundling
Entergy Gulf States Incorporated	22344	Capital Structure
Entergy Gulf States Incorporated	22356	Unbundling
Entergy Gulf States Incorporated	24336	Price to Beat
Gulf States Utilities Company	5560	Cost of Service
Gulf States Utilities Company	6525	Cost of Capital, Financial Integrity
Gulf States Utilities Company	6755/7195	Cost of Service, Cost of Capital, Excess Capacity
Gulf States Utilities Company	8702	Deferred Accounting, Cost of Capital, Cost of Service
Gulf States Utilities Company	10894	Affiliate Transaction
Gulf States Utilities Company	11793	Section 63, Affiliate Transaction
Gulf States Utilities Company	12852	Deferred acctng., self-Ins. reserve, contra AFUDC adj., River Bend Plant specifically assignable to Louisiana, River Bend Decomm., Cost of Capital,

		Financial Integrity, Cost of Service, Rate Case Expenses
GTE Southwest, Inc.	15332	Rate Case Expenses
Houston Lighting & Power	6765	Forecasting
Houston Lighting & Power	18465	Stranded costs
Lower Colorado River Authority	8400	Debt Service Coverage, Rate Design
Southwestern Electric Power Company	5301	Cost of Service
Southwestern Electric Power Company	4628	Rate Design, Financial Forecasting
Southwestern Electric Power Company	24449	Price to Beat Fuel Factor
Southwestern Bell Telephone Company	8585	Yellow Pages
Southwestern Bell Telephone Company	18509	Rate Group Re-Classification
Southwestern Public Service Company	13456	Interruptible Rates
Southwestern Public Service Company	11520	Cost of Capital
Southwestern Public Service Company	14174	Fuel Reconciliation
Southwestern Public Service Company	14499	TUCO Acquisition
Southwestern Public Service Company	19512	Fuel Reconciliation
Southwestern Public Service Company	47527	Cost of Capital
Texas-New Mexico Power Company	9491	Cost of Capital, Revenue Requirements, Prudence
Texas-New Mexico Power Company	10200	Prudence

Texas-New Mexico Power Company	17751	Rate Case Expenses
Texas-New Mexico Power Company	21112	Acquisition risks/merger benefits
Texas Utilities Electric Company	9300	Cost of Service, Cost of Capital
Texas Utilities Electric Company	11735	Revenue Requirements
TXU Electric Company	21527	Securitization of Regulatory Assets
West Texas Utilities Company	7510	Cost of Capital, Cost of Service
West Texas Utilities Company	13369	Rate Design

RAILROAD COMMISSION OF TEXAS		
Energas Company	5793	Cost of Capital
Energas Company	8205	Cost of Capital
Energas Company	9002-9135	Cost of Capital, Revenues, Allocation
Lone Star Gas Company	8664	Rate Design, Cost of Capital, Accumulated Depr. & DFIT, Rate Case Exp.
Lone Star Gas Company-Transmission	8935	Implementation of Billing Cycle Adjustment
Southern Union Gas Company	6968	Rate Relief
Southern Union Gas Company	8878	Test Year Revenues, Joint and Common Costs
Texas Gas Service Company	9465	Cost of Capital, Cost of Service, Allocation
TXU Lone Star Pipeline	8976	Cost of Capital, Capital Structure
TXU-Gas Distribution	9145-9151	Cost of Capital, Transport Fee, Cost Allocation, Adjustment Clause
TXU-Gas Distribution	9400	Cost of Service, Allocation, Rate Base,

		Cost of Capital, Rate Design
Westar Transmission Company	4892/5168	Cost of Capital, Cost of Service
Westar Transmission Company	5787	Cost of Capital, Revenue Requirement
Atmos	10000	Cost of Capital
ATMOS	10580	Cost of Capital

TEXAS WATER COMMISSION

Southern Utilities Company	7371-R	Cost of Capital, Cost of Service

SCOTSBLUFF, NEBRASKA CITY COUNCIL

K. N. Energy, Inc.		Cost of Capital

HOUSTON CITY COUNCIL

Houston Lighting & Power Company		Forecasting

PUBLIC UTILITY REGULATION BOARD OF EL PASO, TEXAS

Southern Union Gas Company		Cost of Capital

DISTRICT COURT CAMERON COUNTY, TEXAS

City of San Benito, et. al. vs. PGE Gas Transmission et. al.	96-12-7404	Fairness Hearing

DISTRICT COURT **HARRIS COUNTY, TEXAS**		
City of Wharton, et al vs. Houston Lighting & Power	96-016613	Franchise fees

DISTRICT COURT **TRAVIS COUNTY, TEXAS**		
City of Round Rock, et al vs. Railroad Commission of Texas et al	GV 304,700	Mandamus

DISTRICT COURT **SOUTH DAYTONA, FLORIDA**		
City of South Daytona v. Florida Power and Light	2008-30441-CICI	Stranded Costs

EXHIBIT OCS 2.2
4 PAGES (inc. cover)

DOMINION ENERGY UTAH
DOCKET NO. 19-057-02
FORECASTED TEST YEAR ENDED DECEMBER 31, 2020
FEDERAL RESERVE JUly 31, 2019 PRESS RELEASE AND SEPTEMBER 18, 2019 PRESS RELEASE AND ECONOMIC PROJECTIONS

(Provided in PDF Format)

PDF

Press Release

July 31, 2019

Federal Reserve issues FOMC statement

For release at 2:00 p.m. EDT

Share

Information received since the Federal Open Market Committee met in June indicates that the labor market remains strong and that economic activity has been rising at a moderate rate. Job gains have been solid, on average, in recent months, and the unemployment rate has remained low. Although growth of household spending has picked up from earlier in the year, growth of business fixed investment has been soft. On a 12-month basis, overall inflation and inflation for items other than food and energy are running below 2 percent. Market-based measures of inflation compensation remain low; survey-based measures of longer-term inflation expectations are little changed.

Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. In light of the implications of global developments for the economic outlook as well as muted inflation pressures, the Committee decided to lower the target range for the federal funds rate to 2 to 2-1/4 percent. This action supports the Committee's view that sustained expansion of economic activity, strong labor market conditions, and inflation near the Committee's symmetric 2 percent objective are the most likely outcomes, but uncertainties about this outlook remain. As the Committee contemplates the future path of the target range for the federal funds rate, it will continue to monitor the implications of incoming information for the economic outlook and will act as appropriate to sustain the expansion, with a strong labor market and inflation near its symmetric 2 percent objective.

In determining the timing and size of future adjustments to the target range for the federal funds rate, the Committee will assess realized and expected economic conditions relative to its maximum employment objective and its symmetric 2 percent inflation objective. This assessment will take into account a wide range of information, including measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments.

The Committee will conclude the reduction of its aggregate securities holdings in the System Open Market Account in August, two months earlier than previously indicated.

Voting for the monetary policy action were Jerome H. Powell, Chair; John C. Williams, Vice Chair; Michelle W. Bowman; Lael Brainard; James Bullard; Richard H. Clarida; Charles L. Evans; and Randal K. Quarles. Voting against the action were Esther L. George and Eric S. Rosengren, who preferred at this meeting to maintain the target range for the federal funds rate at 2-1/4 to 2-1/2 percent.

Implementation Note issued July 31, 2019

Last Update: July 31, 2019

PDF

Press Release

September 18, 2019

Federal Reserve issues FOMC statement

For release at 2:00 p.m. EDT

Share

Information received since the Federal Open Market Committee met in July indicates that the labor market remains strong and that economic activity has been rising at a moderate rate. Job gains have been solid, on average, in recent months, and the unemployment rate has remained low. Although household spending has been rising at a strong pace, business fixed investment and exports have weakened. On a 12-month basis, overall inflation and inflation for items other than food and energy are running below 2 percent. Market-based measures of inflation compensation remain low; survey-based measures of longer-term inflation expectations are little changed.

Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. In light of the implications of global developments for the economic outlook as well as muted inflation pressures, the Committee decided to lower the target range for the federal funds rate to 1-3/4 to 2 percent. This action supports the Committee's view that sustained expansion of economic activity, strong labor market conditions, and inflation near the Committee's symmetric 2 percent objective are the most likely outcomes, but uncertainties about this outlook remain. As the Committee contemplates the future path of the target range for the federal funds rate, it will continue to monitor the implications of incoming information for the economic outlook and will act as appropriate to sustain the expansion, with a strong labor market and inflation near its symmetric 2 percent objective.

In determining the timing and size of future adjustments to the target range for the federal funds rate, the Committee will assess realized and expected economic conditions relative to its maximum employment objective and its symmetric 2 percent inflation objective. This assessment will take into account a wide range of information, including measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments.

Voting for the monetary policy action were Jerome H. Powell, Chair, John C. Williams, Vice Chair; Michelle W. Bowman; Lael Brainard; Richard H. Clarida; Charles L. Evans; and Randal K. Quarles. Voting against the action were James Bullard, who preferred at this meeting to lower the target range for the federal funds rate to 1-1/2 to 1-3/4 percent; and Esther L. George and Eric S. Rosengren, who preferred to maintain the target range at 2 percent to 2-1/4 percent.

Implementation Note issued September 18, 2019

Last Update: September 18, 2019

For release at 2:00 p.m., EDT, September 18, 2019

Table 1. Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents, under their individual assumptions of projected appropriate monetary policy, September 2019

Advance release of table 1 of the Summary of Economic Projections to be released with the FOMC minutes

Percent

Variable	Median[1]					Central Tendency[2]					Range[3]				
	2019	2020	2021	2022	Longer run	2019	2020	2021	2022	Longer run	2019	2020	2021	2022	Longer run
Change in real GDP	2.2	2.0	1.9	1.8	1.9	2.1–2.3	1.8–2.1	1.8–2.0	1.7–2.0	1.8–2.0	2.1–2.4	1.7–2.3	1.7–2.1	1.6–2.1	1.7–2.1
June projection	2.1	2.0	1.8		1.9	2.0–2.2	1.8–2.2	1.8–2.0		1.8–2.0	2.0–2.4	1.5–2.3	1.5–2.1		1.7–2.1
Unemployment rate	3.7	3.7	3.8	3.9	4.2	3.6–3.7	3.6–3.8	3.6–3.9	3.7–4.0	4.0–4.3	3.5–3.8	3.3–4.0	3.3–4.1	3.3–4.2	3.6–4.5
June projection	3.6	3.7	3.8		4.2	3.6–3.7	3.5–3.9	3.6–4.0		4.0–4.4	3.5–3.8	3.3–4.0	3.3–4.2		3.6–4.5
PCE inflation	1.5	1.9	2.0	2.0	2.0	1.5–1.6	1.8–2.0	2.0	2.0–2.2	2.0	1.4–1.7	1.7–2.1	1.8–2.3	1.8–2.2	2.0
June projection	1.5	1.9	2.0		2.0	1.5–1.6	1.9–2.0	2.0–2.1		2.0	1.4–1.7	1.8–2.1	1.9–2.2		2.0
Core PCE inflation[4]	1.8	1.9	2.0	2.0		1.7–1.8	1.9–2.0	2.0	2.0–2.2		1.6–1.8	1.7–2.1	1.8–2.3	1.8–2.2	
June projection	1.8	1.9	2.0			1.7–1.8	1.9–2.0	2.0–2.1			1.4–1.8	1.8–2.1	1.8–2.2		
Memo: Projected appropriate policy path															
Federal funds rate	1.9	1.9	2.1	2.4	2.5	1.6–2.1	1.6–2.1	1.6–2.4	1.9–2.6	2.5–2.8	1.6–2.1	1.6–2.4	1.6–2.6	1.6–2.9	2.0–3.3
June projection	2.4	2.1	2.4		2.5	1.9–2.4	1.9–2.4	1.9–2.6		2.5–3.0	1.9–2.6	1.9–3.1	1.9–3.1		2.4–3.3

Note: Projections of change in real gross domestic product (GDP) and projections for both measures of inflation are percent changes from the fourth quarter of the previous year to the fourth quarter of the year indicated. PCE inflation and core PCE inflation are the percentage rates of change in, respectively, the price index for personal consumption expenditures (PCE) and the price index for PCE excluding food and energy. Projections for the unemployment rate are for the average civilian unemployment rate in the fourth quarter of the year indicated. Each participant's projections are based on his or her assessment of appropriate monetary policy. Longer-run projections represent each participant's assessment of the rate to which each variable would be expected to converge under appropriate monetary policy and in the absence of further shocks to the economy. The projections for the federal funds rate are the value of the midpoint of the projected appropriate target range for the federal funds rate or the projected appropriate target level for the federal funds rate at the end of the specified calendar year or over the longer run. The June projections were made in conjunction with the meeting of the Federal Open Market Committee on June 18-19, 2019. One participant did not submit longer-run projections for the change in real GDP, the unemployment rate, or the federal funds rate in conjunction with the June 18-19, 2019, meeting, and one participant did not submit such projections in conjunction with the September 17-18, 2019, meeting.

1. For each period, the median is the middle projection when the projections are arranged from lowest to highest. When the number of projections is even, the median is the average of the two middle projections.
2. The central tendency excludes the three highest and three lowest projections for each variable in each year.
3. The range for a variable in a given year includes all participants' projections, from lowest to highest, for that variable in that year.
4. Longer-run projections for core PCE inflation are not collected.

①

UTAH Docket No. 19-057-02
Dominion Energy Utah (DEU)
Filed July 1, 2019
HEVERT TESTIMONY ROE

2:35 ROE RANGE 9.90% – 10.75%
But, Based on risk profile
of DEU selects 10.50%.

ROR: 7.73%

		COST	WTD	@/FIT
DEBT	45%	4.34%	1.953	1.953
EQUITY	55%	10.50%	5.775	7.310
TOTAL	100%		7.728	9.263

3:53 Three Approaches:
(1) DCF
(2) CAPM (Traditional & Empirical)
(3) Risk Premium
produce 9.90 – 10.75%

2,5,7 In addition, Hevert considered (i) risk
10, of electrification (ii) planned capital
expenditures, and impacts of regulatory
mechanisms. Also considered flotation
and changing capital markets.

② HEVERT CONT'D

4:66 Although these other factors impact ROE they generally cannot be directly quantified
Therefore: NO EXPLICIT ADJUSTMENT FOR THESE OTHER FACTORS.

4:75 KEY FACTORS

- HOPE & BLUEFIELD
- current capital markets
- business risks relative to PEERS

*Summary of results in Tables 1, 2, 3 at pp 5-6,
Concludes at page 7 Range 9.9 - 10.75%
Selects 10.50%

P.15 DEU Bond Rating
BBB+ S&P A2 Moody's

P.15-16 Comparable Group Gas Companies
9 companies

P.23-24 Model Results

P 3 HEVERT CONT'D

P. 25 → Business Risk

•electrofication potential to create stranded investment

P. 26 Rate mechanisms ←

~~Infrastructure Tracker~~

★ NOTE: FIND DEU EXHIBIT 2.08

P. 27: 495 Claims THAT USE OF A FUTURE TY does not reduce risk.

★ Need to address

P 28, lines 512, 513 In reference to the direct annual testimony of witness Hevert provide the budgeted capital expenditures for 2019 – 2023 of $ 1.10 billion.

forecasted

at page 28, 512-513

A provide ~~pro~~ the forecasted debt and equity amounts to pay for the budgeted capital expenditures

How much of capital investment is expected to be recovered through tracker

P. 34: 637 Flotation is about 5 basis pts.

What ~~are the $~~

49624

P. 4 Hevert Cont'd

P. 34 Capital Market Start

P. 35 : 656 Fed Reserve 1st increase 12/15

P. 43: 790 Capital Structure

Actual 2020 is 60%

But Company will employ 55/45

P. 44 : 808 Claim DEU Exhibit 2.10 shows group capital structure at 54.29% / 45.71 debt

Capital Structures are consistent

Ends Testimony at p. 46

COMPANY	SYMBOL	30-DAY AVG. STOCK PRICE			90-DAY AVG. STOCK PRICE			180-DAY AVG. STOCK PRICE			AVG. STOCK PRICE		
		LOW ROE	MEAN ROE	HIGH ROE	LOW ROE	MEAN ROE	HIGH ROE	LOW ROE	MEAN ROE	HIGH ROE	LOW ROE	MEAN ROE	HIGH ROE
ATMOS ENERGY CORP	ATO	8.59%	9.79%	12.27%	8.64%	9.83%	12.32%	8.68%	9.88%	12.37%	8.64%	9.83%	12.32%
CHESAPEAKE UTILITIES CORP	CPK	7.81%	9.73%		7.84%	9.77%		7.91%	9.83%		7.85%	9.78%	
NEW JERSEY RESOURCES CORP	NJR		7.68%	9.45%		7.73%	9.50%		7.77%	9.54%		7.73%	9.50%
NORTHWEST NATURAL HOLDING CO	NWN												
ONE GAS, INC.	OGS		8.65%	11.39%		8.70%	11.44%		8.76%	11.50%		8.70%	11.44%
SOUTH JERSEY INDUSTRIES, INC	SJI	9.60%	11.14%		9.71%	11.25%		9.65%	11.19%		9.65%	11.19%	
SPIRE INC	SR			8.78%		7.51%	8.89%		7.61%	8.99%		7.56%	8.89%
SOUTHWEST GAS HOLDINGS INC	SWX	8.91%	9.77%	11.24%	8.96%	9.82%	11.30%	8.99%	9.85%	11.32%	8.95%	9.81%	11.29%
MEAN		8.73%	9.46%	10.63%	8.79%	9.23%	10.69%	8.81%	9.27%	10.74%	8.77%	9.23%	10.69%
MEDIAN		8.75%	9.75%	11.24%	8.80%	9.77%	11.30%	8.84%	9.83%	11.32%	8.80%	9.78%	11.29%

	8.8	10.69
DCF		9.50%
CAPM/ECAPM		8.80%
RP		9.14%
		9.15%

BLOOMBERG BETA CAPM/ECAPM ANALYSIS	RISK FREE RATE	AVERAGE BETA	BLOOMBERG DCF	VALUE LINE DCF	BLOOMBERG MRP	VALUE LINE MRP	BLOOMBERG CAPM	VALUE LINE CAPM	BLOOMBERG ECAPM	VALUE LINE ECAPM
3-MONTH AVERAGE YIELD	2.28%	0.573	13.42%	14.93%	11.14%	12.65%	8.66%	10.83%	9.85%	10.88%
SPOT YIELD	2.00%	0.573	13.42%	14.93%	11.42%	12.93%	8.54%	10.55%	9.76%	10.79%

VALUE LINE BETA CAPM/ECAPM ANALYSIS	RISK FREE RATE	AVERAGE BETA	BLOOMBERG DCF	VALUE LINE DCF	BLOOMBERG MRP	VALUE LINE MRP	BLOOMBERG CAPM	VALUE LINE CAPM	BLOOMBERG ECAPM	VALUE LINE ECAPM
3-MONTH AVERAGE YIELD	2.28%	0.688	13.42%	14.93%	11.14%	12.65%	9.94%		10.81%	11.97%
SPOT YIELD	2.00%	0.688	13.42%	14.93%	11.42%	12.93%	9.86%	12.27%	10.75%	11.90%

0.09146667

BLOOMBERG BETA CAPM/ECAPM ANALYSIS	RISK FREE RATE	AVERAGE BETA	BLOOMBERG DCF	VALUE LINE DCF	BLOOMBERG MRP	VALUE LINE MRP	BLOOMBERG CAPM	VALUE LINE CAPM	BLOOMBERG ECAPM	VALUE LINE ECAPM
3-MONTH AVERAGE YIELD	2.28%	0.573	10.41%	10.73%	8.13%	8.45%	6.94%	8.43%	7.81%	8.02%
SPOT YIELD	2.00%	0.573	10.41%	10.73%	8.41%	8.73%	6.82%	8.15%	7.72%	7.93%

VALUE LINE BETA CAPM/ECAPM ANALYSIS	RISK FREE RATE	AVERAGE BETA	BLOOMBERG DCF	VALUE LINE DCF	BLOOMBERG MRP	VALUE LINE MRP	BLOOMBERG CAPM	VALUE LINE CAPM	BLOOMBERG ECAPM	VALUE LINE ECAPM	
3-MONTH AVERAGE YIELD	2.28%	0.688	10.41%	10.73%	8.13%	8.45%	7.87%		8.51%	8.75%	0.088
SPOT YIELD	2.00%	0.688	10.41%	10.73%	8.41%	8.73%	7.79%	9.38%	8.44%	8.69%	

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Dominion Energy
Utah - DEC 2020 Adjusted Avg Results CET
12 Months Ended : Dec-2020

COST OF SERVICE SUMMARY AND ALLOCATIONS TO RATE CLASSES

	(A)	(B)	(C)	(C)	(D)	(D)	(E)	(F)			(G)	(H)
							Allocations to Rate Classes					
	Description	Utah Jurisdiction DNG Related	GS	GSR	GSC	FS	IS	TS	TSS	TSL	TBF	NGV
1	**NET INCOME SUMMARY**											
2	**Utility Operating Revenue**											
3	System Distribution Non-Gas Reven	378,376,157	343,174,439	0	0	2,670,970	186,124	28,202,776	0	0	1,507,777	2,634,071
4	System Supplier Non-Gas Revenue	0	0	0	0	0	0	0	0	0	0	0
5	System Commodity Revenue	0	0	0	0	0	0	0	0	0	0	0
6	Pass-Through Related Other Reven	0	0	0	0	0	0	0	0	0	0	0
7	General Related Other Revenue	10,750,615	9,808,094	0	0	62,591	2,880	772,026	0	0	89,741	15,282
8	Total Utility Operating Revenue	389,126,772	352,982,534	0	0	2,733,561	189,005	28,974,801	0	0	1,597,518	2,649,353
9	**Utility Operating Expenses**											
10	Gas Purchase Expenses											
11	Utah Value of Peaking Supply	0	0	0	0	0	0	0	0	0	0	0
12	Total Gas Purchase Expenses	0	0	0	0	0	0	0	0	0	0	0
13	O&M Expenses											
14	Production	(838,701)	(715,090)	0	0	(6,040)	(255)	(89,959)	0	0	(10,483)	(16,873)
15	Distribution	55,486,323	47,308,568	0	0	399,582	16,847	5,951,492	0	0	693,554	1,116,279
16	Customer Accounts	12,536,206	12,020,402	0	0	42,249	2,903	418,684	0	0	21,408	30,560
17	Customer Service & Infonnation	3,047,465	2,326,920	0	0	39,201	30,642	611,289	0	0	31,709	7,703
18	Administrative & General	49,477,895	43,517,106	0	0	373,039	15,272	4,940,964	0	0	605,005	26,510
19	Total O&M Expense	119,709,188	104,457,906	0	0	848,032	65,409	11,832,469	0	0	1,341,192	1,164,180
20	Other Operating Expenses											
21	Depreciation, Depletion, Amortizatio	85,423,490	75,015,103	0	0	622,655	26,753	8,655,626	0	0	1,059,853	43,499
22	Taxes Other Than Income Taxes	28,343,362	24,862,080	0	0	201,517	8,968	2,901,611	0	0	355,293	13,894
23	Income Taxes	29,744,657	29,163,197	0	0	201,046	18,981	486,566	0	0	(396,494)	271,362
24	Total Other Operating Expenses	143,511,509	129,040,379	0	0	1,025,218	54,702	12,043,803	0	0	1,018,652	328,755
25	Total Utility Operating Expenses	263,220,697	233,498,284	0	0	1,873,250	120,111	23,876,272	0	0	2,359,845	1,492,935
26	**NET OPERATING INCOME**	125,906,075	119,484,249	0	0	860,311	68,893	5,098,530	0	0	(762,327)	1,156,418
27	**RATE BASE SUMMARY**											
28	**Net Utility Plant**											
29	101 Gas Plant In Service	3,244,815,858	2,839,748,040	0	0	24,342,994	996,577	322,427,050	0	0	39,480,142	17,821,055
30	105 Gas Plant Held For Future Use	5,037	4,418	0	0	36	2	515	0	0	63	2
31	106 Completed Construction Not Classifi	0	0	0	0	0	0	0	0	0	0	0
32	108 Accumulated Depreciation	(799,516,884)	(707,797,342)	0	0	(6,868,711)	(231,589)	(74,927,081)	0	0	(9,174,577)	(517,584)
33	111 Accumulated Amort & Depletion	(5,624,786)	(5,466,910)	0	0	(137,379)	(20)	(6,580)	0	0	(806)	(13,091)
34	254 Other Regulatory Liabilities	(404,258,011)	(355,177,312)	0	0	(2,978,800)	(126,027)	(40,773,967)	0	0	(4,992,639)	(209,267)
35	**Total Net Utility Plant**	2,035,421,214	1,771,310,895	0	0	14,358,139	638,943	206,719,938	0	0	25,312,183	17,081,116
36	**Other Rate Base Accounts**											
37	154 Materials & Supplies	24,807,024	21,818,428	0	0	187,033	7,657	2,477,280	0	0	303,335	13,291
38	164-1 Gas Stored Underground	0	0	0	0	0	0	0	0	0	0	0
39	165 Prepayments	2,774,808	2,440,517	0	0	20,921	856	277,098	0	0	33,930	1,487
40	190008 Accum Deferred Income Tax Feder	31,711,929	27,891,473	0	0	239,092	9,788	3,166,818	0	0	387,767	16,991
41	190008 Accum Deferred Income Tax State	7,523,879	6,617,449	0	0	56,726	2,322	751,350	0	0	92,000	4,031
42	235-1 Customer Deposits	(5,361,639)	(5,353,307)	0	0	(2,225)	(91)	(5,870)	0	0	(30)	(116)
43	252 Misc Customer Credits	1	1	0	0	0	0	0	0	0	0	0
44	253-1 Unclaimed Customer Deposits	(36,874)	(36,816)	0	0	(15)	(1)	(40)	0	0	(0)	(1)
45	255 Deferred Investment Tax Credits	0	0	0	0	0	0	0	0	0	0	0
46	282 Accum Deferred Income Taxes	(294,564,927)	(259,031,873)	0	0	(2,212,524)	(91,071)	(29,464,666)	0	0	(3,607,852)	(156,940)
47	Working Capital - Cash	13,938,535	12,259,307	0	0	105,090	4,302	1,391,931	0	0	170,437	7,468
48	**Total Other Rate Base Accounts**	(219,207,263)	(193,394,823)	0	0	(1,605,902)	(66,236)	(21,406,100)	0	0	(2,820,414)	(113,788)
49	**TOTAL RATE BASE**	1,816,213,951	1,577,916,072	0	0	12,752,237	572,707	185,313,838	0	0	22,691,769	16,967,328
50	Return On Rate Base- Actual	6.93%	7.57%	0.00%	0.00%	6.75%	12.03%	2.75%	0.00%	0.00%	-3.36%	6.82%
51	Return On Equity - Actual	9.05%	10.22%	-3.55%	-3.55%	8.72%	18.32%	1.45%	-3.55%	-3.55%	-9.66%	8.84%
52	Cost of Service (Line 25 + Line 26)	389,126,772	352,982,534	0	0	2,733,561	189,005	28,974,801	0	0	1,597,518	2,649,353
53	Deficiency (((Line 48 * Line 57) - Line 26) * Tax F	19,249,740	3,273,048	0	0	166,752	(32,815)	12,285,096	0	0	3,351,430	206,228
54	COS Adjustment	0	1,879,359	0	0	34,009	792	557,967	0	0	(2,474,474)	2,348
55	**Total Cost Of Service Incl./Deficiency**	408,376,512	358,134,941	0	0	2,934,322	156,981	41,817,864	0	0	2,474,474	2,857,929
56	**General Related Revenue Class Allocation**	10,750,615	9,808,094	0	0	62,591	2,880	772,026	0	0	89,741	15,282
57	**Net Cost of Service Collected In Rates**	397,625,897	348,326,847	0	0	2,871,730	154,101	41,045,838	0	0	2,384,733	2,842,647
58	Return On Rate Base - Allowed	7.73%	7.73%	7.73%	7.73%	7.73%	7.73%	7.73%	7.73%	7.73%	7.73%	7.73%
59	Return On Equity - Allowed	10.50%	10.50%	10.50%	10.50%	10.50%	10.50%	10.50%	10.50%	10.50%	10.50%	10.50%

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Exhibit (OCS-3.13)

Utah - DEC 2020 Adjusted Avg Results CET
12 Months Ended : Dec-2020
Capital Structure : AVG CAP STR DEC 20

	Imputed Tax Adjustment **A** System Total	 **B** Utah Jurisdiction	
ALGEBRAIC METHOD - SOLVING FOR TWO UNKNOWNS			
Federal Income Tax Rate	21%	21%	t_F
State Income Tax Rate	4.75%	4.75%	t_S
Weight of Debt in Capital Structure	45.00%	45.00%	w_D
Cost of Debt	4.34%	4.34%	r_D
Net Lead Lag Days	7.358	7.358	NLD
Revenues	934,241,056	902,762,514	R
Gas Expenses	531,844,459	513,635,742	GAS
O&M Expenses	125,221,739	119,709,188	O&M
Depreciation	88,571,680	85,423,490	DEPR
Amortization	0	0	AMORT
Non-Income Taxes	29,869,132	28,343,362	NIT
Rate Base excluding CWC	1,867,746,073	1,802,275,416	RB*
Deferred Income Taxes	0	0	DIT
Deferred Income Taxes - Credit	0	0	DITCr
CWC = CWC* + (NLD/365)·IT	CWC is a function of IT, and		
IT = IT* - $(t_S+t_F\cdot(1-t_S))\cdot r_D\cdot w_D\cdot$CWC	IT is a function of CWC		
where IT = SIT + FIT + DIT + DITCr, and			
CWC* =	13,847,863	13,338,911	
IT* =	30,258,690	29,812,032	
Solution:			
CWC =	14,456,437	13,938,531	
SIT =	5,790,049	5,704,863	
FIT =	24,398,762	24,039,794	
IT =	30,188,812	29,744,657	
Historically Adjusted Income Taxes	23,023,107		
Tax Adjustment	7,165,705		
RATE BASE METHOD			
System Average Rate Base	1,882,202,510	1,816,213,951	
Adj System Return On Rate Base	6.83%	6.93%	
Allowed Return	128,545,235	125,906,075	
System Average Rate Base	1,882,202,510	1,816,213,951	
System Weighted Cost Of Debt	1.95%	1.95%	
Imputed Interest Cost	36,759,415	35,470,658	
Taxable Return	91,785,820	90,435,417	
Tax Factor (Tax Rate/(1-Tax Rate))	0.3289050	0.3289050	
Income Tax on Return	30,188,812	29,744,657	
OPERATING INCOME METHOD			
Total Utility Operating Revenue	934,241,056	902,762,514	
Gas Purchase Expenses	531,844,459	513,635,742	
O&M Expenses	125,221,739	119,709,188	
Depreciation	88,571,680	85,423,490	
Amortization	0	0	
Taxes Other Than Income	29,869,132	28,343,362	
Net Utility Income Before Tax	158,734,046	155,650,733	
Rate Base	1,882,202,510	1,816,213,951	
Proposed Weighted Cost of Debt	1.95%	1.95%	
Imputed Interest	36,759,415	35,470,658	
State Taxable Income	121,974,631	120,180,074	
State Income Tax Rate	4.74693%	4.74693%	
State Income Tax	5,790,049	5,704,863	
Federal Taxable Income	116,184,582	114,475,211	
Federal Income Tax Rate	21.00000%	21.00000%	
Federal Income Tax	24,398,762	24,039,794	
Deferred Income Taxes	0	0	
Deferred Income Taxes - Credit	0	0	
Total Income Tax	30,188,812	29,744,657	

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Exhibit (OCS-3.13)

Dominion Energy
Utah - DEC 2020 Adjusted Avg Results CET
12 Months Ended : Dec-2020
Return On Equity 10.50%

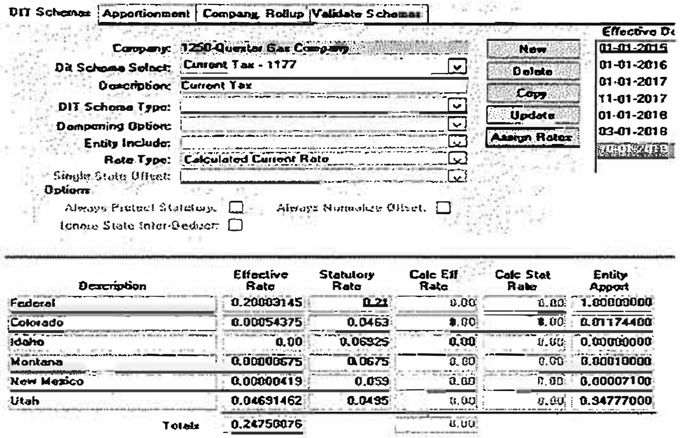
12 Months Ended : Dec-2020

	(A) Description	(B) Historical 12 Months Dec-18	(C) Adjustments Total	(D) Imputed Tax Adjustment	(E) Adjusted System Total	(F) Utah Jurisdiction DNG Related	(G) Deficiency	(H) Utah Jurisdiction Total
1	**NET INCOME SUMMARY**							
2	**Utility Operating Revenue**							
3	System Distribution Non-Gas Revenue	386,205,688	5,205,730	0	391,411,418	378,376,157	**19,249,740**	397,625,897
4	System Supplier Non-Gas Revenue	109,038,702	(659,277)	0	108,379,425			0
5	System Commodity Revenue	401,864,779	(746,392)	0	401,118,387			0
6	Pass-Through Related Other Revenue	22,346,647	0	0	22,346,647			0
7	General Related Other Revenue	5,374,907	5,610,272	0	10,985,179	10,750,615		10,750,615
8	**Total Utility Operating Revenue**	924,830,723	9,410,333	0	934,241,056	389,126,772	19,249,740	408,376,512
9	**Utility Operating Expenses**							
10	Gas Purchase Expenses							
11	Utah	514,800,336	(1,164,594)	0	513,635,742			0
12	Wyoming	18,449,793	(241,076)	0	18,208,717			0
13	Total	533,250,128	(1,405,669)	0	531,844,459	0	0	0
14	O&M Expenses							
15	Production	(886,887)	17,649	0	(869,238)	(838,701)		(838,701)
16	Distribution	57,001,306	1,278,315	0	58,279,621	55,486,323		55,486,323
17	Customer Accounts	13,827,937	(881,637)	0	12,946,300	12,536,206	45,815	12,582,021
18	Customer Service & Information	27,244,073	(24,126,547)	0	3,117,526	3,047,465		3,047,465
19	Administrative & General	49,494,549	2,252,981	0	51,747,530	49,477,895		49,477,895
20	Total O&M Expense	146,680,978	(21,459,239)	0	125,221,739	119,709,188	45,815	119,755,003
21	Other Operating Expenses							
22	Depreciation, Depletion, Amortization	73,583,715	14,987,965	0	88,571,680	85,423,490		85,423,490
23	Taxes Other Than Income Taxes	24,432,267	5,436,865	0	29,869,132	28,343,362		28,343,362
24	Income Taxes	20,577,922	2,445,184	7,165,705	30,188,812	29,744,657	4,752,986	34,497,643
25	Total Other Operating Expenses	118,593,904	22,870,015	7,165,705	148,629,624	143,511,509	4,752,966	148,264,495
26	**Total Utility Operating Expenses**	798,525,010	5,106	7,165,705	805,695,821	263,220,697	4,798,801	268,019,498
27	NET OPERATING INCOME	126,305,713	9,405,227	(7,165,705)	128,545,235	125,906,075	14,450,939	140,357,014
28	RATEBASE SUMMARY							
29	**Net Utility Plant**							
30	101 Gas Plant In Service	3,003,176,328	365,068,489	0	3,368,244,816	3,244,815,858		3,244,815,858
31	105 Gas Plant Held For Future Use	0	5,037	0	5,037	5,037		5,037
32	106 Completed Construction Not Classified	90,575,015	(90,575,015)	0	0	0		0
33	108 Accumulated Depreciation	(793,878,412)	(43,760,676)	0	(837,639,088)	(799,516,884)		(799,516,884)
34	111 Accumulated Amort & Depletion	(6,225,790)	387,467	0	(5,838,323)	(5,624,786)		(5,624,786)
35	254 Other Regulatory Liabilities ARC	(417,851,575)	(468,871)	0	(418,320,446)	(404,258,011)		(404,258,011)
36	**Total Net Utility Plant**	1,875,795,566	230,656,431	0	2,106,451,997	2,035,421,214	0	2,035,421,214
37	**Other Rate Base Accounts**							
38	154 Materials & Supplies	22,771,349	2,915,283	0	25,686,632	24,807,024		24,807,024
39	164-1 Gas Stored Underground	44,167,774	(44,167,774)	0	0	0		0
40	165 Prepayments	3,093,028	(219,831)	0	2,873,197	2,774,808		2,774,808
41	190008 Accum Deferred Income Tax Federal	32,836,371	0	0	32,836,371	31,711,929		31,711,929
42	190009 Accum Deferred Income Tax State	7,790,660	0	0	7,790,660	7,523,879		7,523,879
43	235-1 Customer Deposits	(5,751,820)	155,356	0	(5,596,464)	(5,361,639)		(5,361,639)
44	252 Contributions in Aid of Construction	(2,640,376)	2,640,377	0	1	1		1
45	253-1 Unclaimed Customer Deposits	(43,284)	5,103	0	(38,181)	(36,874)		(36,874)
46	255 Deferred Investment Tax Credits	0	0	0	0	0		0
47	282 Accum Deferred Income Taxes	(320,103,057)	17,844,917	0	(302,258,140)	(294,564,927)		(294,564,927)
48	186-7 Deferred Pension Asset	112,498,673	(112,498,673)	0	0	0		0
49	Working Capital - Cash	14,604,189	(292,204)	144,453	14,456,437	13,938,535		13,938,535
50	**Total Other Rate Base Accounts**	(90,776,491)	(133,617,448)	144,453	(224,249,487)	(219,207,263)	0	(219,207,263)
51	TOTAL RATE BASE	1,785,019,075	97,038,982	144,453	1,882,202,510	1,816,213,951		1,816,213,951
52	RETURN ON RATE BASE	7.08%			6.83%	6.93%		7.73%
53	RETURN ON EQUITY	9.31%			8.87%	9.05%		10.50%

WORK PAPER Document
Revenue Requirement
Summary & ROR

Utah - DEC 2020 Adjusted Avg Results CET
12 Months Ended : Dec-2020
Capital Structure : AVG CAP STR DEC 20

	Imputed Tax Adjustment A System Total	 B Utah Jurisdiction	
ALGEBRAIC METHOD - SOLVING FOR TWO UNKNOWNS			
Federal Income Tax Rate	21%	21%	t_f
State Income Tax Rate	4.75%	4.75%	t_s
Weight of Debt In Capital Structure	45.00%	45.00%	w_D
Cost of Debt	4.34%	4.34%	r_D
Net Lead Lag Days	7.358	7.358	NLD
Revenues	934,241,056	902,762,514	R
Gas Expenses	531,844,459	513,635,742	GAS
O&M Expenses	125,221,739	119,709,188	O&M
Depreciation	88,571,680	85,423,490	DEPR
Amortization	0	0	AMORT
Non-Income Taxes	29,869,132	28,343,362	NIT
Rate Base excluding CWC	1,867,746,073	1,802,275,416	RB*
Deferred Income Taxes	0	0	DIT
Deferred Income Taxes - Credit	0	0	DITCr
CWC = CWC* + (NLD/365)·IT	CWC is a function of IT, and		
IT = IT* - (t_s+t_f·(1-t_s))·r_D·w_D·CWC	IT is a function of CWC		
where IT = SIT + FIT + DIT + DITCr, and			
CWC* =	13,847,863	13,338,911	
IT* =	30,258,690	29,812,032	
Solution:			
CWC =	14,456,437	13,938,531	
SIT =	5,790,049	5,704,863	
FIT =	24,398,762	24,039,794	
IT =	30,188,812	29,744,657	
Historically Adjusted Income Taxes	23,023,107		
Tax Adjustment	7,165,705		
RATE BASE METHOD			
System Average Rate Base	1,882,202,510	1,816,213,951	
Adj System Return On Rate Base	6.83%	6.93%	
Allowed Return	128,545,235	125,906,075	
System Average Rate Base	1,882,202,510	1,816,213,951	
System Weighted Cost Of Debt	1.95%	1.95%	
Imputed Interest Cost	36,759,415	35,470,658	
Taxable Return	91,785,820	90,435,417	
Tax Factor (Tax Rate/(1-Tax Rate))	0.3289050	0.3289050	
Income Tax on Return	30,188,812	29,744,657	
OPERATING INCOME METHOD			
Total Utility Operating Revenue	934,241,056	902,762,514	
Gas Purchase Expenses	531,844,459	513,635,742	
O&M Expenses	125,221,739	119,709,188	
Depreciation	88,571,680	85,423,490	
Amortization	0	0	
Taxes Other Than Income	29,869,132	28,343,362	
Net Utility Income Before Tax	158,734,046	155,650,733	
Rate Base	1,882,202,510	1,816,213,951	
Proposed Weighted Cost of Debt	1.95%	1.95%	
Imputed Interest	36,759,415	35,470,658	
State Taxable Income	121,974,631	120,180,074	
State Income Tax Rate	4.74693%	4.74693%	
State Income Tax	5,790,049	5,704,863	
Federal Taxable Income	116,184,582	114,475,211	
Federal Income Tax Rate	21.00000%	21.00000%	
Federal Income Tax	24,398,762	24,039,794	
Deferred Income Taxes	0	0	
Deferred Income Taxes - Credit	0	0	
Total Income Tax	30,188,812	29,744,657	



Company: 1250-Questar Gas Company
DIT Schema Select: Current Tax - 1177
Description: Current Tax
DIT Schema Type:
Dampening Option:
Entity Include:
Rate Type: Calculated Current Rate
Single State Offset:

Options
Always Protect Statutory ☐
Always Normalize Offset ☐
Ignore State Inter-Deduct ☐

Effective D
01-01-2015
01-01-2016
01-01-2017
11-01-2017
01-01-2018
03-01-2018

Description	Effective Rate	Statutory Rate	Calc Eff Rate	Calc Stat Rate	Entity Apport
Federal	0.20003145	0.21	0.00	0.00	1.00000000
Colorado	0.00054375	0.0463	0.00	0.00	0.01174400
Idaho	0.00	0.06925	0.00	0.00	0.00000000
Montana	0.00000675	0.0675	0.00	0.00	0.00010000
New Mexico	0.00000419	0.059	0.00	0.00	0.00007100
Utah	0.04691462	0.0495	0.00	0.00	0.34777000
Totals	0.24750076		0.00		

Calculation of Effective Income Tax Rate and Gross-Up Factors

		A	B	C	D	E	F	G	H
	Combined (Updated October 2018)	Total	Colorado	Idaho	Montana	Nevada	New Mexico	Utah	Wyoming
1	State Tax Rates		4.63%	6.93%	6.75%	0.00%	5.90%	4.95%	0.00%
2	Ave State Rate	4.74693%	0.05437%	0.00000%	0.00068%	0.00000%	0.00042%	4.69146%	0.00000%
3	Federal Tax Rate	21.00000%							
4	Combined Federal & State Tax Rate (Updated Oct 2015)	24.7501%	Combined Rate = Average State Rate + (Federal Rate * (1 - Average State Rate))						

5	Gross-Up Factors	UT	WY	
6	Tax Factor	0.328905	0.265823	Tax Factor = (Tax Rate/(1 - Tax Rate))
7	Gross-Up Factor	1.328905	1.265823	Gross-Up Factor = 1 / (1 - Tax Rate))
8	Tax & Bad Debt Gross-Up Factor	1.332075	1.268843	Tax & Bad Debt Gross-Up Factor = 1 / (1 - (Tax Rate + (Bad Debt Rate * (1 - Tax Rate))))
9	Tax & Bad Debt Factor	0.332075	0.268843	

* WORK PAPER Taxes All
w/ Gross-UP

→ UTAH FACTOR

* Work Paper

Document

Rate Base

INVESTMENT

	A	B	C	D	F	G	H	I
1	Dominion Energy							
2	Utah - DEC 2020 Adjusted Avg Results CET							
3	12 Months Ended : Dec-2020							
4								
5								
6								
7					Historical	CASE	Imputed	Adjusted
8		FERC			12 Months	Adjustments	Tax	System
9		Account		Description	December-18	Total	Adjustment	Total
10								
11			UTILITY OPERATING REVENUE					
12								
13	TARIFF DTH SALES AND REVENUE							
1242		RATE BASE (W/O Working Cap. Cash)			1,770,414,886	97,331,187	0	1,867,746,073
1243								
1244	WORKING CAPITAL - CASH (General Plant)							
1245								
1246		Cost of Service - Including Gas Costs						
1247			Gas Purchase Expenses		533,250,128	(1,405,669)	0	531,844,459
1248			Operation & Maintenance Expenses		146,680,978	(21,459,239)	0	125,221,739
1249			Deprec, Depl, & Amort		0	0	0	0
1250			Taxes - Excluding Income Taxes		24,432,267	5,436,865	0	29,869,132
1251			Income Taxes - Federal & State		20,090,121	2,932,985	7,165,705	30,188,812
1252			Deferred Income Tax Credit		0	0	0	0
1253			Investment Tax Credit Adjustment		0	0	0	0
1254			South Georgia Amortization		0	0	0	0
1255			Section 29 Tax Credits		0	0	0	0
1256								
1257			Cost of Service - Including Gas Costs		724,453,494	(14,495,058)	7,165,705	717,124,141
1258								
1259			Daily Cost of Service		1,984,804	(39,712)	19,632	1,964,724
1260								
1261		Working Capital - Cash Factor			7.358	7.358	7.358	7.358
1262								
1263								
1264		WORKING CAPITAL - CASH (General Plant)			14,604,189	(292,204)	144,453	14,456,437
1265						(292,204)		
1266								
1267	TOTAL RATE BASE							
1268		Production			40,162,633	(44,682,168)	0	(4,519,535)
1269		Distribution - Wyoming			49,736,562	9,627,558	0	59,364,120
1270		Distribution - Utah			1,622,599,823	243,513,296	0	1,866,113,119
1271		General			72,520,056	(111,419,703)	144,453	(38,755,195)
1272								
1273								
1274		TOTAL RATE BASE			1,785,019,075	97,038,982	144,453	1,882,202,510

*

	A	B	C	D	F	G	H	I
1	**Dominion Energy**							
2	**Utah - DEC 2020 Adjusted Avg Results CET**							
3	**12 Months Ended : Dec-2020**							
4								
5								
6								
7					**Historical**	**CASE**	**Imputed**	**Adjusted**
8	**FERC**				**12 Months**	**Adjustments**	**Tax**	**System**
9	**Account**			**Description**	**December-18**	**Total**	**Adjustment**	**Total**
10								
11			**UTILITY OPERATING REVENUE**					
12								
13	**TARIFF DTH SALES AND REVENUE**							
908	**OTHER UTILITY OPERATING EXPENSES**							
909								
910	**Depreciation, Amortization, & Other Taxes**							
911								
912	403	Depreciation Expense						
913			Production		506,626	0		506,626
914			Distribution - Wyoming		2,067,593	536,403		2,603,996
915			Distribution - Utah		61,653,257	8,435,777		70,089,034
916			General		9,356,240	6,015,786		15,372,025
917			Total Depreciation Expense		73,583,715	14,987,965	0	88,571,680
918								
919	404	Amortization and Depletion						
920			Production		0	0		0
921			Distribution - Wyoming		0	0		0
922			Distribution - Utah		(0)	0		0
923			General		0	0		0
924			Total Amortization Expense		(0)	0	0	0
925								
926		**Total Depreciation, Deplec & Amort**			73,583,715	14,987,965	0	88,571,680
927					0	0	0	0
928	**Tax Expenses**							
929	408	Taxes Other Than Income Taxes						
930			Production		0	0		0
931			Distribution - Wyoming		1,258,219	279,989		1,538,208
932			Distribution - Utah		23,471,164	5,222,993		28,694,157
933			General		(297,117)	(66,117)		(363,233)
934			Total Other Taxes		24,432,267	5,436,865	0	29,869,132
935								
936	4090	Income Taxes - Federal			10,173,646	2,932,985	7,165,705	20,272,337
937								
938	4091	Income Taxes - State			4,098,821	0		4,098,821
939								
940	4101	Deferred Income Taxes			5,817,654	0		5,817,654
941								
942	4111	Deferred Income Tax Credit			487,801	(487,801)		0
943								
944	4114	Investment Tax Credit Adjustment			0	0		0
945								
946								
947								
948								
949								
950		**Total Tax Expenses**			45,010,189	7,882,049	7,165,705	60,057,944
951								
952								
953		**Total Utility Other Operating Expenses**			118,593,904	22,870,015	7,165,705	148,629,624
954								
955								
956	**SYSTEM TOTAL UTILITY OPERATING EXPENSES**				798,525,010	5,106	7,165,705	805,695,821

* Work Paper Document on Deferred Current Taxes

*

*

From: donnaramas@aol.com
Subject: Re: DEU GRC
Date: September 9, 2019 at 1:08 PM
To: danlawtonlawfirm@gmail.com

Hi Dan. Thanks for the response and the placeholder. The deferred income tax expense can be found in the revenue requirement model provided as DEU Exhibit 4.18 under the tab "ROR-Model" in excel row 940. Is this what you are looking for?
Donna

-----Original Message-----
From: Dan <danlawtonlawfirm@gmail.com>
To: Donna Ramas <donnaramas@aol.com>
Cc: Dan <danlawtonlawfirm@gmail.com>
Sent: Sat, Sep 7, 2019 10:57 am
Subject: Re: DEU GRC

Donna: Still have not finished capital structure and ROE, but if you need a place holder for your analysis and evaluation of revenue requirement you can start with the following

Debt	45.0%	4.34%	1.953%
Equity	55.0%	9.20%	5.06%
Total	100%	___	7.013%

I hope this helps, but will get you data as soon as I can.
I do have a question for you - where can I find the amount of **current deferred federal income tax** in this case?

Thanks again

Dan Lawton
Lawton Law Firm
12600 Hill Country Blvd.
Suite R-275
Austin, Texas 78738
512-940-0773
or 512-322-0019
danlawtonlawfirm@gmail.com

> On Sep 4, 2019, at 10:38 AM, donnaramas@aol.com wrote:
>
> Hi Dan, this is Donna. When you decide what capital structure and cost rates you plan to recommend in the DEU rate case, can you forward them to me so I can plug it into the revenue requirement model.
>
> Thanks!
> Donna Ramas
> (248)529-3959

IN

CAPITAL STRUCTURE
Dominion Energy
Utah - DEC 2020 Adjusted Avg Results CET
12 Months Ended : Dec-2020

	AVG CAP STR DEC 20 Weight	Cost	Weighted Cost
Long Term Debt	45.00%	4.34%	1.95%
Short Term Debt	0.00%	0.00%	0.00%
Common Equity	55.00%	10.50%	5.78%
	100.00%		7.73%
Total LT & ST Debt	45.00%		1.95%

Dominion Energy
Utah - DEC 2020 Adjusted Avg Results CET
12 Months Ended : Dec-2020

QGC Cost Of Capital Scenarios	BOOKED	BOOKED	ORDERED CAP STR 13-057-05	BUDGET PROJ	BUDGET PROJ SAME AS AVG
	YE CAP STR DEC 18	AVG CAP STR DEC 18	ORDERED CAP STR 13-057-05	AVG CAP STR DEC 19	YE CAP STR DEC 19
Weights					
Long Term Debt	45.00%	51.71%	47.93%	46.52%	40.26%
Short Term Debt	0.00%	0.00%	0.00%	0.00%	0.00%
Common Equity	55.00%	48.29%	52.07%	53.48%	55.00%
	100.00%	100.00%	100.00%	100.00%	95.26%
Costs (Rates)					
Long Term Debt	4.40%	3.94%	5.25%	4.38%	4.37%
Short Term Debt	0.00%	0.00%	0.00%	0.00%	0.00%
Common Equity	9.85%	9.85%	9.85%	10.50%	10.50%

		ACTUAL	ACTUAL		BUDGET PROJ	BUDGET PROJ
		YE CAP STR DEC 18	AVG CAP STR DEC 18	13-057-05 Ordered CAP STR	AVG CAP STR DEC 19	YE CAP STR DEC 19
	LONG-TERM DEBT					
221	Bonds - Long Term	-	-	559,500,000		
224	Notes - Long Term	750,000,000	730,416,667		750,599,711	751,199,422
189	Unamort Loss on Reacq Debt	(2,244,161)	(2,467,525)	(4,542,000)	(1,981,950)	(1,719,739)
181	Unamortized Debt Expense	(4,725,056)	(4,580,518)	(3,957,000)	(4,602,369)	(4,479,683)
231	Notes Paybles-Outside Companies	-	106,458,333	-	-	
	TOTAL LONG-TERM DEBT	743,030,784	829,826,956	551,001,000	744,015,392	745,000,000
	LONG TERM DEBT COSTS					
427	Interest - Long term Debt	31,995,448	31,995,448	28,072,750	31,930,070	31,864,692
428	Amortization of Debt Discount & Expense	688,120	688,120	830,500	686,714	685,308
	TOTAL LONG TERM DEBT COSTS	32,683,568	32,683,568	28,903,250	32,616,784	32,550,000
	LONG-TERM DEBIT COST %	4.40%	3.94%	5.25%	4.38%	4.37%
	COMMON EQUITY					
201	Common Stock Issued	22,974,065	22,974,065	22,974,000	22,974,065	22,974,065
207	Premium on Common Stock	272,445,463	272,445,463	279,453,000	272,445,463	272,445,463
211	Misc Paid In Capital	203,257,107	8,740,472			203,257,107
216	Unappropriated Ret. Earnings	513,131,632	479,406,953	296,085,000	560,065,816	607,000,000
	TOTAL COMMON EQUITY	1,011,808,267	783,566,953	598,512,000	855,485,344	1,105,676,635
	TOTAL CAPITAL	1,754,839,051	1,613,393,909	1,149,513,000	1,599,500,736	1,850,676,635

Dominion Energy Utah
Docket No. 19-057-02
DEU Exhibit 4.06
Page 1 of 2

Dominion Energy
Utah - DEC 2020 Adjusted Avg Results CET
12 Months Ended : Dec-2020

COST OF SERVICE SUMMARY AND ALLOCATIONS TO RATE CLASSES

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
		Utah Jurisdiction			Allocations to Rate Classes				
	Description	DNG Related	GS	FS	IS	TS	TBF	NGV	Total
1	**NET INCOME SUMMARY**								
2	**Utility Operating Revenue**								
3	System Distribution Non-Gas Reven	378,376,157	343,174,439	2,670,970	186,124	28,202,776	1,507,777	2,634,071	378,376,157
4	System Supplier Non-Gas Revenue	0	0	0	0	0	0	0	#REF!
5	System Commodity Revenue	0	0	0	0	0	0	0	0
6	Pass-Through Related Other Reven	0	0	0	0	0	0	0	0
7	General Related Other Revenue	10,750,615	9,808,094	62,591	2,880	772,026	89,741	15,282	10,750,615
8	Total Utility Operating Revenue	389,126,772	352,982,534	2,733,561	189,005	28,974,801	1,597,518	2,649,353	#REF!
9	**Utility Operating Expenses**								
10	Gas Purchase Expenses								
11	Utah Value of Peaking Supply	0	0	0	0	0	0	0	0
12	Total Gas Purchase Expenses	0	0	0	0	0	0	0	0
13	O&M Expenses								
14	Production	(838,701)	(715,090)	(6,040)	(255)	(89,959)	(10,483)	(16,873)	(838,701)
15	Distribution	55,486,323	47,308,568	399,582	16,847	5,951,492	693,554	1,116,279	55,486,323
16	Customer Accounts	12,536,206	12,020,402	42,249	2,903	418,684	21,408	30,560	12,536,206
17	Customer Service & Information	3,047,465	2,326,920	39,201	30,642	611,289	31,709	7,703	3,047,465
18	Administrative & General	49,477,895	43,517,106	373,039	15,272	4,940,964	605,005	26,510	49,477,895
19	Total O&M Expense	119,709,188	104,457,906	848,032	65,409	11,832,469	1,341,192	1,164,180	119,709,188
20	Other Operating Expenses								
21	Depreciation, Depletion, Amortizatio	85,423,490	75,015,103	622,655	26,753	8,655,626	1,059,853	43,499	85,423,490
22	Taxes Other Than Income Taxes	28,343,362	24,862,080	201,517	8,968	2,901,611	355,293	13,894	28,343,362
23	Income Taxes	29,744,657	29,163,197	201,046	18,981	486,566	(396,494)	271,362	29,744,657
24	Total Other Operating Expenses	143,511,509	129,040,379	1,025,218	54,702	12,043,803	1,018,652	328,755	143,511,509
25	Total Utility Operating Expenses	263,220,697	233,498,284	1,873,250	120,111	23,876,272	2,359,845	1,492,935	263,220,697
26	NET OPERATING INCOME	125,906,075	119,484,249	860,311	68,893	5,098,530	(762,327)	1,156,418	#REF!
27	RATE BASE SUMMARY								
28	**Net Utility Plant**								
29	101 Gas Plant In Service	3,244,815,858	2,839,748,040	24,342,994	996,577	322,427,050	39,480,142	17,821,055	3,244,815,858
30	105 Gas Plant Held For Future Use	5,037	4,418	36	2	515	63	2	5,037
31	106 Completed Construction Not Classif	0	0	0	0	0	0	0	0
32	108 Accumulated Depreciation	(799,516,884)	(707,797,342)	(6,868,711)	(231,589)	(74,927,081)	(9,174,577)	(517,584)	(799,516,884)
33	111 Accumulated Amort & Depletion	(5,624,786)	(5,466,910)	(137,379)	(20)	(6,580)	(806)	(13,091)	(5,624,786)
34	254 Other Regulatory Liabilities	(404,258,011)	(355,177,312)	(2,978,800)	(126,027)	(40,773,967)	(4,992,639)	(209,267)	(404,258,011)
35	**Total Net Utility Plant**	2,035,421,214	1,771,310,895	14,358,139	638,943	206,719,938	25,312,183	17,081,116	2,035,421,214
36	**Other Rate Base Accounts**								
37	154 Materials & Supplies	24,807,024	21,818,428	187,033	7,657	2,477,280	303,335	13,291	24,807,024
38	164-1 Gas Stored Underground	0	0	0	0	0	0	0	0
39	165 Prepayments	2,774,808	2,440,517	20,921	856	277,098	33,930	1,487	2,774,808
40	190008 Accum Deferred Income Tax Feder	31,711,929	27,891,473	239,092	9,788	3,166,818	387,767	16,991	31,711,929
41	190008 Accum Deferred Income Tax State	7,523,879	6,617,449	56,726	2,322	751,350	92,000	4,031	7,523,879
42	235-1 Customer Deposits	(5,361,639)	(5,353,307)	(2,225)	(91)	(5,870)	(30)	(116)	(5,361,639)
43	252 Misc Customer Credits	1	1	0	0	0	0	0	1
44	253-1 Unclaimed Customer Deposits	(36,874)	(36,816)	(15)	(1)	(40)	(0)	(1)	(36,874)
45	255 Deferred Investment Tax Credits	0	0	0	0	0	0	0	0
46	282 Accum Deferred Income Taxes	(294,564,927)	(259,031,873)	(2,212,524)	(91,071)	(29,464,666)	(3,607,852)	(156,940)	(294,564,927)
47	Working Capital - Cash	13,938,535	12,259,307	105,090	4,302	1,391,931	170,437	7,468	13,938,535
48	**Total Other Rate Base Accounts**	(219,207,263)	(193,394,823)	(1,605,902)	(66,236)	(21,406,100)	(2,620,414)	(113,788)	(219,207,263)
49	TOTAL RATE BASE	1,816,213,951	1,577,916,072	12,752,237	572,707	185,313,838	22,691,769	16,967,328	1,816,213,951
50	Return On Rate Base- Actual	6.93%	7.57%	6.75%	12.03%	2.75%	-3.36%	6.82%	#REF!
51	Return On Equity - Actual	9.05%	10.22%	8.72%	18.32%	1.45%	-9.66%	8.84%	#REF!
52	Cost of Service (Line 25 + Line 26)	389,126,772	352,982,534	2,733,561	189,005	28,974,801	1,597,518	2,649,353	#REF!
53	Deficiency (((Line 48 * Line 57) - Line 26) * Tax F	19,249,740	3,273,048	166,752	(32,815)	12,285,096	3,351,430	206,228	19,249,740
54	COS Adjustment	0	1,879,359	34,009	792	557,967	(2,474,474)	2,348	0
55	**Total Cost Of Service Incl./Deficiency**	408,376,512	358,134,941	2,934,322	156,981	41,817,864	2,474,474	2,857,929	#REF!
56	**General Related Revenue Class Allocation**	10,750,615	9,808,094	62,591	2,880	772,026	89,741	15,282	10,750,615
57	**Net Cost of Service Collected In Rates**	397,625,897	348,326,847	2,871,730	154,101	41,045,838	2,384,733	2,842,647	#REF!
58	Return On Rate Base - Allowed	7.73%	7.73%	7.73%	7.73%	7.73%	7.73%	7.73%	7.73%
59	Return On Equity - Allowed	10.50%	10.50%	10.50%	10.50%	10.50%	10.50%	10.50%	10.50%

P.S.C.U. Docket No. 19-057-02
OCS Data Request No. 1.40
Requested by Office of Consumer Services
Date of DEU Response August 14, 2019

OCS 1.40: In reference to the Direct Testimony of Robert B. Hevert at page 28, lines 512 – 513 provide the annual budget forecast of capital expenditures for the 2019 – 2023 totaling $1.10 billion.

Answer: The $1.1 billion is actually the expected capital expenditures from 2019-2022. The total amount for 2019-2023 is $1.4 billion. A summary by year is shown in the table below:

Year	Amount
2019	$232,899,070
2020	$288,295,417
2021	$262,997,629
2022	$306,091,541
2023	$283,387,001
Total	$1,373,670,658

Prepared by: Kelly B Mendenhall, Director, Regulatory & Pricing

P.S.C.U. Docket No. 19-057-02
OCS Data Request No. 1.41
Requested by Office of Consumer Services
Date of DEU Response August 14, 2019

OCS 1.41: Provide the current annual projection of how much of the capital investment during the 2019 – 2023 period will be included in the Infrastructure Tracker mechanism.

Answer: It is estimated that the infrastructure tracker program will make up about 30% of the total capital budget each year. These numbers exclude the proposed LNG facility.

	Total Capital Budget	Infrastructure Replacment Estimate	% of Total
2019	232,899,070	70,936,572	30.5%
2020	288,295,417	80,000,000	27.7%
2021	262,997,629	82,000,000	31.2%
2022	306,091,541	84,050,000	27.5%
2023	283,387,001	85,983,150	30.3%

Prepared by: Kelly B. Mendenhall, Director, Regulatory & Pricing

P.S.C.U. Docket No. 19-057-02
OCS Data Request No. 1.42
Requested by Office of Consumer Services
Date of DEU Response August 14, 2019

OCS 1.42: In reference to the Direct Testimony of Robert B. Hevert at page 28, lines 512 – 513 provide the Company's current projection of how this projected capital investment will be financed between debt and equity.

Answer: The requested information is Confidential and will be provided to those parties who agree in writing to comply with Utah Admin. Code §R746-1-601 through 603. The five year projection of debt and equity is attached as OCS 1.42 Confidential Attachment 1.

Prepared by: Sarah French, Senior Treasury Analyst

P.S.C.U. Docket No. 19-057-02
OCS Data Request No. 1.43
Requested by Office of Consumer Services
Date of DEU Response August 14, 2019

OCS 1.43: Provide a copy of the Company's (Dominion Energy Utah) most current credit report from Standard & Poor's and Moody's Investor Services.

Answer: The Moody's report is attached as OCS 1.43 attachment 1 and the S&P report is attached as OCS 1.43 attachment 2.

Prepared by: Aaron D. Lowery, Treasury Specialist contribution to the pension asset, it is appropriate to remove these items from the test period.

IV. COST OF CAPTIAL

Q. What is the cost of debt included in the average 2020 test period?

A. The Company has included a cost of debt of 4.34% in the 2020 test period. This is a decrease from the 5.25% cost of debt included in the most recently approved general rate case test period, and a slight decrease from the actual cost of debt of 4.40% in 2018. Exhibit 3.31 provides a more detailed breakdown of the components of debt and the cost of debt for the last general rate case (column C), year-end 2018 (column D), and the average 2020 test period (column E).

Q. What is the cost of equity included in the average 2020 test period?

A. The Company has included a cost of equity of 10.50% in the 2020 test period. This is discussed more thoroughly in the Direct Testimony of Mr. Robert B. Hevert.

Q. Please provide the capital structure and total cost of capital DEU is proposing for the 2020 test period.

A. Although equity is anticipated to be 60% of total capital in the average 2020 test period (Exhibit 3.31, row 28), the Company is proposing a capital structure consisting of 55% equity and 45% debt. At the costs mentioned above, this amounts to a total weighted cost of capital of 7.73%, as follows:

	AVG CAP STR DEC 20 Weight	Cost	Weighted Cost
Long Term Debt	45.00%	4.34%	1.95%
Short Term Debt	0.00%	0.00%	0.00%
Common Equity	55.00%	10.50%	5.78%
	100.00%		7.73%

V. PROJECTED DEFICIENCY AND REVENUE REQUIREMENT

Q. Have you calculated a total revenue requirement for this case?

A. Yes. Based on the projected capital structure and a 10.5% return on equity incorporated together with the forecasted data and regulatory adjustments, I calculated the total Utah revenue requirement to be $397.6 million. (DEU Exhibit 3.02, column H, line 3).

the merger had on these displaced employees. First, the Company delayed the termination dates for most of the employees, staggering these dates from September 2017 through December 2018. This allowed about one third of the affected employees to find employment in other areas of the Company, or with the Company's affiliates. Next, a severance package was provided to employees who were separated from the Company. This package included a two-month advance start date and three weeks of severance for each year of service up to 52 weeks.

Q. How many employees were ultimately impacted by the involuntary severance plan?

A. When the involuntary severance plan was complete, 37 employees of the ISP affected employees (of over 900 total employees) were impacted. The other 19 ISP affected employees were able to find other opportunities in the Company.

C. *Merger Stipulation Provision 11 - Pension Funding*

Q. What was the commitment related to pension funding?

A. Paragraph 11 of the Merger Stipulation states that "Dominion, as at shareholders' cost, will contribute, within six months of the Effective Time, a total of $75,000,000 toward the full funding, on a financial accounting basis, of Questar Corporation's (i) ERISA-qualified defined-benefit pension plan in accordance with ERISA minimum funding requirements for ongoing plans, (ii) nonqualified defined-benefit pension plans, and (iii) postretirement medical and life insurance (other post-employment benefit ("OPEB")) plans, subject to any maximum contribution levels or other restrictions under applicable law, thereby reducing pension expenses over time in customer rates. Dominion represents that said $75,000,000 contribution, based on current plan funding, would be permissible and well within maximum contribution levels and other restrictions under applicable law."

Q. Did this funding occur?

A. The provision was amended to read, (changes italicized), "Dominion through Questar Gas will provide equity funding, as needed, for the first four calendar years following the Effective Time, in order for Questar Gas to maintain an end-of-year common equity percentage of total capitalization in the range of 48 to 55 percent through December 31, 2019. *If, during the first four calendar years following the Effective Time, Questar Gas increases its common equity percentage of total capitalization above 55% to maintain credit metrics, the equity percentage of total capitalization proposed by Questar Gas in its first general rate case after the Effective Time shall not exceed 55%. In the second general rate case following the Effective Time, Questar Gas will work to maintain and propose equity levels that are within the equity level ranges of a basket of A rated peers. If it proposes an equity level above the equity level ranges of a basket of A rated peers it must specifically identify factors unique to Questar Gas that prevent being within that range. The Parties do not intend that allowing equity capitalization at or above 55% creates any presumption that the outcome of a general rate case would allow equity capitalization at or above 55%.*"

Q. Has the Company complied with this amendment in the calculation of its revenue requirement?

A. Yes. Although the Company's projected equity capitalization for 2020 is 60%, the Company is only requesting a 55% equity capitalization level.

E. *Merger Stipulation Provision 37 - Transaction Costs*

Q. What commitments did the Company make with respect to transaction costs?

A. Paragraph 37 of the Merger Stipulation states: "Transaction costs associated with the Merger will not be recovered through rates of Dominion Questar Gas or recovered through charges from affiliated companies of Dominion Questar to Dominion Questar Gas. Transaction costs shall be defined as: i) Legal, consulting, investment banker, and other professional advisor costs to initiate, prepare, consummate, and implement the Merger, including obtaining regulatory approvals, ii) Rebranding costs, including

REDACTED
CONFIDENTIAL – SUBJECT TO UTAH PUBLIC SERVICE COMMISSION RULES R746-1-602 AND 603

P.S.C.U. Docket No. 19-057-13
Data Request No. 2.14
Requested by Office of Consumer Services
Date of DEU Response July 26, 2019

OCS 2.14: Mr. Mendenhall in his direct testimony, starting on line 309, discusses the imputed debt issue. What capital structure does the Company assume in this imputed debt analysis? Discuss how different capital structures for different environments impact this analysis – i.e. for GAAP, for credit agencies, for rate case purposes etc.

Answer: Some of the requested information is confidential and will be provided to those parties who agree to comply with Utah Admin Code R746-1-602 and 603.

The Company has assumed the current Commission approved capital structure of 47.83%/52.17% debt/equity ratio in the imputed debt calculation in this docket. The projected 2020 capital structure for GAAP and credit agency purposes is 40%/60% debt/equity. Due to merger commitments, the Company has proposed a capital structure of 45%/55% debt/equity in the current general rate case. The imputed debt calculation using these various capital structures is shown in the table below:

Equity Level	19 Million	10 Million
52.17%	$X,XXX,XXX	$X,XXX,XXX
55%	$X,XXX,XXX	$X,XXX,XXX
60%	$XX,XXX,XXX	$X,XXX,XXX

If the imputed debt were necessary it would not have an impact on the capital structure calculations for regulatory or GAAP purposes but it would have an impact on the credit metrics and would require the issuance of additional equity and a reduction of debt to keep the debt and equity levels balanced after the calculation of the imputed debt. This would have an impact on cash flows in the form of lower interest costs and higher revenue requirements due to the increased equity levels.

Prepared by: Kelly B. Mendenhall, Director, Regulatory & Pricing
State Regulatory Affairs

Docket No. 19-057-02
Exhibit (OCS-3.13)

EXHIBIT OCS 2.11
PAGE 1 OF 1

QUESTAR GAS
QUESTAR GAS COST OF CAPITAL DOCKET NO. 19-057-02
GAS COMPANY FINANCIAL METRICS

COMPANY REQUESTED COST OF CAPITAL

LINE NO.	DESCRIPTION	RATIO	COST RATE	WEIGHTED COST	RETURN
1	DESCRIPTION	RATIO	COST RATE	WEIGHTED COST	RETURN
2	LONG TERM DEBT	45.00%	4.34%	1.95%	$35,470,658
3	COMMON EQUITY	55.00%	10.50%	5.78%	$104,886,356
4	TOTAL	100.00%		7.728%	$140,357,014
5	RATE BASE INVESTMENT			$1,816,213,951	
6					
7	**RECOMMENDED ALTERNATIVE COST OF CAPITAL**				
8					
9	**DESCRIPTION**	**RATIO**	**COST RATE**	**WEIGHTED COST**	**RETURN**
10	LONG TERM DEBT	45.00%	4.34%	1.95%	$35,470,658
11	COMMON EQUITY	55.00%	9.30%	5.12%	$92,899,344
12	TOTAL	100.00%		7.07%	$128,370,002
13	RATE BASE INVESTMENT			$1,816,213,951	
14					-$11,987,012
15					

16		A	B	C	
17	DESCRIPTION	COMPANY FILED CASE	ADJUSTMENT	RECOMMENDED ALTERNATIVE CASE	
18	RATE BASE INVESTMENT	$1,008,377,277	$0	$1,008,377,277	QUESTAR EXHIBIT 4.6
19	RATE OF RETURN	7.73%		7.07%	ROR
20	RETURN	$77,927,396	-$6,655,290	$71,272,106	ROR * RATE BASE
21	DEPRECIATION/ AMORTIZATION	$53,000,279		$53,000,279	QUESTAR EXHIBIT 4.6
22	EBIDA CASH FLOW	$130,927,675		$124,272,385	LINE 20 + LINE 21
23	TOTAL DEBT	$453,769,775		$453,769,775	DEBT % TIMES RATE B
24	TOTAL INTEREST	$19,693,608		$19,693,608	DEBT COST TIMES DEB
25	DEBT PERCENTAGE	45.00%		45.00%	D. CURTIS DIRECT @ 1
26	CASH FLOW (CFO)	$111,234,066.75		$104,578,776.72	LINE 22-LINE 24
27					

28 FINANCIAL METRICS GAS

29					
30		A	B	C	D
31	EBIDA W/O FIT IN	COMPANY FILED CASE		RECOMMENDED ALTERNATIVE CASE	MOODY'S "A" BENCHMARKS
32	CASH FLOW (EBIDA)/DEBT %	28.85%		27.39%	22% TO 30%
33	CASH FLOW EBIDA/INTEREST (X)	6.65		6.31	4.5x to 6.0x
34	DEBT PERCENTAGE	45.00%		45.00%	35% to 45%

SOURCES:

COLUMNS A & C LINE 32: LINE 22/LINE 23

COLUMNS A & C LINE 33: LINE 22/LINE 24

COLUMN D LINES 32- 34: MOODY'S INVESTOR'S SERVICE, RATINGS METHODOLOGY (AUGUST 2009) AT 13

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Treasury Capital Structure Model | Regulatory Capital

Budget 5+7 2019

	12/31/18
	2018
	Actuals
	Q4 2018
Questar Gas Company	
Balances:	
Total long-term debt	746
Total common stock and OPIC	499
Retained earnings	513
Total common equity (excl AOCI)	1,012
Total capital	**1,757**
Weighting:	
Total long-term debt	*42.42%*
Total common equity (excl AOCI)	*57.58%*
Cost of Capital:	
Long-term debt	*4.37%*
Common equity	*9.85%*
Long-term debt weighted cost	1.854%
Common equity weighted cost	5.671%
Weighted Average Cost of Capital	**7.525%**
Short-term debt (13-month average)	139
ST Debt % of Total Debt	*15.710%*

R746-1-602 AND 603

Structure and Cost of Capital

12/31/19	12/31/20	12/31/21	12/31/22	12/31/23
2019	2020	2021	2022	2023
Forecast	Forecast	Forecast	Forecast	Forecast
Q4 2019	Q4 2020	Q4 2021	Q4 2022	Q4 2023
746	796	896	896	996
499	499	499	599	599
601	709	821	781	836
1,099	1,208	1,320	1,379	1,435
1,845	**2,003**	**2,215**	**2,275**	**2,430**
40.41%	*39.71%*	*40.43%*	*39.37%*	*40.96%*
59.59%	*60.29%*	*59.57%*	*60.63%*	*59.04%*
4.37%	*4.35%*	*4.31%*	*4.30%*	*4.28%*
9.85%	*9.85%*	*9.85%*	*9.85%*	*9.85%*
1.766%	1.727%	1.744%	1.692%	1.754%
5.870%	5.938%	5.868%	5.972%	5.815%
7.635%	**7.665%**	**7.612%**	**7.664%**	**7.570%**
17	43	87	139	217
2.243%	*5.158%*	*8.816%*	*13.421%*	*17.918%*

Docket No. 19-057-02
Exhibit (OCS-3.13)

THE
LIVINGSTON SURVEY

Release Date: June 7, 2019

JUNE 2019

Forecasters Predict Declining Growth and Steady Unemployment

The participants in the June *Livingston Survey* predict slightly higher output growth for the first half of 2019 than they did in the December survey. The forecasters, who are surveyed by the Federal Reserve Bank of Philadelphia twice a year, project that the economy's output (real GDP) will rise at an annual rate of 2.5 percent during the first half of 2019, an upward revision from the prediction of 2.4 percent in the December 2018 survey. Growth in the second half of 2019 is expected to fall to an annual rate of 2.3 percent, unchanged from the previous survey. Growth will fall further to an annual rate of 1.9 percent in the first half of 2020.

The forecasters see the unemployment rate holding nearly steady over the next year, but their projections have been revised upward from those of the December 2018 survey. The forecasters predict that the unemployment rate will be 3.6 percent in June 2019 and in December 2019. The unemployment rate is expected to be 3.5 percent in June 2020.

	Growth Rate of Real GDP (%)	
	Previous	*New*
Half-year data:		
2018 Q4 to 2019 Q2	2.4	2.5
2019 Q2 to 2019 Q4	2.3	2.3
2019 Q4 to 2020 Q2	N.A.	1.9

	Unemployment Rate (%)	
	Previous	*New*
June 2019	3.5	3.6
December 2019	3.5	3.6
June 2020	N.A.	3.5

Forecasters Cut Their Projections for Inflation in 2019

On an annual-average over annual-average basis, CPI inflation is expected to be 1.9 percent in 2019 and 2.0 percent in 2020. Both projections were downwardly revised from the forecasts in the December 2018 Survey. PPI inflation for finished goods is expected to be 1.3 percent this year, a notable downward revision from 2.5 percent in the previous survey. The forecasters predict PPI inflation will rise to 2.2 percent for 2020.

	CPI Inflation (%)		*PPI Inflation (%)*	
	Previous	*New*	*Previous*	*New*
Annual-average data:				
2018 to 2019	2.3	1.9	2.5	1.3
2019 to 2020	2.2	2.0	2.1	2.2

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Lower but Steady Projections for Short- and Long-Term Interest Rates

The panelists lowered their forecasts for interest rates on three-month Treasury bills over those of six months ago. At the end of June 2019, the interest rate on three-month Treasury bills is predicted to be 2.38 percent. The forecasters predict that the three-month rate will be 2.40 percent at the end of December 2019 and hold steady through December 2020.

Accompanying the downward revisions to the rate on three-month Treasury bills, the forecasts for the 10-year rate were also lower. The interest rate on 10-year Treasury bonds is predicted to reach 2.48 percent at the end of June 2019. The forecasters predict the 10-year rate will rise to 2.69 percent at the end of December 2019 and continue to rise to 2.74 percent at the end of June 2020. The 10-year Treasury bond interest rate is expected to reach 2.75 percent at the end of December 2020.

	3-Month Treasury Bill Interest Rate		*10-Year Treasury Bond Interest Rate*	
	Previous	*New*	*Previous*	*New*
June 28, 2019	2.80	2.38	3.42	2.48
Dec. 31, 2019	3.01	2.40	3.51	2.69
June 30, 2020	N.A.	2.40	N.A.	2.74
Dec. 31, 2020	3.00	2.40	3.55	2.75

Nearly Unchanged Long-Term Outlook

The forecasters predict that real GDP will grow at an annual average rate of 2.07 percent over the next 10 years, unchanged from the survey six months ago. The forecasters now predict that inflation (measured by the CPI) will be 2.26 percent annually over the next 10 years, nearly the same rate predicted (2.23 percent) in the December 2018 survey.

Forecasters Continue to See Rising Stock Prices This Year and Next

The panelists predict the S&P 500 index will finish the first half of 2019 at a level of 2860.0. Stock prices are expected to rise to 2900.0 at the end of 2019 and continue to rise to 2950.0 at the end of June 2020. The index is forecasted to reach 3042.7 by the end of 2020.

	Stock Prices S&P 500 Index	
	Previous	*New*
June 28, 2019	2829.9	2860.0
Dec. 31, 2019	2900.0	2900.0
June 30, 2020	N.A.	2950.0
Dec. 31, 2020	3000.0	3042.7

Technical Notes

This survey release reports the median value across the 21 forecasters on the survey's panel.

The Philadelphia Fed's *Livingston Survey* is the oldest survey of economists' expectations. The survey was started in 1946 by the late columnist Joseph A. Livingston. It summarizes the forecast of economists from industry, government, banking and academia. It is published twice a year, in June and December.

To subscribe to the survey, go to https://www.philadelphiafed.org/notifications.

Livingston Survey Participants

S. Anderson	Bank of the West	S. Kahan	Kahan Consulting Ltd.
B. Bovino/S. Panday	Standard & Poor's	D. Knop	Independent Economist
M. Brown/W. West	Visa	T. Lam	Sim Kee Boon Institute, Singapore
J. Bryson	Wells Fargo Securities, LLC	D. Manaenkov	RSQE (University of Michigan)
J. Butkiewicz	University of Delaware	G. Mokrzan	Huntington National Bank
R. Chase	Economic & Policy Resources, Inc.	M. Moran	Daiwa Capital Markets America
C. Chiruppa	Independent Equipment Company	F. Nothaft	CoreLogic
R. Dhawan	Georgia State University	C. Rupkey	MUFG Union Bank, N.A.
R. Dietz	National Association of Home Builders	B. Schaitkin	Conference Board
D. Dinas	Regional Market Research Strategies LLC	J. Smith	Parsec Financial Management, Inc.
M. Englund	Action Economics, LLC	S. Stanley	Amherst Pierpont Securities
J. Foster	U.S. Chamber of Commerce	B. Wesbury/R. Stein	First Trust Advisors, L.P.
P. Hooper	Deutsche Bank Securities	M. Zandi	Moody's Analytics
B. Horrigan	Loomis, Sayles & Co.		

LIVINGSTON SURVEY
MAJOR MACROECONOMIC INDICATORS, 2019-2020

QUARTERLY INDICATORS (percentage changes at annual rates)	Q4 2018 TO Q2 2019	Q2 2019 TO Q4 2019	Q4 2019 TO Q2 2020	2018 TO 2019	2019 TO 2020
Real Gross Domestic Product	2.5	2.3	1.9	2.6	2.1
Nominal Gross Domestic Product	4.0	4.2	4.2	4.4	4.2
Nonresidential Fixed Investment	3.3	3.2	3.3	3.9	3.5
Corporate Profits After Taxes	3.1	2.6	0.3	4.1	1.5

MONTHLY INDICATORS (percentage changes at annual rates)	DEC 2018 TO JUN 2019	JUN 2019 TO DEC 2019	DEC 2019 TO JUN 2020	2018 TO 2019	2019 TO 2020
Industrial Production	-1.2	2.0	0.9	1.6	1.2
Producer Prices - Finished Goods	3.1	1.8	2.1	1.3	2.2
Consumer Price Index (CPI-U)	2.3	2.0	1.7	1.9	2.0
Average Weekly Earnings in Mfg.	-3.6	3.3	3.0	1.8	3.2
Retail Trade	6.8	4.2	4.1	3.5	4.3

(levels of variables)	JUN 2019	DEC 2019	JUN 2020	2019	2020
Total Private Housing Starts (annual rate, millions)	1.245	1.275	1.288	1.246	1.287
Unemployment Rate (percent)	3.6	3.6	3.5	3.7	3.6
Automobile Sales (incl. foreign) (annual rate, millions)	4.9	4.9	4.9	4.9	4.8

FINANCIAL INDICATORS (levels of variables at end of month)	JUN 2019	DEC 2019	JUN 2020	DEC 2020
Prime Interest Rate	5.50	5.50	5.50	5.50
10-Year Treasury Note Yield	2.48	2.69	2.74	2.75
3-Month Treasury Bill Rate	2.38	2.40	2.40	2.40
Stock Prices (S&P500)	2860.0	2900.0	2950.0	3042.7

LONG-TERM OUTLOOK Average Annual Growth Rate for the Next Ten Years	
Real GDP	2.07
Consumer Price Index	2.26

Source: Research Department, Federal Reserve Bank of Philadelphia, Livingston Survey, June 2019

LIVINGSTON SURVEY

June 2019

Tables

Note: Data in these tables listed as "actual" are the data that were available to the forecasters when they were sent the survey questionnaire on May 16; the tables do not reflect subsequent revisions to the data. All forecasts were received on or before May 31.

TABLE ONE
MAJOR MACROECONOMIC INDICATORS, 2019-2020
MEDIANS OF FORECASTER PREDICTIONS

QUARTERLY INDICATORS	NUMBER OF FORE-CASTERS	ACTUAL	FORECASTS			ACTUAL	FORECASTS	
		2018 Q4	2019 Q2	2019 Q4	2020 Q2	2018	2019	2020
1. Real Gross Domestic Product (billions, chain weighted)	21	18765.3	18999.9	19214.0	19396.4	18566.5	19056.5	19447.8
2. Nominal Gross Domestic Product ($ billions)	21	20865.1	21280.0	21718.9	22168.7	20494.1	21395.4	22290.0
3. Nonresidential Fixed Investment (billions, chain weighted)	20	2763.3	2809.2	2854.3	2901.1	2713.6	2818.3	2917.8
4. Corporate Profits After Taxes ($ billions)	15	2076.2	2107.9	2134.9	2138.0	2031.4	2115.4	2147.8

MONTHLY INDICATORS		ACTUAL	FORECASTS			ACTUAL	FORECASTS	
		DEC 2018	JUN 2019	DEC 2019	JUN 2020	2018	2019	2020
5. Industrial Production (2012=100)	19	110.6	109.9	111.0	111.5	108.6	110.4	111.7
6. Total Private Housing Starts (annual rate, millions)	20	1.142	1.245	1.275	1.288	1.250	1.246	1.287
7. Producer Prices - Finished Goods (index level)	15	203.9	207.0	208.8	211.0	204.1	206.7	211.3
8. Consumer Price Index (CPI-U) (index level)	21	252.7	255.6	258.2	260.4	251.1	256.0	261.1
9. Unemployment Rate (percent)	21	3.9	3.6	3.6	3.5	3.9	3.7	3.6
10. Average Weekly Earnings in Mfg. ($)	7	936.8	920.0	935.1	949.0	908.0	924.5	954.4
11. Retail Trade ($ billions)	12	503.3	520.1	530.9	541.8	503.4	521.0	543.2
12. Automobile Sales (incl. foreign) (annual rate, millions)	13	5.2	4.9	4.9	4.9	5.3	4.9	4.8

TABLE ONE (CONTINUED)

INTEREST RATES & STOCK PRICES (end of period)		ACTUAL DEC 2018	FORECASTS JUN 2019	DEC 2019	JUN 2020	DEC 2020
13. Prime Interest Rate (percent)	19	5.50	5.50	5.50	5.50	5.50
14. 10-Year Treasury Note Yield (percent)	20	2.69	2.48	2.69	2.74	2.75
15. 3-Month Treasury Bill Rate (percent)	21	2.40	2.38	2.40	2.40	2.40
16. Stock Prices (S&P500) (index level)	11	2506.9	2860.0	2900.0	2950.0	3042.7

Source: Research Department, Federal Reserve Bank of Philadelphia, Livingston Survey, June 2019

TABLE TWO
MAJOR MACROECONOMIC INDICATORS, 2019-2020
PERCENTAGE CHANGES AT ANNUAL RATES

QUARTERLY INDICATORS	NUMBER OF FORE-CASTERS	Q4 2018 TO Q2 2019	Q2 2019 TO Q4 2019	Q4 2019 TO Q2 2020	2018 TO 2019	2019 TO 2020
1. Real Gross Domestic Product	21	2.5	2.3	1.9	2.6	2.1
2. Nominal Gross Domestic Product	21	4.0	4.2	4.2	4.4	4.2
3. Nonresidential Fixed Investment	20	3.3	3.2	3.3	3.9	3.5
4. Corporate Profits After Taxes	15	3.1	2.6	0.3	4.1	1.5

MONTHLY INDICATORS		DEC 2018 TO JUN 2019	JUN 2019 TO DEC 2019	DEC 2019 TO JUN 2020	2018 TO 2019	2019 TO 2020
5. Industrial Production	19	-1.2	2.0	0.9	1.6	1.2
6. Total Private Housing Starts	20	0.103	0.030	0.013	-0.004	0.041
7. Producer Prices - Finished Goods	15	3.1	1.8	2.1	1.3	2.2
8. Consumer Price Index (CPI-U)	21	2.3	2.0	1.7	1.9	2.0
9. Unemployment Rate	21	-0.3	0.0	-0.1	-0.2	-0.1
10. Average Weekly Earnings in Mfg.	7	-3.6	3.3	3.0	1.8	3.2
11. Retail Trade	12	6.8	4.2	4.1	3.5	4.3
12. Automobile Sales (incl. foreign)	13	-0.3	0.0	0.0	-0.4	-0.1

INTEREST RATES & STOCK PRICES		DEC 2018 TO JUN 2019	JUN 2019 TO DEC 2019	DEC 2019 TO JUN 2020	JUN 2020 TO DEC 2020
13. Prime Interest Rate	19	0.00	0.00	0.00	0.00
14. 10-Year Treasury Note Yield	20	-0.21	0.21	0.06	0.01
15. 3-Month Treasury Bill Rate	21	-0.02	0.02	0.00	0.00
16. Stock Prices (S&P500)	11	30.2	2.8	3.5	6.4

Note: Figures for housing starts, unemployment rate, auto sales, prime interest rate, 30-year Treasury bond, and 90-day Treasury bill are changes in levels. All others are percentage changes at annual rates.

Source: Research Department, Federal Reserve Bank of Philadelphia, Livingston Survey, June 2019

TABLE THREE
LONG-TERM (10 YEAR) FORECASTS

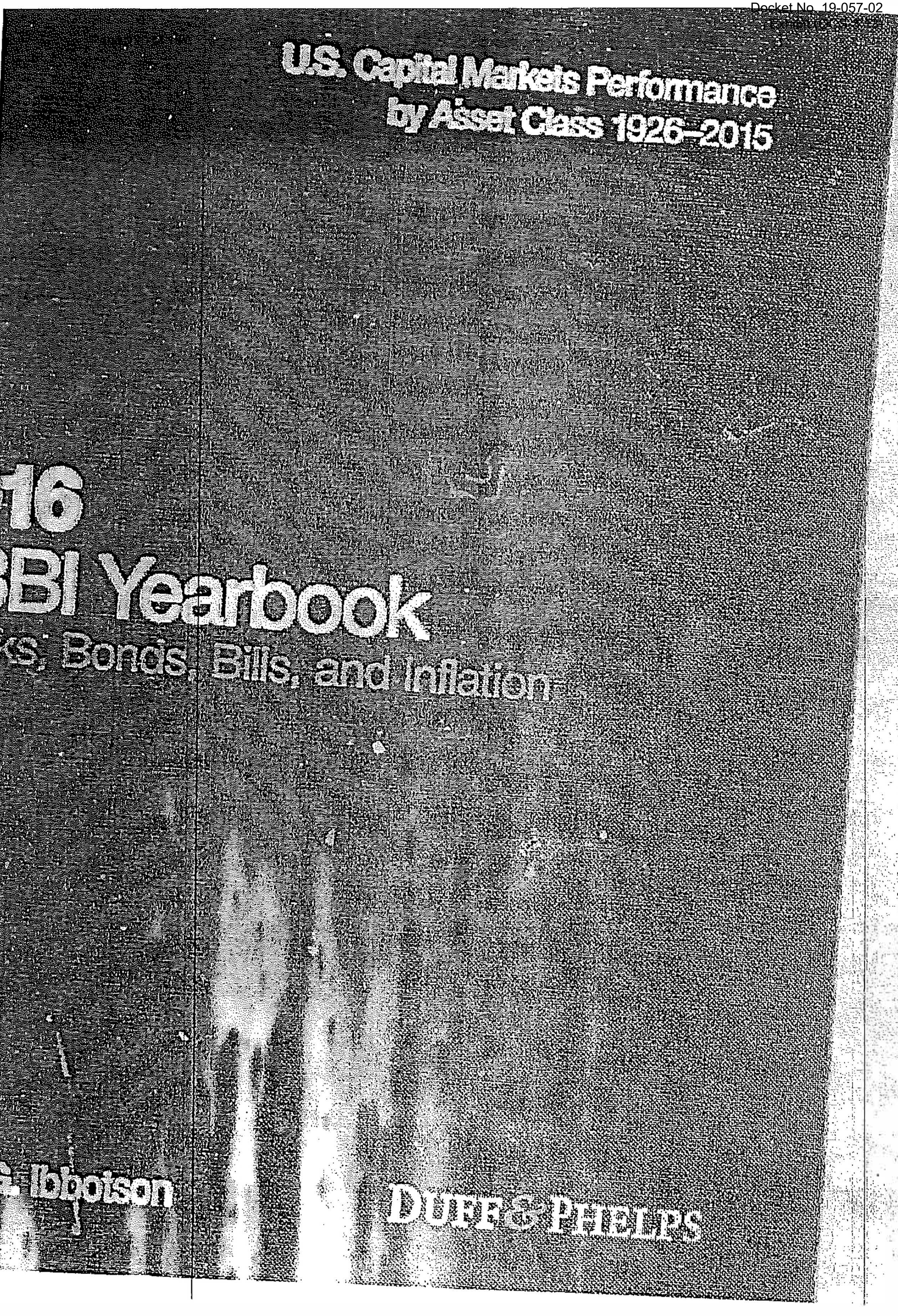
SERIES: CPI Inflation Rate

STATISTIC	
Minimum	1.90
Lower Quartile	2.10
Median	2.26
Upper Quartile	2.36
Maximum	2.60
Mean	2.22
Std. Deviation	0.20
N	18
Missing	3

SERIES: Real GDP

STATISTIC	
Minimum	1.60
Lower Quartile	1.80
Median	2.07
Upper Quartile	2.20
Maximum	2.80
Mean	2.06
Std. Deviation	0.28
N	18
Missing	3

Source: Research Department, Federal Reserve Bank of Philadelphia, Livingston Survey, June 2019



U.S. Capital Markets Performance by Asset Class 1926–2015

016
BBI Yearbook

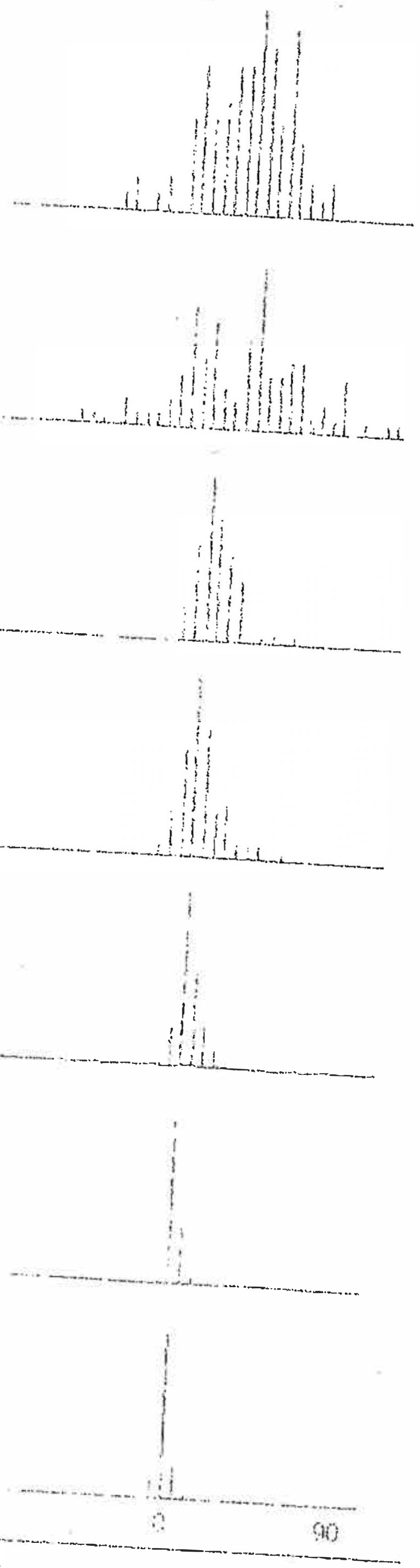
cks, Bonds, Bills, and Inflation

G. Ibbotson

DUFF & PHELPS

Exhibit 2.3: Basic Series, Summary Statistics of Annual Total Returns (%)

Series	Geometric Mean (%)	Arithmetic Mean (%)	Standard Deviation (%)
[illegible] Stocks	10.0	12.0	20.1
[illegible] Stocks	12.0	16.5	32.[illegible]
[illegible] Bonds	6.0	6.3	8.4
[illegible] Bonds	5.6	6.0	10.0
[illegible] Bonds	5.2	5.3	5.7
[illegible]	3.4	2.5	3.1
[illegible]	2.9	3.[illegible]	4.1
[illegible]			



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Regulatory Research Associates, Inc.
REGULATORY FOCUS
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Regulatory Study
January 16, 1996

MAJOR RATE CASE DECISIONS--JANUARY 1994 - DECEMBER 1995

SUPPLEMENTAL STUDY

In conjunction with the preparation of the Regulatory Study entitled Major Rate Case Decisions--January 1985-December 1995, which will be distributed later this month, RRA has prepared a chronological listing of all cases in that study for the years 1994 and 1995, by type of utility service. These listings, with key data concerning each case, appear on pages 7 through 13 of this Supplemental Study. Tables summarizing cases decided in the last eleven years appear on pages 2 and 3, and graphs summarizing the authorized equity returns in the last ten years appear on pages 4 through 6. The average equity return authorized for electric utilities in 1995 approximated 11.6%, up from the 11.3% average of 1994. The average equity return authorized gas utilities approximated 11.4% in both 1995 and 1994. The number of rate cases decided for electric utilities in 1995 was up about 8% from 1994's level, while the number of gas cases declined 26% from 1994's level. For the telephone industry, the authorized average equity return was approximately 12.1% in 1995, up from 11.8% in 1994. Equity returns were established in relatively few telephone cases in recent years, limiting the usefulness of the telephone averages.

The individual electric, gas, and telephone cases on pages 7 through 13 are listed with the decision date shown first, followed by the company name, the abbreviation for the state issuing the decision, the authorized rate of return (ROR) and return on equity (ROE), and the common equity component in the adopted capital structure. If the capital structure contained cost-free capital or job development investment tax credit balances at the overall rate of return, an asterisk follows the number in this column. Next we show the month and year in which the adopted test year ended, whether the commission utilized an average or a year-end rate base, and the amount of the permanent rate change authorized. We consider a case "major" if the requested rate change was $5 million or greater, or the ordered rate change was at least $3 million. Gas rate requests that are simultaneously considered with major electric requests are recorded and reported as individual cases, regardless of size. The dollar amounts represent the permanent rate change ordered at the time decisions were issued. In a number of instances interim rate changes were ordered prior to the date, and in several instances additional rate changes were ordered at a later date as attrition offsets or for various other reasons. Fuel adjustment clause rate changes are not reflected in this study.

The table on page 2 shows the average return on equity, annually since 1985 and by quarter since 1990, for the major electric, gas, and telephone rate decisions, followed by the number of observations in each period. The tables on page 3 show the composite electric, gas, and telephone industry data for all the items shown in the chronology of this and earlier reports, summarized annually since 1985 and by quarter for the past eight quarters. The graphs on pages 4 and 5 show the average authorized equity returns for the three industry groups.

(Text continued on page 6)

RRA

Electric Utilities–Summary Table*

	Period	ROR %	ROE %	Eq. as % Cap. Struc.	Amt. $ Mil.
1985	Full Year	11.84 (56)	15.20 (58)	40.08 (56)	3,600.8 (60)
1986	Full Year	11.09 (51)	13.93 (49)	41.28 (48)	2,019.8 (62)
1987	Full Year	10.75 (49)	12.99 (57)	41.54 (47)	869.7 (60)
1988	Full Year	10.64 (32)	12.79 (33)	43.02 (32)	1,162.1 (37)
1989	Full Year	10.61 (24)	12.97 (27)	44.79 (23)	1,335.5 (35)
1990	Full Year	10.39 (42)	12.70 (44)	42.42 (40)	1,579.4 (46)
1991	Full Year	10.45 (44)	12.65 (45)	43.80 (44)	3,071.6 (53)
1992	Full Year	10.01 (46)	12.09 (48)	44.69 (44)	1,998.2 (51)
1993	Full Year	9.48 (30)	11.41 (32)	47.40 (30)	1,184.1 (42)
1994	1st Quarter	9.21 (9)	11.20 (10)	42.88 (9)	834.7 (9)
	2nd Quarter	8.92 (5)	11.13 (5)	41.32 (5)	60.1 (8)
	3rd Quarter	10.19 (1)	12.75 (1)	48.88 (1)	24.8 (5)
	4th Quarter	9.41 (15)	11.41 (15)	47.68 (16)	407.3 (18)
1994	Full Year	9.29 (30)	11.34 (31)	45.15 (30)	1,116.9 (40)
1995	1st Quarter	9.56 (8)	11.96 (8)	43.39 (8)	456.9 (8)
	2nd Quarter	9.31 (8)	11.38 (9)	43.20 (8)	47.1 (11)
	3rd Quarter	9.54 (5)	11.33 (6)	50.56 (6)	105.8 (11)
	4th Quarter	9.41 (9)	11.53 (10)	47.60 (8)	-244.2 (13)
1995	Full Year	9.44 (30)	11.55 (33)	45.90 (30)	455.6 (43)

Gas Utilities–Summary Table*

	Period	ROR %	ROE %	Eq. as % Cap. Struc.	Amt. $ Mil.
1985	Full Year	11.69 (30)	14.75 (34)	45.68 (32)	265.0 (41)
1986	Full Year	11.34 (28)	13.48 (25)	46.09 (24)	139.6 (29)
1987	Full Year	10.80 (28)	12.74 (20)	46.24 (25)	63.2 (35)
1988	Full Year	10.45 (28)	12.85 (31)	45.82 (27)	251.0 (34)
1989	Full Year	10.65 (31)	12.88 (31)	47.62 (31)	230.7 (35)
1990	Full Year	10.67 (30)	12.67 (31)	47.21 (29)	355.5 (41)
1991	Full Year	10.52 (35)	12.46 (35)	47.19 (33)	391.0 (43)
1992	Full Year	10.10 (29)	12.01 (29)	48.64 (27)	420.9 (34)
1993	Full Year	9.44 (41)	11.35 (45)	48.16 (41)	217.8 (49)
1994	1st Quarter	9.28 (6)	11.12 (6)	44.70 (5)	28.2 (6)
	2nd Quarter	9.20 (5)	10.81 (5)	50.06 (5)	60.8 (6)
	3rd Quarter	9.33 (3)	10.95 (2)	50.80 (2)	103.5 (6)
	4th Quarter	9.67 (18)	11.84 (18)	48.22 (15)	232.4 (22)
1994	Full Year	9.61 (32)	11.95 (28)	48.12 (27)	422.9 (42)
1995	1st Quarter	— (0)	— (0)	— (0)	7.0 (1)
	2nd Quarter	9.28 (1)	11.00 (1)	39.85 (1)	64.1 (5)
	3rd Quarter	9.49 (3)	11.07 (3)	53.63 (3)	49.9 (7)
	4th Quarter	9.71 (12)	11.56 (12)	49.90 (11)	-172.5 (18)
1995	Full Year	9.64 (16)	11.43 (16)	49.98 (15)	-81.5 (31)

Telephone Utilities–Summary Table*

	Period	ROR %	ROE %	Eq. as % Cap. Struc.	Amt. $ Mil.
1985	Full Year	11.78 (40)	14.59 (40)	53.85 (40)	1,018.4 (43)
1986	Full Year	11.45 (19)	13.03 (18)	53.41 (18)	249.6 (23)
1987	Full Year	10.74 (11)	12.85 (13)	55.83 (9)	-374.5 (16)
1988	Full Year	10.94 (10)	13.13 (13)	54.94 (10)	-940.5 (18)
1989	Full Year	10.60 (14)	12.97 (15)	54.12 (14)	-779.9 (20)
1990	Full Year	10.30 (8)	12.01 (8)	53.00 (8)	42.4 (13)
1991	Full Year	10.65 (17)	12.69 (16)	55.67 (15)	17.8 (20)
1992	Full Year	10.04 (6)	12.27 (7)	51.39 (6)	-252.0 (13)
1993	Full Year	10.26 (12)	11.83 (12)	56.45 (12)	-196.1 (12)
1994	1st Quarter	9.40 (4)	11.05 (3)	51.15 (3)	-28.6 (4)
	2nd Quarter	10.61 (3)	12.48 (3)	61.21 (3)	-8.8 (3)
	3rd Quarter	— (0)	— (0)	— (0)	-1.0 (2)
	4th Quarter	9.90 (5)	11.88 (5)	59.00 (5)	-200.2 (7)
1994	Full Year	9.91 (12)	11.81 (11)	57.46 (11)	-236.6 (16)
1995	1st Quarter	— (0)	— (0)	— (0)	— (0)
	2nd Quarter	9.32 (4)	11.84 (4)	50.85 (4)	-57.3 (5)
	3rd Quarter	10.25 (1)	12.50 (1)	— (0)	-104.2 (3)
	4th Quarter	10.31 (3)	12.25 (3)	60.60 (3)	-188.9 (7)
1995	Full Year	9.81 (8)	12.08 (8)	55.02 (7)	-348.4 (16)

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* Number of observations each period indicated in parentheses.

Regulatory Research Associates

REGULATORY FOCUS

January 7, 2011

MAJOR RATE CASE DECISIONS--CALENDAR 2010

The average return on equity (ROE) authorized electric utilities in 2010 approximated 10.3% compared to 10.5% in 2009. There were 59 electric ROE determinations in 2010, up substantially from 39 in 2009. The average ROE authorized gas utilities approximated 10.1% in 2010, compared to 10.2% in 2009. There were 36 gas cases that included an ROE determination in 2010, and 29 in 2009. Not included in these averages is a Sept. 16, 2010, New York Public Service Commission decision authorizing Consolidated Edison of New York's steam operations a 9.6% ROE. We note that this report utilizes the simple mean for the return averages.

After reaching a low in the early-2000's, the number of rate case decisions for energy companies has generally increased over the last several years. There were 124 electric and gas rate decisions in 2010, versus 95 in 2009, and only 32 back in 2001. Increased costs, including environmental compliance expenditures, the need for generation and delivery infrastructure upgrades and expansion, renewable generation mandates, and higher employee benefit costs argue for a continuation of the increased level of rate case activity over the next few years.

We note that electric industry restructuring in certain states has led to the unbundling of rates and retail competition for generation. Commissions in those states are now authorizing revenue requirement and return parameters for delivery operations only (which we footnote in our chronology beginning on page 5), thus complicating historical data comparability. We also note that while the heightened business risk associated with the sluggish economy may have increased corporate capital costs, higher average authorized ROEs did not materialize in 2010 or in 2009. In fact, average authorized ROEs have declined slightly over the last two years, and some state commissions have cited customer hardship as a significant factor influencing their equity return authorizations.

The table on page 2 shows the average ROE authorized in major electric and gas rate decisions annually since 1990, and by quarter since 2004, followed by the number of observations in each period. The tables on page 3 show the composite electric and gas industry data for all major cases summarized annually since 1997 and by quarter for the past eight quarters. The individual electric and gas cases decided in 2010 are listed on pages 5-9, with the decision date (generally the date on which the final order was issued) shown first, followed by the company name, the abbreviation for the state issuing the decision, the authorized rate of return (ROR), return on equity (ROE), and percentage of common equity in the adopted capital structure. Next we show the month and year in which the adopted test year ended, whether the commission utilized an average or a year-end rate base, and the amount of the permanent rate change authorized. The dollar amounts represent the permanent rate change ordered at the time decisions were rendered. Fuel adjustment clause rate changes are not reflected in this study. We note that the cases and averages included in this study may be slightly different from those in our online rate case history database, with any differences likely the result of this study's inclusion of ROE determinations that are rendered in cost-of-capital-only proceedings in California.

(Text continued on page 4.)

RRA

Average Equity Returns Authorized January 1990 - December 2010

		Electric Utilities		Gas Utilities	
Year	Period	ROE %	(# Cases)	ROE %	(# Cases)
1990	Full Year	12.70	(44)	12.67	(31)
1991	Full Year	12.55	(45)	12.46	(35)
1992	Full Year	12.09	(48)	12.01	(29)
1993	Full Year	11.41	(32)	11.35	(45)
1994	Full Year	11.34	(31)	11.35	(28)
1995	Full Year	11.55	(33)	11.43	(16)
1996	Full Year	11.39	(22)	11.19	(20)
1997	Full Year	11.40	(11)	11.29	(13)
1998	Full Year	11.66	(10)	11.51	(10)
1999	Full Year	10.77	(20)	10.66	(9)
2000	Full Year	11.43	(12)	11.39	(12)
2001	Full Year	11.09	(18)	10.95	(7)
2002	Full Year	11.16	(22)	11.03	(21)
2003	Full Year	10.97	(22)	10.99	(25)
	1st Quarter	11.00	(3)	11.10	(4)
	2nd Quarter	10.54	(6)	10.25	(2)
	3rd Quarter	10.33	(2)	10.37	(8)
	4th Quarter	10.91	(8)	10.66	(6)
2004	**Full Year**	**10.75**	(19)	**10.59**	(20)
	1st Quarter	10.51	(7)	10.65	(2)
	2nd Quarter	10.05	(7)	10.54	(5)
	3rd Quarter	10.84	(4)	10.47	(5)
	4th Quarter	10.75	(11)	10.40	(14)
2005	**Full Year**	**10.54**	(29)	**10.46**	(26)
	1st Quarter	10.38	(3)	10.63	(6)
	2nd Quarter	10.68	(6)	10.50	(2)
	3rd Quarter	10.06	(7)	10.45	(3)
	4th Quarter	10.39	(10)	10.14	(5)
2006	**Full Year**	**10.36**	(26)	**10.43**	(16)
	1st Quarter	10.27	(8)	10.44	(10)
	2nd Quarter	10.27	(11)	10.12	(4)
	3rd Quarter	10.02	(4)	10.03	(8)
	4th Quarter	10.56	(16)	10.27	(15)
2007	**Full Year**	**10.36**	(39)	**10.24**	(37)
	1st Quarter	10.45	(10)	10.38	(7)
	2nd Quarter	10.57	(8)	10.17	(3)
	3rd Quarter	10.47	(11)	10.49	(7)
	4th Quarter	10.33	(8)	10.34	(13)
2008	**Full Year**	**10.46**	(37)	**10.37**	(30)
	1st Quarter	10.29	(9)	10.24	(4)
	2nd Quarter	10.55	(10)	10.11	(8)
	3rd Quarter	10.46	(3)	9.88	(2)
	4th Quarter	10.54	(17)	10.27	(15)
2009	**Full Year**	**10.48**	(39)	**10.19**	(29)
	1st Quarter	10.66	(17)	10.24	(9)
	2nd Quarter	10.08	(14)	9.99	(11)
	3rd Quarter	10.26	(11)	9.93	(4)
	4th Quarter	10.30	(17)	10.09	(12)
2010	**Full Year**	**10.34**	(59).	**10.08**	(36)

Electric Utilities--Summary Table*

	Period	ROR %	(# Cases)	ROE %	(# Cases)	Eq. as % Cap. Struc.	(# Cases)	Amt. $ Mil.	(# Cases)
1997	Full Year	9.16	(12)	11.40	(11)	48.79	(11)	-553.3	(33)
1998	Full Year	9.44	(9)	11.66	(10)	46.14	(8)	-429.3	(31)
1999	Full Year	8.81	(18)	10.77	(20)	45.08	(17)	-1,680.8	(30)
2000	Full Year	9.20	(12)	11.43	(12)	48.85	(12)	-291.4	(34)
2001	Full Year	8.93	(15)	11.09	(18)	47.20	(13)	14.2	(21)
2002	Full Year	8.72	(20)	11.16	(22)	46.27	(19)	-475.4	(24)
2003	Full Year	8.86	(20)	10.97	(22)	49.41	(19)	313.8	(12)
2004	Full Year	8.44	(18)	10.75	(19)	46.84	(17)	1,091.5	(30)
2005	Full Year	8.30	(26)	10.54	(29)	46.73	(27)	1,373.7	(36)
2006	Full Year	8.24	(24)	10.36	(26)	48.67	(23)	1,465.0	(42)
2007	Full Year	8.22	(38)	10.36	(39)	48.01	(37)	1,401.9	(46)
2008	Full Year	8.25	(35)	10.46	(37)	48.41	(33)	2,899.4	(42)
	1st Quarter	8.19	(8)	10.29	(9)	48.52	(8)	857.0	(14)
	2nd Quarter	8.05	(9)	10.55	(10)	47.66	(9)	1,425.0	(17)
	3rd Quarter	8.48	(3)	10.46	(3)	47.20	(3)	317.1	(7)
	4th Quarter	8.30	(18)	10.54	(17)	49.41	(17)	1,593.2	(20)
2009	Full Year	8.23	(38)	10.48	(39)	48.61	(37)	4,192.3	(58)
	1st Quarter	7.95	(17)	10.66	(17)	48.36	(16)	2,010.0	(19)
	2nd Quarter	7.95	(15)	10.08	(14)	47.07	(13)	937.5	(19)
	3rd Quarter	8.16	(12)	10.26	(11)	49.52	(11)	730.6	(18)
	4th Quarter	7.95	(15)	10.30	(17)	49.00	(14)	1,666.6	(20)
2010	**Full Year**	**7.99**	**(59)**	**10.34**	**(59)**	**48.45**	**(54)**	**5,344.7**	**(76)**

Gas Utilities--Summary Table*

	Period	ROR %	(# Cases)	ROE %	(# Cases)	Eq. as % Cap. Struc.	(# Cases)	Amt. $ Mil.	(# Cases)
1997	Full Year	9.13	(13)	11.29	(13)	47.78	(11)	-82.5	(21)
1998	Full Year	9.46	(10)	11.51	(10)	49.50	(10)	93.9	(20)
1999	Full Year	8.86	(9)	10.66	(9)	49.06	(9)	51.0	(14)
2000	Full Year	9.33	(13)	11.39	(12)	48.59	(12)	135.9	(20)
2001	Full Year	8.51	(6)	10.95	(7)	43.96	(5)	114.0	(11)
2002	Full Year	8.80	(20)	11.03	(21)	48.29	(18)	303.6	(26)
2003	Full Year	8.75	(22)	10.99	(25)	49.93	(22)	260.1	(30)
2004	Full Year	8.34	(21)	10.59	(20)	45.90	(20)	303.5	(31)
2005	Full Year	8.25	(29)	10.46	(26)	48.66	(24)	458.4	(34)
2006	Full Year	8.51	(16)	10.43	(16)	47.43	(16)	444.0	(25)
2007	Full Year	8.12	(32)	10.24	(37)	48.37	(30)	813.4	(48)
2008	Full Year	8.48	(30)	10.37	(30)	50.47	(30)	884.8	(41)
	1st Quarter	8.11	(5)	10.24	(4)	44.97	(4)	167.6	(7)
	2nd Quarter	8.05	(7)	10.11	(8)	48.84	(7)	92.5	(8)
	3rd Quarter	8.30	(2)	9.88	(2)	51.00	(2)	19.2	(4)
	4th Quarter	8.19	(14)	10.27	(15)	49.35	(15)	195.7	(18)
2009	Full Year	8.15	(28)	10.19	(29)	48.72	(28)	475.0	(37)
	1st Quarter	8.20	(10)	10.24	(9)	50.27	(9)	177.8	(11)
	2nd Quarter	7.80	(11)	9.99	(11)	46.31	(11)	230.2	(12)
	3rd Quarter	8.13	(4)	9.93	(4)	49.00	(4)	290.5	(10)
	4th Quarter	7.83	(12)	10.09	(12)	49.60	(13)	113.8	(15)
2010	**Full Year**	**7.95**	**(37)**	**10.08**	**(36)**	**48.72**	**(37)**	**811.8**	**(48)**

* Number of observations in each period indicated in parentheses.

4.

The table below tracks the average equity return authorized for all electric and gas rate cases combined, by year, for the last 21 years. As the table reveals, since 1990 the authorized ROEs have generally trended downward, reflecting the significant decline in interest rates that has occurred over this time frame. The combined average equity returns authorized for electric and gas utilities in each of the years 1990 through 2010, and the number of observations for each year are as follows:

1990	12.69%	(75)	2000	11.41%	(24)
1991	12.51	(80)	2001	11.05	(25)
1992	12.06	(77)	2002	11.10	(43)
1993	11.37	(77)	2003	10.98	(47)
1994	11.34	(59)	2004	10.67	(39)
1995	11.51	(49)	2005	10.50	(55)
1996	11.29	(42)	2006	10.39	(42)
1997	11.34	(24)	2007	10.30	(76)
1998	11.59	(20)	2008	10.42	(67)
1999	10.74	(29)	2009	10.36	(68)
			2010	10.24	(95)

Dennis Sperduto

Docket No. 19-057-02
Exhibit (OCS-3.13)

THE LIVINGSTON SURVEY

Release Date: June 7, 2019

JUNE 2019

Forecasters Predict Declining Growth and Steady Unemployment

The participants in the June *Livingston Survey* predict slightly higher output growth for the first half of 2019 than they did in the December survey. The forecasters, who are surveyed by the Federal Reserve Bank of Philadelphia twice a year, project that the economy's output (real GDP) will rise at an annual rate of 2.5 percent during the first half of 2019, an upward revision from the prediction of 2.4 percent in the December 2018 survey. Growth in the second half of 2019 is expected to fall to an annual rate of 2.3 percent, unchanged from the previous survey. Growth will fall further to an annual rate of 1.9 percent in the first half of 2020.

The forecasters see the unemployment rate holding nearly steady over the next year, but their projections have been revised upward from those of the December 2018 survey. The forecasters predict that the unemployment rate will be 3.6 percent in June 2019 and in December 2019. The unemployment rate is expected to be 3.5 percent in June 2020.

	Growth Rate of Real GDP (%)			*Unemployment Rate (%)*	
	Previous	*New*		*Previous*	*New*
Half-year data:					
2018 Q4 to 2019 Q2	2.4	2.5	June 2019	3.5	3.6
2019 Q2 to 2019 Q4	2.3	2.3	December 2019	3.5	3.6
2019 Q4 to 2020 Q2	N.A.	1.9	June 2020	N.A.	3.5

Forecasters Cut Their Projections for Inflation in 2019

On an annual-average over annual-average basis, CPI inflation is expected to be 1.9 percent in 2019 and 2.0 percent in 2020. Both projections were downwardly revised from the forecasts in the December 2018 Survey. PPI inflation for finished goods is expected to be 1.3 percent this year, a notable downward revision from 2.5 percent in the previous survey. The forecasters predict PPI inflation will rise to 2.2 percent for 2020.

	CPI Inflation (%)		*PPI Inflation (%)*	
	Previous	*New*	*Previous*	*New*
Annual-average data:				
2018 to 2019	2.3	1.9	2.5	1.3
2019 to 2020	2.2	2.0	2.1	2.2

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Lower but Steady Projections for Short- and Long-Term Interest Rates

The panelists lowered their forecasts for interest rates on three-month Treasury bills over those of six months ago. At the end of June 2019, the interest rate on three-month Treasury bills is predicted to be 2.38 percent. The forecasters predict that the three-month rate will be 2.40 percent at the end of December 2019 and hold steady through December 2020.

Accompanying the downward revisions to the rate on three-month Treasury bills, the forecasts for the 10-year rate were also lower. The interest rate on 10-year Treasury bonds is predicted to reach 2.48 percent at the end of June 2019. The forecasters predict the 10-year rate will rise to 2.69 percent at the end of December 2019 and continue to rise to 2.74 percent at the end of June 2020. The 10-year Treasury bond interest rate is expected to reach 2.75 percent at the end of December 2020.

	3-Month Treasury Bill Interest Rate		*10-Year Treasury Bond Interest Rate*	
	Previous	*New*	*Previous*	*New*
June 28, 2019	2.80	2.38	3.42	2.48
Dec. 31, 2019	3.01	2.40	3.51	2.69
June 30, 2020	N.A.	2.40	N.A.	2.74
Dec. 31, 2020	3.00	2.40	3.55	2.75

Nearly Unchanged Long-Term Outlook

The forecasters predict that real GDP will grow at an annual average rate of 2.07 percent over the next 10 years, unchanged from the survey six months ago. The forecasters now predict that inflation (measured by the CPI) will be 2.26 percent annually over the next 10 years, nearly the same rate predicted (2.23 percent) in the December 2018 survey.

Forecasters Continue to See Rising Stock Prices This Year and Next

The panelists predict the S&P 500 index will finish the first half of 2019 at a level of 2860.0. Stock prices are expected to rise to 2900.0 at the end of 2019 and continue to rise to 2950.0 at the end of June 2020. The index is forecasted to reach 3042.7 by the end of 2020.

	Stock Prices S&P 500 Index	
	Previous	*New*
June 28, 2019	2829.9	2860.0
Dec. 31, 2019	2900.0	2900.0
June 30, 2020	N.A.	2950.0
Dec. 31, 2020	3000.0	3042.7

Technical Notes

This survey release reports the median value across the 21 forecasters on the survey's panel.

The Philadelphia Fed's *Livingston Survey* is the oldest survey of economists' expectations. The survey was started in 1946 by the late columnist Joseph A. Livingston. It summarizes the forecast of economists from industry, government, banking and academia. It is published twice a year, in June and December.

To subscribe to the survey, go to https://www.philadelphiafed.org/notifications.

Livingston Survey Participants

S. Anderson	Bank of the West	S. Kahan	Kahan Consulting Ltd.
B. Bovino/S. Panday	Standard & Poor's	D. Knop	Independent Economist
M. Brown/W. West	Visa	T. Lam	Sim Kee Boon Institute, Singapore
J. Bryson	Wells Fargo Securities, LLC	D. Manaenkov	RSQE (University of Michigan)
J. Butkiewicz	University of Delaware	G. Mokrzan	Huntington National Bank
R. Chase	Economic & Policy Resources, Inc.	M. Moran	Daiwa Capital Markets America
C. Chrappa	Independent Equipment Company	F. Nothaft	CoreLogic
R. Dhawan	Georgia State University	C. Rupkey	MUFG Union Bank, N.A.
R. Dietz	National Association of Home Builders	B. Schaitkin	Conference Board
D. Dinas	Regional Market Research Strategies LLC	J. Smith	Parsec Financial Management, Inc.
M. Englund	Action Economics, LLC	S. Stanley	Amherst Pierpont Securities
J. Foster	U.S. Chamber of Commerce	B. Wesbury/R. Stein	First Trust Advisors, L.P.
P. Hooper	Deutsche Bank Securities	M. Zandi	Moody's Analytics
B. Horrigan	Loomis, Sayles & Co.		

LIVINGSTON SURVEY
MAJOR MACROECONOMIC INDICATORS, 2019-2020

QUARTERLY INDICATORS (percentage changes at annual rates)	Q4 2018 TO Q2 2019	Q2 2019 TO Q4 2019	Q4 2019 TO Q2 2020	2018 TO 2019	2019 TO 2020
Real Gross Domestic Product	2.5	2.3	1.9	2.6	2.1
Nominal Gross Domestic Product	4.0	4.2	4.2	4.4	4.2
Nonresidential Fixed Investment	3.3	3.2	3.3	3.9	3.5
Corporate Profits After Taxes	3.1	2.6	0.3	4.1	1.5

MONTHLY INDICATORS (percentage changes at annual rates)	DEC 2018 TO JUN 2019	JUN 2019 TO DEC 2019	DEC 2019 TO JUN 2020	2018 TO 2019	2019 TO 2020
Industrial Production	-1.2	2.0	0.9	1.6	1.2
Producer Prices - Finished Goods	3.1	1.8	2.1	1.3	2.2
Consumer Price Index (CPI-U)	2.3	2.0	1.7	1.9	2.0
Average Weekly Earnings in Mfg.	-3.6	3.3	3.0	1.8	3.2
Retail Trade	6.8	4.2	4.1	3.5	4.3

(levels of variables)	JUN 2019	DEC 2019	JUN 2020	2019	2020
Total Private Housing Starts (annual rate, millions)	1.245	1.275	1.288	1.246	1.287
Unemployment Rate (percent)	3.6	3.6	3.5	3.7	3.6
Automobile Sales (incl. foreign) (annual rate, millions)	4.9	4.9	4.9	4.9	4.8

FINANCIAL INDICATORS (levels of variables at end of month)	JUN 2019	DEC 2019	JUN 2020	DEC 2020
Prime Interest Rate	5.50	5.50	5.50	5.50
10-Year Treasury Note Yield	2.48	2.69	2.74	2.75
3-Month Treasury Bill Rate	2.38	2.40	2.40	2.40
Stock Prices (S&P500)	2860.0	2900.0	2950.0	3042.7

LONG-TERM OUTLOOK Average Annual Growth Rate for the Next Ten Years	
Real GDP	2.07
Consumer Price Index	2.26

Source: Research Department, Federal Reserve Bank of Philadelphia, Livingston Survey, June 2019

LIVINGSTON SURVEY

June 2019

Tables

Note: Data in these tables listed as "actual" are the data that were available to the forecasters when they were sent the survey questionnaire on May 16; the tables do not reflect subsequent revisions to the data. All forecasts were received on or before May 31.

TABLE ONE
MAJOR MACROECONOMIC INDICATORS, 2019-2020
MEDIANS OF FORECASTER PREDICTIONS

QUARTERLY INDICATORS	NUMBER OF FORECASTERS	ACTUAL	FORECASTS			ACTUAL	FORECASTS	
		2018 Q4	2019 Q2	2019 Q4	2020 Q2	2018	2019	2020
1. Real Gross Domestic Product (billions, chain weighted)	21	18765.3	18999.9	19214.0	19396.4	18566.5	19056.5	19447.8
2. Nominal Gross Domestic Product ($ billions)	21	20865.1	21280.0	21718.9	22168.7	20494.1	21395.4	22290.0
3. Nonresidential Fixed Investment (billions, chain weighted)	20	2763.3	2809.2	2854.3	2901.1	2713.6	2818.3	2917.8
4. Corporate Profits After Taxes ($ billions)	15	2076.2	2107.9	2134.9	2138.0	2031.4	2115.4	2147.8

MONTHLY INDICATORS		ACTUAL	FORECASTS			ACTUAL	FORECASTS	
		DEC 2018	JUN 2019	DEC 2019	JUN 2020	2018	2019	2020
5. Industrial Production (2012=100)	19	110.6	109.9	111.0	111.5	108.6	110.4	111.7
6. Total Private Housing Starts (annual rate, millions)	20	1.142	1.245	1.275	1.288	1.250	1.246	1.287
7. Producer Prices - Finished Goods (index level)	15	203.9	207.0	208.8	211.0	204.1	206.7	211.3
8. Consumer Price Index (CPI-U) (index level)	21	252.7	255.6	258.2	260.4	251.1	256.0	261.1
9. Unemployment Rate (percent)	21	3.9	3.6	3.6	3.5	3.9	3.7	3.6
10. Average Weekly Earnings in Mfg. ($)	7	936.8	920.0	935.1	949.0	908.0	924.5	954.4
11. Retail Trade ($ billions)	12	503.3	520.1	530.9	541.8	503.4	521.0	543.2
12. Automobile Sales (incl. foreign) (annual rate, millions)	13	5.2	4.9	4.9	4.9	5.3	4.9	4.8

TABLE ONE (CONTINUED)

INTEREST RATES & STOCK PRICES (end of period)		ACTUAL	FORECASTS			
		DEC 2018	JUN 2019	DEC 2019	JUN 2020	DEC 2020
13. Prime Interest Rate (percent)	19	5.50	5.50	5.50	5.50	5.50
14. 10-Year Treasury Note Yield (percent)	20	2.69	2.48	2.69	2.74	2.75
15. 3-Month Treasury Bill Rate (percent)	21	2.40	2.30	2.40	2.40	2.40
16. Stock Prices (S&P500) (index level)	11	2506.9	2860.0	2900.0	2950.0	3042.7

Source: Research Department, Federal Reserve Bank of Philadelphia, Livingston Survey, June 2019

TABLE TWO

MAJOR MACROECONOMIC INDICATORS, 2019-2020

PERCENTAGE CHANGES AT ANNUAL RATES

QUARTERLY INDICATORS	NUMBER OF FORE-CASTERS	Q4 2018 TO Q2 2019	Q2 2019 TO Q4 2019	Q4 2019 TO Q2 2020	2018 TO 2019	2019 TO 2020
1. Real Gross Domestic Product	21	2.5	2.3	1.9	2.6	2.1
2. Nominal Gross Domestic Product	21	4.0	4.2	4.2	4.4	4.2
3. Nonresidential Fixed Investment	20	3.3	3.2	3.3	3.9	3.5
4. Corporate Profits After Taxes	15	3.1	2.6	0.3	4.1	1.5
MONTHLY INDICATORS		DEC 2018 TO JUN 2019	JUN 2019 TO DEC 2019	DEC 2019 TO JUN 2020	2018 TO 2019	2019 TO 2020
5. Industrial Production	19	-1.2	2.0	0.9	1.6	1.2
6. Total Private Housing Starts	20	0.103	0.030	0.013	-0.004	0.041
7. Producer Prices - Finished Goods	15	3.1	1.8	2.1	1.3	2.2
8. Consumer Price Index (CPI-U)	21	2.3	2.0	1.7	1.9	2.0
9. Unemployment Rate	21	-0.3	0.0	-0.1	-0.2	-0.1
10. Average Weekly Earnings in Mfg.	7	-3.6	3.3	3.0	1.8	3.2
11. Retail Trade	12	6.8	4.2	4.1	3.5	4.3
12. Automobile Sales (incl. foreign)	13	-0.3	0.0	0.0	-0.4	-0.1

INTEREST RATES & STOCK PRICES		DEC 2018 TO JUN 2019	JUN 2019 TO DEC 2019	DEC 2019 TO JUN 2020	JUN 2020 TO DEC 2020
13. Prime Interest Rate	19	0.00	0.00	0.00	0.00
14. 10-Year Treasury Note Yield	20	-0.21	0.21	0.06	0.01
15. 3-Month Treasury Bill Rate	21	-0.02	0.02	0.00	0.00
16. Stock Prices (S&P500)	11	30.2	2.9	3.5	6.4

Note: Figures for housing starts, unemployment rate, auto sales, prime interest rate, 30-year Treasury bond, and 90-day Treasury bill are changes in levels. All others are percentage changes at annual rates.

Source: Research Department, Federal Reserve Bank of Philadelphia, Livingston Survey, June 2019

TABLE THREE
LONG-TERM (10 YEAR) FORECASTS

SERIES: CPI Inflation Rate

STATISTIC	
Minimum	1.90
Lower Quartile	2.10
Median	2.26
Uppor Quartile	2.36
Maximum	2.60
Mean	2.22
Std. Deviation	0.20
N	18
Missing	3

SERIES: Real GDP

STATISTIC	
Minimum	1.60
Lower Quartile	1.80
Median	2.07
Upper Quartile	2.20
Maximum	2.80
Mean	2.06
Std. Deviation	0.28
N	18
Missing	3

Source: Research Department, Federal Reserve Bank of Philadelphia, Livingston Survey, June 2019

Docket No. 19-057-02
Exhibit OCS 3.13

U.S. Capital Markets Performance
by Asset Class 1926–2015

016
BBI Yearbook
cks, Bonds, Bills, and Inflation

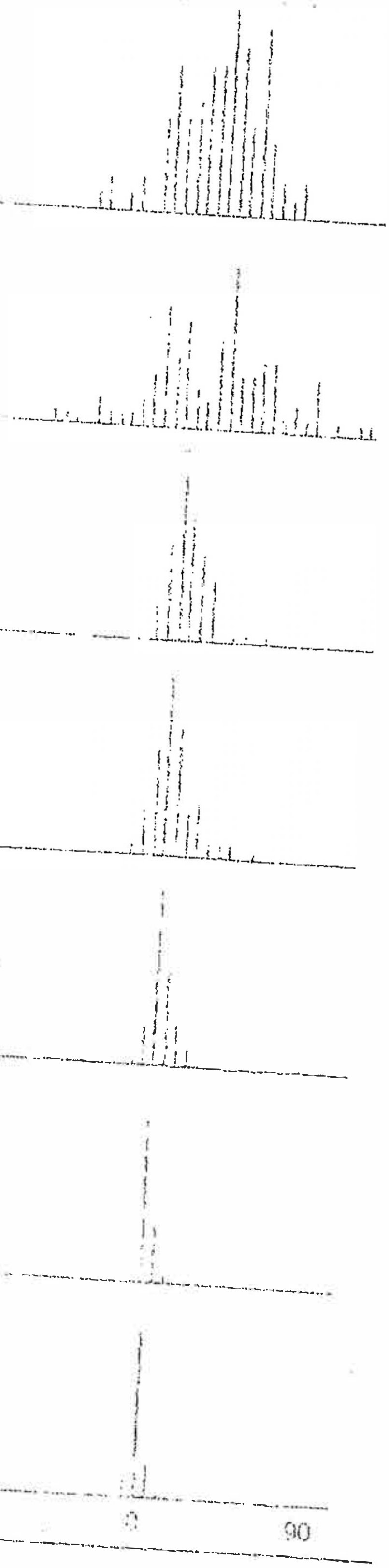
G. Ibbotson

DUFF & PHELPS

Exhibit 2.3: Basic Series, Summary Statistics of Annual Total Returns (%)

Series	Geometric Mean (%)	Arithmetic Mean (%)	Standard Deviation (%)
Stocks	10.0	12.0	20.1
Stocks	12.0	16.5	32.[illegible]
Bonds	6.0	6.3	8.4
Bonds	5.6	6.0	10.0
Bonds	5.2	5.3	5.7
[illegible]	3.4	3.5	3.1
	2.9	3.0	4.1

Distribution (%)



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Regulatory Study
January 16, 1996

MAJOR RATE CASE DECISIONS–JANUARY 1994 - DECEMBER 1995
SUPPLEMENTAL STUDY

In conjunction with the preparation of the Regulatory Study entitled Major Rate Case Decisions--January 1985-December 1995, which will be distributed later this month, RRA has prepared a chronological listing of all cases in that study for the years 1994 and 1995, by type of utility service. These listings, with key data concerning each case, appear on pages 7 through 13 of this Supplemental Study. Tables summarizing cases decided in the last eleven years appear on pages 2 and 3, and graphs summarizing the authorized equity returns in the last ten years appear on pages 4 through 6. The average equity return authorized for electric utilities in 1995 approximated 11.6%, up from the 11.3% average of 1994. The average equity return authorized gas utilities approximated 11.4% in both 1995 and 1994. The number of rate cases decided for electric utilities in 1995 was up about 8% from 1994's level, while the number of gas cases declined 26% from 1994's level. For the telephone industry, the authorized average equity return was approximately 12.1% in 1995, up from 11.8% in 1994. Equity returns were established in relatively few telephone cases in recent years, limiting the usefulness of the telephone averages.

The individual electric, gas, and telephone cases on pages 7 through 13 are listed with the decision date shown first, followed by the company name, the abbreviation for the state issuing the decision, the authorized rate of return (ROR) and return on equity (ROE), and the common equity component in the adopted capital structure. If the capital structure contained cost-free capital or job development investment tax credit balances at the overall rate of return, an asterisk follows the number in this column. Next we show the month and year in which the adopted test year ended, whether the commission utilized an average or a year-end rate base, and the amount of the permanent rate change authorized. We consider a case "major" if the requested rate change was $5 million or greater, or the ordered rate change was at least $3 million. Gas rate requests that are simultaneously considered with major electric requests are recorded and reported as individual cases, regardless of size. The dollar amounts represent the permanent rate change ordered at the time decisions were issued. In a number of instances interim rate changes were ordered prior to the date, and in several instances additional rate changes were ordered at a later date as attrition offsets or for various other reasons. Fuel adjustment clause rate changes are not reflected in this study.

The table on page 2 shows the average return on equity, annually since 1985 and by quarter since 1990, for the major electric, gas, and telephone rate decisions, followed by the number of observations in each period. The tables on page 3 show the composite electric, gas, and telephone industry data for all the items shown in the chronology of this and earlier reports, summarized annually since 1985 and by quarter for the past eight quarters. The graphs on pages 4 and 5 show the average authorized equity returns for the three industry groups.

(Text continued on page 6)

RRA

Electric Utilities--Summary Table*

	Period	ROR %	ROE %	Eq. as % Cap. Struc.	Amt. $ Mil.
1985	Full Year	11.64 (56)	15.20 (59)	40.06 (56)	3,600.8 (60)
1986	Full Year	11.09 (51)	13.93 (49)	41.28 (48)	2,019.6 (62)
1987	Full Year	10.75 (40)	12.89 (57)	41.64 (47)	869.7 (60)
1988	Full Year	10.64 (32)	12.79 (33)	43.02 (32)	1,162.1 (37)
1989	Full Year	10.61 (24)	12.97 (27)	44.78 (23)	1,335.6 (35)
1990	Full Year	10.38 (42)	12.70 (44)	42.42 (40)	1,678.4 (48)
1991	Full Year	10.45 (44)	12.65 (45)	43.60 (44)	3,071.6 (53)
1992	Full Year	10.01 (46)	12.09 (48)	44.69 (44)	1,998.2 (51)
1993	Full Year	9.46 (30)	11.41 (32)	47.40 (30)	1,184.1 (42)
1994	1st Quarter	8.21 (9)	11.20 (10)	42.66 (9)	834.7 (9)
	2nd Quarter	8.92 (5)	11.13 (5)	41.32 (5)	60.1 (8)
	3rd Quarter	10.19 (1)	12.75 (1)	48.88 (1)	24.8 (5)
	4th Quarter	9.41 (15)	11.41 (15)	47.69 (16)	407.3 (18)
1994	Full Year	9.29 (30)	11.34 (31)	45.15 (30)	1,116.9 (40)
1995	1st Quarter	9.56 (8)	11.96 (8)	43.39 (8)	458.9 (8)
	2nd Quarter	9.31 (8)	11.36 (9)	43.20 (8)	47.1 (11)
	3rd Quarter	9.64 (5)	11.33 (8)	50.56 (6)	105.8 (11)
	4th Quarter	9.41 (9)	11.53 (10)	47.60 (8)	-244.2 (13)
1995	Full Year	9.44 (30)	11.65 (33)	45.90 (30)	455.6 (43)

Gas Utilities--Summary Table*

	Period	ROR %	ROE %	Eq. as % Cap. Struc.	Amt. $ Mil.
1985	Full Year	11.85 (30)	14.75 (34)	45.66 (32)	285.0 (41)
1986	Full Year	11.34 (28)	13.48 (25)	46.09 (24)	139.6 (29)
1987	Full Year	10.80 (28)	12.74 (29)	46.24 (25)	83.2 (35)
1988	Full Year	10.45 (28)	12.85 (31)	45.82 (27)	251.0 (34)
1989	Full Year	10.85 (31)	12.88 (31)	47.62 (31)	230.7 (35)
1990	Full Year	10.67 (30)	12.87 (31)	47.21 (29)	355.5 (41)
1991	Full Year	10.52 (35)	12.48 (35)	47.19 (33)	391.0 (43)
1992	Full Year	10.10 (29)	12.01 (29)	46.64 (27)	420.9 (34)
1993	Full Year	9.44 (41)	11.35 (45)	48.16 (41)	217.8 (49)
1994	1st Quarter	9.28 (8)	11.12 (6)	44.79 (5)	26.2 (8)
	2nd Quarter	9.20 (6)	10.81 (5)	50.06 (6)	60.8 (6)
	3rd Quarter	9.33 (3)	10.95 (2)	50.80 (2)	103.5 (8)
	4th Quarter	9.67 (18)	11.84 (18)	48.22 (15)	232.4 (22)
1994	Full Year	9.61 (32)	11.05 (28)	48.12 (27)	422.0 (42)
1995	1st Quarter	— (0)	— (0)	— (0)	7.0 (1)
	2nd Quarter	9.28 (1)	11.00 (1)	39.85 (1)	64.1 (5)
	3rd Quarter	9.49 (3)	11.07 (3)	53.63 (3)	49.9 (7)
	4th Quarter	9.71 (12)	11.58 (12)	49.90 (11)	-172.5 (18)
1995	Full Year	9.64 (16)	11.43 (16)	49.98 (15)	-81.5 (31)

Telephone Utilities--Summary Table*

	Period	ROR %	ROE %	Eq. as % Cap. Struc.	Amt. $ Mil.
1985	Full Year	11.78 (40)	14.59 (40)	63.85 (40)	1,018.4 (43)
1986	Full Year	11.45 (19)	13.93 (18)	63.41 (18)	249.6 (23)
1987	Full Year	10.74 (11)	12.05 (13)	65.83 (9)	-374.5 (16)
1988	Full Year	10.94 (10)	13.13 (13)	54.94 (10)	-940.5 (16)
1989	Full Year	10.80 (14)	12.97 (15)	54.12 (14)	-779.9 (20)
1990	Full Year	10.30 (8)	12.01 (9)	63.80 (8)	42.4 (13)
1991	Full Year	10.89 (17)	12.89 (16)	65.67 (15)	17.6 (20)
1992	Full Year	10.04 (8)	12.27 (7)	51.39 (8)	-252.0 (13)
1993	Full Year	10.26 (12)	11.83 (12)	58.45 (12)	-196.1 (12)
1994	1st Quarter	9.40 (4)	11.05 (3)	51.15 (3)	-28.8 (4)
	2nd Quarter	10.61 (3)	12.48 (3)	61.21 (3)	-8.8 (3)
	3rd Quarter	— (0)	— (0)	— (0)	-1.0 (2)
	4th Quarter	9.90 (5)	11.88 (5)	59.00 (5)	-200.2 (7)
1994	Full Year	9.91 (12)	11.81 (11)	57.40 (11)	-236.8 (16)
1995	1st Quarter	— (0)	— (0)	— (0)	— (0)
	2nd Quarter	9.32 (4)	11.04 (4)	50.85 (4)	-57.3 (5)
	3rd Quarter	10.25 (1)	12.50 (1)	— (0)	-104.2 (3)
	4th Quarter	10.31 (3)	12.25 (3)	60.60 (3)	-186.9 (7)
1995	Full Year	9.81 (8)	12.08 (8)	55.02 (7)	-348.4 (15)

* Number of observations each period indicated in parentheses.

Regulatory Research Associates
REGULATORY FOCUS

January 7, 2011

MAJOR RATE CASE DECISIONS--CALENDAR 2010

The average return on equity (ROE) authorized electric utilities in 2010 approximated 10.3% compared to 10.5% in 2009. There were 59 electric ROE determinations in 2010, up substantially from 39 in 2009. The average ROE authorized gas utilities approximated 10.1% in 2010, compared to 10.2% in 2009. There were 36 gas cases that included an ROE determination in 2010, and 29 in 2009. Not included in these averages is a Sept. 16, 2010, New York Public Service Commission decision authorizing Consolidated Edison of New York's steam operations a 9.6% ROE. We note that this report utilizes the simple mean for the return averages.

After reaching a low in the early-2000's, the number of rate case decisions for energy companies has generally increased over the last several years. There were 124 electric and gas rate decisions in 2010, versus 95 in 2009, and only 32 back in 2001. Increased costs, including environmental compliance expenditures, the need for generation and delivery infrastructure upgrades and expansion, renewable generation mandates, and higher employee benefit costs argue for a continuation of the increased level of rate case activity over the next few years.

We note that electric industry restructuring in certain states has led to the unbundling of rates and retail competition for generation. Commissions in those states are now authorizing revenue requirement and return parameters for delivery operations only (which we footnote in our chronology beginning on page 5), thus complicating historical data comparability. We also note that while the heightened business risk associated with the sluggish economy may have increased corporate capital costs, higher average authorized ROEs did not materialize in 2010 or in 2009. In fact, average authorized ROEs have declined slightly over the last two years, and some state commissions have cited customer hardship as a significant factor influencing their equity return authorizations.

The table on page 2 shows the average ROE authorized in major electric and gas rate decisions annually since 1990, and by quarter since 2004, followed by the number of observations in each period. The tables on page 3 show the composite electric and gas industry data for all major cases summarized annually since 1997 and by quarter for the past eight quarters. The individual electric and gas cases decided in 2010 are listed on pages 5-9, with the decision date (generally the date on which the final order was issued) shown first, followed by the company name, the abbreviation for the state issuing the decision, the authorized rate of return (ROR), return on equity (ROE), and percentage of common equity in the adopted capital structure. Next we show the month and year in which the adopted test year ended, whether the commission utilized an average or a year-end rate base, and the amount of the permanent rate change authorized. The dollar amounts represent the permanent rate change ordered at the time decisions were rendered. Fuel adjustment clause rate changes are not reflected in this study. We note that the cases and averages included in this study may be slightly different from those in our online rate case history database, with any differences likely the result of this study's inclusion of ROE determinations that are rendered in cost-of-capital-only proceedings in California.

(Text continued on page 4.)

Average Equity Returns Authorized January 1990 - December 2010

		Electric Utilities		Gas Utilities	
Year	Period	ROE %	(# Cases)	ROE %	(# Cases)
1990	Full Year	12.70	(44)	12.67	(31)
1991	Full Year	12.55	(45)	12.46	(35)
1992	Full Year	12.09	(48)	12.01	(29)
1993	Full Year	11.41	(32)	11.35	(45)
1994	Full Year	11.34	(31)	11.35	(28)
1995	Full Year	11.55	(33)	11.43	(16)
1996	Full Year	11.39	(22)	11.19	(20)
1997	Full Year	11.40	(11)	11.29	(13)
1998	Full Year	11.66	(10)	11.51	(10)
1999	Full Year	10.77	(20)	10.66	(9)
2000	Full Year	11.43	(12)	11.39	(12)
2001	Full Year	11.09	(18)	10.95	(7)
2002	Full Year	11.16	(22)	11.03	(21)
2003	Full Year	10.97	(22)	10.99	(25)
	1st Quarter	11.00	(3)	11.10	(4)
	2nd Quarter	10.54	(6)	10.25	(2)
	3rd Quarter	10.33	(2)	10.37	(8)
	4th Quarter	10.91	(8)	10.66	(6)
2004	**Full Year**	**10.75**	(19)	**10.59**	(20)
	1st Quarter	10.51	(7)	10.65	(2)
	2nd Quarter	10.05	(7)	10.54	(5)
	3rd Quarter	10.84	(4)	10.47	(5)
	4th Quarter	10.75	(11)	10.40	(14)
2005	**Full Year**	**10.54**	(29)	**10.46**	(26)
	1st Quarter	10.38	(3)	10.63	(6)
	2nd Quarter	10.68	(6)	10.50	(2)
	3rd Quarter	10.06	(7)	10.45	(3)
	4th Quarter	10.39	(10)	10.14	(5)
2006	**Full Year**	**10.36**	(26)	**10.43**	(16)
	1st Quarter	10.27	(8)	10.44	(10)
	2nd Quarter	10.27	(11)	10.12	(4)
	3rd Quarter	10.02	(4)	10.03	(8)
	4th Quarter	10.56	(16)	10.27	(15)
2007	**Full Year**	**10.36**	(39)	**10.24**	(37)
	1st Quarter	10.45	(10)	10.38	(7)
	2nd Quarter	10.57	(8)	10.17	(3)
	3rd Quarter	10.47	(11)	10.49	(7)
	4th Quarter	10.33	(8)	10.34	(13)
2008	**Full Year**	**10.46**	(37)	**10.37**	(30)
	1st Quarter	10.29	(9)	10.24	(4)
	2nd Quarter	10.55	(10)	10.11	(8)
	3rd Quarter	10.46	(3)	9.88	(2)
	4th Quarter	10.54	(17)	10.27	(15)
2009	**Full Year**	**10.48**	(39)	**10.19**	(29)
	1st Quarter	10.66	(17)	10.24	(9)
	2nd Quarter	10.08	(14)	9.99	(11)
	3rd Quarter	10.26	(11)	9.93	(4)
	4th Quarter	10.30	(17)	10.09	(12)
2010	**Full Year**	**10.34**	(59)	**10.08**	(36)

Electric Utilities--Summary Table*

	Period	ROR %	(# Cases)	ROE %	(# Cases)	Eq. as % Cap. Struc.	(# Cases)	Amt. $ Mil.	(# Cases)
1997	Full Year	9.16	(12)	11.40	(11)	48.79	(11)	-558.3	(33)
1998	Full Year	9.44	(9)	11.66	(10)	46.14	(8)	-429.3	(31)
1999	Full Year	8.81	(18)	10.77	(20)	45.06	(17)	-1,666.8	(30)
2000	Full Year	9.20	(12)	11.43	(12)	48.85	(12)	-291.4	(34)
2001	Full Year	8.93	(15)	11.09	(18)	47.20	(13)	14.2	(21)
2002	Full Year	8.72	(20)	11.16	(22)	46.27	(19)	-475.4	(24)
2003	Full Year	8.86	(20)	10.97	(22)	49.41	(19)	313.8	(12)
2004	Full Year	8.44	(18)	10.75	(19)	46.84	(17)	1,091.5	(30)
2005	Full Year	8.30	(26)	10.54	(29)	46.73	(27)	1,373.7	(36)
2006	Full Year	8.24	(24)	10.36	(26)	48.67	(23)	1,465.0	(42)
2007	Full Year	8.22	(38)	10.36	(39)	48.01	(37)	1,401.9	(46)
2008	Full Year	8.25	(35)	10.46	(37)	48.41	(33)	2,899.4	(42)
	1st Quarter	8.19	(8)	10.29	(9)	48.52	(8)	857.0	(14)
	2nd Quarter	8.05	(9)	10.55	(10)	47.66	(9)	1,425.0	(17)
	3rd Quarter	8.48	(3)	10.46	(3)	47.20	(3)	317.1	(7)
	4th Quarter	8.30	(18)	10.54	(17)	49.41	(17)	1,593.2	(20)
2009	Full Year	8.23	(38)	10.48	(39)	48.61	(37)	4,192.3	(58)
	1st Quarter	7.95	(17)	10.66	(17)	48.36	(16)	2,010.0	(19)
	2nd Quarter	7.95	(15)	10.08	(14)	47.07	(13)	937.5	(19)
	3rd Quarter	8.16	(12)	10.26	(11)	49.52	(11)	730.6	(18)
	4th Quarter	7.95	(15)	10.30	(17)	49.00	(14)	1,666.6	(20)
2010	**Full Year**	**7.99**	**(59)**	**10.34**	**(59)**	**48.45**	**(54)**	**5,344.7**	**(76)**

Gas Utilities--Summary Table*

	Period	ROR %	(# Cases)	ROE %	(# Cases)	Eq. as % Cap. Struc.	(# Cases)	Amt. $ Mil.	(# Cases)
1997	Full Year	9.13	(13)	11.29	(13)	47.78	(11)	-82.5	(21)
1998	Full Year	9.46	(10)	11.51	(10)	49.50	(10)	93.9	(20)
1999	Full Year	8.86	(9)	10.66	(9)	49.06	(9)	51.0	(14)
2000	Full Year	9.33	(13)	11.39	(12)	48.59	(12)	135.9	(20)
2001	Full Year	8.51	(6)	10.95	(7)	43.96	(5)	114.0	(11)
2002	Full Year	8.80	(20)	11.03	(21)	48.29	(18)	303.6	(26)
2003	Full Year	8.75	(22)	10.99	(25)	49.93	(22)	260.1	(30)
2004	Full Year	8.34	(21)	10.59	(20)	45.90	(20)	303.5	(31)
2005	Full Year	8.25	(29)	10.46	(26)	48.66	(24)	458.4	(34)
2006	Full Year	8.51	(16)	10.43	(16)	47.43	(16)	444.0	(25)
2007	Full Year	8.12	(32)	10.24	(37)	48.37	(30)	813.4	(48)
2008	Full Year	8.48	(30)	10.37	(30)	50.47	(30)	884.8	(41)
	1st Quarter	8.11	(5)	10.24	(4)	44.97	(4)	167.6	(7)
	2nd Quarter	8.05	(7)	10.11	(8)	48.84	(7)	92.5	(8)
	3rd Quarter	8.30	(2)	9.88	(2)	51.00	(2)	19.2	(4)
	4th Quarter	8.19	(14)	10.27	(15)	49.35	(15)	195.7	(18)
2009	Full Year	8.15	(28)	10.19	(29)	48.72	(28)	475.0	(37)
	1st Quarter	8.20	(10)	10.24	(9)	50.27	(9)	177.3	(11)
	2nd Quarter	7.80	(11)	9.99	(11)	46.31	(11)	230.2	(12)
	3rd Quarter	8.13	(4)	9.93	(4)	49.00	(4)	290.5	(10)
	4th Quarter	7.83	(12)	10.09	(12)	49.60	(13)	113.8	(15)
2010	**Full Year**	**7.95**	**(37)**	**10.08**	**(36)**	**48.72**	**(37)**	**811.8**	**(48)**

* Number of observations in each period indicated in parentheses.

4.

RRA

The table below tracks the average equity return authorized for all electric and gas rate cases combined, by year, for the last 21 years. As the table reveals, since 1990 the authorized ROEs have generally trended downward, reflecting the significant decline in interest rates that has occurred over this time frame. The combined average equity returns authorized for electric and gas utilities in each of the years 1990 through 2010, and the number of observations for each year are as follows:

1990	12.69%	(75)
1991	12.51	(80)
1992	12.06	(77)
1993	11.37	(77)
1994	11.34	(59)
1995	11.51	(49)
1996	11.29	(42)
1997	11.34	(24)
1998	11.59	(20)
1999	10.74	(29)
2000	11.41%	(24)
2001	11.05	(25)
2002	11.10	(43)
2003	10.98	(47)
2004	10.67	(39)
2005	10.50	(55)
2006	10.39	(42)
2007	10.30	(76)
2008	10.42	(67)
2009	10.36	(68)
2010	10.24	(95)

Dennis Sperduto

[6] Date of Natural Gas Rate Case	[7] Return on Equity	[8] 30-Year Treasury Yield	[9] Risk Premium
1/3/80	12.55%	9.40%	3.15%
1/4/80	13.75%	9.40%	4.35%
1/14/80	13.20%	9.45%	3.75%
1/18/80	14.00%	9.48%	4.52%
1/31/80	12.61%	9.56%	3.05%
2/8/80	14.50%	9.63%	4.87%
2/14/80	13.00%	9.68%	3.32%
2/15/80	13.00%	9.69%	3.31%
2/29/80	14.00%	9.86%	4.14%
3/5/80	14.00%	9.91%	4.09%
3/7/80	13.50%	9.95%	3.55%
3/14/80	14.00%	10.04%	3.96%
3/27/80	12.69%	10.21%	2.48%
4/1/80	14.75%	10.27%	4.48%
4/29/80	12.50%	10.51%	1.99%
5/7/80	14.27%	10.56%	3.71%
5/8/80	13.75%	10.57%	3.18%
5/19/80	15.50%	10.63%	4.87%
5/27/80	14.60%	10.66%	3.94%
5/29/80	16.00%	10.68%	5.32%
6/10/80	13.78%	10.72%	3.06%
6/25/80	14.25%	10.74%	3.51%
7/9/80	14.51%	10.78%	3.73%
7/17/80	12.90%	10.79%	2.11%
7/18/80	13.80%	10.80%	3.00%
7/22/80	14.10%	10.80%	3.30%
7/23/80	14.19%	10.79%	3.40%
8/1/80	12.50%	10.80%	1.70%
8/11/80	14.85%	10.82%	4.03%
8/21/80	13.03%	10.85%	2.18%
8/28/80	13.61%	10.88%	2.73%
8/28/80	14.00%	10.88%	3.12%
9/4/80	14.00%	10.90%	3.10%
9/24/80	15.00%	10.99%	4.01%
10/9/80	14.50%	11.06%	3.44%
10/9/80	14.50%	11.06%	3.44%
10/24/80	14.00%	11.09%	2.91%
10/27/80	15.20%	11.10%	4.10%
10/27/80	15.20%	11.10%	4.10%
10/28/80	12.00%	11.10%	0.90%
10/28/80	13.00%	11.10%	1.90%
10/31/80	14.50%	11.12%	3.38%
11/4/80	15.00%	11.12%	3.88%
11/6/80	14.35%	11.13%	3.22%
11/10/80	13.25%	11.14%	2.11%
11/17/80	15.50%	11.14%	4.36%

Atmos Energy Corporation (ATO)
NYSE - NYSE Delayed Price. Currency in USD

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114.05 -0.60 (-0.52%)
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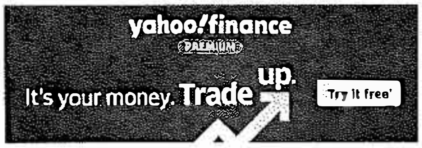
Date	Open	High	Low	Close*	Adj Close**	Volume
Sep 27, 2019	114.30	114.88	113.26	114.05	114.05	749,093
Sep 01, 2019	110.12	115.19	107.14	114.05	114.05	15,181,600
Aug 23, 2019	0.525 Dividend					
Aug 01, 2019	109.08	111.58	105.70	110.23	109.71	15,158,800
Jul 01, 2019	105.71	110.06	104.18	109.04	108.53	12,778,500
Jun 01, 2019	102.05	108.46	99.97	105.56	105.06	13,235,100
May 24, 2019	0.525 Dividend					
May 01, 2019	102.06	103.48	100.23	101.80	100.80	18,709,700
Apr 01, 2019	102.93	102.97	98.66	102.34	101.34	14,242,900

*Close price adjusted for splits. **Adjusted close price adjusted for both dividends and splits.



People Also Watch

Symbol	Last Price	Change	% Change
WGL 197425			
BKH Black Hills Corporation	76.82	-0.71	-0.92%
PNY 216607			
NWN Northwest Natural Holding Compa	71.33		
NJR NewJersey Resources Corporation	45.01	-0.12	-0.27%

Total ESG score ›

52 Underperformer

0 100

Earnings ›

○ Consensus EPS

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Chesapeake Utilities Corporation (CPK)

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95.47

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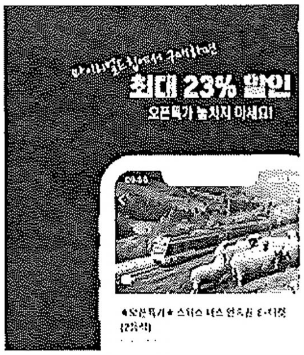
Date	Open	High	Low	Close*	Adj Close**	Volume
Sep 27, 2019	95.37	96.65	95.21	95.47	95.47	59,191
Sep 12, 2019			0.405 Dividend			
Sep 01, 2019	94.75	97.00	92.15	95.47	95.06	1,197,200
Aug 01, 2019	93.62	95.96	89.44	94.58	94.17	1,307,100
Jul 01, 2019	94.20	96.27	89.58	93.46	93.06	1,631,000
Jun 13, 2019			0.405 Dividend			
Jun 01, 2019	91.45	95.99	90.47	95.02	94.21	1,911,500
May 01, 2019	92.78	95.60	88.68	90.78	90.00	1,118,600

*Close price adjusted for splits. **Adjusted close price adjusted for both dividends and splits.

People Also Watch

Symbol	Last Price	Change	% Change
SJI South Jersey Industries, Inc.	32.50	-0.24	-0.73%
NJR NewJersey Resources Corporation	45.01	-0.12	-0.27%
RGCO RGC Resources Inc.	29.90		
SWX Southwest Gas Holdings, Inc.	90.00	-0.40	-0.44%
DGAS 3792			



New Jersey Resources Corporation (NJR)

NYSE - NYSE Delayed Price. Currency in USD

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45.01 -0.12 (-0.27%)

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Date	Open	High	Low	Close*	Adj Close**	Volume
Sep 27, 2019	45.32	45.40	44.77	45.01	45.01	375,909
Sep 19, 2019				0.313 Dividend		
Sep 01, 2019	45.66	46.36	43.55	45.01	44.70	8,760,200
Aug 01, 2019	49.80	50.56	43.90	45.74	45.42	8,673,700
Jul 01, 2019	49.91	50.62	48.95	49.87	49.52	6,767,000
Jun 14, 2019				0.293 Dividend		
Jun 01, 2019	47.61	51.20	47.28	49.77	49.13	7,503,500
May 01, 2019	50.02	50.96	46.34	47.45	46.84	7,907,000

*Close price adjusted for splits. **Adjusted close price adjusted for both dividends and splits.

People Also Watch

Symbol	Last Price	Change	% Change
SJI South Jersey Industries, Inc.	32.50	-0.24	-0.73%
NWN Northwest Natural Holding Compa	71.33		
WGL 197425			
SWX Southwest Gas Holdings, Inc.	90.00	-0.40	-0.44%
PNY 216607			

Docket No. 19-057-02
Exhibit (OCS-3.13)

Northwest Natural Holding Company (NWN)

NYSE - NYSE Delayed Price. Currency in USD

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71.33

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Date	Open	High	Low	Close*	Adj Close**	Volume
Sep 27, 2019	71.83	72.10	71.13	71.33	71.33	142,578
Sep 01, 2019	71.20	72.73	69.65	71.33	71.33	2,588,000
Aug 01, 2019	71.38	73.50	69.21	71.36	71.36	2,441,900
Jul 30, 2019			0.475 Dividend			
Jul 01, 2019	69.43	72.66	68.42	71.42	70.95	2,830,400
Jun 01, 2019	68.99	70.20	66.64	69.50	69.04	5,501,300
May 01, 2019	66.69	70.22	65.89	68.82	68.37	2,850,400
Apr 29, 2019			0.475 Dividend			

*Close price adjusted for splits.   **Adjusted close price adjusted for both dividends and splits.

People Also Watch

Symbol	Last Price	Change	% Change
VVC 174877			
WGL 197425			
NJR NewJersey Resources Corporation	45.01	-0.12	-0.27%
PNY 216607			
AWR American States Water Company	90.45	-0.25	-0.28%

Docket No. 19-057-02
Exhibit (OCS-3.13)

ONE Gas, Inc. (OGS)
NYSE - NYSE Delayed Price. Currency in USD

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95.25 -1.02 (-1.06%)
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Sep 27, 2019	96.28	96.53	94.56	95.25	95.25		226,970
Sep 01, 2019	91.41	96.53	88.18	95.25	95.25		5,323,300
Aug 09, 2019			0.5 Dividend				
Aug 01, 2019	91.30	92.12	86.81	91.61	91.10		3,781,000
Jul 01, 2019	90.35	93.04	89.46	91.18	90.68		3,819,400
Jun 01, 2019	87.50	92.66	86.71	90.30	89.80		4,002,800
May 14, 2019			0.5 Dividend				
May 01, 2019	88.35	89.65	85.70	87.56	86.58		3,613,800

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*Close price adjusted for splits. **Adjusted close price adjusted for both dividends and splits.

People Also Watch

Symbol	Last Price	Change	% Change
OKE ONEOK, Inc.	73.30	-0.19	-0.26%
NWE NorthWestern Corporation	75.18	-0.78	-1.03%
OGE OGE Energy Corp	45.43	[illegible]	[illegible]
SWX Southwest Gas Holdings, Inc.	90.00	-0.40	-0.44%
NJR NewJersey Resources Corporation	45.01	-0.12	-0.27%

South Jersey Industries, Inc. (SJI)

NYSE - NYSE Delayed Price. Currency in USD

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Visitors trend 2W ↓ 10W ↑ 9M ↑

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32.50 -0.24 (-0.73%)

At close: September 27 4:02PM EDT

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Sep 27, 2019	32.83	32.94	32.34	32.50	32.50	352,353
Sep 09, 2019			0.288 Dividend			
Sep 01, 2019	32.31	33.45	31.54	32.50	32.21	10,723,600
Aug 01, 2019	33.95	34.28	30.42	32.34	32.06	9,904,600
Jul 01, 2019	33.66	34.48	32.69	34.05	33.75	8,988,700
Jun 07, 2019			0.288 Dividend			
Jun 01, 2019	31.70	34.45	31.31	33.73	33.14	11,604,300
May 01, 2019	32.12	33.71	30.84	31.55	30.99	13,698,300

*Close price adjusted for splits. **Adjusted close price adjusted for both dividends and splits.

People Also Watch

Symbol	Last Price	Change	% Change
NJR NewJersey Resources Corporation	45.01	-0.12	-0.27%
SWX Southwest Gas Holdings, Inc.	90.00	-0.40	-0.44%
NWN Northwest Natural Holding Compa	71.33		
WGL 197425			
CPK Chesapeake Utilities Corporatio	95.47		

Spire Inc. (SR)
NYSE - NYSE Delayed Price. Currency in USD

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86.58 -0.60 (-0.69%)
At close: September 27 4:02PM EDT

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Summary Company Outlook Chart Conversations Statistics Historical Data Profile Financials Analysis Options Holders Sustainability

Explore detailed look into companies' financial history

Time Period: Apr 29, 2019 - Sep 29, 2019 ⌄ Show: Historical Prices ⌄ Frequency: Monthly ⌄

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Currency in USD

Download Data

Date	Open	High	Low	Close*	Adj Close**	Volume
Sep 27, 2019	87.11	87.36	86.07	86.58	86.58	200,115
Sep 10, 2019			0.593 Dividend			
Sep 01, 2019	84.86	88.00	81.23	86.58	85.97	4,622,200
Aug 01, 2019	82.36	85.22	79.21	84.90	84.30	4,922,700
Jul 01, 2019	83.73	86.34	80.75	82.41	81.83	4,042,800
Jun 10, 2019			0.593 Dividend			
Jun 01, 2019	83.43	86.43	82.69	83.92	82.75	4,010,500
May 01, 2019	84.66	87.13	81.62	83.32	82.16	4,711,500

*Close price adjusted for splits. **Adjusted close price adjusted for both dividends and splits.

People Also Watch

Symbol	Last Price	Change	% Change
SJI South Jersey Industries, Inc.	32.50	-0.24	-0.73%
SWX Southwest Gas Holdings, Inc.	90.00	-0.40	-0.44%
SXI Standex International Corporati	73.18		
SRT StarTek, Inc.	6.46	-0.04	-0.62%
SMP Standard Motor Products, Inc.	47.90		

Docket No. 19-057-02
Exhibit (OCS-3.13)

Southwest Gas Holdings, Inc. (SWX)

NYSE - NYSE Delayed Price. Currency in USD

☆ Add to watchlist   Visitors trend 2W ↓ 10W ↑ 9M ↑   Quote Lookup

90.00 -0.40 (-0.44%)

At close: September 27 4:02PM EDT

Buy   Sell

Summary   Company Outlook   Chart   Conversations   Statistics   **Historical Data**   Profile   Financials   Analysis   Options   Holders   Sustainability

Explore detailed look into companies' financial history

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Time Period: Apr 29, 2019 - Sep 29, 2019 ⌄   Show: Historical Prices ⌄   Frequency: Monthly ⌄

Apply

Currency in USD

Download Data

Date	Open	High	Low	Close*	Adj Close**	Volume
Sep 27, 2019	91.16	91.62	89.43	90.00	90.00	234,485
Sep 01, 2019	91.25	92.94	88.75	90.00	90.00	4,850,800
Aug 14, 2019				0.545 Dividend		
Aug 01, 2019	88.94	91.62	85.64	91.23	90.67	4,796,100
Jul 01, 2019	89.49	91.93	88.16	88.91	88.37	3,550,900
Jun 01, 2019	85.64	91.70	85.06	89.62	89.07	5,295,300
May 14, 2019				0.545 Dividend		
May 01, 2019	83.09	87.58	79.47	85.14	84.07	7,209,800

*Close price adjusted for splits.   **Adjusted close price adjusted for both dividends and splits.

People Also Watch

Symbol	Last Price	Change	% Change
SJI South Jersey Industries, Inc.	32.50	-0.24	-0.73%
NJR NewJersey Resources Corporation	45.01	-0.12	-0.27%
WGL 197425			
NWN Northwest Natural Holding Compa	71.33		
CPK Chesapeake Utilities Corporatio	95.47		

Earnings ›

○ Consensus EPS

Attachment DJL-5
Proceeding No. 19AL-0268E
Hearing Exhibit No. _____
Page 1 of 1

DOMINION ENERGY UTAH
DOCKET NO. 19=057-02
FORECASTED TEST YEAR ENDED DECEMBER 31, 2020
COMPARABLE GROUP STOCK PRICES

			A	B	C	D	E	F	G	H	I	J	K	L	M
LINE NO.	COMPANY	SYMBOL	APR. 2019	MAY. 2019	JUN. 2019	Jul-19	AUG. 2019	SEP. 2019	6 MONTH Average	3 MONTH Average	52 Week High	52 Week Low	52 Week Average	DIVIDEND	YIELD
1	ATMOS ENERGY CORP	ATO	$101.34	$100.80	$105.06	$108.53	$109.71	$114.05	$106.58	$110.76	$111.58	$87.88	$99.73	$2.10	1.90%
2	CHESAPEAKE UTILITIES CORP	CPK	$90.00	$94.21	$93.06	$94.17	$95.06	$95.47	$93.66	$94.90	$96.27	$77.20	$86.74	$1.62	1.71%
3	NEW JERSEY RESOURCES CORP	NJR	$46.84	$49.13	$49.52	$45.42	$44.70	$45.01	$46.77	$45.04	$51.83	$43.51	$47.67	$1.25	2.78%
4	NORTHWEST NATURAL HOLDING CO	NWN	$68.37	$69.04	$70.95	$71.36	$71.33	$71.33	$70.40	$71.34	$73.50	$57.20	$65.35	$1.90	2.66%
5	ONE GAS, INC.	OGS	$86.58	$89.80	$90.68	$91.10	$95.25	$95.25	$91.44	$93.87	$93.04	$75.51	$84.28	$2.00	2.13%
6	SOUTH JERSEY INDUSTRIES, INC	SJI	$30.99	$33.14	$33.75	$32.06	$32.21	$32.50	$32.44	$32.26	$36.72	$26.06	$31.39	$1.15	3.56%
7	SPIRE INC	SR	$82.16	$82.75	$81.83	$84.30	$85.97	$86.58	$83.93	$85.62	$87.13	$70.53	$78.83	$2.37	2.77%
	SOUTHWEST GAS HOLDINGS INC	SWX	$84.07	$89.07	$88.37	$90.67	$90.00	$90.00	$88.70	$90.22	$92.31	$72.68	$82.50	$2.18	2.42%
8	MEAN		$73.79	$75.99	$76.65	$77.20	$78.03	$78.77	$76.74	$78.00	$80.30	$63.82	$72.06	$1.82	2.49%
9	MEDIAN		**$83.12**	**$85.91**	**$85.10**	**$87.49**	**$87.99**	**$88.29**	**$86.31**	**$87.92**	**$89.72**	**$71.61**	**$80.66**	**$1.95**	**2.54%**

SOURCES:

COLUMNS A-F & L: YAHOO FINANCE HISTORICAL STOCK PRICES MONTHLY (Retrieved SEPTEMBER 29, 2019)

COLUMNS G - H: AVERAGES OF HISTORICAL DATA

COLUMNS I - K: PER ZACKS.COM (Retrieved SEPTEMBER 3, 2019)

COLUMN M: (COLUMN L/ COLUMN H)

Docket No. 19-057-02
Exhibit (OCS-3.13)

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Atmos Energy Corporation (ATO)
NYSE - Nasdaq Real Time Price. Currency in USD

☆ Add to watchlist | Visitors trend 2W ↓ 10W ↑ 9M ↑ | Quote Lookup

111.09 +0.86 (+0.78%)
As of 1:55PM EDT. Market open.

Buy | Sell

Summary | Company Outlook | Chart | Conversations | Statistics | Historical Data | Profile | Financials | **Analysis** | Options | Holders | Sustainability

Currency in USD

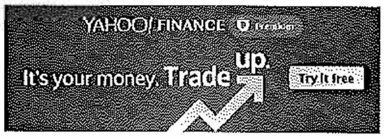
Earnings Estimate	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
No. of Analysts	8	3	9	10
Avg. Estimate	0.46	1.44	4.33	4.61
Low Estimate	0.43	1.4	4.3	4.49
High Estimate	0.48	1.48	4.35	4.65
Year Ago EPS	0.41	1.38	4	4.33

Revenue Estimate	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
No. of Analysts	3	2	7	7
Avg. Estimate	568.18M	1.01B	3.21B	3.59B
Low Estimate	524.93M	1.01B	3.04B	3.49B
High Estimate	598.3M	1.02B	3.32B	3.73B
Year Ago Sales	444.7M	N/A	3.12B	3.21B
Sales Growth (year/est)	27.80%	N/A	3.10%	11.70%

Earnings History	9/29/2018	12/30/2018	3/30/2019	6/29/2019
EPS Est.	0.36	1.33	1.69	0.68
EPS Actual	0.41	1.38	1.82	0.68
Difference	0.05	0.05	0.13	0
Surprise %	13.90%	3.80%	7.70%	0.00%

EPS Trend	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Current Estimate	0.46	1.44	4.33	4.61
7 Days Ago	0.47	1.44	4.33	4.61
30 Days Ago	0.45	1.44	4.32	4.62
60 Days Ago	0.49	1.41	4.33	4.59
90 Days Ago	0.49	1.41	4.33	4.59

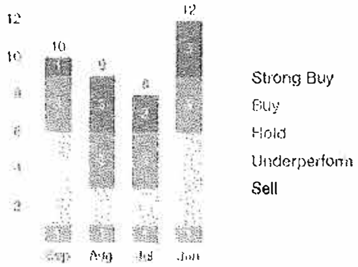
EPS Revisions	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Up Last 7 Days	N/A	N/A	1	N/A



People Also Watch

Symbol	Last Price	Change	% Change
WGL 197425			
PNY 216607			
BKH Black Hills Corporation	77.70	+0.99	+1.29%
UGI UGI Corporation	47.90	-0.77	-1.58%
NWN Northwest Natural Holding Compa	71.30	-0.06	-0.08%

Recommendation Trends ›



Recommendation Rating ›

2.1

1	2	3	4	5
Strong Buy	Buy	Hold	Under-perform	Sell

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EPS Revisions	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Up Last 30 Days	3	1	3	3
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	N/A	N/A	1

Growth Estimates	ATO	Industry	Sector	S&P 500
Current Qtr.	12.20%	N/A	N/A	0.00
Next Qtr.	4.30%	N/A	N/A	0.08
Current Year	8.30%	N/A	N/A	0.03
Next Year	6.50%	N/A	N/A	0.10
Next 5 Years (per annum)	6.50%	N/A	N/A	0.08
Past 5 Years (per annum)	14.17%	N/A	N/A	N/A

Analyst Price Targets (7) ›

Average 111.00

Low 101.00

Current 111.05

High 119.00

Upgrades & Downgrades ›

Maintains	Morgan Stanley: to Overweight	8/16/2019
Initiated	Wells Fargo: to Outperform	7/15/2019
↓ Downgrade	UBS: Buy to Neutral	12/14/2018
Maintains	Citigroup: Neutral to Neutral	11/29/2018
↑ Upgrade	Morgan Stanley: Equal-Weight to Overweight	9/21/2018
Maintains	Morgan Stanley: Equal-Weight to Equal-Weight	9/11/2018

More Upgrades & Downgrades

Yahoo Small Business

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Chesapeake Utilities Corporation (CPK)
NYSE - Nasdaq Real Time Price. Currency in USD

☆ Add to watchlist

Visitors trend 2W ↓ 10W ↑ 9M ↑

94.59 +0.01 (+0.01%)
As of 1:48PM EDT. Market open.

Buy Sell

Quote Lookup

Summary Company Outlook Chart Conversations Statistics Historical Data Profile Financials **Analysis** Options Holders Sustainability

Currency in USD

Earnings Estimate	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
No. of Analysts	4	4	5	5
Avg. Estimate	0.43	1.1	3.74	3.97
Low Estimate	0.33	0.99	3.65	3.93
High Estimate	0.64	1.15	3.81	4.04
Year Ago EPS	0.34	1.1	3.31	3.74

Revenue Estimate	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
No. of Analysts	3	3	5	5
Avg. Estimate	164.97M	230.63M	769.88M	823.52M
Low Estimate	154.5M	228.1M	741.2M	775.82M
High Estimate	176.9M	235.2M	812.3M	882.5M
Year Ago Sales	N/A	201.19M	717.49M	769.88M
Sales Growth (year/est)	N/A	14.60%	7.30%	7.00%

Earnings History	9/29/2018	12/30/2018	3/30/2019	6/29/2019
EPS Est.	0.49	1.2	1.59	0.55
EPS Actual	0.34	1.1	1.68	0.5
Difference	-0.15	-0.1	0.09	-0.05
Surprise %	-30.60%	-8.30%	5.70%	-9.10%

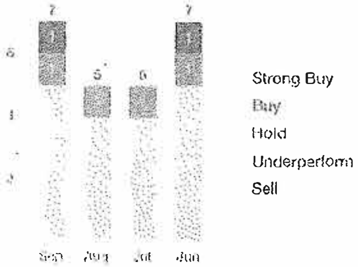
EPS Trend	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Current Estimate	0.43	1.1	3.74	3.97
7 Days Ago	0.43	1.1	3.74	3.97
30 Days Ago	0.44	1.07	3.74	3.97
60 Days Ago	0.44	1.07	3.74	3.97
90 Days Ago	0.43	1.07	3.73	3.94

EPS Revisions	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Up Last 7 Days	N/A	1	N/A	1

People Also Watch

Symbol	Last Price	Change	% Change
SJI South Jersey Industries, Inc.	32.45	+0.11	+0.34%
NJR NewJersey Resources Corporation	45.65	-0.09	-0.20%
RGCO RGC Resources Inc.	28.38	-0.00	-0.01%
SWX Southwest Gas Holdings, Inc.	91.19	-0.04	-0.04%
DGAS 3792			

Recommendation Trends ›



Recommendation Rating ›

EPS Revisions	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Up Last 30 Days	N/A	1	N/A	1
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	1	N/A	N/A	N/A

Growth Estimates	CPK	Industry	Sector	S&P 500
Current Qtr.	26.50%	N/A	N/A	0.00
Next Qtr.	N/A	N/A	N/A	0.08
Current Year	13.00%	N/A	N/A	0.03
Next Year	6.10%	N/A	N/A	0.10
Next 5 Years (per annum)	6.00%	N/A	N/A	0.08
Past 5 Years (per annum)	10.09%	N/A	N/A	N/A

Analyst Price Targets (4) >

Average 99.75

Low 95.00 High 110.00
Current 94.59

Upgrades & Downgrades >

Maintains	Wells Fargo: Market Perform to Market Perform	3/4/2019
↓ Downgrade	Janney Capital: Buy to Neutral	12/17/2018
Initiated	Maxim Group: to Buy	11/28/2018
↑ Upgrade	Janney Capital: Neutral to Buy	11/2/2018
Maintains	Wells Fargo: Market Perform to Market Perform	9/24/2018
↓ Downgrade	Janney Capital: Buy to Neutral	9/24/2018

More Upgrades & Downgrades

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Docket No. 19-057-02
Exhibit (OCS-3.13)

New Jersey Resources Corporation (NJR)

NYSE - Nasdaq Real Time Price. Currency in USD

☆ Add to watchlist

Visitors trend 2W ↑ 10W ↑ 9M ↑

Quote Lookup

45.65 -0.09 (-0.20%)

As of 1:56PM EDT. Market open.

Buy Sell

Summary Company Outlook NEW Chart Conversations Statistics Historical Data Profile Financials **Analysis** Options Holders Sustainability

Currency in USD

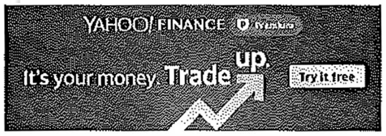
Earnings Estimate	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
No. of Analysts	5	3	7	7
Avg. Estimate	0.01	0.83	1.98	2.27
Low Estimate	-0.03	0.76	1.95	2.06
High Estimate	0.02	0.89	2.02	2.65
Year Ago EPS	-0.33	0.61	2.74	1.98

Revenue Estimate	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
No. of Analysts	2	1	4	4
Avg. Estimate	671.35M	830M	2.56B	2.78B
Low Estimate	653.7M	830M	1.96B	2.43B
High Estimate	689M	830M	2.8B	2.92B
Year Ago Sales	647.33M	N/A	2.92B	2.56B
Sales Growth (year/est)	3.70%	N/A	-12.30%	8.50%

Earnings History	9/29/2018	12/30/2018	3/30/2019	6/29/2019
EPS Est.	-0.44	0.69	1.17	0.12
EPS Actual	-0.33	0.61	1.27	-0.2
Difference	0.11	-0.08	0.1	-0.32
Surprise %	25.00%	-11.60%	8.50%	-266.70%

EPS Trend	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Current Estimate	0.01	0.83	1.98	2.27
7 Days Ago	0.28	0.8	1.96	2.14
30 Days Ago	0.01	0.8	2.11	2.33
60 Days Ago	0	0.75	2	2.34
90 Days Ago	0	0.75	2	2.34

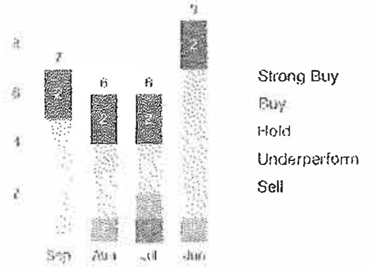
EPS Revisions	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Up Last 7 Days	N/A	1	N/A	1



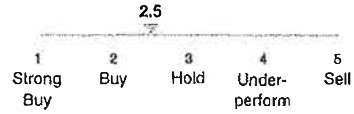
People Also Watch

Symbol	Last Price	Change	% Change
SJI South Jersey Industries, Inc.	32.47	+0.13	+0.40%
NWN Northwest Natural Holding Compa	71.30	-0.06	-0.08%
WGL 197425			
SWX Southwest Gas Holdings, Inc.	91.19	-0.04	-0.04%
PNY 216807			

Recommendation Trends ›



Recommendation Rating ›



EPS Revisions	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Up Last 30 Days	1	3	N/A	2
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	N/A	N/A	N/A

Growth Estimates	NJR	Industry	Sector	S&P 500
Current Qtr.	103.00%	N/A	N/A	0.00
Next Qtr.	36.10%	N/A	N/A	0.08
Current Year	-27.70%	N/A	N/A	0.03
Next Year	14.60%	N/A	N/A	0.10
Next 5 Years (per annum)	6.00%	N/A	N/A	0.08
Past 5 Years (per annum)	50.73%	N/A	N/A	N/A

Analyst Price Targets (4) >

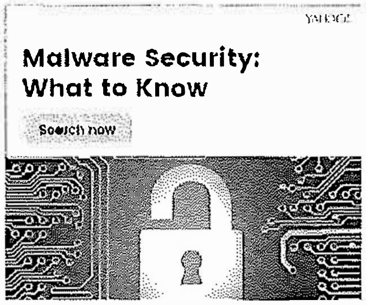
Average 49.00

Low 45.00 High 56.00
Current 45.65

Upgrades & Downgrades >

↑ Upgrade	Guggenheim: Sell to Neutral	7/11/2019
↓ Downgrade	Guggenheim: Neutral to Sell	1/7/2019
Maintains	Wells Fargo: Market Perform to Market Perform	9/17/2018
↓ Downgrade	Guggenheim: Buy to Neutral	9/10/2018
↓ Downgrade	Bank of America: Neutral to Underperform	6/5/2018
Maintains	Argus: Buy to Buy	5/30/2018

More Upgrades & Downgrades



Yahoo Small Business

Docket No. 19-057-02
Exhibit (OCS-3.13)

Northwest Natural Holding Company (NWN)

NYSE - Nasdaq Real Time Price. Currency in USD

☆ Add to watchlist   Visitors trend 2W→ 10W ↑ 9M ↑

71.30 -0.06 (-0.08%)
As of 1:52PM EDT. Market open.

Buy   Sell

Quote Lookup

Summary   Company Outlook   Chart   Conversations   Statistics   Historical Data   Profile   Financials   **Analysis**   Options   Holders   Sustainability

Currency in USD

Earnings Estimate	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
No. of Analysts	5	5	6	6
Avg. Estimate	-0.49	1.18	2.38	2.51
Low Estimate	-0.55	1.09	2.35	2.45
High Estimate	-0.47	1.26	2.42	2.57
Year Ago EPS	-0.41	1.24	2.24	2.38

Revenue Estimate	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
No. of Analysts	3	3	4	5
Avg. Estimate	98.99M	247.14M	743.88M	784.03M
Low Estimate	96.7M	235.8M	729M	760M
High Estimate	100.82M	263.61M	773.23M	828.79M
Year Ago Sales	91.24M	226.7M	706.14M	743.88M
Sales Growth (year/est)	8.50%	9.00%	5.30%	5.40%

Earnings History	9/29/2018	12/30/2018	3/30/2019	6/29/2019
EPS Est.	-0.37	1.2	1.39	-0.07
EPS Actual	-0.41	1.24	1.72	0.04
Difference	-0.04	0.04	0.33	0.11
Surprise %	-10.80%	3.30%	23.70%	157.10%

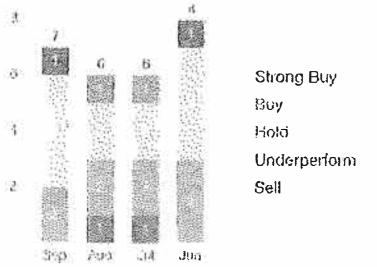
EPS Trend	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Current Estimate	-0.49	1.18	2.38	2.51
7 Days Ago	-0.52	1.14	2.39	2.53
30 Days Ago	-0.48	1.21	2.38	2.51
60 Days Ago	-0.46	1.23	2.39	2.53
90 Days Ago	-0.45	1.24	2.4	2.53

EPS Revisions	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Up Last 7 Days	N/A	N/A	N/A	N/A

People Also Watch

Symbol	Last Price	Change	% Change
VVC 174877			
WGL 197425			
NJR NewJersey Resources Corporation	45.65	-0.09	-0.20%
PNY 216607			
AWR American States Water Company	93.59	+1.06	+1.15%

Recommendation Trends ›



Recommendation Rating ›

3.5

1	2	3	4	5
Strong Buy	Buy	Hold	Under-perform	Sell

Docket No. 19-057-02
Exhibit (OCS-3.13)

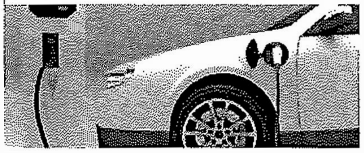
EPS Revisions	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Up Last 30 Days	1	1	1	N/A
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	N/A	N/A	N/A

Growth Estimates	NWN	Industry	Sector	S&P 500
Current Qtr.	-19.50%	N/A	N/A	0.00
Next Qtr.	-4.80%	N/A	N/A	0.08
Current Year	6.20%	N/A	N/A	0.03
Next Year	5.50%	N/A	N/A	0.10
Next 5 Years (per annum)	4.00%	N/A	N/A	0.08
Past 5 Years (per annum)	14.83%	N/A	N/A	N/A

Analyst Price Targets (6)

Average 63.83

Low 56.00
High 79.00
Current 71.30



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ONE Gas, Inc. (OGS)
NYSE - Nasdaq Real Time Price. Currency in USD

☆ Add to watchlist | Visitors trend 2W ↑ 10W ↑ 9M ↑ | Quote Lookup

91.90 +0.29 (+0.32%)
As of 1:54PM EDT. Market open.

Buy | Sell

Summary | Company Outlook | Chart | Conversations | Statistics | Historical Data | Profile | Financials | **Analysis** | Options | Holders | Sustainability

Currency in USD

Earnings Estimate	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
No. of Analysts	5	5	5	5
Avg. Estimate	0.34	0.94	3.5	3.64
Low Estimate	0.3	0.92	3.48	3.53
High Estimate	0.37	0.97	3.52	3.7
Year Ago EPS	0.31	0.84	3.25	3.5

Revenue Estimate	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
No. of Analysts	3	3	4	5
Avg. Estimate	251.17M	469.13M	1.67B	1.69B
Low Estimate	226.61M	419.45M	1.6B	1.34B
High Estimate	273.71M	519.74M	1.75B	1.91B
Year Ago Sales	238.28M	464.47M	1.63B	1.67B
Sales Growth (year/est)	5.40%	1.00%	2.30%	1.00%

Earnings History	9/29/2018	12/30/2018	3/30/2019	6/29/2019
EPS Est.	0.27	0.85	1.73	0.39
EPS Actual	0.31	0.84	1.76	0.46
Difference	0.04	-0.01	0.03	0.07
Surprise %	14.80%	-1.20%	1.70%	17.90%

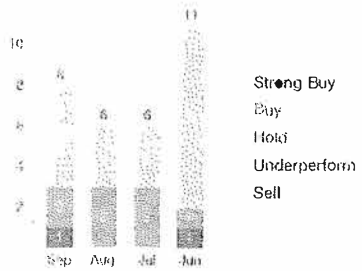
EPS Trend	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Current Estimate	0.34	0.94	3.5	3.64
7 Days Ago	0.34	0.95	3.49	3.63
30 Days Ago	0.34	0.95	3.49	3.62
60 Days Ago	0.35	0.95	3.46	3.6
90 Days Ago	0.35	0.95	3.46	3.6

EPS Revisions	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Up Last 7 Days	N/A	N/A	N/A	N/A

People Also Watch

Symbol	Last Price	Change	% Change
OKE ONEOK, Inc.	70.53	-0.75	-1.06%
NWE NorthWestern Corporation	73.00	+0.56	+0.77%
OGE OGE Energy Corp	43.12	+0.25	+0.57%
SWX Southwest Gas Holdings, Inc.	91.19	-0.04	-0.04%
NJR NewJersey Resources Corporation	45.65	-0.09	-0.20%

Recommendation Trends ›



Analyst Price Targets (5) ›

Average 86.40

Low 80.00
Current 91.90
High 99.00

Docket No. 19-057-02
Exhibit (OCS-3.13)

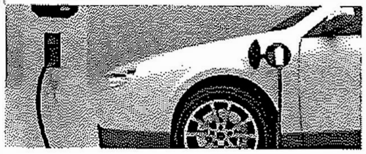
EPS Revisions	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Up Last 30 Days	1	1	3	3
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	N/A	N/A	N/A

Growth Estimates	OGS	Industry	Sector	S&P 500
Current Qtr.	9.70%	N/A	N/A	0.00
Next Qtr.	11.90%	N/A	N/A	0.08
Current Year	7.70%	N/A	N/A	0.03
Next Year	4.00%	N/A	N/A	0.10
Next 5 Years (per annum)	5.00%	N/A	N/A	0.08
Past 5 Years (per annum)	25.08%	N/A	N/A	N/A

Upgrades & Downgrades ›

Maintains	Morgan Stanley: Underweight to Underweight	2/12/2019
Maintains	Morgan Stanley: Underweight to Underweight	9/21/2018
Maintains	Wells Fargo: Market Perform to Market Perform	9/17/2018
Maintains	Morgan Stanley: Underweight to Underweight	9/11/2018
Maintains	Morgan Stanley: Underweight to Underweight	7/18/2018
Maintains	Morgan Stanley: Underweight to Underweight	6/13/2018

More Upgrades & Downgrades



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South Jersey Industries, Inc. (SJI)
NYSE - Nasdaq Real Time Price. Currency in USD

☆ Add to watchlist | Visitors trend 2W ↑ 10W ↑ 9M ↑ | Quote Lookup

32.44 +0.10 (+0.32%)
As of 2:05PM EDT. Market open.

Buy | Sell

Summary | Company Outlook | Chart | Conversations | Statistics | Historical Data | Profile | Financials | **Analysis** | Options | Holders | Sustainability

Currency in USD

Earnings Estimate	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
No. of Analysts	8	8	8	8
Avg. Estimate	-0.31	0.39	1.1	1.57
Low Estimate	-0.39	0.31	1.08	1.43
High Estimate	-0.22	0.54	1.12	1.65
Year Ago EPS	-0.27	0.39	1.38	1.1

Revenue Estimate	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
No. of Analysts	4	4	6	6
Avg. Estimate	274.73M	498.34M	1.67B	1.67B
Low Estimate	189.6M	372.7M	1.47B	1.33B
High Estimate	338.33M	586M	1.85B	1.93B
Year Ago Sales	N/A	589.58M	1.64B	1.67B
Sales Growth (year/est)	N/A	-15.50%	1.60%	-0.10%

Earnings History	9/29/2018	12/30/2018	3/30/2019	6/29/2019
EPS Est.	-0.27	0.48	1.01	-0.04
EPS Actual	-0.27	0.39	1.09	-0.13
Difference	0	-0.09	0.08	-0.09
Surprise %	0.00%	-18.70%	7.90%	-225.00%

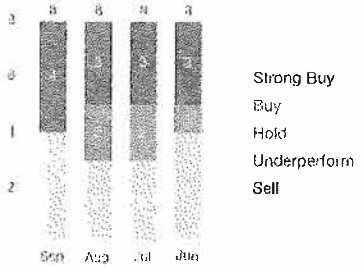
EPS Trend	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Current Estimate	-0.31	0.39	1.1	1.57
7 Days Ago	-0.3	0.43	1.1	1.56
30 Days Ago	-0.34	0.39	1.1	1.6
60 Days Ago	-0.32	0.37	1.1	1.61
90 Days Ago	-0.32	0.36	1.09	1.61

EPS Revisions	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Up Last 7 Days	1	N/A	N/A	N/A

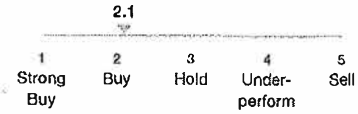
People Also Watch

Symbol	Last Price	Change	% Change
NJR NewJersey Resources Corporation	45.58	-0.16	-0.35%
SWX Southwest Gas Holdings, Inc.	91.10	-0.13	-0.14%
NWN Northwest Natural Holding Compa	71.29	-0.07	-0.10%
WGL 197425			
CPK Chesapeake Utilities Corporatio	94.74	+0.15	+0.16%

Recommendation Trends ›



Recommendation Rating ›



EPS Revisions	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Up Last 30 Days	2	3	3	N/A
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	1	N/A	1

Growth Estimates	SJI	Industry	Sector	S&P 500
Current Qtr.	-14.80%	N/A	N/A	0.00
Next Qtr.	N/A	N/A	N/A	0.08
Current Year	-20.30%	N/A	N/A	0.03
Next Year	42.70%	N/A	N/A	0.10
Next 5 Years (per annum)	5.50%	N/A	N/A	0.08
Past 5 Years (per annum)	16.45%	N/A	N/A	N/A

Analyst Price Targets (8) › Premium - Try it free

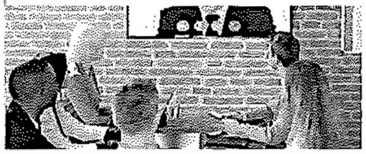
Average 34.88

Low 31.00
Current 32.45
High 40.00

Upgrades & Downgrades ›

↓ Downgrade	JP Morgan: Overweight to Neutral	8/5/2019
Initiated	Maxim Group: to Buy	4/17/2019
Maintains	Morgan Stanley: Equal-Weight to Equal-Weight	10/23/2018
Maintains	Morgan Stanley: Equal-Weight to Equal-Weight	9/21/2018
↑ Upgrade	JP Morgan: Neutral to Overweight	9/11/2018
Maintains	Morgan Stanley: Equal-Weight to Equal-Weight	9/11/2018

More Upgrades & Downgrades



Docket No. 19-057-02
Exhibit (OCS-3.13)

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Spire Inc. (SR)

NYSE - Nasdaq Real Time Price. Currency in USD

☆ Add to watchlist · Visitors trend 2W ↓ 10W ↑ 9M ↑

Quote Lookup

85.20 +0.30 (+0.35%)

As of 2:05PM EDT. Market open.

Buy Sell

Summary Company Outlook Chart Conversations Statistics Historical Data Profile Financials **Analysis** Options Holders Sustainability

Currency in USD

Earnings Estimate	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
No. of Analysts	7	3	7	8
Avg. Estimate	-0.51	1.29	3.75	3.9
Low Estimate	-0.56	1.14	3.71	3.72
High Estimate	-0.48	1.38	3.78	4.01
Year Ago EPS	-0.52	1.3	3.72	3.75

Revenue Estimate	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
No. of Analysts	4	1	7	7
Avg. Estimate	245.42M	617.93M	1.99B	2.02B
Low Estimate	227M	617.93M	1.95B	1.71B
High Estimate	260.72M	617.93M	2.01B	2.16B
Year Ago Sales	239.2M	N/A	1.97B	1.99B
Sales Growth (year/est)	2.60%	N/A	1.10%	1.80%

Earnings History	9/29/2018	12/30/2018	3/30/2019	6/29/2019
EPS Est.	-0.59	1.28	2.63	0.11
EPS Actual	-0.52	1.3	2.9	0.07
Difference	0.07	0.02	0.27	-0.04
Surprise %	11.90%	1.60%	10.30%	-36.40%

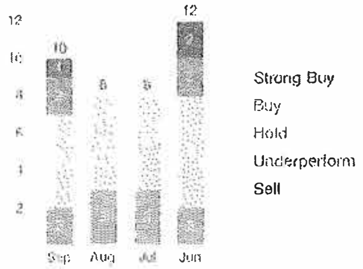
EPS Trend	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Current Estimate	-0.51	1.29	3.75	3.9
7 Days Ago	-0.52	1.29	3.75	3.9
30 Days Ago	-0.52	1.29	3.75	3.9
60 Days Ago	-0.57	1.27	3.74	3.91
90 Days Ago	-0.64	1.27	3.74	3.91

EPS Revisions	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Up Last 7 Days	N/A	N/A	N/A	N/A

People Also Watch

Symbol	Last Price	Change	% Change
SJI South Jersey Industries, Inc.	32.45	+0.11	+0.34%
SWX Southwest Gas Holdings, Inc.	91.10	-0.13	-0.14%
SXI Standex International Corporati	67.85	-0.90	-1.31%
SRT StarTek, Inc.	6.10	-0.13	-2.09%
SMP Standard Motor Products, Inc.	43.23	-1.08	-2.44%

Recommendation Trends ›



Recommendation Rating ›

3.4

1	2	3	4	5
Strong Buy	Buy	Hold	Under-perform	Sell

Docket No. 19-057-02
Exhibit (OCS-3.13)

EPS Revisions	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Up Last 30 Days	5	2	3	3
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	N/A	N/A	N/A

Growth Estimates	SR	Industry	Sector	S&P 500
Current Qtr.	1.90%	N/A	N/A	0.00
Next Qtr.	-0.80%	N/A	N/A	0.08
Current Year	0.80%	N/A	N/A	0.03
Next Year	4.00%	N/A	N/A	0.10
Next 5 Years (per annum)	2.71%	N/A	N/A	0.08
Past 5 Years (per annum)	-3.96%	N/A	N/A	N/A

Analyst Price Targets (7) Premium - Try it free

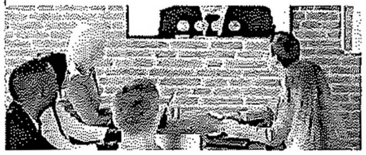
Average 84.57

Low 80.00 Current 85.20 High 88.00

Upgrades & Downgrades ›

Maintains	Wells Fargo: to Market Perform	8/9/2019
↓ Downgrade	Wells Fargo: Outperform to Market Perform	5/24/2019
↓ Downgrade	Credit Suisse: Neutral to Underperform	1/23/2019
↓ Downgrade	Guggenheim: Buy to Neutral	1/7/2019
Maintains	Credit Suisse: Neutral to Neutral	11/19/2018
Maintains	Morgan Stanley: Underweight to Underweight	10/29/2018

More Upgrades & Downgrades



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Southwest Gas Holdings, Inc. (SWX)
NYSE - Nasdaq Real Time Price. Currency in USD

☆ Add to watchlist | Visitors trend 2W 10W ↑ 9M ↑ | Quote Lookup

91.10 -0.13 (-0.14%)
As of 2:02PM EDT. Market open.

Buy | Sell

Summary | Company Outlook | Chart | Conversations | Statistics | Historical Data | Profile | Financials | **Analysis** | Options | Holders | Sustainability

Currency in USD

Earnings Estimate	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
No. of Analysts	7	7	8	8
Avg. Estimate	0.26	1.51	3.94	4.25
Low Estimate	0.17	1.24	3.85	4.15
High Estimate	0.32	1.62	4.02	4.36
Year Ago EPS	0.25	1.54	3.86	3.94

Revenue Estimate	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
No. of Analysts	2	2	3	3
Avg. Estimate	231.94M	342.34M	1.41B	1.51B
Low Estimate	227.8M	285.8M	1.41B	1.49B
High Estimate	236.09M	398.89M	1.42B	1.52B
Year Ago Sales	217.52M	370.21M	1.36B	1.41B
Sales Growth (year/est)	6.60%	-7.50%	4.10%	6.60%

Earnings History	9/29/2018	12/30/2018	3/30/2019	6/29/2019
EPS Est.	0.17	1.53	1.55	0.41
EPS Actual	0.25	1.54	1.77	0.41
Difference	0.08	0.01	0.22	0
Surprise %	47.10%	0.70%	14.20%	0.00%

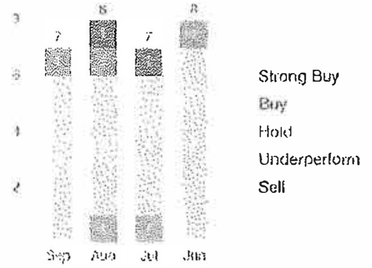
EPS Trend	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Current Estimate	0.26	1.51	3.94	4.25
7 Days Ago	0.27	1.49	3.93	4.24
30 Days Ago	0.27	1.53	3.94	4.25
60 Days Ago	0.29	1.54	3.95	4.26
90 Days Ago	0.28	1.55	3.95	4.24

EPS Revisions	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Up Last 7 Days	N/A	N/A	N/A	N/A

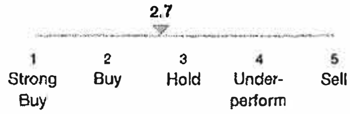
People Also Watch

Symbol	Last Price	Change	% Change
SJI South Jersey Industries, Inc.	32.45	+0.11	+0.34%
NJR NewJersey Resources Corporation	45.62	-0.12	-0.26%
WGL 197425			
NWN Northwest Natural Holding Compa	71.36	0.00	0.00%
CPK Chesapeake Utilities Corporatio	94.74	+0.15	+0.16%

Recommendation Trends ›



Recommendation Rating ›



EPS Revisions	Current Qtr. (Sep 2019)	Next Qtr. (Dec 2019)	Current Year (2019)	Next Year (2020)
Up Last 30 Days	1	N/A	N/A	1
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	1	1	N/A	1

Growth Estimates	SWX	Industry	Sector	S&P 500
Current Qtr.	4.00%	N/A	N/A	0.00
Next Qtr.	-1.90%	N/A	N/A	0.08
Current Year	2.10%	N/A	N/A	0.03
Next Year	7.90%	N/A	N/A	0.10
Next 5 Years (per annum)	6.10%	N/A	N/A	0.08
Past 5 Years (per annum)	24.37%	N/A	N/A	N/A

Analyst Price Targets (6) >

Average 87.83

Low 78.00 High 96.00
Current 91.10

Upgrades & Downgrades >

Initiated	JP Morgan: to Overweight	7/17/2019
↓ Downgrade	UBS: Buy to Neutral	3/29/2019
Maintains	Wells Fargo: Market Perform to Market Perform	3/1/2019
Initiated	Wells Fargo: to Market Perform	1/15/2019

ATMOS ENERGY CORP. NYSE-ATO

RECENT PRICE	P/E RATIO	RELATIVE P/E RATIO	DIV'D YLD
110.21	25.2 (Trailing: 25.7 Median: 16.0)	1.54	2.0%

VALUE LINE

TIMELINESS 3 Lowered 11/30/18
SAFETY 1 Raised 6/6/14
TECHNICAL 3 Lowered 7/5/19
BETA .60 (1.00 = Market)

High:	29.3	30.3	32.0	35.6	37.3	47.4	58.2	64.8	82.0	93.6	100.8	111.4
Low:	19.7	20.1	25.9	28.5	30.4	34.9	44.2	50.8	60.0	72.5	76.5	89.2

Target Price Range
2022 | 2023 | 2024

2022-24 PROJECTIONS

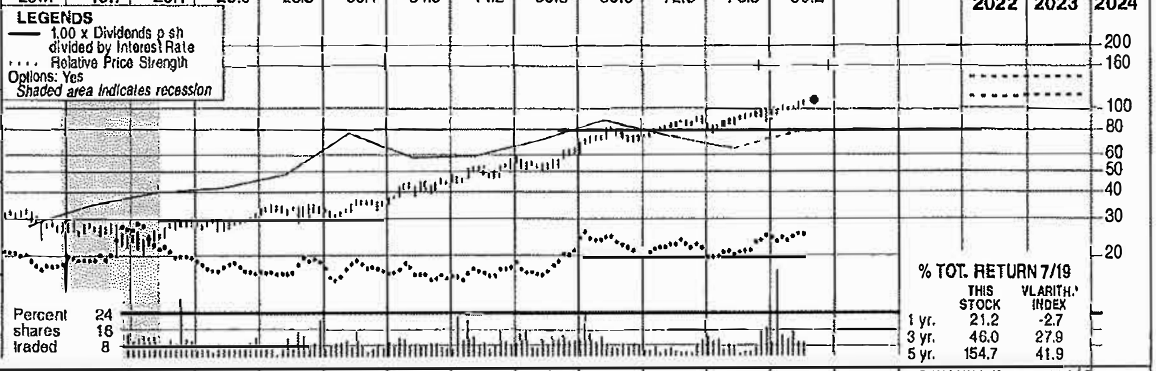
	Price	Gain	Ann'l Total Return
High	140	(+25%)	8%
Low	115	(+5%)	3%

Insider Decisions

	O	N	D	J	F	M	A	M	J
to Buy	0	0	0	0	0	0	0	0	0
Options	2	8	0	2	0	0	2	8	0
to Sell	0	0	0	0	0	0	0	0	0

Institutional Decisions

	3Q2018	4Q2018	1Q2019
to Buy	185	232	243
to Sell	175	177	204
Hld's(000)	82454	92261	96087



% TOT. RETURN 7/19

	THIS STOCK	VL ARITH.* INDEX
1 yr.	21.2	-2.7
3 yr.	46.0	27.9
5 yr.	154.7	41.9

Atmos Energy's history dates back to 1906 in the Texas Panhandle. Over the years, through various mergers, it became part of Pioneer Corporation, and, in 1981, Pioneer named its gas distribution division Energas. In 1983, Pioneer organized Energas as a separate subsidiary and distributed the outstanding shares of Energas to Pioneer shareholders. Energas changed its name to Atmos in 1988. Atmos acquired Trans Louisiana Gas in 1986, Western Kentucky Gas Utility in 1987, Greeley Gas in 1993, United Cities Gas in 1997, and others.

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	© VALUE LINE PUB. LLC	22-24
53.89	53.12	48.15	38.10	42.88	49.22	40.82	32.23	26.01	28.00	24.30	24.95	Revenues per sh A	37.95
4.29	4.64	4.72	4.76	5.14	5.42	5.81	6.19	6.62	7.24	7.50	7.80	"Cash Flow" per sh	9.20
1.97	2.16	2.26	2.10	2.50	2.96	3.09	3.38	3.60	4.00	4.30	4.55	Earnings per sh AB	5.60
1.32	1.34	1.36	1.38	1.40	1.48	1.56	1.68	1.80	1.94	2.10	2.24	Div'ds Decl'd per sh C■	2.70
5.51	6.02	6.90	8.12	9.32	8.32	9.61	10.46	10.72	13.19	14.15	14.40	Cap'l Spending per sh	13.80
23.52	24.16	24.98	28.14	28.47	30.74	31.48	33.32	36.74	42.87	47.65	48.90	Book Value per sh	56.05
92.55	90.16	90.30	90.24	90.64	100.39	101.48	103.93	106.10	111.27	120.00	125.00	Common Shs Outst'g D	145.00
12.5	13.2	14.4	15.9	15.9	16.1	17.5	20.8	22.0	21.7	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	23.0
.83	.84	.90	1.01	.89	.85	.88	1.09	1.11	1.17			Relative P/E Ratio	1.30
5.3%	4.7%	4.2%	4.1%	3.5%	3.1%	2.9%	2.4%	2.3%	2.2%			Avg Ann'l Div'd Yield	2.1%
4969.1	4789.7	4347.6	3438.5	3886.3	4940.9	4142.1	3349.9	2759.7	3115.5	2915	3120	Revenues ($mill) A	5500
179.7	201.2	199.3	192.2	230.7	289.8	315.1	350.1	382.7	444.3	515	570	Net Profit ($mill)	815
34.4%	38.5%	36.4%	33.8%	38.2%	39.2%	38.3%	36.4%	36.6%	27.0%	22.0%	22.5%	Income Tax Rate	24.0%
3.6%	4.2%	4.6%	5.6%	5.9%	5.9%	7.6%	10.5%	13.9%	14.3%	17.7%	18.3%	Net Profit Margin	14.8%
49.9%	45.4%	49.4%	45.3%	48.8%	44.3%	43.5%	38.7%	44.0%	34.3%	38.5%	37.0%	Long-Term Debt Ratio	35.0%
50.1%	54.6%	50.6%	54.7%	51.2%	55.7%	56.5%	61.3%	56.0%	65.7%	61.5%	63.0%	Common Equity Ratio	65.0%
4346.2	3987.9	4461.5	4315.5	5036.1	5542.2	5650.2	5651.8	6965.7	7263.6	9300	9700	Total Capital ($mill)	12500
4439.1	4793.1	5147.9	5475.6	6030.7	6725.9	7430.6	8280.5	9259.2	10371	11500	12600	Net Plant ($mill)	15800
5.9%	6.9%	6.1%	6.1%	5.9%	6.4%	6.6%	7.2%	6.4%	6.9%	6.5%	7.0%	Return on Total Cap'l	7.5%
8.3%	9.2%	8.8%	8.1%	8.9%	9.4%	9.9%	10.1%	9.8%	9.3%	9.0%	9.5%	Return on Shr. Equity	10.0%
8.3%	9.2%	8.8%	8.1%	8.9%	9.4%	9.9%	10.1%	9.8%	9.3%	9.0%	9.5%	Return on Com Equity	10.0%
2.7%	3.5%	3.3%	2.8%	4.0%	4.7%	4.9%	5.1%	4.9%	4.8%	4.5%	5.0%	Retained to Com Eq	5.0%
68%	62%	62%	65%	56%	50%	51%	50%	50%	48%	49%	49%	All Div'ds to Net Prof	48%

CAPITAL STRUCTURE as of 6/30/19
Total Debt $3729.0 mill. Due in 5 Yrs $1150.0 mill.
LT Debt $3529.1 mill. LT Interest $200.0 mill.
(LT interest earned: 6.7x; total interest coverage: 6.7x)
Leases, Uncapitalized Annual rentals $17.7 mill.
Pfd Stock None
Pension Assets-9/18 $531.7 mill.
Oblig. $504.7 mill.
Common Stock 118,200,689 shs.
as of 7/31/19
MARKET CAP: $13.0 billion (Large Cap)

CURRENT POSITION ($MILL.)	2017	2018	6/30/19
Cash Assets	26.4	13.8	46.2
Other	513.2	465.1	457.3
Current Assets	539.6	478.9	503.5
Accts Payable	233.0	217.3	206.5
Debt Due	447.7	1150.8	199.9
Other	332.7	547.0	495.0
Current Liab.	1013.4	1915.1	901.4
Fix. Chg. Cov.	805%	926%	915%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '16-'18 to '22-'24
Revenues	-9.0%	-8.0%	5.0%
"Cash Flow"	5.0%	6.5%	5.5%
Earnings	6.5%	10.0%	7.5%
Dividends	3.5%	5.5%	7.0%
Book Value	5.5%	7.0%	7.0%

Fiscal Year Ends	QUARTERLY REVENUES ($ mill.) A Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2016	906.2	1132.3	632.9	678.5	3349.9
2017	780.2	988.2	526.5	464.8	2759.7
2018	889.2	1219.4	562.2	444.7	3115.5
2019	877.8	1094.6	485.7	456.9	2915
2020	900	1150	600	470	3120

Fiscal Year Ends	EARNINGS PER SHARE A B E Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2016	1.00	1.38	.69	.33	3.38
2017	1.08	1.52	.67	.34	3.60
2018	1.40	1.57	.64	.41	4.00
2019	1.38	1.82	.68	.42	4.30
2020	1.48	1.80	.77	.50	4.55

Cal-endar	QUARTERLY DIVIDENDS PAID C■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	.39	.39	.39	.42	1.59
2016	.42	.42	.42	.45	1.71
2017	.45	.45	.45	.485	1.84
2018	.485	.485	.485	.525	1.98
2019	.525	.525	.525		

BUSINESS: Atmos Energy Corporation is engaged primarily in the distribution and sale of natural gas to over three million customers through six regulated natural gas utility operations: Louisiana Division, West Texas Division, Mid-Tex Division, Mississippi Division, Colorado-Kansas Division, and Kentucky/Mid-States Division. Gas sales breakdown for fiscal 2018: 66%, residential; 28%, commercial; 5%, industrial; and 1% other. The company sold Atmos Energy Marketing, 1/17. Officers and directors own approximately 1.4% of common stock (12/18 Proxy). President and Chief Executive Officer: Michael E. Haefner. Inc.: Texas. Address: Three Lincoln Centre, Suite 1800, 5430 LBJ Freeway, Dallas, Texas 75240. Telephone: 972-934-9227. Internet: www.atmosenergy.com.

Atmos Energy appears to be en route to a decent fiscal 2019, which ends September 30th. Through the first nine months, the bottom line increased 7.5%, to $3.88 a share, versus $3.61 generated the previous year. One driver was the natural gas distribution division, which received a boost from higher rates, mainly in the Mid-Tex and Mississippi segments, plus growth of the customer base (primarily within the Mid-Tex unit). Also, results of the pipeline & storage segment were supported partly by increased rates from the Gas Reliability Infrastructure Program filings approved during fiscal 2018 and 2019. Total operating expenses rose 5.3% for the period, although that's to be expected as the company expands. In spite of the unspectacular start, we think share net will advance close to 8%, to $4.30, for the year as a whole. Regarding fiscal 2020, 6% or so growth (to $4.55 a share), seems plausible, if operating margins widen further.

Michael Haefner intends to step down as CEO on September 30th. His reason is to deal with a certain health problem. The anticipated successor, Kevin Akers, has held various key positions since joining the company almost 30 years ago, including executive vice president (his current post) and president of both the Kentucky/Mid-States and Mississippi units. So, we think Atmos would be in very capable hands.

Finances are rock-solid. At the conclusion of the first nine months, cash on hand stood at $46.2 million. Moreover, long-term debt was a reasonable 38.5% of total capital, and short-term commitments did not seem to be a major hurdle. Too, $1.3 billion of common stock and/or debt securities remained available for issuance under a shelf registration statement. Lastly, the company can access a $1.5 billion commercial paper program and three revolving credit facilities aggregating $1.5 billion. All told, we believe it's capable of meeting working capital, capital expenditures, and other cash needs for some time. Acquisitions are also possible.

For now, these top-quality shares have unspectacular total return potential. This reflects recent stock-price strength and a dividend yield that's less than average for a natural gas utility.

Frederick L. Harris, III *August 30, 2019*

(A) Fiscal year ends Sept. 30th. (B) Diluted shrs. Excl. nonrec. items: '09, 12¢; '10, 5¢; '11, (1¢); '18, $1.43. Excludes discontinued operations: '11, 10¢; '12, 27¢; '13, 14¢; '17, 13¢.

Next egs. rpt. due early Nov.
(C) Dividends historically paid in early March, June, Sept., and Dec. ■ Div. reinvestment plan. Direct stock purchase plan avail.

(D) In millions.
(E) Qtrs may not add due to change in shrs outstanding.

Company's Financial Strength	A+
Stock's Price Stability	100
Price Growth Persistence	95
Earnings Predictability	100

CHESAPEAKE UTIL. NYSE-CPK

RECENT PRICE	P/E RATIO	RELATIVE P/E RATIO	DIV'D YLD	VALUE LINE
94.31	26.1 (Trailing: 25.8 Median: 17.0)	1.60	1.7%	

TIMELINESS 3 Lowered 6/28/19
SAFETY 2 New 6/5/15
TECHNICAL 2 Lowered 8/16/19
BETA .65 (1.00 = Market)

High:	23.2	23.3	28.1	29.7	32.6	40.8	52.7	61.1	70.0	86.4	93.4	96.3
Low:	14.6	14.7	18.7	24.0	26.6	30.6	37.5	44.4	52.3	63.0	66.4	77.8

2022-24 PROJECTIONS

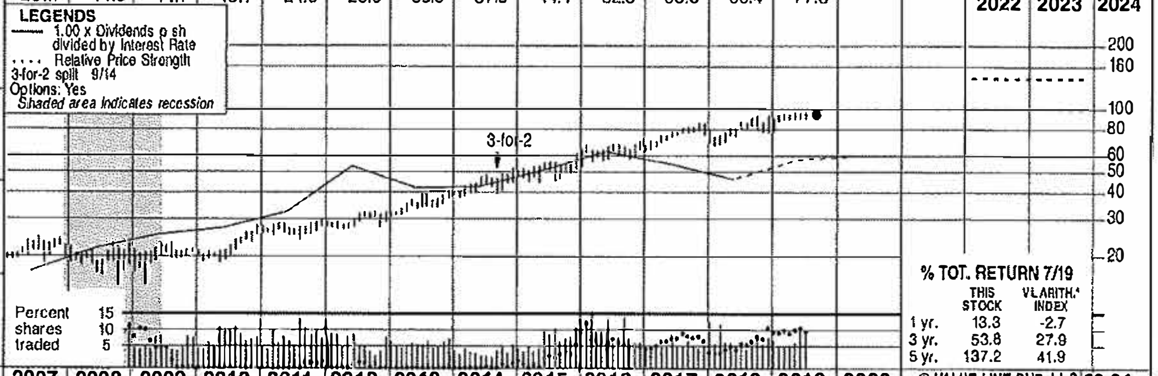
	Price	Gain	Ann'l Total Return
High	140	(+50%)	12%
Low	100	(+5%)	4%

Insider Decisions

	O	N	D	J	F	M	A	M	J
to Buy	0	0	1	0	0	0	0	0	0
Options	0	0	0	1	5	0	0	9	0
to Sell	0	1	0	0	0	0	0	0	0

Institutional Decisions

	3Q2018	4Q2018	1Q2019
to Buy	66	87	81
to Sell	87	84	92
Hld's(000)	10589	10581	10679



% TOT. RETURN 7/19

	THIS STOCK	VL ARITH.* INDEX
1 yr.	13.3	-2.7
3 yr.	53.8	27.9
5 yr.	137.2	41.9

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	© VALUE LINE PUB. LLC	22-24
19.11	20.70	26.02	23.05	25.41	28.46	19.07	29.93	29.13	27.26	30.73	34.19	30.07	30.60	37.79	43.81	40.60	42.85	Revenues per sh	63.75
2.42	2.26	2.35	2.18	2.52	2.50	2.15	3.50	3.69	3.95	4.35	4.73	5.05	5.16	5.42	6.47	6.75	7.25	"Cash Flow" per sh	9.00
1.17	1.09	1.18	1.15	1.29	1.39	1.43	1.82	1.91	1.99	2.26	2.47	2.68	2.86	2.68	3.45	3.50	3.75	Earnings per sh A	5.00
.73	.75	.76	.77	.78	.81	.83	.87	.91	.96	1.01	1.07	1.12	1.19	1.26	1.39	1.55	1.68	Div'ds Decl'd per sh B■	2.15
1.39	2.07	3.74	4.87	3.08	3.00	1.89	3.18	3.28	5.00	6.72	6.66	9.47	10.42	10.73	16.47	10.45	10.75	Cap'l Spending per sh	11.80
8.59	9.07	9.60	11.08	11.76	12.02	14.89	15.84	16.78	17.82	19.28	20.59	23.45	27.36	29.75	31.65	35.55	37.00	Book Value per sh	49.00
8.49	8.60	8.82	10.03	10.17	10.24	14.09	14.29	14.35	14.40	14.46	14.59	15.27	16.30	16.34	16.38	17.00	17.50	Common Shs Outst'g C	20.00
12.7	15.0	16.8	17.9	16.7	14.2	14.2	12.2	14.2	14.8	15.6	17.7	19.1	21.8	27.8	22.9	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	24.0
.72	.79	.89	.97	.89	.85	.95	.78	.89	.94	.88	.93	.96	1.14	1.40	1.24			Relative P/E Ratio	1.35
4.9%	4.6%	3.8%	3.8%	3.6%	4.1%	4.1%	3.9%	3.4%	3.3%	2.9%	2.4%	2.2%	1.9%	1.7%	1.8%			Avg Ann'l Div'd Yield	1.8%
						268.8	427.5	418.0	392.5	444.3	498.8	459.2	498.9	617.6	717.5	690	750	Revenues ($mill)	1275
						15.9	26.1	27.6	28.9	32.8	36.1	40.2	44.7	43.8	56.6	60.0	65.0	Net Profit ($mill)	100
						41.8%	39.7%	39.4%	40.1%	40.2%	39.9%	39.5%	38.8%	39.5%	27.1%	25.5%	26.0%	Income Tax Rate	27.0%
						5.9%	6.1%	6.6%	7.4%	7.4%	7.2%	8.8%	9.0%	7.1%	7.9%	8.7%	8.7%	Net Profit Margin	7.8%
						32.0%	28.4%	31.4%	28.4%	29.7%	34.5%	29.4%	23.5%	28.9%	37.9%	35.0%	38.0%	Long-Term Debt Ratio	30.0%
						68.0%	71.6%	68.6%	71.6%	70.3%	65.5%	70.6%	76.5%	71.1%	62.1%	65.0%	62.0%	Common Equity Ratio	70.0%
						308.6	315.9	351.1	358.5	396.4	458.8	507.5	583.0	683.7	834.5	930	1045	Total Capital ($mill)	1400
						436.4	462.8	487.7	541.8	631.2	689.8	855.0	986.7	1126.0	1384.0	1475	1640	Net Plant ($mill)	2000
						6.1%	9.1%	8.9%	8.8%	8.8%	8.5%	8.9%	8.6%	7.3%	7.8%	7.5%	7.5%	Return on Total Cap'l	8.0%
						7.6%	11.5%	11.5%	11.2%	11.8%	12.0%	11.2%	10.0%	9.0%	10.9%	10.0%	10.0%	Return on Shr. Equity	10.0%
						7.6%	11.5%	11.5%	11.2%	11.8%	12.0%	11.2%	10.0%	9.0%	10.9%	10.0%	10.0%	Return on Com Equity	10.0%
						3.8%	6.6%	6.6%	6.4%	7.1%	7.4%	6.8%	6.1%	4.9%	6.7%	5.5%	5.5%	Retained to Com Eq	6.0%
						50%	42%	42%	43%	40%	38%	40%	39%	45%	39%	44%	45%	All Div'ds to Net Prof	43%

CAPITAL STRUCTURE as of 6/30/19
Total Debt $652.7 mill. Due in 5 Yrs $410.0 mill.
LT Debt $275.9 mill. LT Interest $15.0 mill.
(LT interest earned: 5.7x; total interest coverage: 5.7x) (34% of Cap'l)
Leases, Uncapitalized Annual rentals$2.4 mill.
Pfd Stock None
Pension Assets-12/18 $52.3 mill.
Oblig. $70.1 mill.
Common Stock 16,403,776 shs.
as of 7/31/19

MARKET CAP: $1.5 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2017	2018	6/30/19
Cash Assets	5.6	6.1	7.3
Other	173.0	185.4	116.9
Current Assets	178.6	191.5	124.2
Accts Payable	74.7	129.8	50.6
Debt Due	260.4	306.4	376.8
Other	77.9	92.0	85.0
Current Liab.	413.0	528.2	512.4
Fix. Chg. Cov.	~~749%~~	636%	640%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '16-'18 to '22-'24
Revenues	4.0%	5.0%	9.5%
"Cash Flow"	9.0%	7.5%	8.0%
Earnings	9.0%	8.0%	9.0%
Dividends	5.0%	6.0%	9.0%
Book Value	10.0%	10.5%	9.0%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	146.3	102.3	108.3	142.0	498.9
2017	185.2	125.1	126.9	180.4	617.6
2018	239.4	136.7	140.3	201.1	717.5
2019	227.6	130.9	135	196.5	690
2020	242	145	153	210	750

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	1.33	.52	.29	.73	2.86
2017	1.17	.37	.42	.72	2.68
2018	1.64	.39	.34	1.08	3.45
2019	1.74	.50	.45	.81	3.50
2020	1.85	.55	.51	.84	3.75

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	.27	.27	.288	.288	1.12
2016	.288	.288	.305	.305	1.19
2017	.305	.305	.325	.325	1.26
2018	.325	.325	.37	.37	1.39
2019	.37	.37	.405		

BUSINESS: Chesapeake Utilities Corporation consists of two units: Regulated Energy and Unregulated Energy. The Regulated Energy segment (45% of 2018 revenues) distributes natural gas in Delaware, Maryland, and Florida; distributes electricity in Florida; and transmits natural gas on the Delmarva Peninsula and in Florida. The Unregulated Energy operation (55% of 2018 revenues) wholesales and distributes propane; markets natural gas; and provides other unregulated energy services, including midstream services in Ohio. Officers and directors own 4.2% of common stock; T. Rowe Price, 13.7%; BlackRock, 9.2% (4/19 Proxy). CEO: Jeffry M. Householder. Inc.: Delaware. Address: 909 Silver Lake Boulevard, Dover, DE 19904. Tel.: (302) 734-6799. Internet: www.chpk.com.

Chesapeake Utilities Corp. performed nicely, from an earnings standpoint, during the first half of 2019. Indeed, share net of $2.24 was around 10% higher than the prior-year total of $2.03. This was mainly because of the Regulated Energy segment, driven by such factors as the Eastern Shore and Peninsula Pipeline service expansions and organic growth within the natural gas distribution business. Another positive was a diminished effective income tax rate. But the Unregulated Energy division was held back, to a certain extent, by lower results at the PESCO unit. Chesapeake's interest charges climbed substantially during the period, too.

We anticipate an underwhelming showing for the full year, however. Although the company seems headed for a good third quarter, the 2018 December-period figure of $1.08 a share will be quite difficult to surpass. Thus, the bottom line may end up at around $3.50, not much higher than last year's $3.45-a-share tally. But regarding 2020, profits in the neighborhood of $3.75 (a 7% advance) appear possible, aided partly by incremental benefits from prior acquisitions. Generally favorable weather conditions would be another plus.

Our 2022-2024 projections show that steady dividend increases will occur. Furthermore, the equity's payout ratio over that span ought to be roughly 45%, which should not place a major financial burden on Chesapeake. It's important to mention, though, that the current dividend yield of 1.7% is nothing to write home about when measured against those of other stocks in *Value Line's* Natural Gas Utility Industry.

These shares are hovering not very far from their all-time high reached earlier this year. We believe this can be traced, to a large degree, to the company's solid earnings thus far in 2019. Note, also, the 2 (Above Average) Safety rank, lower-than-market Beta coefficient, and relatively high Price Stability score.

Nevertheless, the price movement has resulted in subpar long-term capital appreciation potential. Furthermore, CPK stock is only an Average (3) selection for Timeliness.

Frederick L. Harris, III *August 30, 2019*

(A) Diluted shrs. Excludes nonrecurring items: '08, d7¢; '15, 6¢; '17, 87¢. Excludes discontinued operations: '03, d9¢; '04, d1¢. Next earnings report due early Nov.

(B) Dividends historically paid in early January, April, July, and October. ■ Dividend reinvestment plan. Direct stock purchase plan available.

(C) In millions, adjusted for split.

Company's Financial Strength	A
Stock's Price Stability	75
Price Growth Persistence	90
Earnings Predictability	90

NEW JERSEY RES. NYSE-NJR

RECENT PRICE 44.81 | **P/E RATIO** 22.1 (Trailing: 33.2 Median: 16.0) | **RELATIVE P/E RATIO** 1.36 | **DIV'D YLD** 2.6% | **VALUE LINE**

TIMELINESS 3 Lowered 8/17/18
SAFETY 1 Raised 9/15/06
TECHNICAL 2 Lowered 8/23/19
BETA .70 (1.00 = Market)

2022-24 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	45	(Nil)	3%
Low	40	(-10%)	Nil

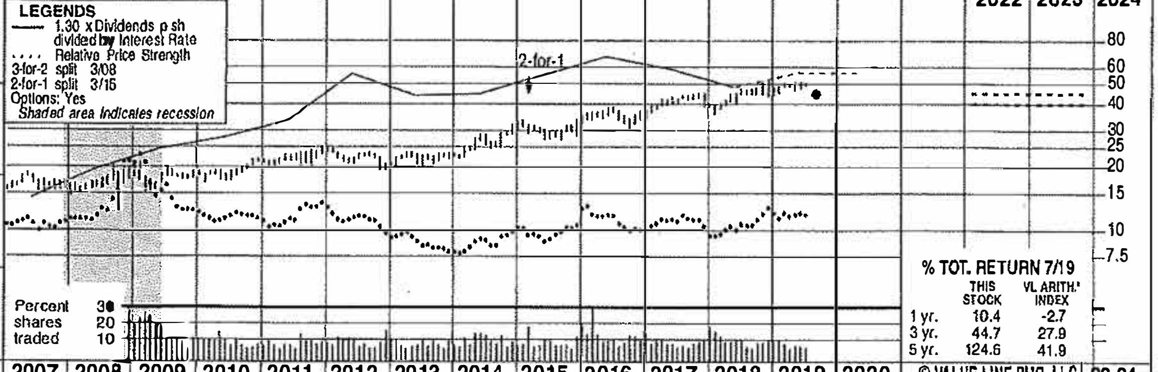
Insider Decisions

	O	N	D	J	F	M	A	M	J
to Buy	0	0	0	0	0	0	0	0	0
Options	3	5	7	4	0	1	1	1	1
to Sell	0	1	0	1	0	5	0	1	0

Institutional Decisions

	3Q2018	4Q2018	1Q2019
to Buy	121	130	125
to Sell	111	111	117
Hld's(000)	58525	59156	59010

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
High:	20.6	21.2	22.0	25.2	25.1	23.8	32.1	34.1	38.9	45.4	51.8	51.2
Low:	12.3	15.0	16.7	19.8	19.3	19.5	21.9	26.8	30.5	33.7	35.8	43.9



% TOT. RETURN 7/19

	THIS STOCK	VL ARITH.* INDEX
1 yr.	10.4	-2.7
3 yr.	44.7	27.9
5 yr.	124.6	41.9

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	© VALUE LINE PUB. LLC	22-24
31.14	30.44	38.10	39.81	36.31	45.37	31.17	32.05	36.30	27.08	38.36	44.40	32.09	21.90	26.28	33.24	*30.70*	*32.85*	Revenues per sh A	*35.60*
1.19	1.25	1.31	1.37	1.22	1.81	1.58	1.63	1.70	1.86	1.93	2.73	2.52	2.46	2.68	3.74	*2.95*	*3.25*	"Cash Flow" per sh	*3.70*
.79	.85	.86	.93	.78	1.35	1.20	1.23	1.29	1.36	1.37	2.08	1.78	1.61	1.73	2.74	*1.90*	*2.15*	Earnings per sh B	*2.50*
.41	.43	.45	.48	.51	.56	.62	.68	.72	.77	.81	.86	.93	.98	1.04	1.11	*1.17*	*1.21*	Div'ds Decl'd per sh C ■	*1.33*
.57	.72	.64	.64	.73	.86	.90	1.05	1.13	1.26	1.33	1.52	3.76	4.15	3.80	4.39	*2.20*	*2.25*	Cap'l Spending per sh	*2.30*
5.13	5.62	5.30	7.50	7.75	8.64	8.29	8.81	9.36	9.80	10.65	11.48	12.99	13.58	14.33	16.18	*17.05*	*18.30*	Book Value per sh D	*21.85*
81.70	83.22	82.64	82.88	83.22	84.12	83.17	82.35	82.89	83.05	83.32	84.20	85.19	85.88	86.32	87.69	*88.00*	*88.25*	Common Shs Outst'g E	*89.00*
14.0	15.3	16.8	16.1	21.6	12.3	14.9	15.0	16.8	16.8	16.0	11.7	16.6	21.3	22.4	15.5	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*17.0*
.80	.81	.89	.87	1.15	.74	.99	.95	1.05	1.07	.90	.62	.84	1.12	1.13	.85			Relative P/E Ratio	*.95*
3.7%	3.3%	3.1%	3.2%	3.0%	3.3%	3.5%	3.7%	3.3%	3.4%	3.7%	3.5%	3.1%	2.9%	2.7%	2.7%			Avg Ann'l Div'd Yield	*2.5%*
						2592.5	2639.3	3009.2	2248.9	3198.1	3738.1	2734.0	1880.9	2268.8	2915.1	*2700*	*2900*	Revenues ($mill) A	*3170*
						101.0	101.8	106.5	112.4	113.7	176.9	153.7	138.1	149.4	240.5	*170*	*190*	Net Profit ($mill)	*220*
						27.1%	41.4%	30.2%	7.1%	25.4%	30.2%	26.3%	15.5%	17.2%	NMF	*15.0%*	*15.0%*	Income Tax Rate	*15.0%*
						3.9%	3.9%	3.5%	5.0%	3.6%	4.7%	5.6%	7.3%	6.6%	8.3%	*6.2%*	*6.6%*	Net Profit Margin	*7.0%*
						39.8%	37.2%	35.5%	39.2%	36.6%	38.2%	43.2%	47.7%	44.6%	45.4%	*44.5%*	*43.0%*	Long-Term Debt Ratio	*40.0%*
						60.2%	62.8%	64.5%	60.8%	63.4%	61.8%	56.8%	52.3%	55.4%	54.6%	*55.5%*	*57.0%*	Common Equity Ratio	*60.0%*
						1144.8	1154.4	1203.1	1339.0	1400.3	1564.4	1950.6	2230.1	2233.7	2599.6	*2700*	*2835*	Total Capital ($mill)	*3240*
						1084.4	1135.7	1295.9	1484.9	1643.1	1684.1	2128.3	2407.7	2609.7	2651.1	*2705*	*2760*	Net Plant ($mill)	*2925*
						9.7%	9.7%	9.7%	9.2%	9.0%	12.1%	8.6%	6.9%	7.7%	10.2%	*7.5%*	*8.0%*	Return on Total Cap'l	*8.0%*
						14.6%	14.0%	13.7%	13.8%	12.8%	18.3%	13.9%	11.8%	12.1%	17.1%	*11.0%*	*12.0%*	Return on Shr. Equity	*11.5%*
						14.6%	14.0%	13.7%	13.8%	12.8%	18.3%	13.9%	11.8%	12.1%	17.1%	*11.0%*	*12.0%*	Return on Com Equity	*11.5%*
						7.2%	6.7%	6.2%	6.2%	5.2%	11.0%	7.0%	4.8%	5.0%	10.3%	*4.5%*	*5.0%*	Retained to Com Eq	*5.0%*
						50%	52%	55%	55%	59%	40%	50%	60%	59%	40%	*61%*	*56%*	All Div'ds to Net Prof	*53%*

CAPITAL STRUCTURE as of 6/30/19
Total Debt $1435.7 mill. Due in 5 Yrs $370.4 mill.
LT Debt $1211.8 mill. LT Interest $46.3 mill.
Incl. $35.9 mill. capitalized leases.
(LT interest earned: 5.0x; total interest coverage: 5.0x)
Pension Assets-9/18 $357.4 mill. Oblig. $495.4 mill.
Pfd Stock None
Common Stock 89,980,410 shs. as of 8/2/19
MARKET CAP: $4.0 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2017	2018	6/30/19
Cash Assets	2.2	1.5	26.3
Other	577.2	768.6	483.6
Current Assets	579.4	770.1	509.9
Accts Payable	280.6	373.5	243.3
Debt Due	431.4	275.5	223.9
Other	90.9	101.9	114.8
Current Liab.	802.9	750.9	582.0
Fix. Chg. Cov.	543%	545%	550%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '16-'18 to '22-'24
Revenues	-3.5%	-3.5%	*4.5%*
"Cash Flow"	7.0%	8.0%	*4.0%*
Earnings	7.0%	5.5%	*3.5%*
Dividends	7.5%	6.5%	*4.0%*
Book Value	7.0%	8.0%	*6.5%*

Fiscal Year Ends	QUARTERLY REVENUES ($ mill.) A Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2016	444.3	574.2	393.2	469.2	1880.9
2017	541.1	733.5	457.5	536.5	2268.6
2018	705.3	1019.0	543.4	647.3	2915.1
2019	811.8	866.3	434.9	*587.0*	*2700*
2020	*860*	*910*	*485*	*645*	*2900*

Fiscal Year Ends	EARNINGS PER SHARE A B Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2016	.58	.91	.13	d.02	1.61
2017	.47	1.21	.20	d.14	1.73
2018	1.56	1.62	d.09	d.33	2.74
2019	.61	1.27	d.20	*.22*	*1.90*
2020	*.68*	*1.33*	*d.14*	*.28*	*2.15*

Cal-endar	QUARTERLY DIVIDENDS PAID C ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	.23	.23	.23	.24	.93
2016	.24	.24	.24	.255	.98
2017	.255	.255	.255	.273	1.04
2018	.273	.273	.273	.2925	1.11
2019	.2925	.2925	.2925		

BUSINESS: New Jersey Resources Corp. is a holding company providing retail/wholesale energy svcs. to customers in NJ, and in states from the Gulf Coast to New England, and Canada. New Jersey Natural Gas had 538,700 cust. at 9/30/18. Fiscal 2018 volume: 266 bill. cu. ft. (17% interruptible, 17% res., 9% commercial & elec. utility, 40% capacity release programs). N.J. Natural Energy subsidiary provides unregulated retail/wholesale natural gas and related energy svcs. 2018 dep. rate: 2.7%. Has 1,068 empls. Off./dir. own 1.3% of common; BlackRock, 13.2%; Vanguard, 9.7% (12/18 Proxy). Chairman, CEO & President: Laurence M. Downes. Incorporated: New Jersey. Address: 1415 Wyckoff Road, Wall, NJ 07719. Telephone: 732-938-1480. Web: www.njresources.com.

Since our May review, shares of New Jersey Resources have started to decline. In fact, over that time frame, the equity's price has receded about 8.5%. In comparison, the S&P 500 Index climbed roughly 2% over this same period.

Meanwhile, the company posted lower-than-expected June-quarter financial results. NJR's revenues fell 19.9% on a year-to-year basis, to $434.9 million. This reflected a 28.4% downturn in nonutility volumes partially offset by a 15.5% rise in utility revenues. This is evident in a 16.9% drop in system throughput, to 174.1 bcf during the quarter. On the margin front, operating costs declined 600 basis points, as a percentage of the top line, largely due to reduced nonutility gas purchases and decreased operation & maintenance expenses. Those line items fell 31% and 8.7% versus the year-ago period, respectively. On balance, the fiscal third-quarter bottom-line loss more than doubled to a deficit of $0.20 a share.

Thus, we have reduced our fiscal 2019 (ends September 30th) top- and bottom-line outlooks accordingly. At this point, NJR appears poised to register a roughly 7.5% downturn in revenues, to $2.7 billion, due to sharply lower volumes from the nonutility operations. Alternatively, the New Jersey Natural Gas (NJNG) segment continues to add new customer accounts. That regulated business has added 6,800 active meters in the first nine months of this year. Still, despite cost-cutting efforts, the diminished volumes and rising share count will probably equate to a more-than-30%-earnings-per-share downturn, to $1.90 for the year. This falls slightly below management's guidance range of $1.95-$2.05 a share.

We do look for things to turn around in fiscal 2020. Despite the uneven performance from the nonutility business, NJR continues to grow through its capital expansion program. Meanwhile, the NJNG segment is on pace to add 28,000-30,000 new customer accounts from fiscal 2019 through fiscal 2021. What's more, the company recently filed for a $128.2 million base-rate increase with the New Jersey Board of Public Utilities.

All told, these neutrally ranked shares appear richly valued at this juncture.

Bryan J. Fong *August 30, 2019*

(A) Fiscal year ends Sept. 30th.
(B) Diluted earnings. Qtly egs may not sum to total due to change in shares outstanding. Next earnings report due early Nov.
(C) Dividends historically paid in early Jan., April, July, and October. ■ Dividend reinvestment plan available.
(D) Includes regulatory assets in 2018: $368.6 million, $4.20/share.
(E) In millions, adjusted for splits.

Company's Financial Strength	A+
Stock's Price Stability	85
Price Growth Persistence	75
Earnings Predictability	45

N.W. NATURAL NYSE-NWN

RECENT PRICE	P/E RATIO		RELATIVE P/E RATIO	DIV'D YLD	
71.40	29.1	(Trailing: 29.1 Median: 21.0)	1.79	2.7%	VALUE LINE

TIMELINESS	3	Raised 11/9/18
SAFETY	1	Raised 3/18/05
TECHNICAL	3	Lowered 7/26/19

BETA .80 (1.00 = Market)

2022-24 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	85	(+20%)	7%
Low	70	(Nil)	2%

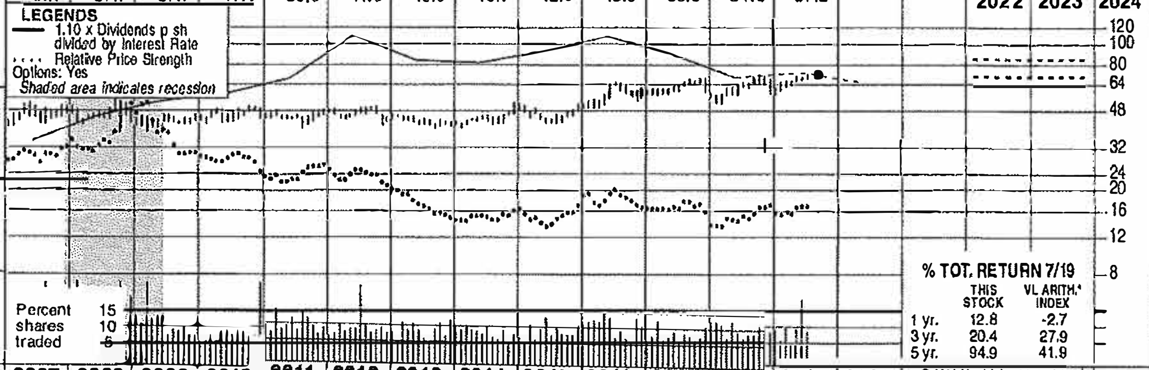
Insider Decisions

	O	N	D	J	F	M	A	M	J
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	1	0	13	3	0	0	0
to Sell	0	0	1	0	0	4	1	0	0

Institutional Decisions

	3Q2018	4Q2018	1Q2019
to Buy	78	98	112
to Sell	95	95	78
Hld's(000)	19034	19492	19999

High:	55.2	46.5	50.9	49.0	50.8	46.6	52.6	52.3	66.2	69.5	71.8	73.5
Low:	37.7	37.7	41.1	39.6	41.0	40.0	40.1	42.0	48.9	56.5	51.5	57.2



% TOT. RETURN 7/19

	THIS STOCK	VL ARITH.* INDEX
1 yr.	12.8	-2.7
3 yr.	20.4	27.9
5 yr.	94.9	41.9

CAPITAL STRUCTURE as of 6/30/19
Total Debt $930.6 mill. Due in 5 Yrs $360.0 mill.
LT Debt $806.1 mill. LT Interest $40.0 mill.

(Total interest coverage: 3.7x)

Pension Assets-12/18 $257.8 mill.
Oblig. $455.6 mill.

Pfd Stock None

Common Stock 30,442,700 shares
as of 7/26/19

MARKET CAP $2.2 billion (Mid Cap)

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	© VALUE LINE PUB. LLC	22-24
23.57	25.69	33.01	37.20	39.13	39.16	38.17	30.56	31.72	27.14	28.02	27.64	26.39	23.61	26.52	24.45	*27.20*	*28.05*	Revenues per sh	*28.45*
3.85	3.92	4.34	4.76	5.41	5.31	5.20	5.18	5.00	4.94	5.04	5.05	4.91	4.93	1.04	5.28	*5.10*	*5.45*	"Cash Flow" per sh	*6.35*
1.76	1.86	2.11	2.35	2.76	2.57	2.83	2.73	2.39	2.22	2.24	2.16	1.96	2.12	d1.94	2.33	*2.40*	*2.60*	Earnings per sh A	*3.50*
1.27	1.30	1.32	1.39	1.44	1.52	1.60	1.68	1.75	1.79	1.83	1.85	1.86	1.87	1.88	1.89	*1.93*	*1.97*	Div'ds Decl'd per sh B*	*2.20*
4.90	5.52	3.48	3.56	4.48	3.92	5.09	9.35	3.76	4.91	5.13	4.40	4.37	4.87	7.43	7.43	*6.55*	*6.65*	Cap'l Spending per sh	*6.25*
19.52	20.64	21.28	22.01	22.52	23.71	24.88	26.08	26.70	27.23	27.77	28.12	28.47	29.71	25.85	26.41	*26.55*	*26.85*	Book Value per sh D	*29.40*
25.94	27.55	27.58	27.24	26.41	26.50	26.53	26.58	26.76	26.92	27.08	27.28	27.43	28.63	28.74	28.88	*30.50*	*31.00*	Common Shs Outst'g C	*32.00*
15.8	16.7	17.0	15.9	16.7	18.1	15.2	17.0	19.0	21.1	19.4	20.7	23.7	26.9	26.9	26.6	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*22.0*
.90	.88	.91	.86	.89	1.09	1.01	1.08	1.19	1.34	1.09	1.09	1.19	1.41	1.41	1.44			Relative P/E Ratio	*1.20*
4.6%	4.2%	3.7%	3.7%	3.1%	3.3%	3.7%	3.6%	3.9%	3.8%	4.2%	4.1%	4.0%	3.3%	3.0%	3.0%			Avg Ann'l Div'd Yield	*2.9%*
						1012.7	812.1	848.8	730.6	758.5	754.0	723.8	676.0	762.2	706.1	*830*	*870*	Revenues ($mill)	*910*
						75.1	72.7	63.9	59.9	60.5	58.7	53.7	58.9	d55.6	67.3	*85.0*	*85.0*	Net Profit ($mill)	*90.0*
						38.3%	40.5%	40.4%	42.4%	40.8%	41.5%	40.0%	40.9%	40.9%	26.4%	*21.0%*	*21.0%*	Income Tax Rate	*21.0%*
						7.4%	8.9%	7.5%	8.2%	8.0%	7.8%	7.4%	8.7%	NMF	9.5%	*8.8%*	*9.3%*	Net Profit Margin	*12.3%*
						47.7%	46.1%	47.3%	48.5%	47.6%	44.8%	42.5%	44.4%	47.9%	48.1%	*47.0%*	*47.0%*	Long-Term Debt Ratio	*46.5%*
						52.3%	53.9%	52.7%	51.5%	52.4%	55.2%	57.5%	55.6%	52.1%	51.9%	*53.0%*	*53.0%*	Common Equity Ratio	*53.5%*
						1261.8	1284.8	1356.2	1424.7	1433.6	1389.0	1357.7	1529.8	1426.0	1468.9	*1530*	*1615*	Total Capital ($mill)	*1750*
						1670.1	1854.2	1893.9	1973.6	2062.9	2121.6	2182.7	2260.9	2255.0	2421.4	*2510*	*2640*	Net Plant ($mill)	*2745*
						7.3%	7.0%	6.2%	5.7%	5.8%	5.8%	5.5%	5.1%	NMF	5.8%	*6.0%*	*6.0%*	Return on Total Cap'l	*7.5%*
						11.4%	10.5%	8.9%	8.2%	8.1%	7.6%	6.9%	6.9%	NMF	8.8%	*9.0%*	*9.0%*	Return on Shr. Equity	*12.0%*
						11.4%	10.5%	8.9%	8.2%	8.1%	7.6%	6.9%	6.9%	NMF	8.8%	*9.0%*	*9.0%*	Return on Com Equity	*12.0%*
						5.0%	4.0%	2.4%	1.6%	1.5%	1.1%	.6%	.9%	NMF	2.1%	*2.0%*	*2.0%*	Retained to Com Eq	*4.5%*
						56%	61%	73%	80%	81%	85%	92%	87%	NMF	76%	*80%*	*76%*	All Div'ds to Net Prof	*63%*

CURRENT POSITION ($MILL.)	2017	2018	6/30/19
Cash Assets	3.5	12.6	60.9
Other	266.4	283.3	178.2
Current Assets	269.9	295.9	239.1
Accts Payable	112.3	115.9	76.4
Debt Due	150.9	247.6	124.5
Other	118.7	145.6	106.1
Current Liab.	381.9	509.1	307.0
Fix. Chg. Cov.	362%	357%	369%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '16-'18 to '22-'24
Revenues	-4.5%	-3.0%	*2.5%*
"Cash Flow"	-3.0%	-5.5%	*9.0%*
Earnings	-10.5%	-18.0%	*27.0%*
Dividends	2.5%	1.0%	*2.5%*
Book Value	2.0%	--	*1.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2016	255.6	99.2	87.7	233.5	676.0
2017	297.3	136.3	88.2	240.4	762.2
2018	264.7	124.6	91.2	226.7	706.1
2019	285.3	123.4	*125*	*296.3*	*830*
2020	*300*	*140*	*130*	*300*	*870*

Cal-endar	EARNINGS PER SHARE A				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2016	1.33	.07	d.29	1.01	2.12
2017	1.40	.10	d.30	d3.14	d1.94
2018	1.46	d.01	d.39	1.27	2.33
2019	1.50	.07	*d.45*	*1.28*	*2.40*
2020	*1.55*	*.10*	*d.35*	*1.30*	*2.60*

Cal-endar	QUARTERLY DIVIDENDS PAID B *				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2015	.465	.465	.465	.4675	1.86
2016	.4675	.4675	.4675	.470	1.87
2017	.470	.470	.470	.4725	1.88
2018	.4725	.4725	.4725	.475	1.89
2019	.475	.475	.475		

BUSINESS: Northwest Natural Holding Co. distributes natural gas to 1000 communities, 750,000 customers, in Oregon (89% of customers) and in southwest Washington state. Principal cities served: Portland and Eugene, OR; Vancouver, WA. Service area population: 3.7 mill. (77% in OR). Company buys gas supply from Canadian and U.S. producers; has transportation rights on Northwest Pipeline system. Owns local underground storage. Rev. breakdown: residential, 37%; commercial, 22%; industrial, gas transportation, 41%. Employs 1,167. BlackRock Inc. owns 15.0% of shares; officers and directors, 1.1% (4/19 proxy). CEO: David H. Anderson. Inc.: Oregon. Address: 220 NW 2nd Ave., Portland, OR 97209. Tel.: 503-226-4211. Internet: www.nwnatural.com.

Northwest Natural Holdings showed some improvement in its second-quarter results. Earnings per share rose to $0.07, helped by lower environmental expenses and higher allowable base rates in Oregon. The company added around 12,400 new customers in the past year, which also helped boost usage, and the Mist storage facility came into service and added to performance. Moreover, losses related to the company's stake in Gill Ranch were recorded as discontinued operations, owing to its pending sale. The second half of 2019 will likely be a bit weak, as the company returns some of the tax reform benefits to customers. Too, a rate case outcome will reduce interstate storage income. Meantime, both common stock and long-term debt were issued, driving interest expense higher and diluting share net. Still, a decent outcome on its Washington rate case, which covers around 11% of all customers, will probably offset this in the coming months. Overall, we think earnings will reach $2.40 per share this year.

The move into water utilities has helped operations considerably. The step into the space has helped diversify its business lines, while reducing seasonality a bit. Additionally, Northwest Natural recently acquired Falls Water Company, a municipal wastewater utility in Idaho Falls. This purchase will make up a smaller portion of the business, but allow for further growth in the years ahead. All told, we think earnings will reach $2.60 per share in 2020.

The Mist storage facility ought to help earnings expand in the coming years. This area was placed into service in May and will provide no-notice natural gas to Portland General Electric. Too, it will boost net income growth, especially when electricity demand is at its highest during weather extremes.

Dividend growth is steady. Though the yield is lower than at other utilities, the payout is safe and may start to expand at an improved rate in the coming years, aided by profits from the Mist facility.

Northwest Natural stock is neutrally ranked for Timeliness. Too, it is trading within our 3- to 5-year Target Price Range. Most accounts would be best served waiting for a dip in price.

John E. Seibert III *August 30, 2019*

(A) Diluted earnings per share. Excludes non-recurring items: '06, ($0.06); '08, ($0.03); '09, 6¢; May not sum due to rounding. Next earnings report due in early November.

(B) Dividends historically paid in mid-February, May, August, and November.
* Dividend reinvestment plan available.
(C) In millions.

(D) Includes intangibles. In 2018: $371.8 million, $12.87/share.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	30
Earnings Predictability	5

ONE GAS, INC. NYSE-OGS

RECENT PRICE	90.60	P/E RATIO	25.8 (Trailing: 26.9 Median: NMF)	RELATIVE P/E RATIO	1.58	DIV'D YLD	2.3%	VALUE LINE

TIMELINESS 3 Lowered 8/9/19
SAFETY 2 New 6/2/17
TECHNICAL 2 Raised 6/14/19
BETA .65 (1.00 = Market)

2022-24 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	135	(+50%)	12%
Low	100	(+10%)	5%

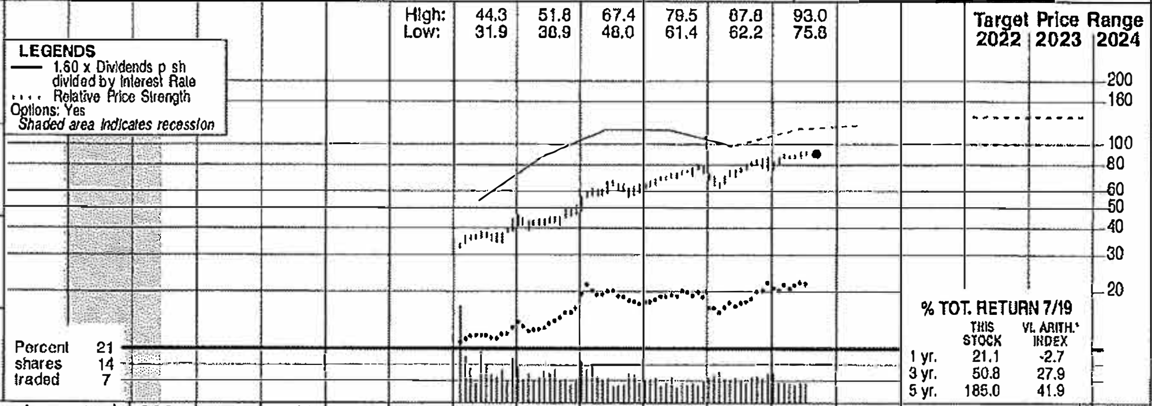
Insider Decisions

	O	N	D	J	F	M	A	M	J
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	4	0	0	5	0
to Sell	0	0	0	0	0	1	0	0	0

Institutional Decisions

	3Q2018	4Q2018	1Q2019
to Buy	129	137	152
to Sell	134	138	124
Hld's(000)	39573	39774	40068

	2014	2015	2016	2017	2018	2019
High:	44.3	51.8	67.4	79.5	87.8	93.0
Low:	31.9	38.9	48.0	61.4	62.2	75.8



% TOT. RETURN 7/19

	THIS STOCK	VL ARITH.* INDEX
1 yr.	21.1	-2.7
3 yr.	50.8	27.9
5 yr.	185.0	41.9

The shares of ONE Gas, Inc. began trading "regular-way" on the New York Stock Exchange on February 3, 2014. That happened as a result of the separation of ONEOK's natural gas distribution operation. Regarding the details of the spinoff, on January 31, 2014, ONEOK distributed one share of OGS common stock for every four shares of ONEOK common stock held by ONEOK shareholders of record as of the close of business on January 21. It should be mentioned that ONEOK did not retain any ownership interest in the new company.

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	© VALUE LINE PUB. LLC	22-24
--	--	--	--	--	34.92	29.62	27.30	29.43	31.08	*31.40*	*32.70*	Revenues per sh	*40.00*
--	--	--	--	--	4.52	4.82	5.43	5.96	6.32	*6.90*	*7.25*	"Cash Flow" per sh	*9.00*
--	--	--	--	--	2.07	2.24	2.65	3.02	3.25	*3.45*	*3.65*	Earnings per sh A	*4.75*
--	--	--	--	--	.84	1.20	1.40	1.68	1.84	*2.00*	*2.16*	Div'ds Decl'd per sh B ▪	*2.65*
--	--	--	--	--	5.70	5.63	5.91	6.81	7.50	*8.50*	*8.70*	Cap'l Spending per sh	*8.90*
--	--	--	--	--	34.45	35.24	36.12	37.47	38.86	*41.05*	*42.75*	Book Value per sh	*47.90*
--	--	--	--	--	52.08	52.26	52.28	52.31	52.57	*53.00*	*53.50*	Common Shs Outst'g C	*55.00*
--	--	--	--	--	17.8	19.8	22.7	23.5	23.1	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*25.0*
--	--	--	--	--	.94	1.00	1.19	1.18	1.25			Relative P/E Ratio	*1.40*
--	--	--	--	--	2.3%	2.7%	2.3%	2.4%	2.5%			Avg Ann'l Div'd Yield	*2.3%*
--	--	--	--	--	1818.9	1547.7	1427.2	1539.6	1633.7	*1665*	*1750*	Revenues ($mill)	*2200*
--	--	--	--	--	109.8	119.0	140.1	159.9	172.2	*185*	*195*	Net Profit ($mill)	*260*
--	--	--	--	--	38.4%	38.0%	37.8%	36.4%	23.7%	*21.5%*	*22.0%*	Income Tax Rate	*23.5%*
--	--	--	--	--	6.0%	7.7%	9.8%	10.4%	10.5%	*11.1%*	*11.1%*	Net Profit Margin	*11.8%*
--	--	--	--	--	40.1%	39.5%	38.7%	37.8%	38.6%	*38.0%*	*38.0%*	Long-Term Debt Ratio	*38.0%*
--	--	--	--	--	59.9%	60.5%	61.3%	62.2%	61.4%	*62.0%*	*62.0%*	Common Equity Ratio	*62.0%*
--	--	--	--	--	2995.3	3042.9	3080.7	3153.5	3328.1	*3510*	*3690*	Total Capital ($mill)	*4250*
--	--	--	--	--	3293.7	3511.9	3731.6	4007.6	4283.7	*4500*	*4700*	Net Plant ($mill)	*5400*
--	--	--	--	--	4.4%	4.7%	5.2%	5.8%	6.0%	*6.5%*	*6.5%*	Return on Total Cap'l	*7.5%*
--	--	--	--	--	6.1%	6.5%	7.4%	8.2%	8.4%	*8.5%*	*8.5%*	Return on Shr. Equity	*10.0%*
--	--	--	--	--	6.1%	6.5%	7.4%	8.2%	8.4%	*8.5%*	*8.5%*	Return on Com Equity	*10.0%*
--	--	--	--	--	3.7%	3.1%	3.5%	3.7%	3.7%	*3.5%*	*3.5%*	Retained to Com Eq	*4.5%*
--	--	--	--	--	40%	53%	52%	55%	56%	*57%*	*59%*	All Div'ds to Net Prof	*56%*

CAPITAL STRUCTURE as of 6/30/19
Total Debt $1578.8 mill. Due in 5 Yrs $300.0 mill.
LT Debt $1285.8 mill. LT Interest $75.0 mill.
(LT interest earned: 5.4x; total interest coverage: 5.4x)
Leases, Uncapitalized Annual rentals $6.3 mill.
Pfd Stock None
Pension Assets-12/18 $814.1 mill.
Oblig. $950.5 mill.
Common Stock 52,734,526 shs.
as of 7/22/19
MARKET CAP: $4.8 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2017	2018	6/30/19
Cash Assets	14.4	21.3	11.1
Other	574.6	522.0	365.7
Current Assets	589.0	543.3	376.8
Accts Payable	143.7	174.5	67.6
Debt Due	357.2	299.5	293.0
Other	172.4	224.9	217.8
Current Liab.	673.3	698.9	578.4
Fix. Chg. Cov.	774%	677%	700%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '16-'18 to '22-'24
Revenues	--	--	5.5%
"Cash Flow"	--	--	7.5%
Earnings	--	--	8.0%
Dividends	--	--	8.5%
Book Value	--	--	4.5%

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	508.4	245.9	232.2	440.7	1427.2
2017	550.4	279.7	247.1	462.4	1539.6
2018	638.5	292.5	238.3	464.4	1633.7
2019	661.0	290.6	*245*	*468.4*	*1665*
2020	*700*	*320*	*255*	*475*	*1750*

Calendar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	1.22	.38	.25	.80	2.65
2017	1.34	.39	.36	.93	3.02
2018	1.72	.39	.31	.84	3.25
2019	1.76	.46	*.35*	*.88*	*3.45*
2020	*1.82*	*.51*	*.40*	*.92*	*3.65*

Calendar	QUARTERLY DIVIDENDS PAID B ▪ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	.30	.30	.30	.30	1.20
2016	.35	.35	.35	.35	1.40
2017	.42	.42	.42	.42	1.68
2018	.46	.46	.46	.46	1.84
2019	.50	.50	.50		

BUSINESS: ONE Gas, Inc. provides natural gas distribution services to over two million customers. It has three divisions: Oklahoma Natural Gas, Kansas Gas Service, and Texas Gas Service. The company purchased 180 Bcf of natural gas supply in 2018, compared to 137 Bcf in 2017. Total volumes delivered by customer (fiscal 2018): transportation, 56%; residential, 33%; commercial & industrial, 10%; wholesale & public authority, 1%. BlackRock owns approximately 11.9% of common stock; The Vanguard Group, 9.9%; T. Rowe Price Associates, 8.5%; officers and directors, less than 1% (4/19 Proxy). CEO: Pierce H. Norton II. Incorporated: Oklahoma. Address: 15 East Fifth Street, Tulsa, Oklahoma 74103. Telephone: 918-947-7000. Internet: www.onegas.com.

ONE Gas had a decent first half of 2019. In fact, earnings per share advanced 5.2%, to $2.22, relative to the previous year's tally of $2.11. That was made possible partially by new rates in Kansas and Texas. Another positive was a lower income tax rate. Increased volumes in Texas and customer growth in Oklahoma and Texas helped the company's results, as well. However, one detractor was a 28% jump in interest expense. Total operating expenses climbed 4.5% during the period, but this reflects necessary capital investments.

Right now, it seems that profits will grow around 6%, to $3.45 a share, for the entire year. That's compared to the 2018 figure of $3.25. Looking at next year, we expect ONE Gas' bottom line to rise at a similar percentage rate, to $3.65 a share, assuming additional expansion of operating margins.

***Value Line* is constructive about the company's prospects over the 2022-2024 period.** It is now the leading natural gas distributor (as measured by customer count) in both Oklahoma and Kansas, and holds the number-three position in Texas. What's more, these markets appear to have decent growth possibilities and are located in one of the most active drilling regions in the United States. Also, with solid finances, ONE Gas ought to be able to meet its working capital requirements, capital expenditures, and other commitments for quite a while.

There are risks to consider, nonetheless. Among them is the fact that businesses are concentrated in only three states, and it looks like leadership desires to keep things as they are. This lack of geographic diversification leaves the company somewhat more vulnerable to regional economic downturns and regulations. Furthermore, ONE Gas faces competition from other energy suppliers, including electric companies and propane dealers. Also, pipeline ruptures, leaks, and other unfortunate events can take a huge bite out of earnings if not sufficiently covered by insurance.

The stock's total return potential is decent versus other natural gas utilities we track. Meanwhile, the Timeliness rank resides at 3 (Average).

Frederick L. Harris, III *August 30, 2019*

(A) Diluted EPS. Excludes nonrecurring gain: 2017, $0.06. Next earnings report due early Nov. Quarterly EPS for 2018 don't add up due to rounding.

(B) Dividends historically paid in early March, June, Sept., and Dec. ▪ Dividend reinvestment plan. Direct stock purchase plan.

(C) In millions.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	90
Earnings Predictability	95

SOUTH JERSEY INDS. NYSE-SJI

RECENT PRICE	P/E RATIO		RELATIVE P/E RATIO	DIV'D YLD	
31.50	26.0	(Trailing: 29.2 Median: 18.0)	1.60	3.9%	VALUE LINE

TIMELINESS 3 Lowered 7/20/18
SAFETY 2 Lowered 1/4/91
TECHNICAL 2 Lowered 8/30/19
BETA .80 (1.00 = Market)

High:	20.3	20.4	27.1	29.0	29.0	31.1	30.6	30.4	34.8	38.4	36.7	34.5
Low:	12.6	16.0	18.6	21.4	22.9	25.3	25.9	21.2	22.1	30.8	26.0	26.6

2022-24 PROJECTIONS

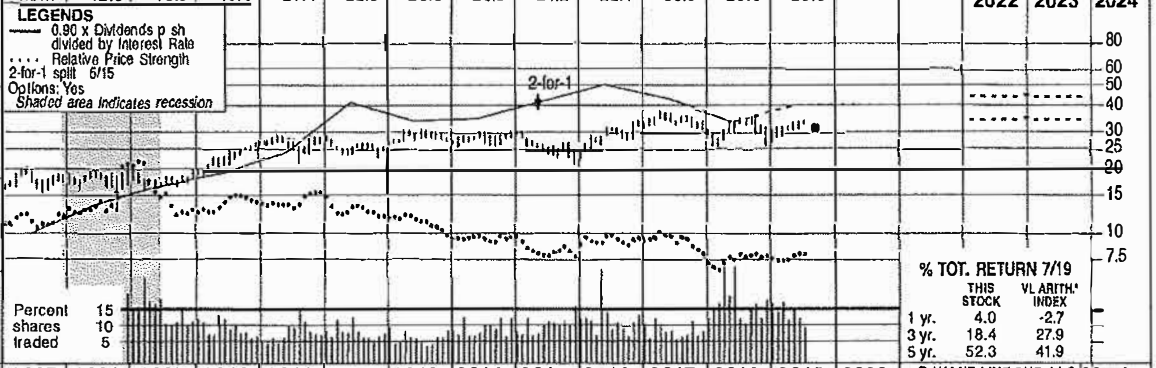
	Price	Gain	Ann'l Total Return
High	45	(+45%)	12%
Low	35	(+10%)	6%

Insider Decisions

	O	N	D	J	F	M	A	M	J
to Buy	0	1	2	0	0	0	0	0	0
Options	0	0	0	16	0	8	0	0	4
to Sell	0	0	0	0	0	0	0	0	0

Institutional Decisions

	3Q2018	4Q2018	1Q2019
to Buy	99	125	137
to Sell	124	104	86
Hld's(000)	71247	72623	76619



% TOT. RETURN 7/19

	THIS STOCK	VL ARITH.* INDEX
1 yr.	4.0	-2.7
3 yr.	18.4	27.9
5 yr.	52.3	41.9

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	© VALUE LINE PUB. LLC	22-24
13.17	14.75	15.89	15.88	16.15	16.18	14.19	15.48	13.71	11.16	11.18	12.98	13.52	13.04	15.63	19.20	*17.55*	*17.95*	Revenues per sh	*21.00*
1.12	1.22	1.25	1.75	1.60	1.74	1.86	2.10	2.23	2.34	2.48	2.67	2.42	2.67	2.79	2.91	*2.15*	*2.70*	"Cash Flow" per sh	*3.75*
.68	.79	.86	1.23	1.05	1.14	1.19	1.35	1.45	1.52	1.52	1.57	1.44	1.34	1.23	1.38	*1.10*	*1.60*	Earnings per sh A	*2.40*
.39	.41	.43	.46	.51	.56	.61	.68	.75	.83	.90	.96	1.02	1.06	1.10	1.13	*1.20*	*1.25*	Div'ds Decl'd per sh B ■	*1.40*
1.18	1.34	1.60	1.26	.94	1.04	1.83	2.79	3.20	4.01	4.84	5.01	4.87	3.50	3.43	3.99	*5.65*	*5.90*	Cap'l Spending per sh	*7.50*
5.63	6.20	6.75	7.55	8.12	8.67	9.12	9.54	10.33	11.63	12.64	13.65	14.62	16.22	14.99	14.82	*16.50*	*17.20*	Book Value per sh C	*20.00*
52.92	55.52	57.96	58.65	59.22	59.46	59.59	59.75	60.43	63.31	65.43	68.33	70.97	79.48	79.55	85.51	*94.00*	*96.00*	Common Shs Outst'g D	*100.00*
13.3	14.1	16.6	11.9	17.2	15.9	15.0	16.8	18.4	16.9	18.9	18.0	17.9	21.7	27.9	22.6	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*16.0*
.76	.74	.88	.64	.91	.96	1.00	1.07	1.15	1.08	1.06	.95	.90	1.14	1.40	1.22			Relative P/E Ratio	*.90*
4.3%	3.7%	3.0%	3.2%	2.8%	3.1%	3.4%	3.0%	2.8%	3.2%	3.1%	3.4%	3.9%	3.6%	3.2%	3.6%			Avg Ann'l Div'd Yield	*3.6%*
						845.4	925.1	828.6	706.3	731.4	887.0	959.6	1036.5	1243.1	1641.3	*1650*	*1725*	Revenues ($mill)	*2100*
						71.3	81.0	87.0	93.3	97.1	104.0	99.0	102.8	98.1	116.2	*100*	*150*	Net Profit ($mill)	*235*
						23.0%	15.2%	22.4%	10.8%	--	--	5.9%	42.0%	42.0%	21.0%	*22.0%*	*21.0%*	Income Tax Rate	*21.0%*
						8.4%	8.8%	10.5%	13.2%	13.3%	11.7%	10.3%	9.9%	7.9%	7.1%	*6.1%*	*8.7%*	Net Profit Margin	*11.2%*
						36.5%	37.4%	40.5%	45.0%	45.1%	48.0%	49.2%	38.5%	48.5%	62.4%	*56.5%*	*57.0%*	Long-Term Debt Ratio	*56.5%*
						63.5%	62.6%	59.5%	55.0%	54.9%	52.0%	50.8%	61.5%	51.5%	37.6%	*43.5%*	*43.0%*	Common Equity Ratio	*43.5%*
						856.4	910.1	1048.3	1337.6	1507.4	1791.9	2043.9	2097.2	2315.4	3373.9	*3550*	*3850*	Total Capital ($mill)	*4600*
						1073.1	1193.3	1352.4	1578.0	1859.1	2134.1	2448.1	2623.8	2700.2	3653.5	*4100*	*4600*	Net Plant ($mill)	*6000*
						9.0%	9.5%	8.9%	7.4%	6.8%	6.4%	5.4%	5.4%	5.1%	4.4%	*4.0%*	*5.0%*	Return on Total Cap'l	*6.0%*
						13.1%	14.2%	13.9%	12.7%	11.7%	11.2%	9.5%	8.0%	8.2%	9.2%	*6.5%*	*9.0%*	Return on Shr. Equity	*12.0%*
						13.1%	14.2%	13.9%	12.7%	11.7%	11.2%	9.5%	8.0%	8.2%	9.2%	*6.5%*	*9.0%*	Return on Com Equity	*12.0%*
						6.4%	7.1%	6.7%	5.8%	4.8%	4.3%	2.8%	1.6%	.9%	1.7%	*NMF*	*2.0%*	Retained to Com Eq	*5.0%*
						51%	50%	52%	55%	59%	61%	71%	80%	89%	82%	*NMF*	*80%*	All Div'ds to Net Prof	*60%*

CAPITAL STRUCTURE as of 6/30/19
Total Debt $2957.5 mill. Due in 5 Yrs $1623 mill.
LT Debt $1798.6 mill. LT Interest $75.0 mill.

Leases, Uncapitalized Annual rentals $.8 mill.
Pension Assets-12/18 $287.2 mill.
Oblig. $402.2 mill.
Pfd Stock None

Common Stock 92,390,349 shs.
as of 8/1/19

MARKET CAP: $2.9 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2017	2018	6/30/19
Cash Assets	7.8	30.0	12.2
Other	431.2	633.2	416.8
Current Assets	439.0	663.2	429.0
Accts Payable	284.9	410.5	288.9
Debt Due	410.2	1004.4	1158.9
Other	188.0	165.9	198.3
Current Liab.	883.1	1580.8	1646.1
Fix. Chg. Cov.	177%	112%	171%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '16-'18 to '22-'24
Revenues	--	6.0%	*4.5%*
"Cash Flow"	5.0%	3.5%	*5.0%*
Earnings	1.5%	-2.5%	*10.5%*
Dividends	8.0%	6.0%	*4.0%*
Book Value	6.5%	6.0%	*4.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	333.0	154.4	219.1	330.0	1036.5
2017	425.8	244.4	227.1	345.8	1243.1
2018	521.9	227.3	302.5	589.6	1641.3
2019	637.3	266.9	*275*	*470.8*	*1650*
2020	*650*	*275*	*300*	*500*	*1725*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.75	.12	.05	.42	1.34
2017	.72	.06	d.05	.50	1.23
2018	1.19	.07	d.27	.39	1.38
2019	1.09	d.13	*d.30*	*.44*	*1.10*
2020	*1.20*	*.05*	*d.15*	*.50*	*1.60*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	--	.251	.251	.515	1.02
2016	--	.264	.264	.536	1.06
2017	--	.273	.273	.553	1.10
2018	--	.280	.280	.567	1.13
2019	--	.287	.287		

BUSINESS: South Jersey Industries, Inc. is a holding company. Dist. natural gas to approx. 685,000 customers in New Jersey and Maryland. South Jersey Gas rev. mix '18: residential, 46%; commercial, 22%; cogen. and electric gen., 13%; industrial, 19%. Acq. Elizabethtown Gas and Elkton Gas, 7/18. Nonutil. operations include South Jersey Energy, South Jersey Resources Group, South Jersey Exploration, Marina Energy, South Jersey Energy Service Plus, and SJI Midstream. Has about 1,100 employees. Off./dir. own less than 1% of common; BlackRock, 14.9%; The Vanguard Group, 10.9% (3/19 proxy). Pres. & CEO: Michael J. Renna. Chairman: Walter M. Higgins III. Inc.: NJ. Addr.: 1 South Jersey Plaza, Folsom, NJ 08037. Tel.: 609-561-9000. Internet: www.sjindustries.com.

Shares of South Jersey Industries have traded in a fairly narrow range in recent times. The company posted mixed results in the second quarter. The top line advanced roughly 17%, on a year-over-year basis. However, expenses also increased (excluding an impairment charge of $99.2 million in the year-ago period). All told, South Jersey posted a share deficit of $0.13 for the term. Results ought to remain mixed in the back half of the year. Overall, we anticipate a modest top-line advance along with a significant share-earnings pullback for full-year 2019.

Top-line growth ought to pick up in 2020, and we project a strong bottom-line rebound for the company in that year. Favorable results should continue thereafter. An ongoing transition ought to leave the company a more regulated entity. Utility South Jersey Gas should continue to benefit from customer growth, driven by conversions from alternative fuels by new customers. Infrastructure replacement programs allow this business to earn an authorized return on approved investments. Elizabethtown Gas (acquired along with Elkton Gas in July of 2018) is seeking a base-rate revenue increase of about $65 million to recognize infrastructure investments for its natural gas system. A final decision in the matter is expected by the end of the current year. Important infrastructure investments should modernize the company's system and allow it to meet strong demand for natural gas. We envision some improvement on the nonutility side, as well, though a measure of unevenness may well persist. Efforts by the company to divest noncore operations should pay off.

This stock is ranked to perform in line with the broader market averages for the coming six to 12 months. Looking further out, this equity offers decent risk-adjusted total return potential for the pull to early next decade. This should be supported by strong operating performance at the company and a healthy dividend yield. Moreover, South Jersey earns good marks for Safety, Financial Strength, and Price Stability. Volatility is subdued, as well. All told, conservative, income-seeking accounts may find something to like here.

Michael Napoli, CFA *August 30, 2019*

(A) Based on economic egs. from 2007. GAAP EPS: '08, $1.29; '09, $0.97; '10, $1.11; '11, $1.49; '12, $1.49; '13, $1.28; '14, $1.46; '15, $1.52; '16, $1.56; '17, ($0.04). Excl. nonrecur. gain (loss): '08, $0.16; '09, ($0.22); '10, ($0.24); '11, $0.04; '12, ($0.03); '13, ($0.24); '14, ($0.11); '15, $0.08; '16, $0.22; '17, ($1.27); '18, ($1.17). Next egs. rpt. early November.

(B) Div'ds paid early April, July, Oct., and late Dec. ■ Div. reinvest. plan avail. (C) Incl. reg. assets. In 2018: $663.0 mill., $7.75 per shr. (D) In mill., adj. for split.

Company's Financial Strength	A
Stock's Price Stability	80
Price Growth Persistence	20
Earnings Predictability	65

SPIRE INC. NYSE-SR

RECENT PRICE	P/E RATIO		RELATIVE P/E RATIO	DIV'D YLD
81.66	24.8	(Trailing: 21.7 / Median: 17.0)	1.52	2.9%

VALUE LINE

TIMELINESS **3** Lowered 11/30/18
SAFETY **2** Raised 6/20/03
TECHNICAL **1** Raised 8/9/19
BETA .65 (1.00 = Market)

2022-24 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	105	(+30%)	9%
Low	75	(-10%)	2%

Insider Decisions

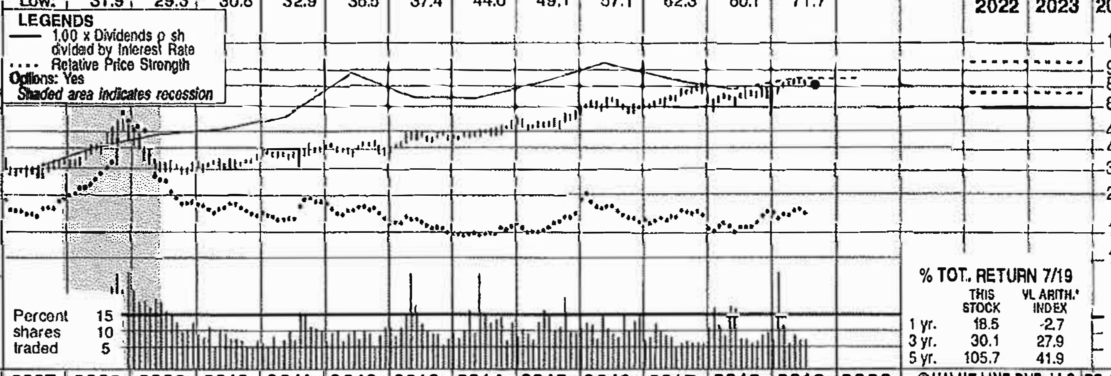
	O	N	D	J	F	M	A	M	J
to Buy	0	0	0	0	0	0	0	0	0
Options	0	5	5	0	8	0	0	0	0
to Sell	0	0	0	0	0	0	0	0	0

Institutional Decisions

	3Q2018	4Q2018	1Q2019
to Buy	119	118	140
to Sell	124	106	114
Hld's(000)	42187	41743	40023

High:	55.8	48.3	37.8	42.8	44.0	48.5	56.2	61.0	71.2	82.9	81.1	87.1
Low:	31.9	29.3	30.8	32.9	36.5	37.4	44.0	49.1	57.1	62.3	60.1	71.7

Target Price Range
2022 2023 2024



% TOT. RETURN 7/19

	THIS STOCK	VL ARITH.* INDEX
1 yr.	18.5	-2.7
3 yr.	30.1	27.9
5 yr.	105.7	41.9

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	© VALUE LINE PUB. LLC	22-24
54.95	59.59	75.43	93.51	93.40	100.44	85.49	77.83	71.48	49.90	31.10	37.68	45.59	33.68	36.07	38.78	*38.80*	*40.40*	Revenues per sh A	*54.55*
3.15	2.79	2.98	3.81	3.87	4.22	4.56	4.11	4.62	4.58	3.12	3.87	6.15	6.16	6.54	7.55	*7.25*	*7.55*	"Cash Flow" per sh	*9.55*
1.82	1.82	1.90	2.37	2.31	2.64	2.92	2.43	2.86	2.79	2.02	2.35	3.16	3.24	3.43	4.33	*3.70*	*3.90*	Earnings per sh A B	*5.00*
1.34	1.35	1.37	1.40	1.45	1.49	1.53	1.57	1.61	1.66	1.70	1.76	1.84	1.96	2.10	2.25	*2.37*	*2.46*	Div'ds Decl'd per sh C ▪	*2.67*
2.67	2.45	2.84	2.97	2.72	2.57	2.36	2.56	3.02	4.83	4.00	3.96	6.68	6.42	9.08	9.86	*15.30*	*15.40*	Cap'l Spending per sh	*14.90*
15.65	16.96	17.31	18.85	19.79	22.12	23.32	24.02	25.56	26.67	32.00	34.93	36.30	38.73	41.26	44.51	*49.20*	*52.30*	Book Value per sh D	*54.20*
19.11	20.98	21.17	21.36	21.65	21.99	22.17	22.29	22.43	22.55	32.70	43.18	43.36	45.65	48.26	50.67	*51.00*	*52.00*	Common Shs Outst'g E	*55.00*
13.6	15.7	16.2	13.6	14.2	14.3	13.4	13.7	13.0	14.5	21.3	19.8	16.5	19.6	19.8	16.7	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*18.0*
.78	.83	.86	.73	.75	.86	.89	.87	.82	.92	1.20	1.04	.83	1.03	1.00	.89			Relative P/E Ratio	*1.00*
5.4%	4.7%	4.4%	4.3%	4.4%	3.9%	3.9%	4.7%	4.3%	4.1%	4.0%	3.8%	3.5%	3.1%	3.1%	3.1%			Avg Ann'l Div'd Yield	*3.0%*

CAPITAL STRUCTURE as of 6/30/19
Total Debt $2641.3 mill. Due in 5 Yrs $599.0 mill.
LT Debt $2042.3 mill. LT Interest $100.0 mill.
(Total interest coverage: 2.8x)

Leases, Uncapitalized Annual rentals $9.7 mill.
Pension Assets-9/18 $499.2 mill.
Oblig. $664.6 mill.
Pfd Stock $242.0 mill. Pfd Div'd $1.6 mill.
Common Stock 50,809,437 shs.
as of 7/26/19

MARKET CAP: $4.1 billion (Mid Cap)

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	© VALUE LINE PUB. LLC	22-24
1895.2	1735.0	1603.3	1125.5	1017.0	1627.2	1976.4	1537.3	1740.7	1965.0	*1980*	*2100*	Revenues ($mill) A	*3000*
64.3	54.0	63.8	62.6	52.8	84.6	136.9	144.2	161.6	214.2	*190*	*200*	Net Profit ($mill)	*275*
33.6%	33.4%	31.4%	29.6%	25.0%	27.6%	31.2%	32.5%	32.4%	32.4%	*23.5%*	*24.0%*	Income Tax Rate	*24.0%*
3.4%	3.1%	4.0%	5.6%	5.2%	5.2%	6.9%	9.4%	9.3%	10.9%	*9.6%*	*9.5%*	Net Profit Margin	*9.2%*
42.9%	40.5%	38.9%	36.1%	46.6%	55.1%	53.0%	50.9%	50.0%	45.7%	*44.0%*	*42.0%*	Long-Term Debt Ratio	*40.0%*
57.1%	59.5%	61.1%	63.9%	53.4%	44.9%	47.0%	49.1%	50.0%	54.3%	*56.0%*	*58.0%*	Common Equity Ratio	*60.0%*
906.3	899.9	937.7	941.0	1959.0	3359.4	3345.1	3601.9	3986.3	4155.5	*4500*	*4700*	Total Capital ($mill)	*4950*
855.9	884.1	928.7	1019.3	1776.6	2759.7	2941.2	3300.9	3665.2	3970.5	*4170*	*4300*	Net Plant ($mill)	*4825*
8.7%	7.4%	8.1%	7.9%	3.3%	3.1%	5.1%	4.9%	5.0%	6.3%	*5.5%*	*5.5%*	Return on Total Cap'l	*7.0%*
12.4%	10.1%	11.1%	10.4%	5.0%	5.6%	8.7%	8.2%	8.1%	9.5%	*7.5%*	*7.5%*	Return on Shr. Equity	*9.0%*
12.4%	10.1%	11.1%	10.4%	5.0%	5.6%	8.7%	8.2%	8.1%	9.5%	*7.5%*	*7.5%*	Return on Com Equity	*9.0%*
5.9%	3.6%	4.9%	4.3%	1.0%	1.5%	3.7%	3.3%	3.3%	4.7%	*2.5%*	*2.5%*	Retained to Com Eq	*4.5%*
53%	64%	56%	59%	81%	73%	58%	59%	60%	51%	*64%*	*63%*	All Div'ds to Net Prof	*53%*

CURRENT POSITION ($MILL.)	2017	2018	6/30/19
Cash Assets	7.4	4.4	5.8
Other	718.1	655.2	644.0
Current Assets	725.5	659.6	649.8
Accts Payable	257.1	290.1	297.6
Debt Due	577.3	729.1	599.0
Other	263.5	302.5	323.0
Current Liab.	1097.9	1321.7	1219.6
Fix. Chg. Cov.	361%	284%	300%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '16-'18 to '22-'24
Revenues	-9.5%	-6.5%	*7.0%*
"Cash Flow"	5.5%	10.5%	*6.0%*
Earnings	4.0%	7.5%	*5.5%*
Dividends	4.0%	5.0%	*4.0%*
Book Value	7.5%	8.0%	*4.5%*

Fiscal Year Ends	QUARTERLY REVENUES ($ mill.) A Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2016	399.4	609.3	249.3	279.3	1537.3
2017	495.1	663.4	323.5	258.7	1740.7
2018	561.8	813.4	350.6	239.2	1965.0
2019	602.0	803.5	321.3	*253.2*	*1980*
2020	*630*	*840*	*370*	*260*	*2100*

Fiscal Year Ends	EARNINGS PER SHARE A B F Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2016	1.08	2.31	.24	d.31	3.24
2017	.99	2.36	.45	d.28	3.43
2018	2.39	2.03	.52	d.51	4.33
2019	1.32	3.04	d.09	*d.57*	*3.70*
2020	*1.35*	*2.60*	*.50*	*d.55*	*3.90*

Cal-endar	QUARTERLY DIVIDENDS PAID C ▪ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	.46	.46	.46	.46	1.84
2016	.49	.49	.49	.49	1.96
2017	.525	.525	.525	.525	2.10
2018	.5625	.5625	.5625	.5625	2.25
2019	.5925	.5925	.5925		

BUSINESS: Spire Inc., formerly known as the Laclede Group, Inc., is a holding company for natural gas utilities, which distributes natural gas across Missouri, including the cities of St. Louis and Kansas City. Has roughly 1.7 million customers. Acquired Missouri Gas 9/13, Alabama Gas Co 9/14. Utility therms sold and transported in fiscal 2018: 3.3 bill. Revenue mix for regulated operations: residential, 66%; commercial and industrial, 24%; transportation, 6%; other, 4%. Has around 3,366 employees. Officers and directors own 2.9% of common shares; BlackRock, 13% (1/19 proxy). Chairman: Edward Glotzbach; CEO: Suzanne Sitherwood. Inc.: Missouri. Address: 700 Market Street, St. Louis, Missouri 63101. Telephone: 314-342-0500. Internet: www.thelacledegroup.com.

Spire Inc. had a difficult fiscal third quarter (years end September 30th). The top line decreased more than 8% year over year, to $321 million. This was due to weaker revenues in the Gas Utility line, which experienced lesser usage volume and cost recoveries, along with lower gross receipts taxes at both Missouri Utilities and Spire Alabama. Meanwhile, the bottom line registered a per-share deficit of $0.09, versus a per-share profit of $0.52 in the year-ago period. This decline was due to higher total operating expenses, especially from the Spire Marketing unit. On the bright side, Spire was able to reduce its Gas Utility operating costs. On an adjusted basis, share net (or net economic earnings) was $0.07, which was still considerably below the $0.31 figure last year.

The company is actively investing to improve its operations. Spire is upgrading its infrastructure and technology to enhance safety and customer service. Its STL Pipeline is nearing completion and is expected to be ready by the end of this fiscal year. Meanwhile, the company continues to invest in the storage business, which ought to bear fruit in the latter half of fiscal 2020. Management increased the current fiscal year's capital budget by $40 million, to $780 million, reflecting higher spend related to Spire STL Pipeline and Storage. Plus, Spire raised its five-year capital spend target to $2.9 billion, indicating further utility infrastructure upgrades.

Near-term profits will likely remain under pressure. Certainly, the upfront costs associated with the aforementioned initiatives will weigh on the bottom line, but ongoing tight cost controls will probably offset some of these challenges. Nevertheless, profits tend to advance at a measured pace for natural gas utilities, such as Spire. The infrastructure projects should boost customer growth, long term. For now, we estimate share earnings for fiscal 2019 at $3.70, and look for 2020 share net to recover at a single-digit pace.

Neutrally ranked shares of Spire Inc. have below-average long-term capital appreciation potential. Still, a healthy dividend yield and an Above Average (2) rank for Safety may interest some risk-averse and income-oriented accounts.

Emma Jalees *August 30, 2019*

(A) Fiscal year ends Sept. 30th. (B) Based on diluted shares outstanding. Excludes nonrecurring loss: '06, 7¢. Excludes gain from discontinued operations: '08, 94¢. Next earnings report due mid-November. (C) Dividends historically paid in early January, April, July, and October. ▪ Dividend reinvestment plan available. (D) Incl. deferred charges. In '18: $1171.6 mill., $23.11/sh. (E) In millions. (F) Qtly. egs. may not sum due to rounding or change in shares outstanding.

Company's Financial Strength	B++
Stock's Price Stability	95
Price Growth Persistence	60
Earnings Predictability	65

SOUTHWEST GAS NYSE-SWX

RECENT PRICE **88.90** P/E RATIO **21.5** (Trailing: 23.5 Median: 17.0) RELATIVE P/E RATIO **1.32** DIV'D YLD **2.5%** **VALUE LINE**

TIMELINESS 2 Raised 8/23/19
SAFETY 3 Lowered 1/4/91
TECHNICAL 3 Lowered 8/30/19
BETA .70 (1.00 = Market)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
High:	33.3	29.6	37.3	43.2	46.1	56.0	64.2	63.7	79.6	86.9	86.0	91.9
Low:	21.1	17.1	26.3	32.1	39.0	42.0	47.2	50.5	53.5	72.3	62.5	73.3

2022-24 PROJECTIONS

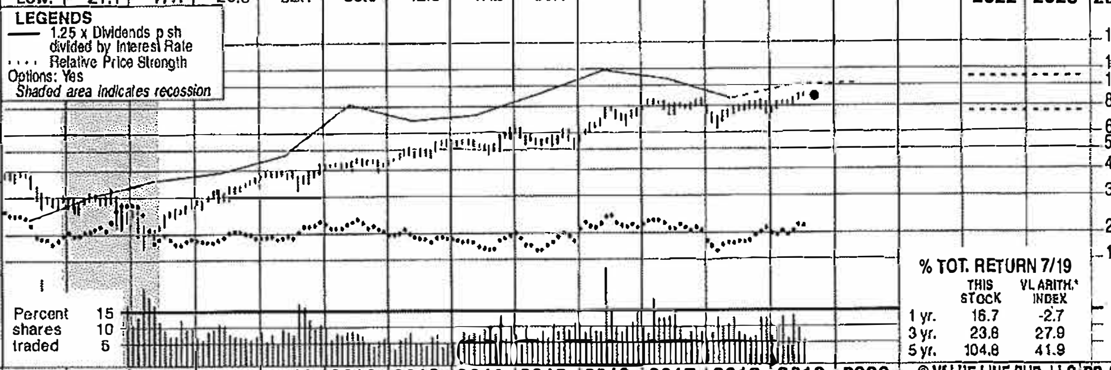
	Price	Gain	Ann'l Total Return
High	110	(+25%)	8%
Low	75	(-15%)	-1%

Insider Decisions

	O	N	D	J	F	M	A	M	J
to Buy	0	0	0	0	0	1	0	0	1
Options	0	0	17	0	0	19	0	0	0
to Sell	0	0	0	0	0	2	0	2	1

Institutional Decisions

	3Q2018	4Q2018	1Q2019
to Buy	122	140	150
to Sell	126	112	115
Hld's(000)	40794	44491	44254



Target Price Range
2022 2023 2024

% TOT. RETURN 7/19

	THIS STOCK	VL ARITH.* INDEX
1 yr.	16.7	-2.7
3 yr.	23.8	27.9
5 yr.	104.8	41.9

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	© VALUE LINE PUB. LLC	22-24
35.96	40.14	43.59	48.47	50.28	48.53	42.00	40.18	41.07	41.77	42.08	45.61	52.00	51.82	53.00	54.31	56.35	58.95	Revenues per sh	68.95
5.11	5.57	5.20	5.97	6.21	5.76	6.16	6.46	6.81	7.73	8.24	8.47	8.62	9.29	8.83	8.14	9.35	10.10	"Cash Flow" per sh	13.55
1.13	1.66	1.25	1.98	1.95	1.39	1.94	2.27	2.43	2.86	3.11	3.01	2.92	3.18	3.62	3.68	4.00	4.40	Earnings per sh A	5.80
.82	.82	.82	.82	.86	.90	.95	1.00	1.06	1.18	1.32	1.46	1.62	1.80	1.98	2.08	2.18	2.30	Div'ds Decl'd per sh B■†	2.60
7.03	8.23	7.49	8.27	7.96	6.79	4.81	4.73	8.29	8.57	7.86	8.53	10.30	11.15	12.97	14.44	16.35	16.95	Cap'l Spending per sh	20.70
18.42	19.18	19.10	21.58	22.98	23.49	24.44	25.62	26.66	28.35	30.47	31.95	33.61	35.03	37.74	42.47	45.45	48.20	Book Value per sh	58.60
34.23	36.79	39.33	41.77	42.81	44.19	45.09	45.56	45.96	46.15	46.36	46.52	47.38	47.48	48.09	53.03	55.00	56.00	Common Shs Outst'g C	58.00
19.2	14.3	20.6	15.9	17.3	20.3	12.2	14.0	15.7	15.0	15.8	17.9	19.4	21.6	22.2	20.6	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	16.0
1.09	.76	1.10	.86	.92	1.22	.81	.89	.98	.95	.89	.94	.98	1.13	1.12	1.11			Relative P/E Ratio	.90
3.8%	3.5%	3.2%	2.6%	2.6%	3.2%	4.0%	3.2%	2.8%	2.8%	2.7%	2.7%	2.9%	2.6%	2.5%	2.7%			Avg Ann'l Div'd Yield	2.8%
						1893.8	1830.4	1887.2	1927.8	1950.8	2121.7	2463.6	2460.5	2548.8	2880.0	3100	3300	Revenues ($mill)	4000
						87.5	103.9	112.3	133.3	145.3	141.1	138.3	152.0	173.8	182.3	215	240	Net Profit ($mill)	.35
						34.0%	34.7%	36.2%	36.2%	35.0%	35.7%	36.4%	33.9%	32.8%	25.3%	21.0%	21.0%	Income Tax Rate	21.0%
						4.6%	5.7%	6.0%	6.9%	7.4%	6.7%	5.6%	6.2%	6.8%	6.3%	6.9%	7.3%	Net Profit Margin	8.4%
						53.5%	49.1%	43.2%	49.2%	49.4%	52.4%	49.3%	48.2%	49.8%	48.3%	49.5%	48.5%	Long-Term Debt Ratio	45.5%
						46.5%	50.9%	56.8%	50.8%	50.6%	47.6%	50.7%	51.8%	50.2%	51.7%	50.5%	51.5%	Common Equity Ratio	54.5%
						2371.4	2291.7	2155.9	2576.9	2793.7	3123.9	3143.5	3213.5	3613.3	4359.3	4950	5250	Total Capital ($mill)	6250
						3034.5	3072.4	3218.9	3343.8	3486.1	3658.4	3891.1	4132.0	4523.7	5093.2	5450	5850	Net Plant ($mill)	7000
						5.4%	6.1%	6.4%	6.4%	6.3%	5.7%	5.5%	5.8%	5.8%	5.2%	5.5%	5.5%	Return on Total Cap'l	6.5%
						7.9%	8.9%	9.2%	10.2%	10.3%	9.5%	8.7%	9.1%	9.6%	8.1%	8.5%	9.0%	Return on Shr. Equity	10.0%
						7.9%	8.9%	9.2%	10.2%	10.3%	9.5%	8.7%	9.1%	9.6%	8.1%	8.5%	9.0%	Return on Com Equity	10.0%
						4.1%	5.1%	5.3%	6.1%	6.1%	5.0%	4.0%	4.1%	4.5%	3.6%	4.0%	4.0%	Retained to Com Eq	5.5%
						48%	43%	43%	40%	41%	47%	54%	55%	53%	55%	56%	54%	All Div'ds to Net Prof	45%

CAPITAL STRUCTURE as of 6/30/19
Total Debt $2409.8 mill. Due in 5 Yrs $869.1 mill.
LT Debt $2373.0 mill. LT Interest $100.0 mill.
(Total interest coverage: 3.6x) (50% of Cap'l)
Leases, Uncapitalized Annual rentals $11.0 mill.
Pension Assets-12/18 $838.0 mill.
Oblig. $1186.0 mill.

Pfd Stock None

Common Stock 54,324,289 shs.
as of 7/31/19

MARKET CAP: $4.8 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2017	2018	6/30/19
Cash Assets	43.6	85.4	38.4
Other	613.4	754.4	713.7
Current Assets	657.0	839.8	752.1
Accts Payable	228.3	249.0	196.9
Debt Due	239.8	185.1	36.8
Other	347.8	504.5	492.8
Current Liab.	815.9	938.6	726.5
Fix. Chg. Cov.	415%	370%	457%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '16-'18 to '22-'24
Revenues	1.0%	5.0%	4.5%
"Cash Flow"	4.0%	3.0%	7.5%
Earnings	7.0%	4.5%	9.0%
Dividends	8.5%	10.5%	5.0%
Book Value	5.5%	6.0%	7.5%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	731.2	547.8	540.0	641.5	2460.5
2017	654.7	560.5	593.2	740.4	2548.8
2018	754.3	670.9	668.1	786.7	2880.0
2019	833.5	713.0	720	833.5	3100
2020	860	775	780	885	3300

Cal-endar	EARNINGS PER SHARE A D Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	1.58	.19	.05	1.36	3.18
2017	1.45	.37	.21	1.58	3.62
2018	1.63	.44	.25	1.36	3.68
2019	1.77	.41	.26	1.56	4.00
2020	1.90	.50	.30	1.70	4.40

Cal-endar	QUARTERLY DIVIDENDS PAID B■† Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2015	.365	.405	.405	.405	1.58
2016	.405	.450	.450	.450	1.76
2017	.450	.495	.495	.495	1.94
2018	.495	.520	.520	.520	2.06
2019	.520	.545			

BUSINESS: Southwest Gas Holdings, Inc. is the parent holding company of Southwest Gas and Centuri Construction Group. Southwest Gas is a regulated gas distributor serving about 2.0 million customers in sections of Arizona, Nevada, and California. Centuri provides construction services. 2018 margin mix: residential and small commercial, 85%; large commercial and industrial, 3%; transportation, 12%. Total throughput: 2.2 billion therms. Has 8,632 employees. Off. & dir. own .8% of common stock; BlackRock Inc., 11.7%; The Vanguard Group, Inc., 10.1% (3/19 Proxy). Chairman: Michael J. Melarkey. President & CEO: John P. Hester. Inc.: CA. Addr.: 5241 Spring Mountain Road, Las Vegas, Nevada 89193. Telephone: 702-876-7237. Internet: www.swgas.com.

Shares of Southwest Gas have recently come off an all-time high. The company posted decent results for the second quarter. The top line increased moderately, year over year. Southwest's natural gas utility operation benefited from customer growth and rate relief in California and Nevada. Offsetting these gains were the effects of surcharges and the regulatory impacts of tax reform. Growth in the utility infrastructure services segment was the result of the addition of Linetec Services, LLC (acquired last year) and a greater volume of pipe replacement work under existing master service agreements and bid contracts. Operating expenses also increased. All told, net profit advanced about 2%, to $22.1 million. Still, earnings per share of $0.41 came in shy of the prior-year tally, owing to a larger share count.

We anticipate solid performance in the coming quarters. We project that revenues and share earnings will advance 8% and 9%, respectively, for full-year 2019. Growth should continue from 2020 onward. Southwest's utility operation is experiencing healthy economic growth throughout its service territories. Investment in infrastructure should pay off. The company is seeking regulatory approval to construct the infrastructure necessary to expand natural gas service into Spring Creek, Nevada. On the nonutility side, expanded service offerings for the company's infrastructure services customers ought to benefit results.

This stock is ranked to outperform the broader market averages for the coming six to 12 months. Looking further out, we anticipate moderate top-line growth and healthy share-net improvement for the company over the pull to early next decade. But this seems to be partly discounted by the recent quotation. Long-term total return potential appears to be limited, as the shares presently trade well within our Target Price Range. The dividend yield does not stand out for a utility, either. In the plus column, Southwest Gas earns good marks for Price Stability, Growth Persistence, and Earnings Predictability. Volatility is below average, as well. A pullback some time in the future may present conservative investors with a better entry point.

Michael Napoli, CFA *August 30, 2019*

(A) Diluted earnings. Excl. nonrec. gains (losses): '02, (10¢); '05, (11¢); '06, 7¢. Next egs. report due late October. (B) Dividends historically paid early March, June, September, and December. ■† Div'd reinvestment and stock purchase plan avail. (C) In millions. (D) Totals may not sum due to rounding.

Company's Financial Strength	B++
Stock's Price Stability	85
Price Growth Persistence	80
Earnings Predictability	90

Atmos Energy Corporation (ATO)

(Real Time Quote from BATS)

$110.97 USD

+0.74 (0.67%)

Updated Sep 3, 2019 02:49 PM ET

Add to port

Zacks Rank:
2-Buy ☐ 2 ☐ ☐ ☐

Style Scores:
C Value | C Growth | A Momentum | C VGM

Industry Rank:
Top 39% (101 out of 256)

Industry: Utility - Gas Distribution

Quote Overview

View All Zacks #1 Ranked Stocks

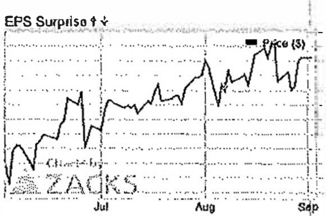
Enter Symbol

Stock Activity		**Key Earnings Data**	
Open	110.12	Earnings ESP	7.61%
Day Low	109.68	Most Accurate Est	0.50
Day High	111.32	Current Qtr Est	0.46
52 Wk Low	87.88	Current Yr Est	4.34
52 Wk High	111.58	Exp Earnings Date	11/6/19
Avg. Volume	685,269	Prior Year EPS	4.00
Market Cap	13.03 B	Exp EPS Growth (3-5yr)	6.67%
Dividend	2.10 (1.91%)	Forward PE	25.42
Beta	0.22	PEG Ratio	3.81

Utilities » Utility - Gas Distribution

Price and EPS Surprise Chart

1 Month | 3 Months | YTD



Interactive Chart | Fundamental Chart

Research Reports For ATO

All Zacks' Analyst Reports »

News For ATO

- Zacks News for ATO
- Other News for ATO

Atmos (ATO) Upgraded to Buy: Here's What You Should Know
08/28/19-8:00AM EST Zacks

Here's Why You Should Invest in Atmos Energy (ATO) Stock Now
08/26/19-7:34AM EST Zacks

ATO: What are Zacks experts saying now?
Zacks Private Portfolio Services

UGI Corp (UGI) Acquires AmeriGas, Expands Propane Business
08/23/19-9:15AM EST Zacks

Is Atmos Energy (ATO) Stock Outpacing Its Utilities Peers This...
08/23/19-8:30AM EST Zacks

Sempra Energy's (SRE) Subsidiary Launches Biomethane Project
08/15/19-8:58AM EST Zacks

More Zacks News for ATO

Dividend Champion And Contender Highlights: Week Of September
09/01/19-9:45AM EST Seeking Alpha

Ex-Dividend Reminder: Atmos Energy, Assurant and Radian Group
08/21/19-9:09AM EST Dividend Channel

Dividend Champion And Contender Highlights: Week Of August 18
08/17/19-11:41AM EST Seeking Alpha

Atmos Energy names Kevin Akers as CEO

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Chesapeake Utilities Corporation (CPK)

(Real Time Quote from BATS)

$94.56 USD

-0.02 (-0.02%)

Updated Sep 3, 2019 02:51 PM ET

Add to port | Trades from $1

Zacks Rank:
2-Buy ☐ 2 ☐ ☐ ☐
Style Scores:
B Value | D Growth | C Momentum | C VGM
Industry Rank:
Top 39% (101 out of 266)
Industry: Utility - Gas Distribution

Quote Overview

View All Zacks #1 Ranked Stocks

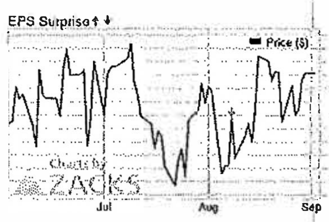
Enter Symbol

Stock Activity		**Key Earnings Data**	
Open	94.75	Earnings ESP	0.00%
Day Low	94.20	Most Accurate Est	0.36
Day High	95.44	Current Qtr Est	0.36
52 Wk Low	77.20	Current Yr Est	3.73
52 Wk High	96.27	Exp Earnings Date	11/14/19
Avg. Volume	59,904	Prior Year EPS	3.31
Market Cap	1.55 B	Exp EPS Growth (3-5yr)	7.00%
Dividend	1.62 (1.71%)	Forward PE	25.36
Beta	0.24	PEG Ratio	3.62

Utilities » Utility - Gas Distribution

Price and EPS Surprise Chart

1 Month | 3 Months | YTD



Interactive Chart | Fundamental Chart

Research Report For CPK

All Zacks' Analyst Reports »

News For CPK

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- Other News for CPK

Here's Why You Should Add ONE Gas (OGS) to Your Portfolio
08/30/19-8:21AM EST Zacks

Here's Why You Should Invest In Atmos Energy (ATO) Stock Now
08/26/19-7:34AM EST Zacks

CPK: What are Zacks experts saying now?
Zacks Private Portfolio Services

5 Safe Stocks to Shrug Off Recession Worries
08/23/19-7:32AM EST Zacks

Sempra Energy' (SRE) Cameron LNG Train 1 Begins Operations
08/21/19-7:29AM EST Zacks

Bond Yield Curve Inverts: 3 Defensive Stocks to Buy
08/15/19-11:38AM EST Zacks

More Zacks News for CPK

Chesapeake Utilities Corporation Named Top Workplace for Eighth
[illegible] EST PR Newswire

7 ¿¿¿Boring¿¿¿ Stocks With Exciting Prospects
08/23/19-10:34AM EST InvestorPlace

Bond Yield Curve Inverts: 3 Defensive Stocks To Buy

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NewJersey Resources Corporation (NJR)
(Real Time Quote from BATS)

$45.63 USD

-0.11 (-0.24%)

Updated Sep 3, 2019 02:51 PM ET

Add to port | Trades from $1

Zacks Rank:
4-Sell ☐☐☐ 4 ☐

Style Scores:
D Value | F Growth | F Momentum | F VGM

Industry Rank:
Top 39% (101 out of 256)

Industry: Utility - Gas Distribution

Quote Overview

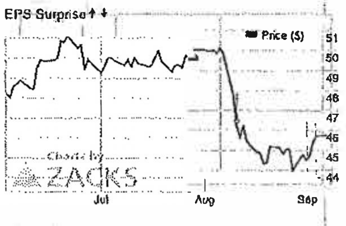
View All Zacks #1 Ranked Stocks | Enter Symbol

Stock Activity		Key Earnings Data	
Open	45.66	Earnings ESP	0.00%
Day Low	45.44	Most Accurate Est	0.29
Day High	46.03	Current Qtr Est	0.29
52 Wk Low	43.51	Current Yr Est	1.96
52 Wk High	51.83	Exp Earnings Date	11/19/19
Avg. Volume	401,707	Prior Year EPS	2.74
Market Cap	4.12 B	Exp EPS Growth (3-5yr)	7.00%
Dividend	1.17 (2.56%)	Forward PE	23.34
Beta	0.33	PEG Ratio	3.33

Utilities » Utility - Gas Distribution

Price and EPS Surprise Chart

1 Month | 3 Months | YTD



Interactive Chart | Fundamental Chart

Research Report For NJR

All Zacks' Analyst Reports »

News For NJR

- Zacks News for NJR
- Other News for NJR

New Jersey Resources (NJR) Reports Q3 Loss, Misses...
08/06/19-8:35AM EST Zacks

CenterPoint Energy (CNP) to Post Q2 Earnings: What's in Store?
08/05/19-9:15AM EST Zacks

NJR: What are Zacks experts saying now?
Zacks Private Portfolio Services

New Jersey Resources (NJR) Earnings Expected to Grow:...
07/30/19-9:30AM EST Zacks

Can Atmos Energy (ATO) Keep Earnings Streak Alive in Q3?
07/29/19-8:27AM EST Zacks

NJR vs. CPK: Which Stock Is the Better Value Option?
07/01/19-8:30AM EST Zacks

More Zacks News for NJR

Lockheed Martin, McDonald`s, And Microsoft Expected To Lead Dividend Increase Announcements In September

New Jersey Resources Corporation (NJR) on Fiscal Q3 2019 Earnings Call Transcript

New Jersey Resources Corporation 2019 Q3 - Results - Earnings

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Northwest Natural Gas Company (NWN)
(Real Time Quote from BATS)

$71.32 USD

-0.04 (-0.06%)

Updated Sep 3, 2019 02:51 PM ET

Add to port | Trades from $1

Zacks Rank:
3-Hold ☐ ☐ 3 ☐ ☐

Style Scores:
C Value | D Growth | A Momentum | C VGM

Industry Rank:
Top 39% (101 out of 256)

Industry: Utility - Gas Distribution

Quote Overview

View All Zacks #1 Ranked Stocks

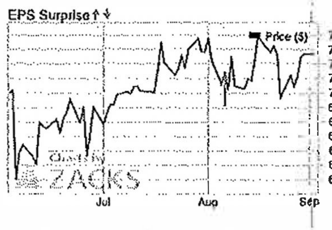
Enter Symbol

Stock Activity		Key Earnings Data	
Open	71.20	Earnings ESP	3.92%
Day Low	70.99	Most Accurate Est	-0.49
Day High	71.83	Current Qtr Est	-0.51
52 Wk Low	57.20	Current Yr Est	2.37
52 Wk High	73.50	Exp Earnings Date	11/5/19
Avg. Volume	112,060	Prior Year EPS	2.33
Market Cap	2.17 B	Exp EPS Growth (3-5yr)	4.50%
Dividend	1.90 (2.66%)	Forward PE	30.17
Beta	0.30	PEG Ratio	6.71

Utilities » Utility - Gas Distribution

Price and EPS Surprise Chart

1 Month | 3 Months | YTD |



Interactive Chart | Fundamental Chart

Research Report For NWN

All Zacks' Analyst Reports »

News For NWN

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CenterPoint Energy (CNP) to Post Q2 Earnings: What's In Store?
08/05/19-9:15AM EST Zacks

Can Atmos Energy (ATO) Keep Earnings Streak Alive in Q3?
07/29/19-9:27AM EST Zacks

NWN: What are Zacks experts saying now?
Zacks Private Portfolio Services

Is a Beat Likely for Southern Company (SO) in Q2 Earnings?
07/29/19-7:28AM EST Zacks

NFG vs. NWN: Which Stock Is the Better Value Option?
07/08/19-8:30AM EST Zacks

Here's Why You Should Add NewJersey Resources (NJR) Stock
06/26/19-5:08PM EST Zacks

More Zacks News for NWN

Dividend Kings: July Dividend Growth Analysis
08/20/19-11:14AM EST Seeking Alpha

Dividend Champion And Contender Highlights: Week Of August 11
08/10/19-2:45AM EST Seeking Alpha

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ONE Gas, Inc. (OGS)
(Real Time Quote from BATS)

$91.79 USD

+0.18 (0.20%)
Updated Sep 3, 2019 02:51 PM ET

Add to port Trades from $1

Zacks Rank:
3-Hold ☐☐3☐☐
Style Scores:
C Value | C Growth | C Momentum | C VGM
Industry Rank:
Top 39% (101 out of 256)
Industry: Utility - Gas Distribution

Quote Overview

View All Zacks #1 Ranked Stocks

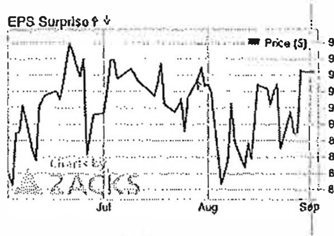
Enter Symbol

Stock Activity		**Key Earnings Data**	
Open	91.41	Earnings ESP	0.00%
Day Low	91.06	Most Accurate Est	0.35
Day High	92.32	Current Qtr Est	0.35
52 Wk Low	75.51	Current Yr Est	3.49
52 Wk High	93.04	Exp Earnings Date	11/4/19
Avg. Volume	167,308	Prior Year EPS	3.25
Market Cap	4.83 B	Exp EPS Growth (3-5yr)	5.85%
Dividend	2.00 (2.18%)	Forward PE	26.25
Beta	0.33	PEG Ratio	4.49

Utilities » Utility - Gas Distribution

Price and EPS Surprise Chart

1 Month | 3 Months | YTD



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Research Reports For OGS

All Zacks' Analyst Reports »

News For OGS

- Zacks News for OGS
- Other News for OGS

Here's Why You Should Add ONE Gas (OGS) to Your Portfolio
08/30/19-8:21AM EST Zacks

ONE Gas (OGS) Down 2.2% Since Last Earnings Report: Can...
08/28/19-8:30AM EST Zacks

OGS: What are Zacks experts saying now?
Zacks Private Portfolio Services

Plains All American (PAA) Q2 Earnings Beat, Guidance Up
08/08/19-8:47AM EST Zacks

UGI Corp's (UGI) Earnings & Revenues Miss Estimates in Q3
08/06/19-8:35AM EST Zacks

Weak Near-Term Outlook for Utility Gas Distribution Industry
08/05/19-12:00AM EST Zacks

More Zacks News for OGS

Dividend Challenger Highlights: Week Of September 1
09/01/19-10:43AM EST Seeking Alpha

Dividend Challenger Highlights: Week Of August 25
08/24/19-12:48PM EST Seeking Alpha

7 Boring Stocks With Exciting Prospects

Docket No. 19-057-02
Exhibit (OCS-3.13)

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South Jersey Industries, Inc. (SJI)
(Real Time Quote from BATS)

$32.38 USD

+0.04 (0.12%)
Updated Sep 3, 2019 02:51 PM ET

Add to port | Trades from $1

Zacks Rank:
3-Hold ☐ ☐ 3 ☐ ☐

Style Scores:
D Value | F Growth | B Momentum | D VGM

Industry Rank:
Top 39% (101 out of 256)

Industry: Utility - Gas Distribution

Quote Overview

View All Zacks #1 Ranked Stocks

Enter Symbol

Stock Activity		Key Earnings Data	
Open	32.31	Earnings ESP	-3.26%
Day Low	31.96	Most Accurate Est	-0.29
Day High	32.61	Current Qtr Est	-0.28
52 Wk Low	26.06	Current Yr Est	1.10
52 Wk High	36.72	Exp Earnings Date	11/6/19
Avg. Volume	451,860	Prior Year EPS	1.38
Market Cap	2.99 B	Exp EPS Growth (3-5yr)	6.57%
Dividend	1.15 (3.56%)	Forward PE	29.40
Beta	0.71	PEG Ratio	4.47

Utilities » Utility - Gas Distribution

Research Report For SJI

All Zacks' Analyst Reports »

News For SJI

- Zacks News for SJI
- Other News for SJI

South Jersey Industries (SJI) Reports Q2 Loss, Tops Revenue...
08/07/19-7:25PM EST Zacks

Weak Near-Term Outlook for Utility Gas Distribution Industry
08/05/19-12:00AM EST Zacks

SJI: What are Zacks experts saying now?
Zacks Private Portfolio Services

Analysts Estimate South Jersey Industries (SJI) to Report a...
07/31/19-9:36AM EST Zacks

South Jersey Industries (SJI) Q1 Earnings and Revenues Beat...
05/08/19-7:45PM EST Zacks

Factors Likely to Shape CenterPoint Energy's (CNP) Q1 Earnings
05/07/19-9:30AM EST Zacks

More Zacks News for SJI

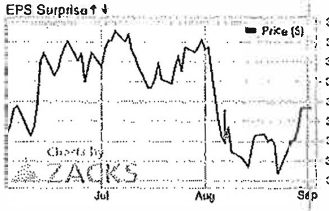
Dividend Champion And Contender Highlights: Week Of September
09/01/19-9:45AM EST Seeking Alpha

SJI Stock Crowded With Sellers
08/14/19-10:25AM EST Energy Stock Channel

SJI Releases First-Ever Environmental, Social and Governance

Price and EPS Surprise Chart

1 Month | 3 Months | YTD



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Docket No. 19-057-02
Exhibit (OCS-3.13)

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Spire Inc. (SR)
(Real Time Quote from BATS)

$85.35 USD

+0.45 (0.53%)
Updated Sep 3, 2019 02:51 PM ET

Add to port Trades from $1

Zacks Rank:
3-Hold ☐ ☐ 3 ☐ ☐
Style Scores:
C Value | B Growth | D Momentum | C VGM
Industry Rank:
Top 39% (101 out of 256)
Industry: Utility - Gas Distribution

Quote Overview

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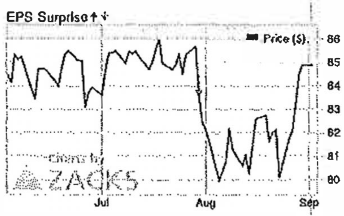
Stock Activity		**Key Earnings Data**	
Open	84.86	Earnings ESP	0.00%
Day Low	84.71	Most Accurate Est	-0.53
Day High	85.84	Current Qtr Est	-0.53
52 Wk Low	70.53	Current Yr Est	3.75
52 Wk High	87.13	Exp Earnings Date	11/21/19
Avg. Volume	215,096	Prior Year EPS	3.72
Market Cap	4.31 B	Exp EPS Growth (3-5yr)	4.41%
Dividend	2.37 (2.79%)	Forward PE	22.63
Beta	0.21	PEG Ratio	5.14

Utilities » Utility - Gas Distribution

Price and EPS Surprise Chart

1 Month | 3 Months | YTD



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Research Report For SR

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News For SR

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- Other News for SR

Weak Near-Term Outlook for Utility Gas Distribution Industry
08/05/19-12:00AM EST Zacks

Spire (SR) Misses Q3 Earnings and Revenue Estimates
07/30/19-7:45AM EST Zacks

SR: What are Zacks experts saying now?
Zacks Private Portfolio Services

Earnings Preview: Spire (SR) Q3 Earnings Expected to Decline
07/23/19-9:32AM EST Zacks

Here's Why You Should Add Spire (SR) to Your Portfolio Now
06/11/19-5:14PM EST Zacks

SR vs. NWN: Which Stock Should Value Investors Buy Now?
05/07/19-6:30AM EST Zacks

More Zacks News for SR

SR Crosses Above Average Analyst Target
08/29/19-7:56AM EST ETF Channel

Spire requests revised recourse rates as pipeline construction costs
08/22/19-9:21AM EST Seeking Alpha

Strategic Resources Announces Initial Akanvaara Vanadium Drill

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Southwest Gas Corporation (SWX)
(Real Time Quote from BATS)

$91.15 USD

-0.08 (-0.09%)
Updated Sep 3, 2019 02:51 PM ET

Add to portfolio | Trades from $1

Zacks Rank:
3-Hold ☐ ☐ 3 ☐ ☐
Style Scores:
B Value | C Growth | B Momentum | C VGM
Industry Rank:
Top 39% (101 out of 256)
Industry: Utility - Gas Distribution

Quote Overview

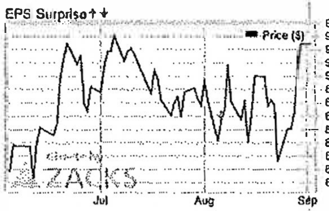
Zacks #1 Ranked Stocks | Enter Symbol

Stock Activity		Key Earnings Data	
Open	91.25	Earnings ESP	10.71%
Day Low	90.59	Most Accurate Est	0.31
Day High	92.31	Current Qtr Est	0.28
52 Wk Low	72.68	Current Yr Est	3.93
52 Wk High	92.31	Exp Earnings Date	11/5/19
Avg. Volume	211,542	Prior Year EPS	3.68
Market Cap	4.96 B	Exp EPS Growth (3-5yr)	6.17%
Dividend	2.18 (2.39%)	Forward PE	23.21
Beta	0.33	PEG Ratio	3.76

Utilities » Utility - Gas Distribution

Price and EPS Surprise Chart

1 Month | 3 Months | YTD



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Research Report For SWX

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Why Southwest Gas (SWX) is a Top Dividend Stock for Your...
08/19/19-8:15AM EST Zacks

Sempra Energy's (SRE) Subsidiary Launches Biomethane Project
08/16/19-8:59AM EST Zacks

SWX: What are Zacks experts saying now?
Zacks Private Portfolio Services

Why You Should Add Alliant Energy (LNT) to Your Portfolio
08/14/19-10:28AM EST Zacks

5 Utility Stocks You Should Buy Right Now
08/12/19-6:06AM EST Zacks

5 Best Stocks to Ride Out U.S.-China Trade Tensions
08/07/19-6:49AM EST Zacks

More Zacks News for SWX

Dividend Champion And Contender Highlights: Week Of September
09/01/19-9:45AM EST Seeking Alpha

Southwest Gas Holdings President and Chief Executive Officer
[illegible]

Dividend Champion And Contender Highlights: Week Of August 25