BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

IN THE MATTER OF THE APPLICATION OF QUESTAR GAS COMPANY TO INCREASE DISTRIBUTION RATES AND CHARGES AND MAKE TARIFF MODIFICIATIONS	Docket No. 13-057-05

DIRECT TESTIMONY OF

DAVID M. CURTIS

FOR

QUESTAR GAS COMPANY

July 1, 2013

QGC Exhibit 2.0

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I. INTRODUCTION

Q. Please state your name and position.

A. David M. Curtis. I am employed by Questar Corporation as Vice President and Controller.

Q. Please state your qualifications and experience testifying before regulatory commissions.

A. My qualifications and experience are provided in QGC Exhibit 2.1.

Q. Attached to your written testimony are QGC Exhibits 2.1 – 2.11. Were these prepared by you or under your direction?

A. Yes.

Q. What is the purpose of your testimony?

A. I will provide testimony supporting the Company's requested rate of return (cost of capital) in this general rate case. The components of a rate of return include: (1) investors' required return on equity, (2) cost of long-term debt, and (3) capital structure.

My testimony will discuss the models and factors used in supporting the Company's requested rate of return including: regulatory framework and financial implications; proxy group; discounted cash flow model; capital asset pricing model; comparison of risks between Questar Gas and the proxy group; impact of allowed returns on bond ratings; actual returns of companies in the proxy group; allowed returns in other jurisdictions; cost of long-term debt; and capital structure.

II. RETURN ON EQUITY

A. Regulatory Framework and Financial Implications

Q. Please describe the guiding principles to be used in establishing the authorized return on equity for a regulated utility.

A. The United States Supreme Court definitively established the guiding principles to be used by regulatory commissions in setting the appropriate authorized return on equity in two cases commonly referred to as *Hope* and *Bluefield*.[1]

In *Bluefield* the Court said:

> A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time and become too high or too low by changes affecting opportunities for investment, the money market and business conditions generally. (*Bluefield* at 692-93)

In *Hope* the Court said:

> From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock. By that standard the return to the equity owner should be commensurate with returns on investment in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and attract capital. (*Hope* at 603)

In these cases, the Court unequivocally has determined that returns to investors should be: (1) adequate to assure confidence in the financial soundness of the utility, (2) adequate to support its credit and enable it to raise capital, (3) reasonable in light of current financial market conditions, and (4) commensurate with returns on investments having corresponding risks.

[1] *Bluefield Waterworks & Improvement Company v. Public Service Commission of West Virginia*, 262 U.S. 679 (1923) and *Federal Power Commission v. Hope Natural Gas Co.* 320 U.S. 591 (1944).

The United States Supreme Court did not specify a means of arriving at a fair rate of return, but determined that the end result must be "just and reasonable." (*Hope* at 602)

Q. How do these guiding principles impact your approach to recommending an authorized return on equity?

A. I have utilized several different models to estimate a "just and reasonable" authorized return on equity. These models are used in Utah and in many jurisdictions throughout the United States. I compared the results of each of these models with investor expectations as measured by recent allowed returns for natural gas utilities throughout the United States. To the extent that these results are inconsistent, I have weighted the results in arriving at my recommendation. It is not mandated that any particular model be used, rather, it is important that the end result is "just and reasonable."

Q. What would be the impact on Questar Gas if the authorized return on equity is not "just and reasonable"?

A. Questar Gas needs access to debt and equity capital. Over the next few years, Questar Gas anticipates that it will invest about $200 million per year in capital projects, including significant investment to replace aging pipeline infrastructure. Replacement of aging infrastructure, as more fully described by Mr. McKay, is necessary to provide safe and reliable natural gas distribution service to customers. Additionally, over the past decade or more, the number of customers served has grown at an average rate of more than 2% per year. Although the customer growth rate has decreased over the past few years because of the economic recession, Questar Gas is seeing the rate of customer growth returning to earlier levels. For these reasons, if the return on equity authorized by the Commission is not "just and reasonable," bond ratings could be lowered resulting in higher long-term debt costs. Questar Gas also needs to raise new equity capital. Unless the return on equity is deemed adequate, equity investors will not be likely to invest additional capital in the Company.

B. Proxy Group

Q. Why have you used a group of proxy companies to help estimate the cost of equity for Questar Gas?

A. As a wholly-owned subsidiary of Questar Corporation, Questar Gas' common stock is not publicly traded, so equity-market data does not exist for Questar Gas. Therefore, it is not possible to measure investor expectations of returns for Questar Gas directly. Since the return on equity is a market-based concept, it is necessary to use a group of companies with similar risks that are publicly traded as a proxy for investor expectations for Questar Gas. It would not be appropriate to use the return expected by the market for Questar Corporation since Questar Gas constitutes only a portion of Questar Corporation's business. The risks and investor expectations for Questar Corporation, as a whole, are different from the risks and investor expectations for the natural gas distribution business.

In addition, even if Questar Gas' common stock were publicly traded, it would be necessary to use a proxy group to assure that the return on equity authorized for Questar Gas is commensurate with returns on investments of similar risks and to avoid any anomalies in the return expected by investors in Questar Gas. Therefore, the use of a group of publicly traded proxy companies is a common practice in Utah and in jurisdictions throughout the United States.

Q. How did you determine which companies to use in your list of proxy companies?

A. I started with the Yahoo! Finance "Gas Utility" list of natural gas utilities. I excluded private companies, foreign companies, propane companies, transmission companies, gathering companies and storage companies. The remaining 21 companies are shown on QGC Exhibit 2.2. I used the following criteria for inclusion in the proxy group: (1) at least half of total operating income for the company must come from natural gas distribution operations; (2) the company must have an investment grade bond rating; (3) the company must be followed by at least two investment analysts; and, (4) the company must not be in the process of being acquired or acquiring other companies. I utilized these criteria to ensure that the proxy companies matched, as closely as possible, the risk

profile of Questar Gas. Thirteen of the companies were eliminated for failing one or more of these criteria. In the past, I included Laclede Group in the proxy group; however it is in the process of acquiring natural gas distribution operations from other companies so I have removed this company from the proxy group.

The remaining eight companies in the proxy group are similar to Questar Gas. Each has at least one-half of its operating income from natural gas distribution operations, has an investment grade bond rating, and is actively followed by investment analysts. None of these companies are in the process of being acquired or acquiring other companies. These companies are also similar in size to Questar Gas as measured by the number of customers. I believe that this group of companies constitutes the best available proxy group to measure investor return expectations. I will compare the risks of the companies in the proxy group with Questar Gas' risks later in this testimony.

C. Discounted Cash Flow Model

Q. Describe the discounted cash flow model for measuring investor expectations.

A. The discounted cash flow model starts with the assumption that a company's stock price is the present value of future expected cash flows discounted at the required return on equity. This model is represented by the following formula:

$$P_0 = \frac{D_1}{(1+k)} + \frac{D_2}{(1+k)^2} + \frac{D_3}{(1+k)^3} + \ldots + \frac{D_\infty}{(1+k)^\infty}$$

Where P_0 represents the current stock price, $D_1 \ldots D_\infty$ represent the expected stream of future dividends, and k is the discount rate or required return on equity. If you assume that the dividend growth rate is constant, then this equation can be rearranged and simplified to give the following equation:

$$k = \frac{D_0(1+g)}{P_0} + g$$

This formula is the "Constant Growth DCF" model in which the first term is the expected dividend yield and the second term is the expected long-term growth in dividends.

Q. How did you calculate the expected dividend yield?

A. The dividend yield is calculated based on the 50-day moving average stock prices and dividend payments. Data on QGC Exhibit 2.3 pages 1 and 2 shows the current dividend yields using two different approaches. For each of the proxy group companies I obtained the current annual dividend per share. I also obtained the 50-day moving average stock price. I used an average price over the last 50 trading days to even out short-term fluctuations in the stock market. I divided the current dividend per share by the 50-day moving average stock price to arrive at a current dividend yield. Since the model uses a dividend yield at the end of the first year, I multiplied this dividend yield by one plus the growth rate. The average adjusted dividend yield for these eight proxy companies is 3.74% or 3.81% depending on the version of the model.

Q. How did you calculate the growth rates?

A. The growth-rate assumption has the largest impact on this model, yet it is the assumption that has the least certainty.

I prepared one version of this model using expected growth rates from investment analysts. I averaged growth rates as reported by Yahoo! Finance, Zacks, US Capital Advisors, Bloomberg and CNN Money. Yahoo! Finance uses growth estimates as reported by Thompson Financial Network. This version is one that has often been considered in setting rates of return. However, these growth rates typically only look out five years, while the DCF model requires a growth rate for perpetuity. There may also be some bias from the investment analysts to underestimate the growth projections. The results of this model as shown on QGC Exhibit 2.3 page 1 of 2 show an average required return on equity of 8.73%, with a low of 7.96% and a high of 9.50%.

I prepared a second version of the DCF model using an average of actual 5-year historical earnings growth for each company, actual 10-year historical earnings growth for each company and an average projected industry earnings growth rate as reported to investors

by individual companies. I believe that this version of the DCF model corrects for a systematic bias from investment analysts in understating earnings growth projections.

This second growth rate is shown on QGC Exhibit 2.3 page 2 of 2. The average expected return on investment using these growth rates is 10.75% with a low of 6.19% and a high of 12.59%.

Q. Why do you believe the growth rates as reported by investment analysts have a systematic understatement bias?

A. The natural gas distribution business has demonstrated earnings growth of nearly 10% per year over the past 10 years even with the 2008 recession. Earnings have increased from a combination of investment in infrastructure replacement and customer growth. Going forward, companies are projecting earnings growth rates of 6% to 7% per year. Investment analysts are reporting forecast earnings growth rates averaging 5% per year. I believe this reflects a conservative understatement bias in the investment analyst projections.

For this reason, I prepared a version of the Discounted Cash Flow model using historical earnings growth rates and company forecast earnings growth rates. I believe this model may be more reflective of actual investor expectations than the model using reported investment analyst growth rates for five years.

Q. What are the deficiencies in the Discounted Cash Flow model?

A. Though this model is straightforward and easy to understand, it is based on significant assumptions that are not always accurate over time. For example, this model assumes dividends grow at a constant rate in perpetuity, the dividend payout ratio remains constant, investors require a constant return in perpetuity, and the growth assumption is knowable.

The main problem with this model is that we really do not know what investors expect in future growth rates.

Because of the weaknesses in this model, it should not be used alone. This model should be used in context with the results of other models and capital market conditions.

Q. What is your overall result from the discounted cash flow model?

A. I believe that the combined results from the two models should be used in setting the allowed return on equity. The model using reported investment analyst growth rates shows on average a dividend yield of 4% plus an earnings-growth rate of 5% to arrive at an overall average required return on equity of about 9%. The model using historical earnings growth rates shows on average a dividend yield of 4% plus an earnings growth rate of 7% to arrive at an overall average required return on equity of about 11%. I believe these two models support a required return on equity of 10.35%. The Capital Asset Pricing model and other comparisons support this conclusion.

D. Capital Asset Pricing Model

Q. Describe the capital markets line.

A. QGC Exhibit 2.4 shows the capital markets line as derived from the Morningstar Ibbotson SBBI 2013 Valuation Yearbook. The vertical axis shows the average return to investors for various asset classes for the years 1926 through 2012. The horizontal axis shows the annual standard deviation of returns for these asset classes. This graph illustrates the financial assumption that investors require higher rates of return for asset classes that have more risk. The level of risk can be measured by the variability of returns. For example, this graph shows that returns on US Government treasury bills have averaged about 4% for this long time period. The variability of returns for treasury bills as measured by the standard deviation has also been low at about 3%. In contrast, small company stocks had an average return of 17% for this same long time period. However the standard deviation of returns for small company stocks was 32%.

This capital markets line makes intuitive sense because of the different risks associated with each asset class. Smaller companies are riskier than larger companies because of smaller market share of the various goods and services and fewer economies of scale. Common equity is riskier than long-term debt because of residual risk of loss and debt

investors have a priority claim on the assets of the company. Long-term debt is riskier than short-term debt because of interest rate risk and longer exposure to credit risk. Corporate debt securities are riskier than US government debt securities because of credit risk.

Q. How can this theory be used in estimating the cost of equity capital?

A. Various models have been developed that estimate the cost of equity capital based on the risk premium for equity over debt. Investors insist on being paid for risk. The higher the level of risk, the higher the required return. The relationships between required returns tend to be relatively stable over time.

I have used the Capital Asset Pricing Model to estimate the required return on equity.

Q. Describe the Capital Asset Pricing Model.

A. The Capital Asset Pricing Model estimates the cost of equity for a given company using the risk-free rate of return and a risk premium to compensate the investor for additional risks associated with the company. This is calculated as follows:

$$k = rf + \beta(r_m - rf)$$

where:

k = the required return on equity

β = Beta of an individual security

rf = the risk free rate of return

r_m = the required return on a market as a whole.

In this formula, the term $(r_m - rf)$ represents the risk premium of the United States stock market over the risk free rate of return. The risk free rate of return commonly used is the yield on U.S. government 30-year Treasury bonds.

Beta is a measure of the risk of an individual security relative to the market as a whole. Beta is defined as:

β = Covariance (r_e, r_m) / Variance (r_m)

The variance of the market return is a measure of the uncertainty of the market. The covariance between the return of a specific security and the market as a whole is a measure of the extent to which the return on a security will respond to a change in the market.

Q. Is the Capital Asset Pricing Model a reasonable approach to help establish a utility's return on equity?

A. The Capital Asset Pricing Model has been a measure considered by the Utah Commission as well as commissions in many other jurisdictions throughout the United States. The Capital Asset Pricing Model is used by investors and analysts. It is commonly used in other applications such as asset valuations for levying property taxes. The underlying principles of risk premium and risk-free rate of return are sound.

However, as with the Discounted Cash Flow Model, the Capital Asset Pricing Model is not an exact tool. The assumption that the risk of an individual security can be measured by the Beta of that security relative to the market as a whole is theoretical at best. Many items can influence the Beta not directly related to risk such as how active the security is traded in the market and size of the company.

The accuracy of the Capital Asset Pricing Model has also been significantly influenced by recent changes in the capital markets. Each of the components of the Capital Asset Pricing Model has declined since the crisis in the capital markets began in mid-2008. The yield on the 30-year Treasury bond is near an all time low because of relaxed monetary policy used to stimulate the economy, including the Federal Reserve's quantitative easing programs to actively repurchase government bonds. The dramatic declines in the stock market during 2008 had a significant influence on the market risk premium even though 2008 was only one year out of 87. Paradoxically, years like 2008

will cause investors in equity investments to demand higher returns over fixed income investments because the risk of investing in equity investments has proven to be much higher after the capital market performance in 2008. Also the natural gas distribution utilities stock prices did not decline as significantly as the overall market, so the Betas for the proxy companies declined.

Q. Discuss the components of the Capital Asset Pricing Model.

A. My calculation of the required return on equity using the Capital Asset Pricing Model is shown on QGC Exhibit 2.5.

The adjusted Beta (Column E) used in the model was calculated by Value Line using historical market trading data for each of the companies in the proxy group. Value Line adjusts the raw Beta by averaging the historical result with 1.0 to reflect the tendency of the Beta to regress to the market mean of 1.0 over time. Value Line weights the raw Beta by 0.67 and the market (or 1.0) by 0.33. Failure to adjust the raw Beta will underestimate the cost of capital for relatively low raw Beta companies such as regulated utilities. Value Line also rounds the Beta result to the nearest 0.05.

I used the yield on the 30-year Treasury bond (Column F) as the risk free rate of return. Because the rate-effective period for this general rate case begins in 2014, I used a 2014 forecast yield on the 30-year Treasury bond. IHS Global Insight's March 2013 forecast for the 2014 30-year Treasury bond yield was 3.69% and Wells Fargo US Economic March 2013 forecast for the 2014 30-year Treasury bond yield was 3.83%. An average of these two forecasts was 3.76%. On June 24, 2013, the yield on the 30-year Treasury bond was 3.57%.

The market risk premium (Column G) was taken from Ibbotson Associates data using returns from 1926 through 2012. Large company common stocks had an average return over this period of 11.8%. Long-term government bonds had an average annual yield of 5.1% from 1926 to 2012. The market risk premium is therefore 6.7%.

The Capital Asset Pricing Model has been adjusted for the size of the company. Smaller companies have a higher investor return requirement because of higher volatility. The Morningstar Ibbotson SBBI 2013 Valuation Yearbook reports historical size premium for each decile of in the stock market. I have identified the appropriate size decile for each of the proxy companies. The size premium is added to the results of the model.

Q. What are the results from the Capital Asset Pricing Model using the 30-year Treasury bonds?

A. The Capital Asset Pricing Model using the 30-year Treasury bonds showed a required return on equity ranging from a minimum of 9.51% to a maximum of 10.49% with a mean of 9.82% as shown on Exhibit 2.5, lines 10-12.

My recommended allowed return on equity is consistent with the top range of this model. I believe that the top end of this model is appropriate because yields on long-term government bonds (even as forecast for 2014) are historically and artificially low because of continuing fiscal stimulus, including significant open-market purchases on bonds by the Federal Reserve.

Q. Can you demonstrate that government bond yields are at historical lows?

A. QGC Exhibit 2.6 page 1 is a graph of annual yields on 10-year Treasury Bonds for the period 1962 through 2012. (Note: I used the history for the 10-year Treasury bond since the US Government has not continuously issued 30-year Treasury Bonds.) As shown on the graph, the yield on the 10-year Treasury bond was below 2% in 2012, the lowest point during this historical period.

Q. Why do you believe this yield is artificially low?

A. QGC Exhibit 2.6 page 2 also compares the yield on the 10-year Treasury bond with inflation as measured by the Consumer Price Index. As can be seen on the graph, the inflation rate is roughly the same as the yield on the 10-year Treasury bond in 2012. In other words, investors are receiving a zero percent real return on their money for investing in 10-year Treasury bonds. I believe that this level of interest rates is unsustainable.

E. Risk Comparison between Proxy Group and Questar Gas

Q. How do Questar Gas' risks compare to the proxy group?

A. QGC Exhibit 2.7 is a comparison of the risks associated with Questar Gas' operations and the risks of the companies in the proxy group. My conclusions are as follows:

Bond ratings – Questar Gas' bond ratings are A3 from Moody's and A from Standard & Poor's. These ratings are consistent with the range of bond ratings of the proxy companies

. Interest coverage – Questar Gas' 2012 interest coverage was 4.1X, lower than the average of 5.5X for the proxy companies. This indicates that Questar Gas has higher financial risk.

Actual return on equity – Questar Gas' 2012 financial return on equity was 10.2%, lower than the 10.6% average for the proxy companies. The lower return for Questar Gas indicates higher risk.

Capital expenditures – Questar Gas' 2012 capital expenditures were 12.7% of net property, plant & equipment, higher than the 12.4% average for the proxy companies. Questar Gas has higher risk because of the need to reinvest a larger percentage of its capital.

Number of customers – Questar Gas had 931,000 customers at the end of 2012 compared to an average of 1,636,000 customers for the proxy group. Questar Gas' smaller size increases its risk due to lower economies of scale and access to capital.

Q. What are the implications of this risk comparison?

A. This analysis shows that Questar Gas has slightly higher risk as compared to the average risk of the proxy companies. Therefore, an allowed return higher than the proxy group average is appropriate.

F. Impact of Allowed Returns on Bond Ratings

Q. What are Questar Gas' current long-term debt ratings?

A. Questar Gas' senior unsecured long-term debt is currently rated A3 by Moody's and A by Standard and Poor's.

Q. What impact does an allowed return on equity have on bond ratings?

A. The bond rating agencies use a variety of quantitative and qualitative measures to establish ratings on securities. Moody's publishes their methodologies while Standard and Poor's keeps their methodologies proprietary.

In a report provided to Questar in November 2011, Moody's lays out the following measures in establishing bond ratings for regulated gas utilities: (1) regulatory framework; (2) ability to recover costs and earn returns; (3) diversification; and (4) financial strength, liquidity and key financial metrics. The first three measures are qualitative in nature but are significantly influenced by actions of regulators. The fourth measure is based on a cash-flow from operations interest coverage test, two cash-flows from operations to debt tests, and a capital structure test. All of these tests are impacted by the allowed rate of return.

Q. How do Questar Gas' results map to Moody's and Standard & Poor's objective rating criteria?

A. QGC Exhibit 2.8 shows a comparison of Questar Gas' actual 2012 results with the Moody's and Standard & Poor's objective rating criteria. Also shown are pro forma Questar Gas 2012 results if the company were to receive a 50 basis point or a 100 basis point reduction in allowed return on equity. Note that these pro forma results are hypothetical and may differ from forecast results.

As can be seen in the table, the Questar Gas metrics support the current bond ratings from Moody's and Standard & Poor's. While a decrease in allowed return may not result in a decrease in bond ratings, the metrics would decrease significantly if the allowed return were reduced below the current level. In particular, Questar Gas' metric for

debt/EBITDA already indicates a Standard & Poor's rating of BBB. Any significant reduction in allowed return would push this metric into solid BBB range.

Q. How would Questar Gas be impacted by a decrease in bond ratings?

A. The obvious impact on Questar Gas of a bond ratings downgrade would be on the cost of debt. Questar Gas' capital expenditures are expected to exceed cash flow for the foreseeable future. Questar Gas will need to raise investment capital to fund these capital expenditures. The interest rate spread due to lower bond ratings can be significant. During the recent capital markets crisis the credit spread between investment grade credit and noninvestment grade credit reached record highs. At times during this capital markets crisis, funds were not available for noninvestment grade credit at any price. A decline in bond ratings could have a significant impact on the future cost of capital and limit access to debt capital markets.

A decrease in bond ratings could have additional indirect impacts on Questar Gas that may exceed the direct impact on interest costs. Questar Gas relies on relationships with suppliers of goods and services to operate its business. The credit strength of Questar Gas is a key part of these relationships. Questar Gas would not be able to rely on supplier credit to run its business if its bonds were downgraded below investment grade.

For example, Questar Gas' natural gas purchases are significant during an average winter month. Without an investment grade bond rating, Questar Gas' suppliers may not extend the necessary credit to Questar Gas to make these essential purchases. Instead, Questar Gas may be required to prepay for this gas supply, significantly increasing the working capital requirement. Some of these suppliers may have internal policies that would even prevent them from selling to Questar Gas under the same pricing terms received today.

Questar Gas has an insurance program that includes a self-insured retention. Without an investment grade bond rating, other parties that Questar Gas conducts business with would be unwilling to accept the self-insured retention, which would increase Questar Gas' costs of doing business.

In summary, the loss of an investment grade bond rating would significantly increase the cost of business for Questar Gas and would increase the cost-of-service to customers.

G. Actual Returns Earned by Proxy Companies

Q. What actual returns on equity have the proxy companies earned?

A. QGC Exhibit 2.9 is a summary of actual financial returns on equity earned by each of the proxy companies from 2002 through 2012. I have averaged these returns both by company and by year. The average annual return on equity earned by the proxy companies was 11.5% over this period. By year this ranged from a low of 9.7% in 2005 to a high of 15.3% in 2006. The 10-year average by company ranged from a low of 8.2% for Southwest Gas to a high of 15.3% for New Jersey Resources. Also shown on this Exhibit is a calculation of the 10-year and 5-year compound annual growth rate in earnings as used in QGC Exhibit 2.3 page 2 of 2.

Q. What implication does an analysis of actual financial returns on equity have in setting an allowed rate of return?

A. This Exhibit shows that the proxy companies are earning returns consistent with or higher than the requested allowed return on equity of 10.35%. An allowed return lower than this level would result in results significantly worse than the proxy group and could have implications in raising the necessary capital to fund customer growth and system improvements.

H. Allowed Return in Other Jurisdictions

Q. What allowed returns on equity have other jurisdictions been authorizing for natural gas distribution companies?

A. QGC Exhibit 2.10 is a graph of rate cases completed for natural gas distribution companies from January 2009 through December 2012 as compiled by SNL and AGA. A total of 117 cases during this time period had a return on equity identified in the rate-case order. The authorized returns for 2009 through 2012 ranged from 8.83% to 11.35% with a mean of 10.06%. For the year 2012, the authorized returns ranged from 9.06% to

10.50% with a mean of 9.93%. The requested allowed return on equity of 10.35% is consistent with the returns authorized in other jurisdictions in recent rate cases.

Q. Why is it important for the Utah Commission to acknowledge the returns authorized by other jurisdictions?

A. As was stated earlier, Questar Gas needs to raise debt and equity capital in order to continue to provide safe and reliable natural gas service. Questar Gas accesses the same capital markets as other natural gas utilities. These markets are aware of the authorized returns granted utilities. If Questar Gas' authorized return is lower than comparable companies, the market will consider Questar Gas to have higher operating risks and will likely raise the cost of capital. This will have a direct impact on the cost of providing service to customers.

I. Recommendation

Q. Summarize your analysis of allowed return on equity.

A. The following table summarizes the results of my models and analysis of allowed return on equity.

	Minimum	Mean	Maximum
Discounted cash flow model			
Investment analysts' growth estimate	7.96%	8.73%	9.50%
Company growth estimate	6.19%	10.75%	12.59%
Capital asset pricing model	9.51%	9.82%	10.49%
Actual earned financial returns on equity by proxy companies from 2002 - 2012	8.20%	11.50%	15.30%
Recent authorized returns	8.83%	10.06%	11.35%

Q. What is your recommendation for an authorized return on equity?

A. Based on my analysis, I recommend that the Utah Commission authorize a return on equity of 10.35%. This is the same as the Utah Commission authorized in the previous general rate case. Questar Gas needs access to capital markets in order to fund customer

growth and replace aging infrastructure. This level of return would allow Questar Gas to continue to obtain the necessary financing and would be consistent with the returns currently authorized by other commissions.

III. COST OF LONG-TERM DEBT

Q. What is Questar Gas' cost of long-term debt?

A. The Company expects the long-term cost of debt will decrease in 2014. QGC Exhibit 2.11, shows the cost of debt for 2013 and 2014. Questar Gas' cost of long-term debt is expected to be 5.16% at the end of 2014 assuming a new $150 million 30-year financing anticipated in December 2013 and a new $50 million 10-year financing anticipated in December 2014. These financings are necessary to refinance maturing debt and fund capital expenditures. Questar Gas' overall cost of long-term debt is a weighted average of all issues currently outstanding, including amortization of debt issuance costs and loss on reacquired debt.

Q. How did you determine the cost of the new 30-year notes to be issued in December 2013?

A. Questar Gas has signed an engagement letter and is negotiating the terms of a $150 million private placement debt issuance. Questar Gas expects to lock in the terms for this issuance shortly, with a delayed draw in December 2013. We have assumed an interest rate of 4.80% for the 30-year notes to be issued in December 2013. This rate is based on estimates obtained from Questar Gas' agents. Because this debt issuance will have a significant impact on the overall cost of debt, we recommend that the general rate case filing be updated with actual terms as soon as they are known. This is expected within the next several weeks.

Q. How did you determine the cost of the new 10-year notes to be issued in December 2014?

A. Questar Gas expects that it will need to raise additional debt capital in 2014 to fund capital expenditures. We have assumed a $50 million private placement of 10-year notes

in December 2014. We have assumed an interest rate of 4.50% for this issuance based on current market conditions as reported from our agents.

IV. CAPITAL STRUCTURE

Q. What is Questar Gas' expected capital structure?

A. QGC Exhibit 2.11 also shows the Questar Gas' expected capital structure as of December 31, 2014. This is based on actual results through December 31, 2012 plus expected changes in equity and debt for 2013 and 2014. Questar Gas plans to receive equity contributions of $90 million in 2013 and $30 million in 2014 from its parent company, Questar Corporation. These contributions are necessary to fund capital expenditures and maintain an adequate equity portion of capital as Questar Gas issues additional long-term debt.

The capital structure is estimated as follows:

	% of Capital		
	Dec. 31, 2013	Dec. 31, 2014	Average
Long-term debt	47.88%	47.98%	47.93%
Common shareholder's equity	52.12%	52.02%	52.07%

Q. Is this capital structure reasonable?

A. Yes, I believe that the Questar Gas capital structure is reasonable. It is consistent with previous Commission orders and in line with the capital structure of the proxy group.

V. RATE OF RETURN RECOMMENDATION

Q. What is your overall recommendation for rate of return?

A. The following table summarizes my recommendation:

	Percent of Capital	Cost of Capital	Weighted Cost of Capital
Long-term debt	47.93%	5.23%	2.50%
Common shareholder's equity	52.07%	10.35%	5.39%
Rate of return			7.89%

Q. Does this conclude your testimony?

A. Yes.

State of Utah)
) ss.
County of Salt Lake)

I, David M. Curtis, being first duly sworn on oath, state that the answers in the foregoing written testimony are true and correct to the best of my knowledge, information and belief. Except as stated in the testimony, the exhibits attached to the testimony were prepared by me or under my direction and supervision, and they are true and correct to the best of my knowledge, information and belief. Any exhibits not prepared by me or under my direction and supervision are true and correct copies of the documents they purport to be.

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David M. Curtis

SUBSCRIBED AND SWORN TO this 1st day of July 2013.

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Notary Public