BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF THE APPLICATION OF NEW MEXICO GAS COMPANY, INC. FOR APPROVAL OF REVISIONS TO ITS RATES, RULES, AND CHARGES PURSUANT TO ADVICE NOTICE NOS. 70 AND 71	)	**Case No. 18-_____-UT**
NEW MEXICO GAS COMPANY, INC.	)	
Applicant.	)	

DIRECT TESTIMONY AND EXHIBITS

OF

DANIEL P. YARDLEY

February 26, 2018

DIRECT TESTIMONY OF
DANIEL P. YARDLEY
NMPRC CASE NO. 18-_____-UT

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Daniel P. Yardley, and my business address is 2409 Providence Hills Drive, Matthews, North Carolina 28105.

Q. IN WHAT CAPACITY ARE YOU EMPLOYED?

A. I am a Principal of Yardley Associates, a consulting firm specializing in rate and regulatory matters in the natural gas utility industry.

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL WORK EXPERIENCE.

A. I received a Bachelor of Science Degree in Electrical Engineering from the Massachusetts Institute of Technology in 1988. For the last 25+ years I have been employed as a consultant to the natural gas industry. During this period, I have directed or participated in numerous consulting assignments on behalf of local distribution companies ("LDCs"). I have extensive experience analyzing and developing LDC and gas pipeline cost allocation studies, rate design studies, and in other tariff matters, including the development of revenue adjustment and cost recovery mechanisms. I have also performed gas supply planning analyses and financial evaluation analyses on behalf of LDCs.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING?

A. I am testifying on behalf of New Mexico Gas Company, Inc. ("NMGC" or the "Company").

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION ("NMPRC" OR THE "COMMISSION")?

A. No, I have not previously testified before the Commission. I have, however, testified on numerous occasions before state utility commissions in other states, the Federal Energy Regulatory Commission, and the National Energy Board of Canada on a variety of rate and regulatory topics. The subject matters addressed in these proceedings include cost allocation, service design, rate design, revenue decoupling, cost recovery mechanisms and tariff design. A summary of my previous expert testimony in other jurisdiction is provided as NMGC Exhibit DPY-1, which is attached to my direct testimony.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE?

A. I have been asked by NMGC to evaluate the manner in which it recovers its base distribution revenue requirements from customers, and to propose changes that are consistent with the nature of the services it provides, as well as important rate design objectives. My testimony addresses several topics associated with fair recovery of costs the Company incurs to provide safe and reliable service to its customers which include:

(1) the derivation of new base rates and charges for distribution and transmission services that fairly apportion the Company's revenue requirement among customer classes through appropriate charges to customers. The new charges are based on appropriate rate design considerations and reflect the results of the Company's Fully Allocated Cost of Service ("FACOS") study.

(2) the development of two tariff mechanisms that address material factors affecting the Company's ability to recover its costs under traditional base

rates. The first of these mechanisms is a Weather Normalization Adjustment ("Weather Mechanism") tariff rider that normalizes revenue recoveries due to variances in heating degree days that occur during the heating season. The second mechanism is an Integrity Management Program Cost Recovery Mechanism ("IMP Mechanism"), designed to support NMGC's need to accelerate investment in replacement of specific categories of infrastructure and upgrade certain existing infrastructure consistent with maintaining safe and reliable operations.

(3) the parameters of an economic development rate designed to help attract new business to New Mexico.

Q. PLEASE DESCRIBE THE BASIS FOR THE FINDINGS AND RECOMMENDATIONS PRESENTED IN YOUR DIRECT TESTIMONY.

A. I work extensively with LDCs on rate and regulatory matters in many jurisdictions in the U.S. and have developed a broad understanding and experience regarding these issues through previous consulting engagements as well as through research of approaches in other jurisdictions and review of materials prepared by others. I met with NMGC representatives to discuss the challenges facing the Company from a cost recovery perspective. These challenges, which include revenue variability and the need to manage increasing responsibilities to reinvest in existing facilities are common among NMGC's peer companies. Based upon my knowledge and experience, I discussed potential solutions to these challenges that offer benefits to the Company and its customers and other stakeholders. Further, I independently analyzed various data and information obtained

from the Company and worked closely with Company personnel to develop the recommendations reflected in my direct testimony in order to present specific recommendations to the Company, which are reflected in my testimony. These recommendations are consistent with industry-wide approaches and incorporate specific facts and circumstances of NMGC as well as the ratemaking approach of the Commission.

Q. PLEASE SUMMARIZE YOUR FINDINGS.

A. The following eight findings and recommendations are supported through my direct testimony:

(1) **NMGC's current base rate structures for most classes recover a substantial proportion of fixed costs through variable charges:** The vast majority of NMGC's costs recovered through base rates are fixed. Only 44 percent of the Company's costs are recovered through fixed charges creating a dichotomy between the manner in which NMGC incurs costs and the manner in which it seeks to recover costs from customers.

(2) **Recovery of NMGC's costs is directly linked with customer throughput:** Fluctuations in customer use due to factors that are largely beyond NMGC's ability to control detracts from the Company's ability to recover the costs approved by the Commission in a base rate proceeding. Factors that affect customer use include significant weather variations, changes in appliance efficiencies and construction materials, and customer behavior. The most significant of these factors is the variability from year-to-year in weather experienced across the area served by the Company.

(3) **The proposed Weather Mechanism represents a necessary and effective means of reducing the variability of NMGC's cost recovery due to variations in weather:** The proposed Weather Mechanism adjusts margin recoveries of residential and small commercial customers due to differences between actual and normal heating degree days. Under the Weather Mechanism, higher-than-normal heating degree days result in a credit to customers over a subsequent period, while lower-than-normal heating degree days result in a charge to customers over a subsequent period.

(4) **The proposed IMP Mechanism provides for timely recovery of targeted integrity management replacement activity associated with NMGC's Integrity Management Program ("IMP"):** The accelerating need to replace specified categories of legacy infrastructure are appropriately addressed through a cost recovery mechanism that provides for timely recovery of associated investments. The proposed cost recovery mechanism benefits the Company and its customers by promoting the timely recovery of IMP costs associated with necessary safety and reliability investments while moderating rate impacts to customers.

(5) **The proposed Weather and IMP mechanisms are consistent with approaches adopted in other jurisdictions:** The implementation of these two new tariff adjustment mechanisms brings NMGC more in line with its peers both in terms of greater revenue stability and the ability to manage integrity management investment requirements in a manner that is beneficial to the Company and its customers.

(6) **Existing fixed access fees for the majority of NMGC's customers do not recover the Company's fixed costs:** The monthly access fees for residential customers only account for 50 percent of total base revenues, while the remaining 50 percent are recovered through usage-based charges. Similarly, monthly access fees for small volume general service customers recover only 30 percent of total base revenues. The proposed residential monthly access charge of $14.50 and small volume general service access charge of $25.00 promote recovery of a greater proportion of fixed costs through fixed charges, which is important to increase revenue stability.

(7) **NMGC's rate design proposals contribute to fairness in pricing across and within rate classes:** The apportionment of the proposed revenue increase among classes reduces interclass subsidies while maintaining acceptable bill impacts. Further, moderate increases to monthly fixed charges, where appropriate, ensure that the recovery of class revenue requirements gradually moves towards cost-based levels.

(8) **The proposed Economic Development Rate provides a tool for public policy makers to attract business activity and jobs to New Mexico:** The Economic Development Rate provides a time-limited fixed rate discount for businesses that move to New Mexico consistent with the legislation providing for discounted service to promote economic development. Service provided under the Economic Development Rate contributes to lower rates for other customers over the long-term while supporting a business-friendly environment in New Mexico.

Q. ARE YOU SUPPORTING ANY EXHIBITS THAT ACCOMPANY YOUR DIRECT TESTIMONY?

A. Yes. I am sponsoring the following exhibits, which will be explained later in my testimony:

NMGC Exhibit DPY-1:	Curriculum Vitae;
NMGC Exhibit DPY-2:	Base Revenue Stability and Infrastructure Cost Recovery Mechanisms for 50 Largest LDCs;
NMGC Exhibit DPY-3:	Pro Forma Weather Normalization Adjustment Mechanism Tariff;
NMGC Exhibit DPY-4:	Illustrative Weather Mechanism Calculations;
NMGC Exhibit DPY-5:	Pro Forma IMP Mechanism Tariff;
NMGC Exhibit DPY-6:	NARUC Resolution Encouraging Natural Gas Line Investment and the Expedited Replacement of High-Risk Distribution Mains and Service Lines;
NMGC Exhibit DPY-7:	Illustrative IMP Mechanism Calculations;
NMGC Exhibit DPY-8:	Allocation of NMGC Proposed Revenue Requirements to Base Rates;
NMGC Exhibit DPY-9:	Existing and Proposed Base Rates and Revenues;
NMGC Exhibit DPY-10:	Residential and Small Volume General Service Bill Impact; and
NMGC Exhibit DPY-11:	Pro Forma Economic Development Rate Tariff.

Q. HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?

A. I first discuss NMGC's rate design goals. I then discuss and support the proposed Weather Mechanism. Third, I discuss and support the proposed IMP Mechanism. Fourth, I discuss NMGC's proposed base rates including a proposed increase in the Company's fixed access fees. Fifth, I describe and support NMGC's proposed Economic Development Rate.

II. NEW MEXICO GAS COMPANY RATE DESIGN GOALS

Q. WHAT PRINCIPLES GUIDE THE DEVELOPMENT OF THE RATE AND RECOVERY MECHANISMS YOU PRESENT IN YOUR DIRECT TESTIMONY?

A. The overall rate design approach as well as the specific proposals I recommend seek to achieve the following five traditional regulatory goals for rate design and cost recovery:

(1) **Fairness** – Fairness is accomplished through pricing services based on the underlying cost. Fairness is important in many respects including, (i) between the Company and its customers, (ii) across rate classes served by NMGC, and (iii) among customers taking service under a single rate schedule.

(2) **Not Discriminatory** – Avoiding undue discrimination requires rates that do not grant an unreasonable preference or subject an unreasonable disadvantage to any customer or group of customers.

(3) **Revenue Stability** – Revenue stability means that the Company's base rate revenues are more predictable in view of future uncertainties. As customer usage patterns have become less certain, improved revenue stability through rate design takes on greater importance as a way of mitigating the increased revenue risks to customers and the Company associated with such unpredictable consumption patterns.

(4) **Moderation** – Moderation allows for the implementation of price changes over time to ensure that customers are not exposed to dramatic price changes all at once.

(5) **Simplicity** – Simplicity means a rate structure that is easy for customers to understand and straightforward to administer.

Q. IS IT POSSIBLE TO MAKE A HIGH-LEVEL ASSESSMENT OF NMGC'S EXISTING RATE STRUCTURE IN RELATION TO THE GOALS YOU DESCRIBE ABOVE?

A. Yes. While no rate structure perfectly meets all of these goals, here a significant area of concern associated with the Company's present rate structure is that it contributes to considerable revenue instability. Due to this overarching concern, it is imperative that the goal of revenue stability receive a more significant level of focus in this case. The various rate design and recovery mechanisms described in my direct testimony seek to strike an appropriate balance among revenue stability and the remaining rate design goals.

Q. PLEASE DESCRIBE NMGC'S CURRENT RATE DESIGN.

A. The Company's rate structure relies extensively on variable charges to recover fixed costs. While the rates for customers include a combination of fixed monthly charges and throughput-based or variable charges, typically over half of base distribution revenues are derived from the variable charge components and are directly linked to customer usage patterns. Base distribution revenues, sometimes referred to as margin revenues, are revenues received through base rates that recover a utility's cost of service, excluding purchased gas or other tracked costs. Under current rates, base revenues from variable charges account for nearly 56 percent of the Company's total base revenue recoveries. This indicates a significant conflict between how the Company incurs costs and how these costs are recovered from customers. While NMGC's rate structure follows an approach that used to be quite prevalent in the industry, shifting industry fundamentals have led to the adoption of changes throughout the U.S. to resolve the inherent conflicts of a throughput-

based rate structure. NMGC's current rate structure lags behind these industry trends, and what NMGC is proposing in this case is an attempt to bring its rate structure more in line with present industry standards.

Q. WHAT WERE THE CIRCUMSTANCES THAT LED TO THE USE OF THROUGHPUT-BASED RATE DESIGNS FOR GAS DISTRIBUTION UTILITIES?

A. The prevalence of throughput-based rate designs reflected historical industry drivers and market conditions. The U.S. natural gas delivery system underwent a period of broad expansion that lasted for decades following World War II. This expansion, enabled by advances in metallurgical technologies and welding techniques, brought the benefits of abundant, reliable, affordable, and clean-burning natural gas to millions of households and businesses throughout the U.S., including New Mexico. Public policy promoted the expansion of natural gas infrastructure and additional penetration of natural gas into more homes and businesses and for additional end-uses. This public policy was reflected in throughput-based rate designs as expanding systems and growing loads allowed an LDC's fixed costs to be spread over greater levels of billing units, lowering average costs to consumers. These traditional usage-based rate designs were appropriate under the circumstances in which they were developed.

Q. HAVE THE CIRCUMSTANCES THAT GAVE RISE TO THROUGHPUT-BASED RATE DESIGN CHANGED?

A. Yes. Increasing variability in both weather and non-weather effects on customer usage, coupled with declining rates of customer growth, call for new approaches to rate design. Additionally, many policymakers are increasingly focused on promoting increased energy efficiency in order to reduce carbon emissions and lower customer bills. Taken together, these priorities are contributing to the adoption of new rate design approaches throughout the country that reduce or eliminate the throughput incentive inherent in usage-based rate designs. Breaking the link between throughput and revenue recovery leads to revenue stability for the Company and its customers.

Q. WHAT COMMON APPROACHES HAVE BEEN IMPLEMENTED TO ADDRESS THE THROUGHPUT INCENTIVE ASSOCIATED WITH TRADITIONAL USAGE-BASED RATE DESIGNS?

A. Regulators in many individual jurisdictions have approved various types of rate design changes that address the shortcomings associated with traditional rate designs that rely on variable charges to recover fixed costs. The changes include fixed-cost rate design approaches and mechanisms that break the link between customer throughput and base revenue recoveries such as weather normalization adjustment tariff riders and broader revenue decoupling mechanisms.

III. WEATHER NORMALIZATION ADJUSTMENT MECHANISM

Q. IS WEATHER A SIGNIFICANT AREA OF CONCERN ASSOCIATED WITH NMGC's EXISTING RATE STRUCTURE?

A. Yes. NMGC is primarily a heating-load utility. Actual weather conditions substantially affect NMGC's throughput volumes because the vast majority of the Company's customers utilize natural gas for heating. Approximately 66 percent of residential load and 64 percent of small commercial load is weather-sensitive as reflected in the billing determinants associated with the Company's proposed base rates. Variations in actual heating degree days over the course of the winter season may be significant, representing a material concern with respect to NMGC's usage-based rate structure, which recovers a substantial proportion of fixed costs through variable charges. As a result, fluctuations in weather contribute directly to fluctuations in the level of base revenue recoveries the Company relies upon to offset its fixed costs.

Q. WHY DO VARIATIONS IN WEATHER POSE CONCERNS FOR NMGC AND ITS CUSTOMERS?

A. A desired outcome of any base rate case process is establishing a rate structure that reasonably allows for the future recovery of allowed base revenues established in the case. For a utility with significant weather-sensitive heating loads, such as NMGC, the potential for weather variability represents a critical element to address within rate design. A substantial proportion of the Company's base revenues are influenced by the level of heating degree days that occur during the heating season, which can lead to higher or lower base revenues paid by customers for the service they purchase from NMGC. While some

differences in revenue realization can be expected due to weather or other factors, too much variability is undesirable. Revenue instability is a concern for LDC base rates that recover fixed costs that do not vary with customer usage. Over the last seven years since the Company's base rates were last reset, heating degree days have ranged from 15 percent warmer-than-normal to seven percent colder-than-normal. Given the variability of weather in New Mexico, and given that NMGC is primarily a heating-load utility, the magnitude of the weather swings and the associated impacts on base revenue recoveries represent a material concern for NMGC and for its customers.

Q. IN THE COMPANY'S LAST BASE RATE CASE, NMGC'S RATES WERE ESTABLISHED ON THE BASIS OF A TEN-YEAR NORMAL WEATHER PATTERN. DID THIS MITIGATE THE IMPACTS OF VARIATIONS IN WEATHER ON BASE REVENUES?

A. Not entirely. While the use of a ten-year normal weather mitigated these impacts, it did not prevent the Company from experiencing substantial declines in base revenues attributable to variations in weather; a factor that is beyond the Company's ability to influence or control.

Q. IS IT POSSIBLE TO ADDRESS THESE WEATHER-RELATED CONCERNS THROUGH A MODIFICATION OF THE COMPANY'S RATE STRUCTURE?

A. Yes. Changing NMGC's base rate structure to address the instability of base revenues due to weather impacts would be beneficial to both NMGC and its customers. There are alternative means of addressing weather variability concerns. For example, a cost-based

rate structure could be implemented to resolve these concerns by recovering fixed costs through fixed charges. Implementing a flat charge rate design for residential customers and some form of rate design that includes a higher access fee and a demand charge for small commercial customers would correct the weather instability inherent in NMGC's rate structure. In fact, LDCs in Georgia, Ohio, Missouri and North Dakota operate with these types of base rates for their customers. However, implementing one of these forms of rate designs in this proceeding would raise other significant issues, including potential rate moderation concerns for some customers. An effective, but less dramatic change to NMGC's rate structure is what I am recommending in this proceeding. Namely, the pairing of more modest increases to fixed charges along with the adoption of a weather normalization adjustment mechanism that stabilizes base revenues for variations in weather through a revenue adjustment that complements the underlying base rates.

Q. PLEASE DESCRIBE THE CENTRAL FOCUS OF A WEATHER NORMALIZATION ADJUSTMENT MECHANISM.

A. A weather normalization adjustment mechanism is simply a mechanism to normalize base revenue recovery for the effects of inconsistent and abnormal weather. In particular, a weather normalization adjustment mechanism operates to recover the difference between base revenues received based on actual weather and base revenues that would have been received based on the normal weather relied upon to set base rates.

Q. ARE WEATHER NORMALIZATION MECHANISMS COMMON IN THE GAS DISTRIBUTION INDUSTRY?

A. Yes. The use of weather normalization adjustment mechanisms is extensive across the gas distribution industry in the U.S. Many of these weather normalization adjustment mechanisms have been in place for years. According to a recent analysis prepared by the American Gas Association ("AGA"), 57 LDCs across 22 states operate with a weather normalization adjustment mechanism. An additional 36 LDCs across 12 other states operate with revenue decoupling mechanisms that adjust revenues for the impacts of both weather and non-weather effects on customer use.

Q. WHAT ARE THE IMPLICATIONS OF NMGC'S EXISTING RATE STRUCTURE AS COMPARED TO PEER LDCS?

A. In my judgment based upon experience working with LDCs in various jurisdictions and on the AGA survey material, NMGC's rate structure exposes the Company and its customers to considerable base revenue instability as compared with its peers. Many LDCs operate under weather normalization or broader revenue decoupling mechanisms. In addition to these LDCs, there are additional peer companies that employ a fixed rate structure that also operates to stabilize base revenues for variations in customer consumption patterns. The lack of a weather normalization adjustment or decoupling mechanism places NMGC in the minority of LDCs with substantial residential and small commercial loads. Adjusting base revenues for the impact of weather as would occur under NMGC's proposed Weather Mechanism would bring the Company's rate structure closer to its peers.

I compiled information obtained from AGA to provide a comparison of elements of the Company's rate structure to other large LDCs in the U.S. The results are presented in

NMGC Exhibit DPY-2 which provides a list of the 50 largest U.S. LDCs by number of residential customers and indicates whether the LDC operates with a mechanism that stabilizes base revenues. Thirty-eight of the LDCs representing 83% of the residential customers operate with such a mechanism. Additionally, the residential rate designs for the majority of the remaining 11 LDCs, other than NMGC, reflect much lower revenue recovery through variable charges than does NMGC reducing the base revenue impacts of variations in customer use.

Q. WHAT ARE THE KEY DESIGN PARAMETERS OF A WEATHER NORMALIZATION ADJUSTMENT MECHANISM?

A. Several important features ensure that the weather normalization adjustment mechanism operates appropriately in conjunction with the underlying base rates. The first aspect is which rate classes are included in the mechanism. Second, the basis for determining the weather-sensitivity of customer use as well as the benchmark weather and basis for measuring future changes in weather must all be developed in tandem. Lastly, the timing of weather adjustments under the weather normalization adjustment mechanism, including whether the mechanism operates as a Type 1 or a Type 2 weather normalization adjustment mechanism.

Q. WHAT ARE THE GENERAL TYPES OF WEATHER NORMALIZATION ADJUSTMENT MECHANISMS?

A. There are two types of weather normalization adjustment mechanisms widely implemented in the gas distribution industry. These are commonly referred to as Type 1 and Type 2

adjustment mechanisms. A Type 1 weather normalization adjustment mechanism adjusts individual customer's current bills for the impact of weather that occurred during the billing days corresponding with the customer's metered consumption. A Type 1 weather normalization adjustment mechanism relies upon customer-specific information to perform the true-up that is included on the bill. A Type 2 weather normalization adjustment aggregates the weather impacts on base revenues for a group of customers, such as an entire rate class, over an entire heating season and defers the offsetting credit or surcharge to a subsequent period, typically the following year.

Q. WHICH TYPE OF WEATHER NORMALIZATION ADJUSTMENT MECHANISM IS NMGC PROPOSING?

A. NMGC is proposing a Type 2 weather normalization adjustment which accumulates weather impacts during one heating season and reflects the adjustment over a subsequent period. I believe that a Type 2 mechanism offers advantages initially in terms of simplicity and understandability, and represents a mechanism that the Company is fully prepared to carry out the needed customer education and billing modifications for successful implementation. The Company could propose a shift to a Type 1 weather normalization adjustment at a later time after experience is gained under the proposed mechanism, but has no specific plans to make this proposal.

Q. WHICH CUSTOMER CLASSES WOULD BE INCLUDED IN THE WEATHER MECHANISM CALCULATIONS?

A. The Weather Mechanism will apply to two rate classes – Rate No. 10 Residential Service and Rate No. 54 Small Volume General Service. These rate classes exhibit significant temperature-sensitivity. Additionally, these rate classes represent the Company's core customer base comprising the majority of NMGC's customers, throughput and base revenues. While other rate classes may include some weather-sensitive customers, the majority of weather-sensitive loads fall under Rate Nos. 10 and 54.

Q. PRIOR TO DESCRIBING THE WEATHER MECHANISM IN DETAIL, PLEASE BRIEFLY SUMMARIZE HOW THE WEATHER MECHANISM WILL OPERATE.

A. Normal weather will be established in this base rate case based on average heating degree days over the last ten years. This level will thereafter be reset in each subsequent rate case consistent with the normal weather used to establish test period billing determinants. Between rate cases, the actual weather in a given year will be determined form taking actual daily temperature readings throughout the NMGC service area. At the end of the heating season (October – April), the actual measured weather will be compared with normal weather to determine how much warmer or colder weather variated from normal. The base revenue impact of a warmer period will be charged to customers over the subsequent year and the base revenue impact of a colder period will be credited to customers over a subsequent year. The process will repeat itself each year with the second and each succeeding year changing the net rate to be charged or credited depending on the intervening weather.

Q. HOW DID YOU DEVELOP THE VARIOUS FACTORS THAT DETERMINE THE WEATHER IMPACTS CAPTURED THROUGH THE PROPOSED WEATHER MECHANISM AND SUBSEQUENTLY REFLECTED IN WEATHER MECHANISM CREDITS OR CHARGES TO CUSTOMERS?

A. The Weather Mechanism measures changes in base revenue recoveries due to variations in weather through a combination of consumption and margin factors. The principal design consideration for the various factors incorporated into the Weather Mechanism is consistency with the development of billing determinants and rates for base rate purposes. The Weather Mechanism complements NMGC's base rates by refunding excess base rate revenues to customers when colder-than-normal weather occurs and charges base rate revenue deficiencies to customers when warmer-than-normal weather occurs. Consistency with the development of the proposed base rates ensures that the Weather Mechanism revenue adjustments properly reflect the characteristics of NMGC's customers.

Q. WHAT ARE WEATHER MECHANISM CONSUMPTION FACTORS AND WHAT IS THEIR PURPOSE?

A. A Weather Mechanism consumption factor is simply a measure of how much load varies per heating degree day and is stated in therms for an entire rate class. These factors reflect the normalized heat load for the rate class established by the test period billing determinants. The Weather Mechanism consumption factors vary across months to account for the stronger consumption per heating degree day that occurs during peak months as compared with shoulder months. For weather normalization purposes, the

heating season is defined as the calendar months of October through April, which comprises approximately 97 percent of NMGC's normal heating degree days.

Q. PLEASE DESCRIBE THE WEATHER MECHANISM MARGIN REVENUE FACTORS.

A. Margin revenue factors are utilized to establish the per unit base revenue impact of changes in consumption. NMGC's base rates incorporate a flat block rate structure with all consumption charged the same rate across all months of the year. However, the Company's residential and small general service rates incorporate separate charges for transmission and distribution service. Therefore, the Weather Mechanism margin revenue factors are simply the per unit transmission and distribution base revenue charges for each rate class.

Q. WHICH TEMPERATURE RECORDING STATIONS WILL BE UTILIZED TO MEASURE CHANGES IN WEATHER FOR PURPOSES OF THE WEATHER MECHANISM?

A. For purposes of the Weather Mechanism, five National Oceanographic and Atmospheric Administration ("NOAA") weather stations will be utilized to measure actual changes in heating degree days. The five stations, Albuquerque, Deming, Farmington, Roswell and Santa Fe, each employ NOAA's Automated Surface Observing System equipment utilizing NOAA's most advanced technology. These stations capture the geographic diversity of NMGC's service area. The heating degree days at each recording station are weighted based on the proportion of heating load associated with each station including loads assigned from areas of the system in close proximity to each station. The resulting

weighted average appropriately represents the temperature changes for NMGC's residential and small commercial heating loads. The average is utilized in the Weather Mechanism both to establish the degree day consumption factors and to measure the future changes in weather.

Q. WHEN WOULD THE IMPACT OF ANY VARIATIONS IN WEATHER BE CALCULATED AND REFLECTED IN CUSTOMER RATES THROUGH THE WEATHER MECHANISM?

A. The monthly variations in weather would be determined after the end of the heating season. NMGC would perform all calculations associated with the Weather Mechanism and file the results and supporting materials with the Commission on or before June 30th. The weather normalization adjustment would be stated as a separate per unit credit or charge for each rate class to which the clause applies for all consumption for the class over the annual period beginning with Cycle 1 readings for the following October. The charge or credit will reflect whether the customer utilizes transmission service, distribution service or both transmission and distribution service. NMGC will maintain records of all deferred Weather Mechanism revenue credits and surcharges as well as Weather Mechanism revenue recoveries in a balancing account that is reconciled by means of an over or under-recovery component of the Weather Mechanism credit or surcharge computed for subsequent periods.

Q. HAVE YOU DEVELOPED TARIFF TERMS AND CONDITIONS ASSOCIATED WITH THE WEATHER NORMALIZATION ADJUSTMENT MECHANISM THAT YOU PROPOSE?

A. Yes. NMGC Exhibit DPY-3 is a pro forma tariff reflecting the proposed Weather Mechanism.

Q. PLEASE PROVIDE EXAMPLE CALCULATIONS OF THE PROPOSED WEATHER MECHANISM.

A. Calculating the adjustment under the Weather Mechanism is straightforward and is performed separately for the Rate 10 – Residential and Rate 54 – Small General Service rates. Example calculations are provided in NMGC Exhibit DPY-4 for two illustrative heating seasons for each rate class. Page one of NMGC Exhibit DPY-4 illustrates the Weather Mechanism calculations for Rate 10 based on sample weather that is seven percent colder-than-normal while page two illustrates the Weather Mechanism calculations based on the same weather for Rate 54. Pages three and four illustrate the Weather Mechanism calculations for Rate 10 and Rate 54, respectively, based on sample weather that is seven percent warmer-than-normal. On each page of this exhibit, the first step in the calculation is a comparison of actual heating degree days by month in column (c) to normal heating degree days in column (b). The monthly difference in heating degree days is provided in column (d). The heating degree day differences are multiplied by the monthly degree day consumption factors in column (e) to yield the consumption variance in column (f). The total consumption variance for the period is then multiplied by the transmission and distribution margin revenue factors in column (g) for the rate class to determine the

transmission and distribution revenue excesses or deficiencies in column (h). The resulting amounts are divided by the corresponding projected annual therms to derive the Weather Mechanism charge or credit for the rate class.

Q. IS IT POSSIBLE TO TAKE THIS EXAMPLE ONE STEP FURTHER AND ESTIMATE AN IMPACT ON CUSTOMER BILLS OF A SEVEN PERCENT VARIATION IN WEATHER?

A. Yes. Based upon a typical residential customer with annual consumption of approximately 625 therms, a seven percent swing in weather would lead to either a charge or credit equivalent to approximately one percent of the customer's bill. This equates to approximately a credit of $6.13 per year, or approximately $1.00 during a peak heating month following a colder-than-normal year. Alternatively, this equates to a charge of $6.13 per year, or approximately $1.00 during a peak heating month following a warmer-than-normal year.

Q. PLEASE SUMMARIZE THE BENEFITS OF THE PROPOSED WEATHER MECHANISM.

A. First and foremost, the weather-related concerns associated with the Company's base rate structure are remedied through the proposed Weather Mechanism, which focuses on variations in heating degree days that are beyond the control of NMGC and its customers. Base revenues are stabilized for the impacts of weather benefitting both the Company and its customers. Further, the revenue stability is achieved through a mechanism that ties back to the weather factors relied upon to set base rates through symmetrical adjustments that

credit customers for the impact of colder-than-normal weather and surcharge customers for the impact of warmer-than-normal weather. This results in customer revenues that are more in line with expectations when base rates are established. Lastly, these benefits are gained while retaining the underlying form of base rate structure.

Q. DOES THE IMPLEMENTATION OF THE PROPOSED WEATHER MECHANISM ELIMINATE THE COMPANY'S BUSINESS RISKS?

A. No. The Weather Mechanism reduces instability of the NMGC's base revenue recoveries due to variations in weather that are outside of the Company's ability to influence or control. This change does not eliminate the business risks that the Company is exposed to. NMGC may experience a reduction in profitability due to a number of factors that are not addressed through the Weather Mechanism, including the potential for one or all of the following factors to materialize: (1) loss of customers, (2) declining conditions in the local economy, (3) competition from other sources of energy, (4) declining use by gas customers due to increasing appliance efficiency, (5) rising operating costs for labor and materials and (6) increases in complexity associated with gas utility operational requirements.

IV. INTEGRITY MANAGEMENT PROGRAM COST RECOVERY MECHANISM

Q. WHY IS NMGC PROPOSING A SEPARATE RECOVERY MECHANISM ASSOCIATED WITH INTEGRITY MANAGEMENT INVESTMENTS?

A. NMGC, like the majority of its peer LDCs, faces increasing integrity management-related requirements associated with the need to replace or modernize some older elements of distribution infrastructure. As discussed in detail by NMGC Witness Kacer, NMGC is

undertaking significant investments to replace existing legacy bare steel pipe, legacy plastic pipe, x-trube services, and to upgrade the inspection capability of portions of its transmission facilities. The associated costs are necessary to maintain safe and reliable service, yet there are no incremental revenues associated with these integrity management activities. This poses a challenge for all LDCs, including NMGC, and for policymakers because of the need for timely and effective cost recovery of the Company's growing integrity management needs. A targeted cost recovery mechanism, if structured appropriately, addresses this challenge, by providing material benefits for an LDC and its customers, regulators and other stakeholders. In fact, many other jurisdictions have adopted targeted cost recovery mechanisms that allow LDCs to recover the costs of infrastructure replacement and safety enhancements in between rate cases many of which contribute to enhanced opportunities for communication among the LDC and stakeholders regarding critical safety-related operating needs. Typically, these mechanisms reflect the specific needs of the LDC and focus on replacing legacy facilities that represent integrity management concerns.

Q. PLEASE PROVIDE AN OVERVIEW OF THE GENERAL BENEFITS OF ALTERNATIVE COST RECOVERY APPROACHES FOR RECOVERY OF ACCELERATED FACILITY REPLACEMENT PROGRAMS.

A. Alternative cost recovery mechanisms address the regulatory lag and earnings attrition concerns associated with base rate approaches by explicitly recognizing the heightened focus on pipeline safety, the contribution of pipeline replacement efforts to improved safety and reliability, and the challenges to timely cost recovery attributable to large-scale

investments in non-revenue producing facilities. Alternative approaches support the increased capital requirements of replacing and enhancing legacy infrastructure, while preserving the fundamental elements of the traditional regulatory compact.

Each cost recovery mechanism reflects the unique operational circumstances of the LDC and the specific underlying approach to rate regulation of the jurisdiction. These various recovery mechanisms share many desirable outcomes related to efforts to address safety and reliability concerns associated with elements of distribution systems including:

- reflecting accelerated investment in infrastructure replacement and enhancement to achieve benefits more rapidly;
- providing appropriate, timely and effective regulatory oversight of LDC initiatives to replace and upgrade important infrastructure; and
- allowing LDCs to reduce investment costs through broad scale, multi-year commitments that lead to maximum efficiency in managing workflow, reduced outside contractor costs, and better coordination with municipalities.

Q. PLEASE DESCRIBE THE SPECIFIC COST RECOVERY MECHANISM THAT NMGC IS PROPOSING TO HELP IT TIMELY RECOVER CAPITAL INFRASTRUCTURE COSTS RELATED TO INTEGRITY MANAGEMENT.

A. The proposed IMP Mechanism is a rate rider that reflects the revenue requirements associated with the four areas of targeted replacement and facility enhancement needs associated with the Company's current IMP as described by NMGC Witness Kacer. The

rate rider will reflect actual capital investments placed in service and include revenue requirements associated with depreciation expense, property taxes, return and income taxes. The mechanism emulates traditional base rate treatment of the investment costs provided for in New Mexico. The total revenue requirements will be allocated among rate classes on the basis of projected annual base revenues so that each rate class receives an equivalent percentage revenue responsibility under the mechanism.

Q. WHAT IS THE PROCESS FOR DETERMINING THE ANNUAL RATE ADJUSTMENT UNDER THE PROPOSED IMP MECHANISM?

A. NMGC will file with the Commission on or before March 1st of each year for approval to change the cost recovery rate effective with Cycle 1 bills for the billing month of May. The proposed rate adjustment will reflect actual integrity management investments for the previous calendar year.

The Company will calculate the annual revenue requirements associated with integrity management investments consistent with the manner that the revenue requirements for the Company's other rate base investments are reflected in base rates. Specifically, depreciation expense and return are calculated based upon the net plant investment at the rates approved in the most recent base rate case and income taxes are applied at currently effective rates in order to determine revenue requirements to be incorporated into the rate adjustment.

Q. HAVE YOU DEVELOPED TARIFF TERMS AND CONDITIONS ASSOCIATED WITH THE IMP MECHANISM?

A. Yes. NMGC Exhibit DPY-5 is a pro forma tariff reflecting the proposed IMP Mechanism.

Q. HOW DOES THE PROPOSED IMP MECHANISM COMPLEMENT NMGC'S PLAN TO ADDRESS THE INTEGRITY MANAGEMENT CHALLENGES IT FACES?

A. The replacement program represents a prudent course of action as explained by NMGC Witness Kacer. The program will result in considerable capital investments that are non-revenue producing. The proposed IMP Mechanism applicable to these discrete facility replacement efforts addresses the need for timely recovery for the substantial investments to be made by the Company. The cost recovery mechanism adjusts base rates annually for investment costs, and is a straightforward means of addressing the cost recovery challenges to substantial integrity management investments.

Q. PLEASE EXPLAIN WHY TRADITIONAL BASE RATE CASE RECOVERY IS NOT APPROPRIATE FOR THE RECOVERY OF COSTS ATTRIBUTABLE TO NMGC'S INTEGRITY MANAGEMENT PROGRAM.

A. NMGC anticipates investing $48 to $72 million over the next six years as part of its integrity management program. One hundred percent of these integrity management program investments are non-revenue producing and will not contribute incremental base rate revenues, nor will the investments lead to an immediate or significant reduction in operations and maintenance costs. Relying on traditional base rate cases does not provide

for timely recovery needed to support this level of integrity management investment and leads to earnings attrition.

One method of avoiding earnings attrition under these circumstances would be to file frequent, potentially annual, rate cases with the Commission. Frequent rate case filings associated with a distinct, known and reviewable cost is an inefficient use of the base rate case process, requires analysis of all aspects of a utility's service, and adds to customer costs.

Q. PLEASE EXPLAIN WHY THE DEPRECIATION EXPENSE ALLOWANCE INCORPORATED IN RATES DOES NOT PROVIDE FUNDING FOR REPLACING EXISTING INFRASTRUCTURE UNDER NMGC'S INTEGRITY MANAGEMENT PROGRAM.

A. The depreciation allowance included in base rates represents the return of NMGC's capital investment made over time, up to the end of the test year in its last rate case. The level of the depreciation allowance is primarily a function of the nominal cost of all facilities at the time of investment and the expected facility life. Due to inflationary effects and improvements in piping technologies, the replacement costs exceed original costs per mile by a factor of ten to fifteen-fold.

Q. HAS THE NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONS ("NARUC") CONSIDERED THE IMPORTANCE OF COST

RECOVERY TO EFFECTIVE REPLACEMENT OF AGING NATURAL GAS FACILITIES?

A. Yes. The NARUC Board of Directors adopted a *Resolution Encouraging Natural Gas Line Investment and the Expedited Replacement of High-Risk Distribution Mains and Service Lines* in July 2013. This resolution encouraged regulators and industry stakeholders to consider programs and cost recovery mechanisms to replace vulnerable pipeline facilities as quickly as possible. The resolution also encouraged regulatory commissions to adopt rate mechanisms that would accelerate the modernization, replacement and expansion of natural gas pipeline systems. A copy of this resolution is attached as NMGC Exhibit DPY-6. Additionally, NARUC and the Department of Energy recently entered into a partnership focused on natural gas infrastructure modernization issues. Among the issues considered by this partnership is the potential impediments to needed natural gas infrastructure replacement programs, including timely cost recovery for LDCs.

Q. HAS THE PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION ("PHMSA") WEIGHED IN ON THE IMPORTANCE OF COST RECOVERY TO INFRASTRUCTURE REPLACEMENT EFFORTS?

A. Yes. PHMSA, the agency within the U.S. Department of Transportation responsible for pipeline safety, mandates many requirements related to the safe operation of both natural gas transmission and distribution facilities and networks. A significant emphasis of recent initiatives calling on pipeline operators to take more aggressive steps to replace existing infrastructure is the recognition that cost recovery mechanisms are necessary to facilitate

needed accelerated investments in replacement infrastructure. PHMSA reiterated and expanded on the role of cost recovery mechanisms in meeting the nation's pipeline replacement needs in a white paper summarizing cost recovery approaches. Specifically, PHMSA provided information to state utility regulators regarding replacement programs and cost recovery approaches implemented throughout the U.S. as an important component of these more recent initiatives.

Q. IS THE COMPANY'S IMP MECHANISM PROPOSAL CONSISTENT WITH TRENDS ACROSS THE U.S.?

A. Yes. According to information compiled by the AGA, state regulators in a total of 38 states have approved cost recovery mechanisms that provide for alternative cost recovery approaches for the replacement of aging utility infrastructure. The trend toward use of non-base rate approaches to cost recovery for aging infrastructure demonstrates broad support for these approaches throughout the gas distribution industry in the United States.

Q. HAVE YOU EXAMINED THE DEGREE TO WHICH THE LARGEST 50 LDCS IN THE U.S. BY RESIDENTIAL CUSTOMER COUNT OPERATE WITH INFRASTRUCTURE COST RECOVERY MECHANISMS?

A. Yes. NMGC Exhibit DPY-2 indicates which of the largest LDCs in the U.S. by residential customer count have infrastructure cost recovery mechanisms based on AGA information I compiled. Thirty-nine of the LDCs representing 80% of the residential customers operate with such a mechanism. Additionally, many of the remaining LDCs operate under multi-year rate plans or under biennial rate case requirements with future test years that provide

many of the same benefits of a separate cost recovery mechanism through timely recovery of integrity management costs.

Q. ARE THERE ANY LDCS BESIDES NMGC ON THE LIST OF THE LARGEST 50 LDCS IN THE U.S. BY RESIDENTIAL CUSTOMER COUNT THAT HAVE NEITHER A BASE REVENUE STABILIZATION MECHANISM NOR AN INFRASTRUCTURE COST RECOVERY MECHANISM?

A. Only three other LDCs are similar to NMGC in this regard. However, two of these three LDCs are subject to biennial rate case filings that incorporate future test years.

Q. WILL THE NEW COST RECOVERY MECHANISM REDUCE THE NEED FOR FUTURE RATE CASES?

A. The IMP Mechanism will not eliminate the need for future rate cases, but it may decrease the frequency of rate cases in the future. The cost recovery mechanism focuses on one aspect of the Company's overall costs. As such, the mechanism complements rather than substitutes for base rate cases. Specifically, the mechanism removes an impediment to the efficient and proactive investment in non-revenue producing facilities to replace legacy bare steel and legacy plastic pipe facilities. The proposal does not affect the need for base rate cases in any other respect, or alter the overall benefits of the base rate case ratemaking approach to recovering utility operating costs from customers. Rather, the IMP Mechanism provides a means of bridging the gap associated with traditional base rate case recovery for important non-revenue producing investments that occur over a defined period of time.

Q. WHAT SAFEGUARDS PREVENT THE COMPANY FROM SPENDING MORE THAN IS NECESSARY ON THE INTEGRITY MANAGEMENT REPLACEMENTS?

A. Some opponents to integrity management cost recovery mechanisms suggest that the cost recovery mechanism provides an incentive to "gold-plate" the necessary infrastructure. The annual filing procedures that are explained later in my testimony provide the Commission and other interested stakeholders with more frequent opportunities to evaluate the success of the Company in achieving the benefits that the program is intended to produce. The Commission will also be provided with the opportunity to consider the Company's construction practices and plans to ensure that over-spending is not occurring. The existence of a cost recovery mechanism does not diminish NMGC's incentive to complete the necessary facility investments in an operationally prudent and cost-efficient manner in order to maintain reasonably-priced services. Even so, the Company's proposed recovery caps provide an additional safeguard that the mechanism will not contribute to over-spending.

Q. WHAT ARE THE RECOVERY CAPS ASSOCIATED WITH NMGC'S PROPOSED IMP MECHANISM?

A. As an additional means of ensuring that the mechanism remains limited, the Company is proposing two different caps that establish limits on cost recovery. The first is an annual cap on the change in revenue requirements eligible for recovery under the rider equal to one percent of normalized base revenues. Based on test period base revenues, the annual cap on the change in revenue requirements eligible for recovery through the IMP

Mechanism would be $1.8 million. Any level of revenue requirements that exceed the one percent cap will not be recoverable until a future year, subject to the operation of the annual cap in the following year. The second recovery limitation is a cumulative cap equal to six percent of base distribution and transmission revenues. Any revenue requirements that exceed the cumulative cap will not be recoverable through the mechanism, but will be included in the revenue requirements proposed by the Company in a subsequent base rate case. These recovery limitations reflect the investment needs of the Company's integrity management program over the near term and provide assurances that the cost recovery mechanism properly matches these requirements.

Q. HAVE YOU PREPARED A SAMPLE CALCULATION OF THE IMP MECHANISM ADJUSTMENT FACTOR?

A. Yes, a sample calculation is provided as NMGC Exhibit DPY-7. Page one of this exhibit shows the transmission and distribution revenue requirements based on $2 million of investment in eligible transmission facilities and $8 million of investment in eligible distribution facilities. The combined revenue requirements are $1.5 million, which are compared to the annual and cumulative cost recovery caps to determine whether the full amount is recoverable, which it is in this example. Page two of NMGC Exhibit DPY-7 provides a calculation of the percentage of firm base revenues by rate class and the allocation of the IMP Mechanism revenue requirements to rate classes. Lastly, page three of NMGC Exhibit DPY-7 provides the projected annual billing determinants and rate for each rate class. Since the rate is determined separately for transmission service based upon transmission revenue requirements and for distribution service based upon distribution

revenue requirements, the IMP Mechanism rate calculations are repeated for transmission service and distribution service. A customer that receives both transmission and distribution service from the Company would pay the combined charge set forth in Column (d) on page three of NMGC Exhibit DPY-7.

Q. PLEASE PROVIDE AN ESTIMATE OF THE RATE IMPACTS OF THE ELIGIBLE PROGRAM COSTS TO BE RECOVERED THROUGH THE PROPOSED COST RECOVERY MECHANISM.

A. Based upon a typical residential customer with annual consumption of approximately 625 therms, a $10 million investment in integrity management costs during the first year of the program would lead to an annual bill impact of approximately $2.40 or approximately $0.40 during a peak heating month. After three years of spending at a rate of $10 million per year, the annual bill impact would be approximately $6.90 or approximately $1.15 during a peak heating month for the same 625 therm residential customer.

Q. WHAT HAPPENS TO THE RATE BASE INVESTMENTS RECOVERED THROUGH THE IMP MECHANISM WHEN NMGC FILES A RATE CASE?

A. If NMGC files a base rate case, the filing will reflect a transfer of the associated rate base from the IMP Mechanism to base rates including net plant, accumulated depreciation and accumulated deferred income taxes. Upon the implementation of new base rates, the IMP Mechanism recovery factor would be reset to zero and recovery of any future eligible investments would occur prospectively. Changes to return and depreciation rates would be reflected in the IMP Mechanism on a prospective basis as well.

Q. PLEASE DISCUSS WHY THE COMPANY'S PROPOSED INTEGRITY MANAGEMENT PROGRAM COST RECOVERY MECHANISM IS A PERMISSIBLE EXCEPTION TO THE COMMISSION'S NORMAL POLICY DISCOURAGING PIECEMEAL RATEMAKING.

A. The costs attributable to the Company's integrity management program are material, known and incremental in nature. The IMP Mechanism aligns the cost recovery approach to these investments with the public safety imperative driving industry-wide replacement and facility enhancement actions across the U.S. Like cost recovery mechanisms adopted elsewhere, the proposed IMP Mechanism provides for a proper review of the operational activities and plans associated with the needed investments and leads to gradual rate changes associated with the investments. Even with the institution of a recovery mechanism for the targeted integrity management investments, the vast majority of NMGC investment costs and expenses will continue to be under traditional base rate recovery. For all of these reasons, the proposed cost recovery mechanism including the safeguards I describe represents a needed and appropriate ratemaking approach to the Company's integrity management program investment costs and is more effective and cost-efficient than more frequent base rate cases.

Q. HOW DOES THE COMPANY'S PROPOSAL PROVIDE APPROPRIATE REGULATORY OVERSIGHT OF THE COMPANY'S IMP INVESTMENTS?

A. The use of the cost recovery mechanism for the integrity management program investments actually provides for more enhanced regulatory oversight of these investments when compared with traditional base rate case review. The enhanced oversight results from

separating integrity management replacement investment from all other issues considered in a comprehensive rate case. This provides for more focused periodic evaluation of the Company's approach to addressing the integrity management needs of its system. NMGC Witness Kacer provides an initial summary of the current integrity management construction plans in his prepared direct testimony. Allowing recovery of the costs of integrity management program investments through the cost recovery mechanism will not determine prudence, which will be established in the next rate case. Therefore, the rights of all parties to challenge the prudence of investments made since the prior rate case is appropriately preserved.

V. NMGC RATE DESIGN

Q. PLEASE DESCRIBE THE COMPANY'S EXISTING RATE TARIFFS.

A. Customers eligibility for a particular NMGC tariff rate is established first on the basis of sector, *i.e.*, whether a customer is residential, commercial or industrial. All residential customers are served under the Rate 10 Residential Rate. NMGC offers three standard commercial and industrial ("C&I") rates based on customer size. These are (i) the Rate 54 Small Volume General Service Rate for C&I customers with less than 200,000 therms per year, (ii) the Rate 56 Medium Volume General Service Rate for C&I customers whose use is from 200,000 up to 2,000,000 annual therms, and (iii) the Rate 58 Large Volume General Service Rate for C&I customers whose annual use is 2,000,000 therms or greater. Over 99 percent of NMGC customers receive service pursuant to the Rate 10 Residential Rate or one of the three standard general service C&I rates. Other NMGC customers receive service under one of the Company's seven other tariff rates offered to customers with

specific end-uses or other qualifying criteria. These are the Rate 30 Irrigation Rate, the Rate 31, Water and Sewage Pumping Rate, the Rate 35 Cogeneration Rate, the Rate 37 Gas Air Conditioning Rate, the Rate 39 Alternate Fuel Vehicle Rate, the Rate 61 Sale for Resale Rate, and the Rate 114 District Energy System Service Rate. Lastly, the Company provides transportation service to any customer desiring to purchase their gas supply from a third-party supplier pursuant to the Rate 70 Transportation Service. The Rate 70 Transportation Service Rate incorporates the underlying base rate charges for the other NMGC tariff rates that customers are otherwise eligible for in addition to other rates and terms that apply to transportation service.

Q. WHAT RATES AND CHARGES ARE INCORPORATED INTO THE RATE 10 RESIDENTIAL RATE?

A. The existing rate design for residential customers includes two types of base rate charges that are intended to recover NMGC's non-gas revenue requirements. The Rate 10 Residential Rate base rates consist of an $11.50 monthly access fee and a flat usage or throughput charge that is $0.2295 per therm. The flat usage charge is comprised of a functional charge of $0.0634 for transmission service and $0.1661 per therm for distribution service. Access fees are applied per customer per month and distribution and transmission charges are applied to each customer's monthly therm usage. Under this rate structure, all residential customers pay a minimum amount to NMGC equal to the access fee, regardless of their monthly usage. The rate design also results in customers paying higher amounts as their consumption increases due to the per-therm distribution and

transmission charges. The distribution and transmission charges are considered variable charges because all of the associated revenues are linked to customer usage or throughput.

Q. DO THE C&I RATE TARIFFS EMPLOY THE SAME TYPE OF RATE DESIGN?

A. Yes. All of NMGC's tariffs employ the same form of rate design incorporating fixed access fees and variable transmission and distribution charges.

Q. ARE THERE SEPARATE CHARGES FOR GAS SUPPLY?

A. Yes. Sales customers that purchase their gas supply from NMGC pay a volumetric Purchase Gas Adjustment Charge for gas supply pursuant to Rate Rider No. 4. The Rate Rider No. 4 Cost of Gas rate recovers the direct costs of purchased gas and upstream pipeline capacity and storage resources necessary to ensure firm delivery to customers throughout the year, and is adjusted monthly to track changes in the delivered cost of gas supply.

Other customers are transportation-only customers, and pay NMGC to deliver gas supply that they have purchased from various third-party suppliers that may offer competitive pricing or other terms. The gas supply price for a firm transportation customer is negotiated in a competitive marketplace between the customer and the third-party supplier. Transportation customers also have the option of returning to sales service at any point in the future, subject to availability of capacity and certain notice requirements.

Q. WHAT STEPS DID YOU EMPLOY TO ESTABLISH THE SPECIFIC BASE RATES YOU ARE PROPOSING?

A. First, I determined the class-by-class revenue requirements, which reflect the results of the Company's FACOS study and other rate design principles. Second, I evaluated the existing level of monthly access fees and proposed increases, where appropriate, to recover a greater proportion of fixed costs through monthly customer charges. Lastly, I established the appropriate distribution and transmission charges for each rate class to recover the remaining portion of each class' revenue requirements.

Q. HOW DID YOU DEVELOP THE CLASS-BY-CLASS REVENUE REQUIREMENTS?

A. The class-by-class base revenue requirements were developed by first comparing the existing base revenues to the base revenue requirements indicated by the results of the FACOS. This comparison is presented in NNMGC Exhibit DPY-8 with the differences shown in Column D. The values in Column D of this exhibit indicate the change in base revenues that would be needed to yield equalized rates of return. However, an adjustment is made to yield the proposed base revenue change by rate class to limit the increase to any class to ten percent of base revenues. In order to mitigate the impacts to the classes that would otherwise have yielded a higher percentage revenue increase, no decrease to any class is implemented and the remaining difference is allocated to classes with increases below ten percent on the basis of existing base revenues. The resulting proposed base revenues by rate are indicated in Column G of NMGC Exhibit DPY-8.

Q. WHY IS THE LEVEL OF THE ACCESS FEE IMPORTANT?

A. The level of the monthly fixed access fee is important for a variety of reasons that relate to the Company's rate design goals I described earlier. First, the monthly fixed access fee provides customers with an important price signal concerning the impact of connecting to the NMGC distribution system. Second, recovering customer-related costs through monthly fixed access fee contributes to intra-class fairness. Third, the fixed monthly access fee provides revenue stability associated with the Company's fixed costs.

Q. PLEASE DESCRIBE THE COMPANY'S PROPOSED CHANGE TO THE RESIDENTIAL RATE 10 MONTHLY CUSTOMER CHARGE.

A. NMGC is proposing to increase the monthly customer charge for residential customers from $11.50 to $14.50. A $14.50 monthly access fee moderately improves the proportion of fixed costs recovered through fixed charges without contributing to undesirable bill impacts for individual customers. Specifically, the change leads to an increase in the proportion of fixed costs recovered through fixed charges from approximately 50 percent to 61 percent, which is a reasonable target in view of the overall revenue increase to the Rate 10 class. The increase to the access fee also contributes to improved fairness and revenue stability, important rate design goals addressed previously.

Q. HOW DOES THE IMPLEMENTATION OF THE WEATHER MECHANISM AFFECT THE LEVEL OF THE PROPOSED RESIDENTIAL ACCESS FEE?

A. The increase to the proposed residential access fee is a moderate one that does not adequately address the need for improved revenue stability for NMGC and its customers.

The Weather Mechanism adds materially to the revenue stability associated with NMGC's base rates for the residential and small volume general service rate classes and is an essential step in achieving improvement in this rate design goal, while balancing other goals such as rate moderation. In the absence of the Weather Mechanism, a significantly larger increase to the monthly access charge would be needed to achieve an appropriate balance of the rate design goals set forth earlier. Therefore, the Weather Mechanism is an essential component of NMGC's proposed base rates in this proceeding.

Q. WHAT ARE THE LEVELS OF THE PROPOSED RESIDENTIAL RATE 10 TRANSMISSION AND DISTRIBUTION CHARGES?

A. The transmission and distribution charges are designed to recover the remaining revenue requirements not recovered by means of the monthly access charge. As noted previously, the proposed revenue requirements for the class are as set forth in NMGC Exhibit DPY-8. The proposed transmission charge remains unchanged at $0.0634 per therm and the proposed distribution charge is $0.1200 per therm as compared to the current charge of $0.1661 per therm. The reduced distribution charge results from the increase in the proportion of fixed costs recovered through the monthly fixed charge. The revenue reduction was reflected in the distribution charge only to reflect the results of the FACOS study for distribution and transmission service separately.

A comparison of the existing and proposed rates and revenues for the Rate 10 Residential Rate and all other tariff rates is provided as NMGC Exhibit DPY-9. This exhibit provides

a revenue proof for all rate classes showing the net change in base revenues based on the proposed rates and test period billing determinants.

Q. PLEASE DESCRIBE THE DERIVATION OF THE RATES FOR THE REMAINING RATE CLASSES.

A. The first step in deriving the rates for the remaining classes entailed determining any increases to fixed access fees. The access fees for Rate 30 Irrigation Service, Rate 35 Cogeneration Service, Rate 37 Gas Air Conditioning, Rate 54 Small Volume General Service, and Rate 56 Medium Volume General Service are each increased to provide for a greater proportion of fixed charge recovery. Next, the variable transmission and distribution charges for these and the remaining rate classes were adjusted to yield the total revenue requirements determined on NMGC Exhibit DPY-8. The resulting rates are set forth in NMGC Exhibit DPY-9.

Q. HOW WOULD YOU DESCRIBE THE IMPACT OF THE PROPOSED RATE CHANGES ON NMGC'S RECOVERY OF ITS OVERALL BASE DISTRIBUTION COSTS OF PROVIDING SERVICE TO ITS CUSTOMERS?

A. The majority of NMGC's revenue requirements are associated with ensuring ongoing reliability of service and safety to customers and the communities the Company serves. These costs are all fixed in nature and do not increase or decrease with the level of natural gas consumed by customers. The rate design changes maintain the current rate structure and recover an increased proportion of fixed costs through fixed charges. While the proposed rates do not eliminate existing subsidies, moderate improvement in intra-class

revenue responsibility is achieved through the application of the proposed revenue increase across rate classes in a manner that moderates the impact to the classes that would have experienced an increase in excess of ten percent of base revenues. In my view, the proposed rates in this proceeding result from a fair and reasonable rate design approach, balancing the rate design goals described earlier in my testimony.

Q. HAVE YOU PREPARED ILLUSTRATIVE BILL IMPACTS REFLECTING THE PROPOSED RATES?

A. Yes. NMGC Exhibit DPY-10 contains bill impacts for Rate 10 Residential and Rate 54 Small Volume General Service customers at various monthly therm usage levels. The bill impacts reflect other applicable charges and fees providing an understanding of the impact of the proposed changes in base rates on customers of varying sizes of consumption. The bill impacts resulting from the proposed rate design are moderate and support the reasonableness of the proposed rate design.

VI. ECONOMIC DEVELOPMENT RATE

Q. WHAT IS THE PURPOSE OF THE COMPANY'S PROPOSED ECONOMIC DEVELOPMENT RATE?

A. The proposed tariff complies with statutes adopted by the New Mexico Legislature to allow the Commission to approve "special rates or tariffs in order to prevent the loss of customers, to encourage customers to expand present facilities and operations in New Mexico and to attract new customers where necessary or appropriate to promote economic development

in New Mexico."[1] NMGC's proposed Economic Development Rate provides an opportunity for businesses to obtain a reduced gas rate as an enticement for bringing economic benefits to New Mexico that benefit NMGC's other customers and the local economy. The availability of the new Economic Development Rate provides community leaders with an additional tool to compete for potential businesses to establish or expand commercial or industrial operations that provide economic benefits to New Mexico.

Q. PLEASE PROVIDE AN OVERVIEW OF THE KEY FEATURES OF THE COMPANY'S PROPOSED ECONOMIC DEVELOPMENT RATE.

A. The new Economic Development Rate includes the following features:

- eligibility criteria that allow potential customers to demonstrate a contribution to economic activity through establishing a new account at a new or existing meter location within NMGC's service area;
- rate reductions for a four or five-year period;
- the continued application of NMGC's line extension policy to ensure that the revenues received from an Economic Development Rate customer exceed the associated incremental costs; and
- a revenue guarantee associated with a minimum volume to protect other customers against any potential subsidization of Economic Development Rate customers.

[1] NMSA 1978, § 62-6-26 (2014).

Q. HOW WILL CUSTOMERS DEMONSTRATE THAT THEY ARE ELIGIBLE FOR THE RATE DISCOUNT PROVIDED FOR UNDER THE COMPANY'S PROPOSED ECONOMIC DEVELOPMENT RATE?

A. In order to qualify for the Economic Development Rate, a customer must agree to establish a new account at a new or existing meter location with an annual volume of at least 20,000 therms and use gas on a year-round basis to meet non-power generation requirements. Additionally, the customer must submit an affidavit to the Company stating that access to the reduced rate is a contributing factor to its intent to commit to locate within NMGC's service area.

Q. WHY IS THERE A MINIMUM VOLUME REQUIREMENT UNDER THE NEW TARIFF?

A. The minimum volume qualification operates to encourage prospective customers to commit to provide a meaningful level of economic benefits to the local economy. To place the proposed threshold in perspective, some of NMGC's Rate 54 – Small General Service customers would qualify under the 20,000 therm minimum, while all of the Company's Rate 56 – Medium General Service and Rate 58 – Large General Service customers would qualify. A minimum volume threshold is also appropriate to ensure that the administrative costs incurred by the Company to administer the requirements of the new tariff do not outweigh the benefits to existing NMGC customers.

Q. CAN YOU PROVIDE ANY CONTEXT FOR WHAT TYPE OF CUSTOMER IS REPRESENTED BY 20,000 ANNUAL THERMS?

A. The Company estimates that 20,000 therms represents the annual load of a small-to-medium restaurant or a big box type of retailer. The load requirements will be specific to the heating or other commercial or industry needs of each customer's facility and operations.

Q. WHY IS GAS SERVICE UNDER AN EXISTING ACCOUNT EXCLUDED FROM THE NEW ECONOMIC DEVELOPMENT RATE?

A. While the enabling legislation contemplates that an economic development tariff could be used as a means of retaining existing load or promoting increased load by an existing customer, the Company's proposed tariff limits its applicability to new accounts at a new or existing meter location. The reason for excluding load retention is the potential that some customers that do not require a reduced rate may attempt to benefit because of the complexity associated with verifying circumstances associated with potential loss of load. Moreover, the Company already utilizes the existing authority to enter into special contracts with customers that demonstrate a competitive need for a lower rate, which would encompass the need to retain existing loads or provide for incremental loads that benefit other shippers. The use of special contracts is a better tool to meet these circumstances in that it provides flexibility to offer a lower rate tailored to the circumstances of each customer that demonstrates a competitive need for a non-tariffed rate.

Q. WILL AN ECONOMIC DEVELOPMENT CUSTOMER BE REQUIRED TO ENTER INTO A CONTRACT WITH NMGC?

A. Yes. Any customer requesting service under the proposed Economic Development Rate will be required to enter into a standard form contract that specifies the customer's volume commitment as well as the contract duration. Service is limited to a period of four or five years as provided for in NMSA 1978, § 62-6-26 (2014).

Q. WHAT RATES WOULD APPLY UNDER THE ECONOMIC DEVELOPMENT RATE?

A. The rate for the incremental service would be determined as a fixed discount off of the tariff rate for the service that the customer otherwise qualifies for. The discount would be 50 percent for the first two years and 30 percent for the next two years and 30 percent for year five, if applicable. Additionally, all applicable rate riders would apply to the new service.

Q. PLEASE EXPLAIN THE REQUIREMENT SET FORTH IN NMSA 1978, § 62-6-26 THAT THE PRICE FOR SERVICE COVER THE INCREMENTAL COST AND HOW THE PROPOSED ECONOMIC DEVELOPMENT RATE SATISFIES THIS REQUIREMENT.

A. In order to prevent cross-subsidies from other customers, NMSA 1978, § 62-6-26 requires that service to customers benefitting from an economic development discounted rate must be priced to cover the incremental cost of doing so. Incremental costs are defined as all additional costs of serving the customer that would otherwise not have been incurred. The

incremental costs of adding a new customer to the NMGC system are readily identifiable and typically include the costs of investing in a service, meter and regulating equipment, and in some cases mains. The Company will continue to apply its gas line extension policy to determine whether service to the customer would require a contribution in aid of construction. The application of the line extension policy will utilize a calculation of base revenues based on the minimum volume commitment and the average margin rate paid by the economic development customer over the first four years of contract term. Continued application of the line extension policy in this manner will ensure that the discounted service is not subsidized and incremental costs are covered.

Q. COULD THIS APPROACH LEAD TO A CUSTOMER PAYING A CONTRIBUTION-IN-AID-OF-CONSTRUCTION THAT WOULD NEGATE THE BENEFIT OF THE RATE DISCOUNT?

A. While this may occur in some instances, it is not expected in most circumstances and the recommended approach to applying the existing line extension policy ensures that other customers are not disadvantaged from discounted service offered to the new customer. Customers whose incremental costs of connecting to the NMGC system are high in relation to the size of the incremental load may determine that they are better off taking service under a standard rate. However, NMGC believes that one of the most significant opportunities to be realized with the Economic Development Rate proposal is for service to vacant or under-utilized facilities where limited costs of connection would be incurred.

Q. GIVEN THAT THE MINIMUM VOLUME COMMITMENT IS NEEDED TO PROTECT OTHER CUSTOMERS, WHAT HAPPENS IN THE EVENT THAT A CUSTOMER FAILS TO MEET THE MINIMUM VOLUME?

A. NMGC will provide the customer with a comparison of the customer's qualifying economic development volumes to its volume commitment each year. If after the term of the agreement, the customer's average annual volume is less than its volume commitment, NMGC will invoice the customer for the remaining volumes at the average rate effective over the term of the customer's agreement or the actual gas consumed multiplied by the difference between the applicable full rate and the average rate actually paid, whichever is less.

Q. IS THIS AN APPROPRIATE MEANS OF PROTECTING EXISTING CUSTOMERS?

A. Yes. The ability to invoice the customer for missing the minimum volume commitment represents a reasonable and necessary means of ensuring that other customers do not subsidize the service to customers benefitting from the reduced rate, which could occur if a customer fails to meet the level of growth underpinning its reduced rate service. At the same time, there is no penalty for the Economic Development Rate customer as would occur if more onerous terms were applied when a customer fails to meet its volume commitment, such as re-billing the customer at the standard tariff rate for the full minimum volume commitment. Therefore, I believe that the proposed approach appropriately balances the interests of the economic development customer with all other customers on the system.

Q. ARE YOU SPONSORING PROPOSED TARIFF LANGUAGE FOR THE NEW ECONOMIC DEVELOPMENT RATE?

A. Yes. NMGC Exhibit DPY-11 is a pro forma tariff reflecting the proposed Economic Development Rate terms and conditions of service.

Q. IS THE COMPANY PROPOSING THAT THE NEW ECONOMIC DEVELOPMENT RATE BE PERMANENT?

A. Not at this time. NMGC believes that it is important to test the Economic Development Rate in the marketplace for a period of three years to ensure that the intended benefits are being realized. The Company is proposing that it accept applications for the Economic Development Rate for a period of three years and thereafter it will provide the Commission with information concerning experience gained and make any recommended changes, including whether the tariff should be continued or modified.

Q. WHAT ARE THE POTENTIAL BENEFITS OF THE PROPOSED ECONOMIC DEVELOPMENT RATE?

A. The Company believes that the Economic Development Rate represents an opportunity to achieve incremental benefits for prospective customers of the new service, existing NMGC customers and the local community. Offering a reduced natural gas rate to a customer that intends to locate in areas served by NMGC reduces the economic risks of the expansion to the customer. Any additional load that is facilitated through the discount offering provides an economic benefit to the local community that could materialize in the form of incremental employment, investment in the community, tax revenue, or all of these. Lastly,

NMGC and its existing customers benefit from the incremental revenues that exceed incremental costs over the duration of the service provided to prospective customers, particularly after the initial term when full tariff rates may apply. Naturally, the degree of benefits that are achieved will depend on how much load develops under the proposed service.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

NMGCO#3634018

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF THE APPLICATION OF NEW MEXICO GAS COMPANY, INC. FOR APPROVAL OF REVISIONS TO ITS RATES, RULES, AND CHARGES PURSUANT TO ADVICE NOTICE NOS. 70 AND 71	)	**Case No. 18-_____-UT**
NEW MEXICO GAS COMPANY, INC.	)	
Applicant.	)	

AFFIDAVIT OF DANIEL P. YARDLEY

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

DANIEL P. YARDLEY, Consultant for New Mexico Gas Company, Inc., upon being duly sworn according to law, under oath, deposes and states: I have read the foregoing Direct Testimony and Exhibits and they are true and accurate based on my own personal knowledge and belief.

SIGNED this 9th day of February, 2018.

Daniel P. Yardley
DANIEL P. YARDLEY

SUBSCRIBED AND SWORN to before me this 9th day of February, 2018.

Lisa A. Trujillo
Notary Public

My commission expires:
2/12/2018

OFFICIAL SEAL
Lisa A. Trujillo
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: 2/12/2019