

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 NO. 78)
NEW MEXICO GAS COMPANY, INC.)
Applicant.)

Case No. 19-00317-UT

DIRECT TESTIMONY AND EXHIBITS

OF

EDWARD J. KACER

December 23, 2019

**DIRECT TESTIMONY OF
EDWARD J. KACER
NMPRC CASE NO. 19-00317-UT**

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 **A.** My name is Edward J. Kacer. My business address is 7120 Wyoming,
3 Albuquerque, New Mexico 87109.

4

5 **Q. BY WHOM AND IN WHAT CAPACITY ARE YOU EMPLOYED?**

6 **A.** I am the Vice President of Strategy and Major Projects for New Mexico Gas
7 Company, Inc. (“NMGC” or the “Company”).

8

9 **Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND**
10 **WORK EXPERIENCE.**

11 **A.** My educational background and work experience are described in NMGC Exhibit
12 EJK-1.

13

14 **Q. PLEASE DESCRIBE YOUR DUTIES AND RESPONSIBILITIES AS VICE**
15 **PRESIDENT OF STRATEGY AND MAJOR PROJECTS FOR NMGC.**

16 **A.** I am responsible for the execution of NMGC’s strategy pertaining to long term
17 customer value and promoting energy solutions that harness regionally abundant
18 resources.

19

20 Before I became the Vice President of Strategy and Major Projects, I was the Vice
21 President of Operations and Engineering for the Company, and was responsible for

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1 the operation, maintenance, engineering and design of the NMGC natural gas
2 distribution and transmission systems that serve the Company’s residential,
3 commercial and industrial customers throughout the state of New Mexico; and for
4 gas acquisitions, gas supply, system planning, market development, and the gas
5 control and compression functions of the Company.

6
7 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE NEW MEXICO**
8 **PUBLIC REGULATION COMMISSION (“NMPRC” OR THE**
9 **“COMMISSION”)?**

10 **A.** Yes. I previously filed written testimony and testified before the Commission in
11 NMPRC Case Nos. 12-00264-UT, 16-00097-UT, and 18-00038-UT.

12
13 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE?**

14 **A.** The purpose of my testimony is to describe and support NMGC’s proposed
15 initiatives to help decrease carbon dioxide and methane emissions (together “GHG
16 Emissions”) related to NMGC’s operations.

17
18 **I. OVERVIEW**

19 **Q. BEFORE WE EXAMINE THE COMPANY’S GHG EMISSIONS**
20 **INITIATIVES, PLEASE EXPLAIN THE EFFORTS THE COMPANY**
21 **UNDERTOOK TO DEVELOP THESE INITIATIVES.**

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1 **A.** In the summer of 2019, NMGC retained the firm Research and Polling, Inc., to
2 conduct a poll of our customers’ interest in these issues (the “Poll”). The results of
3 the Poll provided us guidance as we crafted the positions taken by the Company in
4 this rate case with regard to GHG Emissions reduction initiatives. For reference, a
5 copy of the Poll results is attached as NMGC Exhibit EJK-2.

6

7 As explained to me, the Poll was conducted of 461 customers in NMGC’s service
8 territory by asking them a series of questions relevant to evaluation of the
9 Company’s GHG Emissions initiative. Let me highlight a few of the questions and
10 results.

11

12 Question 4 of the Poll asked respondents to rate the importance of NMGC
13 developing green energy initiatives to help reduce the environmental impact of
14 using natural gas. 75% of respondents answered by giving a 4 or a 5 on a 5-point
15 scale to this question. In the Poll a “5” is “very important” and “1” is “not at all
16 important”. The vast majority of respondents answered that it was important or
17 very important for NMGC to engage in energy initiatives to help reduce the
18 environmental impact of using natural gas.

19

20 Questions 5 through 8 of the Poll asked the respondents to rate the importance of
21 specific proposed initiatives:

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- 1 • 88% gave “fixing leaks” a “4” or “5” (again “important” or “very
2 important”) on the 5-point scale;
- 3 • 87% gave expanding energy efficiency and appliance rebate programs to
4 help customers reduce energy costs and their impact on the environment a
5 “4” or “5” on the 5-point scale;
- 6 • 77% gave funding new research and development (“R&D”) to help
7 customers potentially reduce emissions and help protect the environment a
8 “4” or “5” on the 5-point scale; and
- 9 • 77% gave installing solar panels at NMGC facilities to provide electric
10 generation “4” or “5” on the 5-point scale.

11

12 So, each of these initiatives was ranked as important or very important to a vast
13 majority of the participants in the Poll.

14

15 In subsequent questions in the Poll:

- 16 • more than half the respondents said they would be willing to pay more on
17 their monthly bill to reduce the environmental impact through the
18 implementation of green energy initiatives (Question 9);
- 19 • 76% said gas was perceived as the least expensive energy source for home
20 heating (Question 10);

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1 regarding NMGC's impact on the State including findings that: 1) 98% of the
2 Company's emissions are classified as Scope 3 emissions relating to gas purchased
3 for and sold to customers and to other utilities; 2) NMGC's emissions account for
4 less than 10% of the state of New Mexico's GHG Emissions; and 3) action by
5 NMGC is required to decrease its percentage of the State's GHG Emissions.

6
7 To fully understand the importance of the Navigant Report, one must understand
8 the difference between Scope 1, 2, and 3 emissions. As stated on page 8 of the
9 Report, Scope 1 emissions are defined as direct emissions from the utility's
10 operations and include compression activities and methane leaks from the system;
11 Scope 2 emissions are defined as indirect emission from the utility's operations and
12 include carbon emissions associated with the generation of electricity used by the
13 Company at its facilities; and Scope 3 emissions are defined as upstream and/or
14 downstream emissions from utility operations and products and include upstream
15 and downstream emissions including emissions resulting from the use of natural
16 gas by customers.

17
18 **Q. WHAT IS THE SIGNIFICANCE TO THE COMPANY OF NAVIGANT'S**
19 **FIRST FINDING: THAT 98% OF THE COMPANY'S EMISSIONS ARE**
20 **CLASSIFIED AS SCOPE 3 EMISSIONS RELATING TO GAS**

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1 **PURCHASED FOR AND SOLD TO CUSTOMERS AND TO OTHER**
2 **UTILITIES?**

3 **A.** The first finding on page 13 of the Report concludes that since 98% of the emissions
4 arguably attributable to the Company are Scope 3 emissions, for the Company to
5 significantly change its emissions profile it must influence its upstream sources and
6 its customers' usage. Below, I will discuss how we propose to affect Scope 3
7 emissions, most of which must occur outside this case. In this case, the Company
8 can most immediately affect Scope 1 and 2 emissions.

9

10 **Q. WHAT IS THE SIGNIFICANCE OF NAVIGANT'S SECOND FINDING:**
11 **THAT NMGC'S EMISSIONS ACCOUNT FOR LESS THAN 10% OF THE**
12 **STATE OF NEW MEXICO'S GHG EMISSIONS?**

13 **A.** The Report on page 13 finds that NMGC's GHG Emissions account for
14 approximately 6% of the State's emissions. To support this finding, the Report at
15 pages 7-13 inventories the Company's GHG Emissions impacts on the State in
16 comparison to other sources of GHG Emissions. The Report states that the exact
17 percentage of the State's total GHG Emissions attributable to the Company's
18 operations is difficult to quantify. This is primarily based on the difficulty of
19 determining the overall GHG Emissions footprint of the State: to definitively
20 conclude what percentage the Company's emissions are of the State's total GHG
21 Emissions is difficult to quantify because the denominator of such a calculation (the

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1 State’s total) is difficult to quantify. However, it is reasonable to conclude, based
2 on what we know at this time, that the Company’s total impact on the State, appears
3 to be less than 10% of the total GHG Emissions in the state of New Mexico. This
4 number continues to be refined and the actual result will vary depending on changes
5 both to the State’s total GHG Emissions from consumption and production, as well
6 as changes in the Company’s emissions and resulting impact on other state
7 emissions. For example, if the Company is successful in developing a robust
8 renewable natural gas (“RNG”) program, it could actually increase the percentage
9 of emissions attributable to the Company, while decreasing overall emissions
10 within New Mexico. It is therefore somewhat misleading to try and measure
11 increases or decreases in the specific percentage of GHG Emissions directly or
12 indirectly attributable to NMGC, or to any other party. Instead, it is probably best
13 to promote all efforts to reduce GHG Emissions in the total, regardless of attribution
14 or quantifiable measurement.

15
16 This being said, it is also reasonable to conclude from the tables on page 11 of the
17 Navigant Report that the primary contributors to GHG Emissions in New Mexico
18 are the transportation industry, electricity generation, as well as the fossil fuel
19 industry itself in producing natural gas that is used both in New Mexico and outside
20 of New Mexico.

21

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1 **Q. WHAT IS THE SIGNIFICANCE OF NAVIGANT’S THIRD FINDING:**
2 **THAT ACTION BY NMGC IS REQUIRED TO DECREASE ITS**
3 **PERCENTAGE OF THE STATE’S GHG EMISSIONS?**

4 **A.** The third finding by Navigant in its Report is a description of actions that can be
5 taken by NMGC to reduce its percentage of the State’s GHG Emissions, even if as
6 described above, such a reduction will be hard to measure.

7
8 The Report at page 16-19 begins to detail a Low-Carbon Roadmap and identifies
9 key activities that would be the most effective way for NMGC to reduce its GHG
10 Emissions. As detailed in the Report and concluded on page 23, there are several
11 paths on this roadmap:

- 12 • The first path is for the Company to reduce the Scope 1 and Scope 2
13 emissions of the Company by working on the transmission and distribution
14 system of the Company, the Company’s vehicle fleet, and increasing energy
15 efficiency and renewable energy for the Company’s owned facilities.
- 16 • The second path is for the Company to reduce Scope 3 emissions by
17 enhancing the Company’s Energy Efficiency programs for customers,
18 collaborating around upstream emissions reductions, and incorporating
19 renewable natural gas supplies.

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- 1 • Finally, the Report states that the third path for the Company is to undertake
2 an R&D program using funding from Emera to support low-carbon gas
3 solutions across New Mexico, which could lead to technology that can lead
4 to additional solutions to reduce Scope 1, 2, and 3 emissions in the State.

5

6 **Q. BEFORE DETAILING THE COMPANY’S GHG EMISSIONS**
7 **REDUCTION INITIATIVES, PLEASE DESCRIBE BRIEFLY HOW THE**
8 **CONTINUED USE OF NATURAL GAS BY NMGC CUSTOMERS**
9 **BENEFITS NEW MEXICO AND NEW MEXICANS.**

10 **A.** Natural gas is used by the majority of New Mexicans to heat their homes and
11 businesses. NMGC’s customers (approximately 530,000 in the State) already have
12 gas available to their homes and businesses, and enjoy the benefit of low gas prices
13 compared with other energy sources. Natural gas is the most affordable energy
14 solution for the majority of New Mexicans. It is NMGC’s intent to continue to
15 provide clean affordable natural gas to its existing customers as well as to new
16 customers into the future. Further, as reflected in the findings of Navigant, the use
17 of natural gas to heat our customers’ homes and businesses is not the primary
18 contributor to the problem of GHG Emissions within the State. The economic
19 benefits to the State and the people who use natural gas to heat their living and
20 working spaces must be a factor to consider as we transition to a low-carbon future.

21

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1 **II. NMGC’S EMISSION REDUCTION PROPOSALS**

2 **Q. PLEASE DETAIL THE COMPANY’S GHG EMISSIONS REDUCTION**
3 **PROPOSALS.**

4 **A.** As described below, the Company is proposing three proposals to reduce its GHG
5 Emissions within the State: 1) repurpose the \$5 million of the economic
6 development dollars provided by Emera from building a pipeline to Mexico toward
7 investing in researching and developing GHG Emissions reduction technology in
8 the use of natural gas; 2) increase the Company’s Energy Efficiency programs to
9 reduce GHG Emissions at the burner tip; and 3) propose specific GHG Emissions
10 reduction initiatives in this rate case.

11

12 **Q. PLEASE DESCRIBE THESE PROPOSALS IN MORE DETAIL.**

13 **A.** First, the Company has already received a variance from the NMPRC that the \$5
14 million of Emera shareholder money previously dedicated to construction of a
15 pipeline to Mexico, can be repurposed to engage in an R&D program for
16 development of low-carbon gas solutions across the State including examination of
17 the possibility and feasibility of RNG, hydrogen blending, fuel cells, and other
18 emerging technology. This R&D program is a long-term project that is being
19 developed now in parallel with this rate case and is not included in the requests in
20 this rate case. It is anticipated that the Company will engage with New Mexico’s
21 universities, national labs and other local experts, to the greatest extent possible, to

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1 facilitate this R&D program and thereby hopefully result in the development of
2 technology and methodologies that can be used into the future to reduce the
3 Company's, and potentially others', GHG Emissions footprint in the State. As
4 indicated in the motion for variance, the Company, through its owner Emera, is
5 providing the funds for the R&D program and is not looking to recoup those funds
6 in this rate case or any future rate case.

7

8 Second, the Company is proposing changes to its Energy Efficiency programs
9 including working with the State for funding a low-income furnace replacement
10 program. These ideas are being handled outside this rate case and I will not address
11 them in this testimony.

12

13 Third, the Company is proposing to place into this rate case certain specific, prudent
14 and reasonable expenditures which are consistent with the State's initiatives to
15 reduce GHG Emissions in New Mexico and which will be a direct and indirect
16 benefit to NMGC customers. I will turn to this third area now and discuss it in
17 detail.

18

19 **Q. WHAT DOES THE COMPANY PROPOSE IN THIS RATE CASE TO**
20 **REDUCE SCOPE 1 AND 2 EMISSIONS?**

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1 **Q. WHY SHOULD FLEETS CONVERT?**

2 **A.** Two reasons: CNG vehicles are both environmentally cleaner and economically
3 more efficient than gasoline or diesel vehicles.

4

5 First, based on information provided by the U.S. Energy Information
6 Administration (“EIA”) gasoline (without ethanol) emits approximately 157.2
7 pounds of CO₂ per million British thermal units (MMBtu) versus CNG, which
8 emits approximately 117.0 pounds of CO₂ per MMBtu.

9

10 Second, one MMBtu of natural gas equals approximately 7.74 gallons of gasoline
11 equivalent. Therefore, if natural gas is purchased for CNG fuel at \$8.00 per MMBtu
12 versus purchased gasoline at \$19.35 (\$2.50 per gallon) per MMBtu, it is more
13 economical to operate a fleet on CNG as opposed to gasoline or diesel. Considering
14 that the stations themselves will operate for decades, fleets of vehicles operating on
15 CNG will have an even greater impact over time.

16

17 **Q. PLEASE PROVIDE AN OVERVIEW OF NMGC’S PROPOSED CNG**
18 **INITIATIVE.**

19 **A.** NMGC is currently proposing to build fast-fill CNG stations for its use, which are
20 best suited for vehicles arriving randomly and needing to fill up quickly.
21 Additionally, NMGC is in discussions with municipalities to construct slow-, or

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1 fast-fill stations to serve large municipal fleets such as garbage trucks and other
2 vehicles. Slow-fill stations are less demanding on the Company's system and are
3 conducive to overnight filling for vehicles with a more regular pattern of usage.

4
5 It is contemplated that NMGC could reasonably construct one CNG filling station
6 a year for the next several years. These new stations would be built across NMGC's
7 service territory starting in urban areas such as Albuquerque and Santa Fe to service
8 its own transitioned fleets and to service municipal fleets and private customers.

9
10 As part of this program, NMGC intends to transition a significant portion of its own
11 vehicle fleet to run on CNG by replacing gas and diesel vehicles under its regular
12 replacement program with CNG vehicles. NMGC will not be accelerating or
13 increasing the pace of its replacement program, just substituting CNG vehicles for
14 gasoline vehicles under its current replacement schedule.

15
16 **Q. WHERE SPECIFICALLY WILL NMGC BUILD ITS FIRST CNG**
17 **STATIONS?**

18 **A.** NMGC plans to build two CNG stations by the end of 2021. The first station will
19 be located at the Company's Albuquerque Service Center facilities located at the
20 intersections of Edith Boulevard and Comanche Road. The majority of NMGC's
21 construction vehicles are located at the Service Center, so this is a natural place to

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1 install the first CNG station. NMGC has sufficient existing pipeline facilities in the
2 area to support a CNG station.

3
4 Secondly, NMGC is in discussions with the City of Albuquerque (the “City”) to
5 construct a facility for use by the City in the operation of its waste trucks at a facility
6 to be constructed by the City.

7

8 **Q. EXPLAIN HOW THESE LOCATIONS WERE CHOSEN.**

9 **A.** Because much of NMGC’s fleet is located in the Albuquerque area, and because of
10 the discussions with the City, the first stations will be built in the Albuquerque
11 Metro area. As NMGC continues to convert its fleet it anticipates building stations
12 in other areas of the State, and NMGC has also reached out to, and begun
13 discussions with, other municipalities throughout the State to build stations across
14 NMGC’s service territory.

15

16 **Q. WILL NMGC ALLOW THE PUBLIC TO UTILIZE NMGC’S CNG
17 STATIONS?**

18 **A.** Eventually, yes. At first, NMGC will utilize the CNG stations for its fleet needs
19 and for the needs of municipal fleets. NMGC, however, intends to provide the
20 public with access to the stations in the future.

21

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1 **Q. WHAT IS THE USABLE LIFESPAN OF A CNG POWERED VEHICLE,**
2 **AND HOW DOES THAT COMPARE TO A GASOLINE OR DIESEL-**
3 **POWERED VEHICLE?**

4 **A.** There is no anticipated difference in vehicle lifespan between CNG powered
5 vehicles and gasoline or diesel-powered vehicles.
6

7 **Q. ARE THERE ANY INCREASED SAFETY RISKS RELATED TO**
8 **OPERATING A CNG STATION OR CNG VEHICLES?**

9 **A.** No.
10

11 **Q. WHY IS NMGC NOT CONVERTING ITS FLEET TO ELECTRIC**
12 **VEHICLES?**

13 **A.** The estimated cost of an electric work truck (Ford F150 through F350) vehicle is
14 approximately two to three times more than a typical CNG fueled vehicle. Also, a
15 CNG fueled vehicle's range is much greater than the range of an electric vehicle,
16 which is an important consideration for NMGC – and indeed other fleets as they
17 transition to more economical and environmentally friendly fuels.
18

19 **Q. HOW IS THIS CNG INITIATIVE REFLECTED IN THIS RATE CASE?**

20 **A.** The Company is estimating the cost of a station will be between \$1.5 and \$2.5
21 million, depending on a number of circumstances. If approved, the Company

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1 anticipates constructing one facility a year for the next five years starting in 2020.
2 As NMGC Witness Daniel P. Yardley explains, part of the cost would be rate based,
3 and recovered over time through rates charged to outside customers using the
4 facilities. The cost of facilities constructed for Company use only will be reflected
5 as normal capital and operating costs of the Company.

6

7 **Q. HOW DOES NMGC PLAN ON RECOVERING THE COST OF CNG**
8 **STATIONS?**

9 A. As detailed by NMGC Witness Yardley, NMGC is proposing a CNG rate to be
10 applied to municipal and public customers utilizing CNG stations constructed by
11 the Company. This rate will apply to all such customers and will allow for the
12 recovery by ratepayers, over time, of the costs incurred in constructing the facilities.
13 Also, NMGC currently has an alternative fuels vehicle (Rate No. 39) rate that is
14 applied to stations constructed by customers and this rate will remain available to
15 encourage customer-constructed stations.

16

17 **B. Leak Repair Initiative**

18 **Q. PLEASE DESCRIBE NMGC'S SYSTEM AND BRIEFLY DISCUSS THE**
19 **SYSTEM'S INTEGRITY.**

20 A. NMGC has a high-quality transmission and distribution system with limited miles
21 of legacy pipe. NMGC's legacy pipe assets are currently being replaced or

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1 upgraded as discussed in NMGC Witness Tom C. Bullard’s testimony. Therefore,
2 NMGC has a lower system leak frequency as compared to many other gas utilities.

3

4 **Q. THAT BEING SAID, ARE THERE LEAKS ON NMGC’S SYSTEM?**

5 **A.** Yes. All natural gas systems have leaks associated with their operations. Per
6 NMGC and industry practices, there are three categories of gas leaks on a gas utility
7 system: Grade 1, Grade 2, and Grade 3. Grade 1 leaks are leaks that represent an
8 immediate hazard. By regulation and NMGC practice, Grade 1 leaks must be
9 immediately addressed until the hazardous condition has been eliminated. NMGC
10 fully complies with this requirement. Grade 2 leaks are leaks that at the time of
11 discovery are not hazardous to people or property, but that justify repair based on
12 potential to become a hazard in the future. By regulation and NMGC practice,
13 Grade 2 leaks must be eliminated within 15 months of discovery. NMGC fully
14 complies with this requirement. Grade 3 leaks are leaks that are non-hazardous at
15 the time of discovery, and can reasonably be expected to remain non-hazardous. By
16 regulation and NMGC practice, Grade 3 leaks must be re-checked yearly to ensure
17 those leaks continue to meet the criteria of a Grade 3 leak, namely, they are not
18 hazardous and are expected to remain non-hazardous.

19

20

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1 In addition to continuing our current leak repair expenditures and repairing Grade
2 leaks as they are discovered, under this initiative, the Company commits to
3 spending \$1 million per year repairing legacy Grade 3 leaks.

4

5 **Q. IS THERE ANY DANGER TO MONITORING GRADE 3 LEAKS?**

6 **A.** No. Grade 3 leaks are by definition non-hazardous leaks, and, consistent with
7 federal regulations, NMGC has historically monitored them annually to ensure that
8 they continue to meet the criteria of a Grade 3 leak. NMGC's policies and
9 procedures meet or exceed all federal (49 CFR 192 subpart 192.605) and state
10 pipeline regulations.

11

12 **Q. HOW MANY GRADE 3 LEAKS ARE THERE CURRENTLY ON NMGC'S**
13 **SYSTEM, AND ON AVERAGE HOW MANY GRADE 3 LEAKS ARE**
14 **DISCOVERED EACH YEAR?**

15 **A.** On average, NMGC discovers 459 Grade 3 leaks each year and NMGC currently
16 repairs most Grade 3 leaks on its system close in time to when they are discovered.
17 Presently, NMGC has approximately 200 legacy Grade 3 leaks.

18

19 **Q. HOW CAN A GAS LEAK BE NON-HAZARDOUS?**

20 **A.** Consistent with industry codes and standards, non-hazardous leaks are generally
21 small in nature and not located in an area that could impact people and/or property.

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1 **Q. IF GRADE 3 LEAKS ARE NON-HAZARDOUS, WHY IS NMGC**
2 **CHANGING ITS POLICY AND COMMITTING TO REPAIR ALL LEAKS**
3 **ON ITS SYSTEM?**

4 **A.** While Grade 3 leaks are non-hazardous to people and property, they still represent
5 a source of GHG Emissions into the atmosphere. NMGC is committed to doing its
6 part to decrease GHG Emissions, and as part of that plan is committing to spend \$1
7 million dollars annually to eliminate legacy Grade 3 leaks on its system. This
8 initiative is in addition to the Company's current practice, and current expenditure,
9 of repairing Grade 3 leaks as they are found.

10

11 **Q. HOW IS THIS LEAK REPAIR INITIATIVE REFLECTED IN THIS RATE**
12 **CASE?**

13 **A.** Starting in 2020, NMGC will expend the resources necessary to eliminate all Grade
14 3 leaks. The cost of this initiative is currently estimated to be \$1 million annually.

15

16 **C. Solar Initiative**

17 **Q. WHAT IS NMGC'S SOLAR INITIATIVE?**

18 **A.** NMGC will place solar panels at Company-owned buildings over the next two to
19 three years. NMGC will place solar panels on rooftops, or where appropriate, may
20 also install solar facilities in parking lots, which could double as shade-providing
21 structures.

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1 **Q. WHY DOES NMGC WANT TO PLACE SOLAR FACILITIES AT ITS**
2 **BUILDINGS?**

3 **A.** Consistent with NMGC’s stated goal to reduce GHG Emissions, these solar
4 facilities would reduce GHG Emissions for NMGC and support the objectives of
5 the Energy Transition Act.

6

7 **Q. HAS NMGC DETERMINED WHERE IT WILL INSTALL ITS SOLAR**
8 **PANELS IN 2020 AND 2021?**

9 **A.** NMGC is working with solar contractors to develop a plan to install solar panels at
10 NMGC’s facilities over the next two to three years.

11

12 **Q. HOW WILL THIS INITIATIVE BE REFLECTED IN THE RATE CASE?**

13 **A.** NMGC has budgeted capital expenditures of \$1.9 million in 2020 and 2021 for this
14 initiative and has included these investments as part of its revenue requirement
15 request in this case.

16

17 **D. Wizard Controller Replacement Initiative**

18 **Q. WHAT IS THIS INITIATIVE?**

19 **A.** NMGC will replace all of its Wizard Controllers over the next two years.

20

21

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1 **Q. WHAT ARE WIZARD CONTROLLERS?**

2 **A.** A Wizard Controller is a type of pneumatic pressure controller which uses gas
3 pressure to move a valve. The Wizard Controller consists of a pressure sensing
4 element (Bourdon tube), an indicating gauge, and an output transmitter. The output
5 transmitter sends a pneumatic signal to a pressure control element (valve) to control
6 pressure in the pipeline at a specific setpoint. There are several models available,
7 but NMGC typically uses either the Fisher 4160, or more recently the Fisher 4195.
8 The 4160 features an atmospheric vent design, which requires a supply gas flow of
9 up to 30 SCFH depending on the transmitter output. The 4195 is a low-bleed
10 design, and requires only 2.5 to 2.8 SCFH to perform the same function.

11

12 **Q. HOW WILL REPLACING WIZARD CONTROLLERS DECREASE**
13 **NMGC'S GHG EMISSIONS?**

14 **A.** Replacing Wizard Controllers will decrease GHG Emissions by reducing the
15 amount of supply gas vented to the atmosphere.

16

17 **Q. WHAT IS THE USEFUL LIFE OF THESE WIZARD CONTROLLERS?**

18 **A.** The useful life of a Wizard Controller varies depending on operating conditions
19 and supply gas quality, but 10 to 20 years is typical. Most of the Company's Wizard
20 Controllers are at or near the end of their useful life.

21

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1 **Q. CAN NMGC ESTIMATE THE METHANE EMISSIONS SAVINGS IT**
2 **WILL REALIZE BY REPLACING WIZARD CONTROLLERS?**

3 **A.** Replacing these Wizard Controllers could potentially save approximately 200 MCF
4 per year per unit replaced, or approximately 8,000 to 10,000 MCF per year.
5 Assuming a 15-year remaining life, the total emissions savings could be 120,000 to
6 150,000 MCF.

7

8 **Q. HOW WILL THIS INITIATIVE BE REFLECTED IN THE RATE CASE?**

9 **A.** The Company has \$400,000 budgeted for this item in 2020-2021 and will begin
10 replacing the Wizard Controllers starting in 2020.

11

12 **E. Other GHG Emissions Reduction Projects**

13 **Q. WHAT IS THE COMPANY PROPOSING TO DO TO REDUCE SCOPE 3**
14 **EMISSIONS?**

15 **A.** Earlier, I discussed the difference between Scope 1, 2, and 3 GHG Emissions and I
16 have just highlighted four initiatives to reduce Scope 1 and 2 GHG Emissions. Now
17 let me turn to our proposed initiatives to reduce Scope 3 Emissions.

18 For many reasons, many of which are discussed in NMGC Witness Bullard's
19 testimony, NMGC is proposing to construct a pipeline to ship gas out of the
20 Permian Basin. This will be known as the Malaga Pipeline. While this pipeline is
21 primarily intended to provide additional pipeline capacity to transport natural gas

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1 out of the Permian Basin and for interstate pipelines to move the gas to markets
2 where it can be used beneficially, it will have an impact on Scope 3 GHG Emissions
3 and, therefore, is discussed here.

4

5 **Q. HOW WILL THE MALAGA PIPELINE IMPACT GHG EMISSIONS?**

6 **A.** The Permian Basin is experiencing significant increased drilling activity from
7 companies searching for oil, resulting in a significant increase in oil and gas
8 production in the area. There is considerable natural gas produced in conjunction
9 with the extraction of oil in the Permian Basin. Production of oil and associated
10 gas from the Permian Basin is at such a high level that there simply is not enough
11 pipeline capacity in the area to transport all of the natural gas being produced to
12 market places where the gas can be consumed in a beneficial manner. This situation
13 can lead to producers either flaring natural gas at the wellhead (creating GHG
14 Emissions without a beneficial purpose) or venting methane and other GHG
15 Emissions directly into the atmosphere. The Malaga Pipeline, along with all the
16 other pipelines being constructed from the Permian Basin, can together help
17 alleviate the need to flare or vent natural gas during the production of oil in the
18 Basin.

19

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1

III. CONCLUSION

2 **Q. ARE NMGC'S PROPOSED INITIATIVES TO REDUCE GHG EMISSIONS**
3 **IN THE PUBLIC INTEREST?**

4 **A.** Yes. NMGC is working diligently to be part of the solution to climate change in
5 New Mexico, and its initiatives to reduce GHG Emissions will help create a better
6 environment for all New Mexicans.

7

8 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

9 **A.** Yes.