

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. 96)**

Case No. 23-00255-UT

NEW MEXICO GAS COMPANY, INC.)
)
 Applicant.)

DIRECT TESTIMONY AND EXHIBITS

OF

TOM C. BULLARD

September 14, 2023

**DIRECT TESTIMONY OF
TOM C. BULLARD
NMPRC CASE NO. 23-00255-UT**

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I. INTRODUCTION

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- Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**
- A.** My name is Tom C. Bullard. My business address is 7120 Wyoming Boulevard, NE, Suite 20, Albuquerque, New Mexico 87109.
- Q. BY WHOM AND IN WHAT CAPACITY ARE YOU EMPLOYED?**
- A.** I am the Vice President of Engineering, Gas Management and Technical Services for New Mexico Gas Company, Inc. (“NMGC” or the “Company”).
- Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND WORK EXPERIENCE.**
- A.** My educational background and work experience are described in NMGC Exhibit TCB-1.
- Q. PLEASE DESCRIBE YOUR DUTIES AND RESPONSIBILITIES AS VICE PRESIDENT OF ENGINEERING, GAS MANAGEMENT AND TECHNICAL SERVICES FOR NMGC.**
- A.** I am responsible for (i) the engineering and design of the NMGC natural gas distribution and transmission systems that serve the Company’s residential, commercial, and industrial customers throughout the State of New Mexico; (ii) executive oversight of NMGC’s capital plant and expenditures; (iii) the right-of-

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1 way, environmental, and geographic information system departments; and (iv) gas
2 acquisitions, gas supply, system planning, and the gas control and compression
3 functions of the Company. I am also responsible for discounted transportation
4 rates, which are discounted rates negotiated between the Company and certain
5 transportation customers pursuant to 17.10.660 NMAC (“Rule 660”).
6

7 **Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY TO THE NEW**
8 **MEXICO PUBLIC REGULATION COMMISSION (“NMPRC” OR THE**
9 **“COMMISSION”)?**

10 **A.** Yes, please refer to NMGC Exhibit TCB-1.
11

12 **Q. HOW IS YOUR DIRECT TESTIMONY ORGANIZED?**

13 **A.** My Direct Testimony is organized as follows:

- 14 • In Section II, I discuss NMGC’s capital budgeting and prioritization
15 process, including how priorities for capital projects are established and
16 how capital budgets are monitored;
- 17 • In Section III, I describe the new key capital investments that will be put
18 into service during this case, especially those related to federal regulations
19 requiring management plans, and explain how the capital investments
20 benefit customers;

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- 1 • In Section IV, I describe NMGC’s operations and maintenance (“O&M”)
- 2 expenditures related to federal regulations requiring Integrity Management
- 3 plans;
- 4 • In Section V, I provide information about and support for NMGC’s
- 5 discounted gas transportation rates, as well as unique transportation
- 6 revenues; and
- 7 • In Section VI, I discuss NMGC’s review and analysis of the possibility of
- 8 electrifying certain NMGC-owned compressor stations as agreed to in the
- 9 Stipulation approved in NMPRC Case No. 21-00267-UT.

10

11 **Q. ARE YOU SPONSORING ANY RULE 17.10.630 NMAC (“RULE 630”)**

12 **SCHEDULES?**

13 **A.** Yes, I am sponsoring four Rule 630 Schedules as follows:

- 14 • Schedule Q-1 – Peak Demand Information;
- 15 • Schedule Q-7 – Scheduled Maintenance Information;
- 16 • Schedule Q-8 – Customer Service Interruption Information; and
- 17 • Schedule R-2 – Load Research Program.

18

19 Additionally, I provide information related to rights-of-way expenses that are

20 contained in Rule 630 Schedule H-7.

21

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1 **Q. DOES YOUR DIRECT TESTIMONY RELATE TO THE DIRECT**
2 **TESTIMONY PRESENTED BY OTHER COMPANY WITNESSES?**

3 **A.** Yes. I am responsible for NMGC’s overall capital plan for 2022, 2023, 2024 and
4 2025, which will be used by NMGC Witness Erik C. Buchanan to develop NMGC’s
5 cost of service. For purposes of my Direct Testimony relating to the overall capital
6 plan, I rely upon the Direct Testimony of fellow NMGC Witnesses Tommy H.
7 Sanders (large information technology project called the “Hansen CIS”), Kevin I.
8 Farr (information technology, and telecommunication), and Denise E. Wilcox
9 (security enhancements).

10

11 **Q. CAN YOU PLEASE BRIEFLY DESCRIBE NMGC’S CAPITAL**
12 **INVESTMENT AMOUNTS FOR THE PERIOD OF APRIL 1, 2022**
13 **THROUGH SEPTEMBER 30, 2025?**

14 **A.** Yes, between April 1, 2022 and September 30, 2025, NMGC will have placed into service
15 approximately \$431.2 million of capital improvements. This amount breaks down as
16 follows:

- 17 • Base Year capital improvements placed into service (April 1, 2022 through
18 March 30, 2023): approximately \$95.8 million;
- 19 • Linkage Periods capital improvement placed into service (April 1, 2023 through
20 September 30, 2024): approximately \$179 million; and

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- 1 • Future Test Year capital improvements placed into service (October 1, 2024
2 through September 30, 2025): approximately \$156.4 million.

3
4 As the trend above demonstrates, the Company needs to invest capital to ensure it can
5 continue to provide customers with reliable and efficient natural gas utility service. The
6 Company's capital investments in this case are largely driven by Integrity Management
7 program ("IMP") requirements and our new customer information system ("CIS")
8 software system developed by Hansen Technologies, which I will refer to as the "Hansen
9 CIS" or the "Hansen CIS Project". I will describe both of these in greater detail later in
10 my Direct Testimony.

11
12 **Q. WHAT CAPITAL INVESTMENT AMOUNT IS NMGC SEEKING**
13 **RECOVERY OF IN THIS CASE?**

14 **A.** While NMGC will make over \$400 million in additional capital investments between the
15 start of the Base Period and the end of the Future Test Year, some of those amounts are
16 already accounted for in NMGC's current rates. As such, NMGC is seeking recovery of
17 its average rate base for the Future Test Year, which includes approximately \$278.2
18 million in additional capital investments when compared to the settlement stipulation
19 reconciliation NMGC prepared in its last rate case. This amount is best described
20 in two categories: 1) new capital investments that will occur between January 1,
21 2024 and September 30, 2025, and 2) additional amounts of plant in service at the

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1 end of 2023 compared to the amounts in NMGC's stipulation reconciliation in its
2 last rate case.

3
4 First, the Company is seeking recovery of approximately \$228.2 million in new capital
5 investment projects between January 1, 2024 and September 30, 2025. I provide
6 significant detail on these projects in my Direct Testimony.

7
8 Second, NMGC's last rate case, NMPRC Case No. 21-00267-UT, used a Future
9 Test Year period that ran from January 1, 2023 through December 31, 2023, and
10 projected its capital investments for the entirety of 2023. NMGC entered into a
11 stipulation in that case, and agreed to a lower revenue increase than proposed. In
12 order to meet the stipulated revenue increase in that case, NMGC proposed in its
13 settlement reconciliation to defer some capital investments so that the proposed
14 plant in service by the end of 2023 would be lower by approximately \$75 million.
15 NMGC deferred these projects. However, NMGC experienced increased material
16 and contractor labor costs related to remaining capital projects, as well as the need
17 for additional projects in order to meet our obligations to customers. Therefore,
18 NMGC is putting into service and seeking recovery in this case of approximately
19 \$50 million more in capital investments in 2023 than was anticipated in its rate case
20 settlement and was reflected in the settlement stipulation reconciliation NMGC

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1 prepared in its last rate case. I discuss this in more detail toward the end of my
2 testimony.

3
4 **II. CAPITAL INVESTMENT PROCESS**

5 **Q. PLEASE BRIEFLY DESCRIBE NMGC’S TRANSMISSION AND**
6 **DISTRIBUTION SYSTEMS.**

7 **A.** NMGC provides natural gas utility service throughout New Mexico. NMGC’s
8 transmission and distribution facilities serve customers all over the State. NMGC
9 operates approximately 1,500 miles of transmission pipelines (the “Transmission
10 System”), and over 10,970 miles of distribution pipelines (the “Distribution
11 System”).

12
13 **Q. PLEASE DESCRIBE NMGC’S NORMAL CAPITAL EXPENDITURE**
14 **PROGRAM.**

15 **A.** Every year, NMGC spends significant capital to maintain and improve its
16 Transmission and Distribution Systems in order to provide safe and reliable natural
17 gas utility service to its customers. NMGC primarily makes capital investments for
18 four reasons: 1) new customer growth, 2) system reliability, 3) in response to issues
19 that arise during NMGC’s normal operations, and 4) risk-based system
20 improvements.

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1 Investments related to new customer growth primarily relate to extending NMGC's
2 Transmission and Distribution Systems to serve new customers. NMGC makes
3 Distribution System investments related to customer growth consistent with
4 NMGC First Revised Rule No. 16, which is NMGC's Commission-approved line
5 extension policy. These investments provide benefits to new customers by
6 providing reliable gas service at just and reasonable rates, while also providing
7 benefits to existing NMGC customers by spreading our operating costs over a
8 broader base of customers.

9
10 Investments related to system reliability are made when NMGC determines
11 additional investment is necessary to continue to provide efficient and reasonable
12 gas service to our customers, as required by 17.10.650 NMAC. NMGC continually
13 performs hydraulic system modeling of its Transmission and Distribution Systems
14 to identify areas that may need improvements or reinforcements to accommodate
15 system growth and provide adequate capacity for our customers' current and future
16 needs. In addition, as required by NMPRC regulation, every four years NMGC
17 develops an Integrated Resource Plan ("IRP") with public input to ensure our
18 Transmission System has the capacity to meet current and future customer
19 requirements. We use the IRP and hydraulic system modeling to plan transmission
20 improvements in the near- and long-term.

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1 System improvements made in response to issues that arise during NMGC's normal
2 operations are investments which are generally not predictable months in advance,
3 such as the repair of system leaks and replacement of component failures. When
4 we find system leaks, we repair or replace the portion of the distribution main or
5 service lines that are leaking. Additionally, other system components including
6 meters, regulators, valves and other equipment are continuously being replaced and
7 protected with investments such as transmission specifics, distribution specifics and
8 blanket projects depending on the extent of the repairs.

9

10 **Q. PLEASE DESCRIBE NMGC'S CAPITAL INVESTMENT EVALUATION**
11 **PROCESS.**

12 **A.** The capital investment evaluation process is NMGC's program to review,
13 standardize, and control its capital investments. This process is driven by NMGC's
14 mission to provide efficient and reasonable service to customers. Consistent with
15 prudent engineering practices, and as part of our ongoing work to meet the
16 Commission's service standards set out in 17.10.650 NMAC, NMGC is constantly
17 evaluating its system for potential improvements. NMGC then balances these
18 potential improvements against the potential rate impact to customers.

19

20 Through this process, NMGC continually identifies projects that could improve the
21 safety, reliability, and operations of its system. NMGC begins every possible

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1 significant capital project by evaluating multiple possible solutions to the issue
2 creating the need for capital investments. Each potential solution is then evaluated
3 for the relative costs/benefits of that solution including evaluation of environmental
4 issues, permitting issues, land use issues, financing issues, and myriad other factors
5 unique to any individual project. The options resulting from this evaluation are
6 assessed to identify issues that could affect project viability. Such issues may
7 include difficulty reconciling project schedules and budgets with the potential
8 construction requirements of the site, the potential to experience delay due to
9 necessary permitting and procurement requirements, difficulty in obtaining
10 necessary sites or rights-of-way, required public input processes, or environmental
11 compliance requirements. Cost estimates used in both the feasibility planning stage
12 and for comparison between alternatives are based on estimated line mileages,
13 NMGC cost data that are periodically updated, and construction standards. The
14 most cost-effective, viable option is selected for further evaluation in relation to
15 NMGC's overall capital plan.

16
17 All of these projects are entered into a capital management software system, which
18 develops a recommended portfolio of projects using information entered for each
19 project by Company subject matter experts. The software uses a value framework
20 created by the Company that considers the following categories when
21 recommending a portfolio of projects: regulatory requirements, system reliability,

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1 safe and secure operation of the system, cost savings, efficiency, productivity,
2 improving customer service, and environmental stewardship. For every specific
3 capital project, values must be input for each of these categories. In order to help
4 ensure a thorough weighing of each project, a committee of NMGC leaders meets
5 with each NMGC subject matter expert who proposes a capital project to review
6 the values that the person assigned to each of the categories above. Additionally,
7 any projects that result in values that are outliers (such as projects with the highest
8 values, the lowest values, and any with negative values), and projects that a subject
9 matter expert has designated as “must-do”, are discussed in a meeting with NMGC
10 leaders, and a consensus is reached on the values assigned for each category of the
11 project being analyzed prior to running the software.

12
13 Once the capital management software has ranked the projects, the NMGC Capital
14 Allocation Team (“CAT”) reviews the results of the analysis and list of projects to
15 determine whether any adjustments should be made based on the team’s judgment.
16 The CAT is made up of leadership and subject matter experts from across the
17 Company, including myself, NMGC’s Vice President of Compliance and General
18 Counsel, NMGC’s Vice President of Operations, NMGC’s Vice President of
19 Finance, NMGC’s Vice President of Safety and Business Support, NMGC’s Vice
20 President of Human Resources and Corporate Security, NMGC’s Controller,
21 NMGC’s Directors of Operations, NMGC’s Director of Engineering Services,

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1 NMGC's Director of Information Technology, NMGC's Director of Land and
2 Environmental Services, NMGC's Director of Forecasting and Planning, and
3 certain managers from NMGC's Operations, Engineering, Corporate Security, and
4 Fleet and Facilities. I am the leader of the CAT, and the team meets on a monthly
5 basis to discuss NMGC's capital expenditures and the status of capital projects
6 across the business.

7
8 Once a list of possible projects is prioritized, including budget amounts for routine
9 types of projects that will occur during the year, the CAT works with NMGC's
10 Finance group, including the Vice President of Finance, to determine a spending
11 threshold that best balances the provision of safe and reliable service with rates that
12 are fair, just, and reasonable. Projects that fall below the threshold that is
13 established are not included in NMGC's capital spending for the upcoming year.
14 The CAT reviews the proposed projects that fall below the threshold to ensure that
15 delaying those projects will not adversely impact the Company's ability to provide
16 safe and reliable service to customers.

17
18 Finally, the proposed capital spending for the year is included in NMGC's overall
19 budget for the year, which is reviewed by management and then presented to
20 NMGC's Board of Directors for approval.

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1 **Q. PLEASE DESCRIBE HOW CAPITAL PROJECT COSTS ARE**
2 **DETERMINED WHEN CREATING NMGC’S CAPITAL PLAN.**

3 **A.** NMGC’s personnel have many years of experience constructing capital projects,
4 and estimating the time, labor, and equipment required for the large majority of
5 NMGC’s capital projects based on information available from recent similar
6 projects. NMGC obtains cost estimates for materials from various distributors and
7 manufacturers and uses those costs when preparing capital project estimates.

8
9 For certain projects, NMGC will contract with construction firms to perform many
10 of the construction activities. In these instances, NMGC issues a request for
11 proposals and invites construction firms to submit cost bids for the scope of work
12 needed for the project. NMGC analyzes these bids to ensure the winner of the bid
13 is not significantly out of line with other bidders.

14

15 **Q. HOW DOES NMGC ENSURE MATERIAL AND SUPPLY COSTS ARE**
16 **REASONABLE?**

17 **A.** NMGC utilizes wholesale vendors that provide bulk materials and requests bids for
18 materials if the cost of the equipment or material is greater than \$200,000.
19 Additionally, for certain significant projects, NMGC utilizes purchasing contracts
20 through its affiliates, Tampa Electric Company and Peoples Gas, when available,

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1 to take advantage of economies of scale in order to create higher volume purchases
2 to achieve better pricing.

3

4 **Q. DOES NMGC HAVE A PROCESS TO ACCOUNT FOR UNEXPECTED**
5 **EVENTS IN RELATION TO ITS CAPITAL PLAN?**

6 **A.** Yes. We know that unexpected developments occur with planned projects, and that
7 unplanned projects crop up as well. To meet these unexpected developments, the
8 CAT has a process in place to ensure the funding of necessary, but unbudgeted,
9 capital expenditures while not exceeding the overall approved capital budget. The
10 process involves documenting, as early as possible, the need for the new
11 expenditure and identifying a budgeted project expenditure that can be postponed
12 to accommodate the new expenditure. Finally, any change to the capital plan
13 requires my approval as the leader of the CAT.

14

15 **Q. DOES THAT MEAN THAT IN ORDER TO FUND A NEW PROJECT,**
16 **NMGC MUST ALWAYS ELIMINATE OR DELAY PREVIOUSLY**
17 **APPROVED PROJECTS?**

18 **A.** No. The process I described above is NMGC's preferred method of addressing
19 unplanned capital needs. In the event that a significant unplanned capital project
20 expense occurs, and NMGC cannot safely delay other projects in order to shift
21 expenditures, NMGC would still undertake all of the projects critical to its

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1 continued provision of safe and reliable natural gas service. NMGC would seek
2 Board approval if this resulted in spending significantly more in a given year than
3 originally approved in the capital plan.

4

5 **Q. HOW DOES NMGC MANAGE ITS CAPITAL INVESTMENTS?**

6 **A.** NMGC manages its capital investments by category. These categories are: 1)
7 transmission specific projects; 2) distribution specific projects; 3) transmission
8 blankets; 4) distribution blankets; 5) general plant; 6) information technology and
9 telecommunication (“IT&T”); and 7) Integrity Management. NMGC uses these
10 categories because the projects within each category are similar in nature and
11 generally managed within one business area.

12

13 **Q. PLEASE DESCRIBE WHAT THE TERM “BLANKET” MEANS.**

14 **A.** There are categories that contain the term “blanket”: transmission and distribution
15 blankets. In each of these categories, blankets are comprised of recurring projects
16 that are individually less than \$200,000. Projects that do not meet the description
17 for blankets are categorized as specific projects.

18

19 In the distribution area, blankets include: new and replacement meters and meter
20 sets, short mainline extensions, relocation of distribution facilities, cathodic
21 protection upgrades, minor system improvements, valve installation and

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1 replacements, and service line extensions. These are recurring types of projects
2 that include labor for design and installation, materials, permitting, and right-of-
3 way acquisition. Over the last two years NMGC has spent approximately \$27
4 million annually on projects that fall within the “Distribution Blanket” category.
5 Distribution projects that do not meet this description are categorized as
6 “Distribution Specific” projects.

7
8 In the transmission area, blanket projects include installing new or updating,
9 replacing, or rehabilitating equipment, pipelines, or structures that have reached the
10 end of their useful life. Examples include upgrading, relocating, or replacing meter
11 stations and regulator stations. Historically, NMGC spends between \$1.5 million
12 and \$2 million annually on projects that fall within the “Transmission Blanket”
13 category. Transmission projects that do not meet this description are categorized
14 as “Transmission Specific” projects.

15
16 Overall, blankets consist of numerous small projects that generally address
17 localized issues. Many of these repairs and replacements occur throughout the year,
18 and are often not specifically planned months in advance. This means that these
19 types of expenditures, while critical, cannot be specifically projected and identified
20 by name or location, but NMGC can reasonably forecast the amounts it will
21 normally spend in any given forecasted period based on historical experience.

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1 **Q. WHAT IS THE “GENERAL PLANT” CATEGORY OF CAPITAL**
2 **PROJECTS?**

3 **A.** The general plant category involves capital expenditures relating to fleet and power
4 equipment purchases such as backhoes and other similar equipment, facility
5 improvements to our office locations, and tools and equipment utilized by our crews
6 in providing safe and reliable gas service. NMGC bases its fleet and power
7 equipment replacements on run hours or mileage to ensure it continues to maintain
8 a reliable and safe vehicle fleet and proper tools and equipment for its employees.
9 Tools and equipment are generally replaced as they reach the end of their useful
10 life in order to ensure crew members and customer safety, and to help avoid crew
11 downtime due to tool or equipment failures. Facility improvements include
12 enhanced safety and security measures, roof replacements, and other necessary
13 improvements to office spaces.

14

15 **Q. WHAT IS THE “IT&T” CATEGORY OF CAPITAL PROJECTS?**

16 **A.** The IT&T category of the capital plan encompasses all purchases of hardware,
17 software, and telecommunications equipment necessary for NMGC to run its
18 business. NMGC Witness Farr provides background and business information on
19 capital improvements related to IT&T.

20

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1 **Q. WHAT IS THE “INTEGRITY MANAGEMENT” CATEGORY OF**
2 **CAPITAL PROJECTS?**

3 **A.** The Integrity Management category of the capital plan encompasses all of NMGC’s
4 risk-based assessment and mitigation activities, as well as those projects required
5 by federal regulations. These are discussed in greater detail later in my testimony.

6

7 **III. CAPITAL IMPROVEMENT PROJECTS**

8 **Q. PLEASE DESCRIBE WHAT INFORMATION NMGC IS PRESENTING IN**
9 **THIS CASE TO SUPPORT THE CAPITAL PROJECTS.**

10 **A.** Details of the projects included in the Company’s Capital Investment Program can
11 be found in the following exhibits:

- 12 • NMGC Exhibit TCB-2 – Distribution Blankets. This exhibit contains
13 summaries of blankets that include many smaller projects, budget figures
14 are displayed by cost type;
- 15 • NMGC Exhibit TCB-3 – Distribution Specifics. This exhibit contains
16 detailed project information including project justifications, estimated
17 completion dates, alternatives reviewed, and budget figures by cost type for
18 specific distribution projects;
- 19 • NMGC Exhibit TCB-4 – General Plant. This exhibit contains summaries of
20 blankets that include many smaller projects, budget figures are displayed by
21 cost type;

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- 1 • NMGC Exhibit TCB-5 – IT&T. This exhibit contains detailed project
2 information including project justifications, estimated completion dates,
3 alternatives reviewed, and budget figures by cost type for specific IT&T
4 projects;
- 5 • NMGC Exhibit TCB-6 – Significant Projects. This exhibit contains detailed
6 project information including project justifications, estimated completion
7 dates, alternatives reviewed, and budget figures by cost type for several
8 Significant Projects;
- 9 • NMGC Exhibit TCB-7 – Transmission Blankets. This exhibit contains
10 summaries of blankets that include many smaller transmission projects. In
11 this exhibit, budget figures are displayed by cost type;
- 12 • NMGC Exhibit TCB-8 – Transmission Specifics. This exhibit contains
13 detailed project information including project justifications, estimated
14 completion dates, alternatives reviewed, and budget figures by cost type;
15 and
- 16 • NMGC Exhibit TCB-9 – Integrity Management Specifics. This exhibit
17 provides the annual capital investment in projects required by NMGC's
18 Integrity Management plan, by category.
- 19

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1 **Q. ARE THE CAPITAL PROJECTS DESCRIBED IN YOUR DIRECT**
2 **TESTIMONY AND NMGC EXHIBITS TCB-2 THROUGH TCB-9**
3 **NECESSARY FOR NMGC TO MEET ITS SERVICE OBLIGATION?**

4 **A.** Yes. These projects and their associated costs are necessary for NMGC to continue
5 to provide adequate, efficient, and reasonable service to its customers. In addition,
6 many of these projects are required for regulatory compliance purposes. These
7 projects have been carefully vetted and prioritized as detailed in the budgeting
8 process described above and are necessary and the associated costs are reasonable.

9

10 **Q. WHAT IS DRIVING THE CAPITAL INVESTMENT SPENDING THAT**
11 **NECESSITATES THIS RATE CASE FILING?**

12 **A.** The primary drivers for the capital investments are: 1) the Company's on-going
13 annual capital investment program, 2) the projects related to the Company's
14 Integrity Management programs, also called "IMP" or "IMPs", and 3) Hansen CIS
15 Project.

16

17 **A. Significant Capital Projects**

18 **Q. PLEASE BRIEFLY SUMMARIZE THE NEW SIGNIFICANT CAPITAL**
19 **PROJECTS THAT NMGC IS SEEKING RECOVERY OF IN THIS CASE.**

20 **A.** NMGC's new significant individual capital projects which will be completed by
21 September 30, 2025, and therefore included in this case are as follows:

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- 1 i. West Mesa Mainline Reroute - Rio Bravo Boulevard Bridge Project: This
2 project is required due to the replacement of a bridge crossing over the Rio
3 Grande River;
- 4 ii. Clovis Eight-Inch Mainline Replacement Project: The Clovis Mainline is a bare
5 steel pipeline in East-Central New Mexico. The replacement is driven by
6 Integrity Management regulations and will increase reliability.
- 7 iii. Potash Mainline Replacement Project: This project is driven by Integrity
8 Management regulations and will increase reliability in Southern New Mexico;
- 9 iv. Artesia Six-Inch Mainline Replacement Project: This project is driven by
10 Integrity Management regulations and will increase reliability in Eastern New
11 Mexico;
- 12 v. T or C Mainline Reinforcement Phase II and III Project: This project will
13 reinforce system supply through the Rio Grande valley from Garfield to the City
14 of Truth or Consequences;
- 15 vi. Lea County Mainline Modifications Project: This project is driven by Integrity
16 Management regulations. The modifications are required to allow NMGC to
17 hydro test the pipeline, and to perform in-line inspection necessary to assess the
18 state of the pipeline;
- 19 vii. Espanola Operations Center Project: This project will result in a modern
20 customer service location combined with a service center housing
21 technicians and service equipment;

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- 1 viii. Farmington Operations Center Project: This project will result in a modern
2 customer service location combined with a service center housing
3 technicians and service equipment;
- 4 ix. Automated Meter Reading Device Expansion Project: This project will make
5 NMGC’s operations in multiple cities and towns more efficient and allow NMGC
6 employees to spend more time providing services to customers;
- 7 x. Maximum Allowable Operating Pressure (“MAOP”) Software Project: This new
8 software program be NMGC’s system of record for MAOPs and materials
9 verifications for NMGC’s pipelines; and
- 10 xi. Hansen CIS Project: This project will result in the update and improvement of
11 NMGC’s customer information software.

12

13 **Q. NMGC RECENTLY FILED AN APPLICATION WITH THE NMPRC**
14 **ASKING FOR THE ISSUANCE OF A CERTIFICATE OF PUBLIC**
15 **CONVENIENCE AND NECESSITY FOR THE CONSTRUCTION OF A**
16 **LIQUEFIED NATURAL GAS (“LNG”) STORAGE FACILITY. ARE ANY**
17 **OF THE RATE BASE AMOUNTS IN THIS RATE CASE DUE TO OR PART**
18 **OF THE LNG STORAGE FACILITY?**

19 **A.** No. None of the rate base amounts in this case are related to the LNG storage
20 facility, and NMGC has not included any such capital costs in its requested rate
21 base. I understand that NMGC Witness Buchanan provides testimony on NMGC’s

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1 request for approval to record a regulatory asset related to certain LNG expenses,
2 but NMGC is not including that asset in its rate base amounts in this case, and is
3 not seeking recovery of those amounts in this case.

4
5 **i. West Mesa Mainline Reroute–Rio Bravo Boulevard Bridge Project**

6 **Q. PLEASE DESCRIBE THE WEST MESA MAINLINE REROUTE**
7 **PROJECT.**

8 **A.** The West Mesa Mainline is a sixteen-inch steel coated pipeline in Albuquerque,
9 New Mexico that provides gas to various parts of Albuquerque, the Rio Bravo
10 Power Plant and the University of New Mexico’s Co-Generation facilities. The
11 West Mesa Mainline runs from the NMGC’s Rio Puerco Mainline on the far west
12 side of Albuquerque and goes east, across the Rio Grande River to an area just south
13 of the Albuquerque International Sunport.

14
15 **Q. PLEASE DESCRIBE WHY THE WEST MESA MAINLINE IS BEING**
16 **REROUTED.**

17 **A.** The West Mesa Mainline currently hangs underneath the Rio Bravo Boulevard
18 Bridge as it crosses over the Rio Grande River. The New Mexico Department of
19 Transportation (“NMDOT”), in cooperation with the Federal Highway
20 Administration, is responsible for the operation and maintenance of this bridge.
21 NMDOT and the Federal Highway Administration are planning to replace the Rio

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1 Bravo Boulevard Bridge across the Rio Grande. The bridge is nearing the end of
2 its design-life and needs replacement. Additionally, NMDOT plans to expand the
3 number of traffic lanes between Isleta Boulevard and 2nd Street. NMDOT is
4 requiring NMGC to move the West Mesa Mainline off the bridge during
5 construction activities. At the same time, NMGC would prefer to avoid any further
6 issues related to the Rio Bravo Boulevard Bridge. As such, NMGC will reroute the
7 portion of the West Mesa Mainline that crosses the Rio Grande River. Instead of
8 being attached to a bridge, NMGC will bore underneath the Rio Grande River and
9 install new pipe under the river for the West Mesa Mainline.

10

11 **Q. IS IT COMMON IN THE INDUSTRY TO INSTALL A PIPELINE UNDER**
12 **A RIVER, LIKE THE RIO GRANDE RIVER?**

13 **A.** Yes. NMGC will use horizontal directional drilling for this project, which is a
14 proven technology. Additionally, drilling for and installing natural gas pipelines
15 under shallow rivers like the Rio Grande has been done for many years. From a
16 pipeline operator perspective, it is preferable to install a pipeline underground, even
17 below a riverbed, than to have the pipeline exposed above ground. Below ground
18 installations have far fewer risks of accidental impacts, erosion issues, and failures.

19

20

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1 **Q. HOW MUCH WILL THE WEST MESA MAINLINE REROUTE PROJECT**
2 **COST?**

3 **A.** The cost of the project is projected to be approximately \$2.7 million.
4

5 **Q. WHEN WILL THE WEST MESA MAINLINE REROUTE PROJECT BE**
6 **COMPLETED?**

7 **A.** NMGC must finish the reroute before NMDOT can begin more substantive repairs
8 of the Rio Bravo Bridge. NMDOT has given NMGC until the third quarter of 2024
9 to reroute the West Mesa Mainline. Therefore, the reroute will be completed by
10 the third quarter of 2024. Please see NMGC Exhibit TCB-6 for a forecast of
11 expenditures.

12

13 **ii. Clovis Eight-Inch Mainline Replacement Project**

14 **Q. PLEASE DESCRIBE THE CLOVIS MAINLINE.**

15 **A.** The Clovis Mainline is a bare steel pipeline in East-Central New Mexico and has
16 provided gas to customers in the City of Clovis since the 1930s. The Clovis
17 Mainline also delivers gas to the very high-pressure pipelines that serve customers
18 in the City of Tucumcari and the City of Portales.

19

20

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1 **Q. PLEASE DESCRIBE THE CLOVIS MAINLINE REPLACEMENT**
2 **PROJECT.**

3 **A.** NMGC will replace eight miles of eight-inch pipeline along Curry County Road
4 10, between the New Mexico-Texas border and NMGC's Clovis Border Station.

6 **Q. WHY IS IT NECESSARY TO REPLACE THE CLOVIS MAINLINE?**

7 **A.** The Clovis Mainline has been in service for over 90 years. The Clovis Mainline
8 does not have traceable, verifiable, and complete pressure test and material records
9 that are now required by federal regulations. The Clovis Mainline was constructed
10 with steel that has high carbon content, which makes the steel more prone to
11 cracking. Pipes of this vintage also require additional inspection tools in order to
12 comply with in-line inspection activities now required under federal regulations.

13
14 After evaluating these challenges, NMGC decided to replace the entire Clovis
15 Mainline and bring it up to modern pipeline standards.

17 **Q. WHEN WILL THE CLOVIS MAINLINE REPLACEMENT PROJECT BE**
18 **COMPLETED?**

19 **A.** We anticipate having this project in service by the end of January 2024. Please see
20 NMGC Exhibit TCB-6 for a forecast of expenditures.

21

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1 **Q. HOW MUCH WILL THE REPLACEMENT OF THE CLOVIS MAINLINE**
2 **COST?**

3 **A.**The estimated cost of the project is approximately \$9.5 million.
4

5 **iii. Potash Mainline Replacement Project**

6 **Q. PLEASE DESCRIBE THE POTASH MAINLINE PROJECT.**

7 **A.**The Potash Mainline is in Southeast New Mexico and was originally constructed
8 in the 1930s to serve the potash mines in the area. The Potash Mainline currently
9 serves customers in the City of Loving and nearby potash mines, and helps
10 reinforce NMGC's Permian System.
11

12 **Q. WHY IS IT NECESSARY TO REPLACE THE POTASH MAINLINE?**

13 **A.**The Potash Mainline has been in service for almost 90 years. The Potash Mainline
14 does not have traceable, verifiable, and complete pressure test and material records
15 that are now required by federal regulations. Additionally, part of the Potash
16 Mainline is constructed of four-inch bare steel main that incorporates lap-welds,
17 which are no longer used in the industry. Because of the construction material and
18 the lap-welds, the Potash Mainline will require more in-line inspection equipment
19 and more frequent inspections. However, because part of the line is only four
20 inches in diameter, currently in-line inspection cannot be performed on the full line.
21 This means that NMGC will need to completely replace all four-inch sections of

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1 the line with six-inch pipe, as well as make multiple station and block valve
2 modifications that will allow for in-line inspections.

3

4 After evaluating these challenges, and because NMGC will have to replace a
5 portion of the Potash Mainline anyway, NMGC has decided to replace the entire
6 Potash Mainline and bring it up to modern pipeline standards.

7

8 **Q. HOW MUCH OF THE POTASH MAINLINE IS BEING REPLACED?**

9 A. NMGC is replacing approximately ten miles of pipe.

10

11 **Q. YOU PREVIOUSLY DISCUSSED THE POTASH MAINLINE**
12 **REPLACEMENT PROJECT IN NMPRC CASE NO. 21-00267-UT, IS THIS**
13 **THE SAME PROJECT?**

14 A. Partially, yes. NMGC originally planned to replace the Potash Mainline in two
15 phases, and I discussed the first phase in NMPRC Case No. 21-00267-UT. NMGC
16 ultimately settled that case, and as part of the settlement, NMGC delayed this
17 project, which gave us time to permit both phases of the project. We are now
18 proceeding with the full project.

19

20

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1 **Q. IS THE POTASH MAINLINE REPLACEMENT PROJECT PART OF**
2 **NMGC’S IMP?**

3 **A. Yes.**
4

5 **Q. HOW MUCH WILL THE REPLACEMENT OF THE POTASH MAINLINE**
6 **COST?**

7 **A. The estimated cost of the project is approximately \$10.8 million.**
8

9 **Q. WHEN WILL THE POTASH MAINLINE REPLACEMENT PROJECT BE**
10 **COMPLETED?**

11 **A. We anticipate having the project completed in December of 2024. Please see**
12 **NMGC Exhibit TCB-6 for a forecast of expenditures.**
13

14 **iv. Artesia Six-Inch Mainline Replacement Project**

15 **Q. PLEASE DESCRIBE THE ARTESIA MAINLINE.**

16 **A. The Artesia Mainline is comprised of three sections, all of which provide gas to**
17 **customers in and around the City of Artesia. The first segment, constructed in 1967,**
18 **is a six-inch coated steel pipeline in Southeast New Mexico which needs to be**
19 **replaced. The other two segments are eight-inch pipelines that were constructed**
20 **after 1970 with more modern materials and have necessary records, and do not need**
21 **to be replaced.**

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1 **Q. WHY IS IT NECESSARY TO REPLACE THE SIX-INCH ARTESIA**
2 **MAINLINE?**

3 **A.** The Artesia Six-Inch Mainline does not have traceable, verifiable, and complete
4 pressure test and materials records that are now required by federal regulations.
5 This means that NMGC must perform pressure tests and material verification tests
6 for the entire pipe. Additionally, because there are no pressure test records, NMGC
7 continues to operate the line at the same pressure it was operated at decades ago –
8 approximately 350 psig.

9
10 After evaluating these challenges, NMGC decided to replace the entire Artesia Six-
11 Inch Mainline and bring it up to modern pipeline standards, which will also allow
12 NMGC to operate the pipeline at a higher pressure – up to 720 psig. Being able to
13 operate the pipeline at a higher pressure will improve system reliability.

14

15 **Q. HOW MUCH OF THE ARTESIA SIX-INCH MAINLINE IS BEING**
16 **REPLACED?**

17 **A.** NMGC is replacing the entire six-inch section of the pipeline, which is
18 approximately four-and-a-half miles of pipe.

19

20 **Q. IS THE ARTESIA MAINLINE REPLACEMENT PROJECT PART OF**
21 **NMGC’S IMP?**

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1 **A.** Yes.

2

3 **Q.** **WHEN WILL THE ARTESIA MAINLINE REPLACEMENT PROJECT BE**
4 **COMPLETED?**

5 **A.** We anticipate construction to be completed by January 31, 2025. Please see NMGC
6 Exhibit TCB-6 for a forecast of expenditures.

7

8 **Q.** **HOW MUCH WILL THE REPLACEMENT OF THE ARTESIA**
9 **MAINLINE COST?**

10 **A.** The estimated cost of the project is approximately \$5.7 million.

11

12 **v. T or C Mainline Reinforcement Project**

13 **Q.** **PLEASE DESCRIBE THE T OR C MAINLINE.**

14 **A.** The T or C Mainline is a four-inch distribution pipeline in South-Central New
15 Mexico and was originally constructed in 1967.

16

17 **Q.** **WHY IS IT NECESSARY TO REINFORCE THE T OR C MAINLINE?**

18 **A.** The T or C Mainline has been in service for over 50 years. Because of the standards
19 in place at the time of its construction, the T or C Mainline is constructed of four-
20 inch coated steel pipe that incorporates low frequency electric resistance welded
21 long seams, which are no longer used in the industry. Also, inspections have

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1 revealed that the pipe has a thin wall of 0.141 inches that requires highly skilled
2 welders to perform any repairs. Additionally, NMGC is experiencing higher
3 demand from the area's chile producers who use gas to dehydrate part of the chile
4 crop in Southern New Mexico.

5
6 NMGC is replacing parts of the T or C Mainline in order to bring it up to modern
7 pipeline standards. NMGC will replace 3.5 miles in 2023. In 2024, NMGC will
8 replace approximately 3.1 miles of pipeline that run through the business district of
9 Garfield, New Mexico. During the replacement, NMGC will install modern eight-
10 inch pipe which will satisfy current demand and reinforce the system supply of gas
11 from Garfield to Truth or Consequences.

12
13 **Q. HOW MUCH WILL THE T OR C MAINLINE PROJECT COST?**

14 **A.** The total estimated cost of the project for 2023 and 2024 is approximately \$6.9
15 million.

16
17 **Q. WHEN WILL THE T OR C MAINLINE REPLACEMENT PROJECT BE**
18 **COMPLETED?**

19 **A.** We anticipate having the project completed in 2024. Please see NMGC Exhibit
20 TCB-6 for a forecast of expenditures.

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1 **vi. Lea County Mainline Modifications Project**

2 **Q. PLEASE DESCRIBE THE LEA COUNTY MAINLINE.**

3 **A.** The Lea County Mainline is a ten-inch pipeline that runs for thirty-three miles in
4 Southeast New Mexico and was originally constructed between 1951 and 1953 to
5 serve the communities in the Permian Basin. The Lea County Mainline is a critical
6 mainline bringing gas from interconnects to other pipelines to serve communities
7 within the Permian Basin pipeline system.

8

9 **Q. WHY IS IT NECESSARY TO MODIFY THE LEA COUNTY MAINLINE?**

10 **A.** The Lea County Mainline does not have traceable, verifiable, and complete
11 pressure test and material records that are now required by federal regulations. The
12 pipeline contains bare steel, unknown grade, and unknown seam type material.
13 This means that NMGC must perform MAOP validation and material verification
14 tests across the entirety of the mainline.

15

16 There are also almost five miles of moderate consequence area on the pipeline,
17 which means the line must be made piggable to enable in-line inspection
18 assessments. This will also require the identification of rupture mitigation
19 segments and the installation of rupture mitigation valves.

20

21 **Q. IS THE LEA COUNTY MAINLINE PROJECT PART OF NMGC'S IMP?**

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1 A. Yes.

2

3 **Q. HOW MUCH WILL THE LEA COUNTY MAINLINE PROJECT COST?**

4 A. The estimated cost of the modifications necessary to make the pipeline piggable is
5 approximately \$1.9 million. The estimated costs of the material verifications are
6 approximately \$3.2 million.

7

8 **Q. WHEN WILL THE LEA COUNTY MAINLINE PROJECT BE**
9 **COMPLETED?**

10 A. We anticipate having the pipeline modifications completed in 2024, and the hydro
11 testing and material verifications will be completed in 2025 before the heating
12 season begins. Please see NMGC Exhibit TCB-6 for a forecast of expenditures.

13

14 **vii. Espanola Operations Center Project**

15 **Q. PLEASE BRIEFLY DESCRIBE THE ESPANOLA OPERATIONS CENTER**
16 **PROJECT.**

17 A. NMGC's is constructing an operations center in Espanola which will provide
18 Customer Service offerings and house NMGC's operations personnel and
19 equipment for the area. NMGC will also have telecommunications and supervisory
20 control and data acquisition (commonly known as "SCADA") equipment at the
21 center.

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1 **Q. WHY IS NMGC CONSTRUCTING AN OPERATIONS CENTER IN**
2 **ESPANOLA?**

3 **A.** NMGC has outgrown its current facility in Espanola. There is not enough room for
4 NMGC's employees, and not enough room for NMGC to park its vehicles in the
5 fenced yard of the facility. NMGC has experienced property damage to the vehicles
6 it has to park outside of its fenced area. The new facility will have enough room
7 for employees to work comfortably, work with customers when they visit the
8 facility to pay bills or request services, and protect NMGC's vehicles and
9 equipment in a fully fenced area.

10

11 **Q. HOW MUCH WILL CONSTRUCTION OF THE ESPANOLA**
12 **OPERATIONS CENTER COST?**

13 **A.** The estimated cost is approximately \$2.1 million.

14

15 **Q. WHEN WILL THE ESPANOLA OPERATIONS CENTER BE**
16 **COMPLETED?**

17 **A.** We anticipate construction will be completed in the summer of 2024. Please see
18 NMGC Exhibit TCB-6 for a forecast of expenditures.

19

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1 **viii. Farmington Operations Center**

2 **Q. PLEASE BRIEFLY DESCRIBE THE FARMINGTON OPERATIONS**
3 **CENTER PROJECT.**

4 A. NMGC is constructing an operations center in Farmington which will provide
5 customer service offerings and house NMGC's operations personnel and
6 equipment for the area. NMGC will also have telecommunications and SCADA
7 equipment at the center.

8
9 **Q. WHY IS NMGC CONSTRUCTING AN OPERATIONS CENTER IN**
10 **FARMINGTON?**

11 A. The majority of the Farmington town plant office is currently located in an 80-year-
12 old light metal building similar to a Quonset hut. Due to the building's age, the
13 metal sheets that make up the building's outer skin are rusting through in spots
14 making the roof unsound. There have been several leaks in the roof resulting in
15 property damage to the facility. Due to the age and quality of the metal sheets,
16 repairing the facility is quite difficult.

17
18 Additionally, the current floor plan is inefficient. NMGC's predecessors-in-
19 interest, Southern Union and Public Service Company of New Mexico, connected
20 additions to the main metal building, which results in a poor layout of floorspace
21 and an HVAC system that does not work properly throughout the building. Some

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1 office spaces and building areas do not receive any cool air during the summer
2 months.

3

4 **Q. HOW MUCH WILL THE FARMINGTON OPERATIONS CENTER COST?**

5 **A.** The estimated cost is approximately \$3.4 million.

6

7 **Q. WHEN WILL THE FARMINGTON OPERATIONS CENTER BE**
8 **COMPLETED?**

9 **A.** We anticipate construction will be completed in September 2025. Please see
10 NMGC Exhibit TCB-6 for a forecast of expenditures.

11

12 **ix. Automated Meter Reading Devices Expansion Program**

13 **Q. WHAT ARE AUTOMATED METER READING (“AMR”) DEVICES?**

14 **A.** AMRs are meters that electronically record usage, and automatically transmit that
15 usage data to NMGC.

16

17 **Q. DOES NMGC ALREADY USE AMR DEVICES?**

18 **A.** Yes. NMGC first requested recovery of capital investments related to AMRs in
19 2011 in NMPRC Case No. 11-00042-UT. As a result of that case, NMGC installed
20 AMRs primarily in the Albuquerque and Santa Fe metro areas. These investments

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1 have been serving customers for years, and have been in NMGC's rate base for
2 NMGC's last three rate cases.

3
4 NMGC is continuing to expand its AMR program to the rest of NMGC's service
5 territory. As of June 20, 2023, NMGC had AMRs on 438,207 of the 545,329
6 meters, which is approximately 80% of customer meters in NMGC's system.

7
8 **Q. WHAT ARE THE BENEFITS OF AMR TECHNOLOGY?**

9 **A.** AMRs help the Company's operations representatives read meters in a safer and
10 more efficient manner. Instead of walking up to and accessing each meter at a
11 residence or business, which are sometimes located behind walls or near animals,
12 NMGC employees will be able to drive down streets and collect data from the
13 AMRs electronically, which is much faster than manually reading and recording
14 data from every meter. This will allow NMGC's operations personnel to focus on
15 providing services to customers and attending to other responsibilities.
16 Additionally, AMRs improve meter reading accuracy, which reduces errors and
17 improves customers' experience with NMGC.

18
19 **Q. WHERE IS NMGC INSTALLING AMR DEVICES DURING THE TIME**
20 **FRAME OF THIS RATE CASE?**

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1 **A.** NMGC plans to complete installation of AMRs in North-Central systems by the
2 end of 2024. NMGC plans to have AMRs used and useful in Alamogordo, Silver
3 City, Truth or Consequences, Anthony, Lovington, Clovis, Portales, Tucumcari,
4 Clayton, Roswell, Artesia, Carlsbad, and Gallup by September 30, 2025.

5
6 **Q. WHAT IS THE TOTAL NEW CAPITAL INVESTMENT FOR AMR
7 DEVICES IN THIS CASE?**

8 **A.** NMGC anticipates investing approximately \$18.5 million on the expansion of
9 AMRs during this time. Please see NMGC Exhibit TCB-6 for a forecast of
10 expenditures.

11

12 **x. MAOP Software System Implementation**

13 **Q. PLEASE DESCRIBE THE MAOP SOFTWARE SYSTEM.**

14 **A.** The MAOP Software System is a comprehensive software program that will be the
15 system of record for all of NMGC's MAOP validation and material verification
16 records. The MAOP Software System will also link with NMGC's overall
17 document management system, NMGC's geographic interface system ("GIS")
18 which contains location information for NMGC's pipelines and facilities, and
19 NMGC's inspection manager system. The capital investment in the MAOP
20 Software System includes the following:

- 21
 - The purchase, configuration, and installation of the new software system;

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- 1 • The provisions of training to NMGC's employees on how to utilize the new
2 software system; and
3 • Scanning and sorting NMGC's existing document records into digital
4 documents that can be utilized by the new software system.

5

6 **Q. WHY IS IT NECESSARY FOR NMGC TO IMPLEMENT THE MAOP**
7 **SOFTWARE SYSTEM?**

8 **A.** Many of NMGC's pipeline records go back multiple decades, and pre-date the
9 existence of NMGC. These records often exist only in hard copy, and are only
10 accessible by going to the records rooms of each town plant area within NMGC's
11 service territory. They are not easily searchable, and are not readily accessible by
12 multiple employees across the Company at a single time. This is a cumbersome
13 and inefficient process.

14

15 With new federal requirements regarding pipeline safety, NMGC needs a single
16 easily searchable electronic system of record, accessible to all NMGC engineers
17 and subject matter experts, for all documents and information required to
18 demonstrate that pipeline pressure tests and material properties are traceable,
19 verifiable, and complete. Linking this data to the GIS will allow NMGC to pull
20 multiple records for pipeline segments by simply clicking on different segments on
21 a map interface.

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1 **Q. IS THE MAOP SOFTWARE SYSTEM NECESSARY FOR NMGC’S IMP?**

2 **A.** Yes. We need the ability to quickly and easily provide all records to federal and
3 state pipeline safety inspectors to verify MAOPs and material properties.

4

5 **Q. WHEN WILL THE MAOP SOFTWARE SYSTEM BE USED AND**
6 **USEFUL?**

7 **A.** We anticipate the software to be installed and available to NMGC by December
8 2024.

9

10 **Q. HOW MUCH WILL THE MAOP SOFTWARE SYSTEM COST?**

11 **A.** The estimated cost of the project is approximately \$8.1 million. Please see NMGC
12 Exhibit TCB-6 for a forecast of expenditures.

13

14 **xi. Hansen CIS Implementation**

15 **Q. PLEASE DESCRIBE NMGC’S CURRENT CIS SOFTWARE SYSTEM.**

16 **A.** NMGC currently uses a Banner CIS Software system for its main billing and
17 customer service software system. NMGC Witness Sanders in his Direct
18 Testimony discusses in detail the Banner CIS Software, the need to update the
19 software system, the process NMGC undertook to evaluate updates, the detailed
20 costs related to the Hansen CIS Project, and the time frame for the implementation
21 of the new system.

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1 **Q. WHEN WILL THE HANSEN CIS BE USED AND USEFUL?**

2 **A.** As discussed in greater detail in NMGC Witness Sander’s Direct Testimony, we
3 anticipate the software to be installed and available to NMGC by October 2024.

4

5 **Q. HOW MUCH WILL THE HANSEN CIS COST?**

6 **A.** The estimated cost of the project is approximately \$31.2 million. Please see NMGC
7 Exhibit TCB-6 for a forecast of expenditures.

8

9 **B. Integrity Management Capital Investments**

10 **Q. PLEASE EXPLAIN THE TERMS “INTEGRITY MANAGEMENT”, AND**
11 **“INTEGRITY MANAGEMENT PROGRAM” AS THEY ARE**
12 **COMMONLY USED IN THE NATURAL GAS INDUSTRY.**

13 **A.** Integrity Management generally refers to the process of identifying, evaluating,
14 preventing, inspecting, and addressing potential or direct threats to reduce both the
15 likelihood and consequence of incidents such as pipeline failure.

16

17 As I noted earlier, the terms “Integrity Management Program” and “Integrity
18 Management Plan,” are often shortened to just “IMP.” IMPs commonly identify a
19 utility’s plans and programs designed to identify and mitigate the greatest relative
20 risks within a gas distribution and transmission system.

21

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1 **Q. ARE THERE GOVERNMENTAL AGENCIES THAT REGULATE**
2 **PIPELINE SAFETY AND INTEGRITY MANAGEMENT PROGRAMS?**

3 **A.** Yes, there are regulators responsible for pipeline safety at both the federal and state
4 levels. The United States Department of Transportation (“DOT”) is responsible for
5 pipeline safety, including promulgating regulations related to pipeline safety. The
6 Pipeline and Hazardous Materials Safety Administration (“PHMSA”), an agency
7 within DOT, is responsible for the regulation of natural gas transmission and
8 distribution pipeline safety.
9 The Commission’s Pipeline Safety Bureau (“PSB”) is responsible for administering
10 the DOT’s pipeline related regulations and PHMSA’s safety requirements within
11 New Mexico. Thus, PSB has regulatory oversight of NMGC in relation to federal
12 and state pipeline safety regulations and requirements, as well as any state-specific
13 safety requirements.

14

15

16 **Q. HAS DOT/PHMSA IMPLEMENTED ANY REGULATIONS RELATED TO**
17 **TRANSMISSION AND DISTRIBUTION IMP’S?**

18 **A.** Yes. These regulations can be found in 49 CFR 192 Subpart O and Subpart P.

19

20 **Q. PLEASE PROVIDE A BRIEF SUMMARY OF THE HISTORY OF**
21 **FEDERAL REGULATION RELATED TO IMPS.**

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1 **A.** IMP-related regulations have been adopted throughout the years. These programs are
2 constantly evolving and are a combination of company and industry standards, and
3 state and federal regulations. PHMSA started implementing rules related to
4 regulation in 1994. That year, regulations were adopted that required all gas
5 transmission pipeline constructed after 1994 be designed and constructed to
6 accommodate the passage of instrumented internal inspection devices, or as
7 commonly referred to in the natural gas industry – pigging. Pigging involves
8 inserting a device that either cleans or conducts internal inspections of the pipeline
9 as the gas flow pushes it through the pipeline. Every NMGC transmission pipeline
10 constructed after 1994 is piggable.

11

12 In 2004, PHMSA issued new regulations requiring: 1) natural gas transmission
13 pipeline operators develop and implement a transmission IMP and complete the
14 baseline integrity assessment of its covered High Consequence Area (“HCA”)
15 segments by 2012, with reassessments every seven years; and 2) that any
16 replacement gas transmission lines be designed and constructed to accommodate
17 pigging. NMGC has fully complied with these requirements.

18

19 In 2009, PHMSA adopted regulations requiring operators of gas distribution
20 pipelines to develop and implement IMPs to enhance safety by identifying and
21 reducing pipeline integrity risks. The IMPs required by this rule are similar to those

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1 required for gas transmission pipelines, but tailored to reflect the differences in
2 distribution pipelines. The rule also requires operators to install excess flow valves
3 on new and replaced residential service lines. NMGC is in compliance with these
4 requirements.

5
6 In October 2019, PHMSA adopted new regulations which address Integrity
7 Management requirements and other requirements by focusing on actions a natural
8 gas pipeline operator must take to reconfirm the MAOP of previously untested
9 natural gas transmission pipelines and pipelines lacking certain material or
10 operational records, referred to as “Part 1 of the Mega Rule” or “RIN 1 of the Safety
11 of Gas Transmission Pipelines”. PHMSA also required periodic assessment of
12 pipelines in populated areas designated as “moderate consequence areas”, reporting
13 of exceedances of MAOPs on any pipeline, consideration of seismicity as a risk
14 factor in Integrity Management, safety features on pigging launchers and receivers,
15 and related recordkeeping provisions.

16
17 On March 31, 2022, PHMSA published changes to 49 CFR 192 to require valve
18 installation and minimum rupture detection standards. This rule, known as the
19 Rupture-Mitigation Valve Rule (“RMV Rule”), became effective on September 25,
20 2022. The RMV Rule requires pipeline operators, such as NMGC, to install
21 rupture-mitigation valves (“RMV”), also called remote shut-off valves, to minimize

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1 the volume of gas released from a pipeline and mitigate the consequences of a
2 pipeline rupture. The RMV installation is required on newly constructed pipelines
3 or entirely replaced pipeline segments six-inch in diameter or greater. PHMSA
4 updated the valve spacing requirements for transmission lines.

5
6 On May 25, 2023, RIN 2 of the Safety of Gas Transmission Pipelines became
7 effective, commonly referred to as the second part of the Mega Rule. Many of the
8 changes included in this rulemaking impact corrosion control on transmission
9 pipelines and more stringent repair criteria for transmission pipelines. One of the
10 new provisions requires pipeline operators to perform close-interval survey (“CIS”)
11 for down cathodic protection (“CP”) readings on transmission pipelines between
12 the closest test points. This action requires a technician to take CP readings every
13 five feet for one mile on either side of the down reading after locating the pipeline
14 in that corridor. Another new provision requires pipeline operators to perform
15 direct current voltage gradient (“DCVG”)/ alternating current voltage gradient
16 (“ACVG”) on newly installed transmission mains. This requires a technician to
17 take voltage readings every five feet for the length of the installation after locating
18 the pipeline in that corridor.

19
20 The requirement for interference surveys to detect stray electrical current
21 (alternating current (“AC”) and direct current (“DC”)) requires NMGC to use the

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1 same CIS and DCVG/ACVG technology to walk the pipeline (after locating the
2 pipeline) to look for stray current.

3

4 **Q. HAS NMGC WORKED WITH PSB IN RELATION TO NMGC'S IMP?**

5 **A.** Yes. The Company regularly communicates with PSB regarding NMGC's IMP,
6 and the actions that NMGC is taking pursuant to its IMPs. In addition, PSB audits
7 NMGC's IMP every three years to ensure the IMP complies with PHMSA's
8 regulations.

9

10 **Q. PLEASE DESCRIBE THE COMPANY'S IMP AND ITS CURRENT MAIN**
11 **OBJECTIVES.**

12 **A.** NMGC's IMP is a combination of compliance with federal regulations and self-
13 initiated programs designed to enhance the integrity and safety of the Company's
14 system. As required by federal regulations, NMGC's IMP involves the evaluation
15 of its Transmission and Distribution Systems to identify the highest relative risks
16 on its systems and developing and executing a plan to achieve risk reduction in the
17 system. The mitigation of the risks includes, but is not limited to, increased
18 patrolling and monitoring, and gas system replacements and/or modifications.
19 NMGC's IMP determines the best mitigation given the relative risk.

20

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1 As discussed in my Direct Testimony in NMGC's last two rate cases, the Company
2 has identified the following areas with the highest relative risk for inspection and
3 mitigation activities as part of its IMP:

- 4 • replacement of legacy plastic pipe;
- 5 • replacement of legacy bare steel pipe;
- 6 • replacement of mechanically connected X-Trube services;
- 7 • sewer camera inspections to locate and eliminate sewer cross bores;
- 8 • reconfirmation of the MAOP of pipelines constructed prior to 1970 via
9 hydrostatic testing or replacement;
- 10 • transmission system modifications required to make all transmission
11 pipelines constructed prior to 1994 internal inspection capable;
- 12 • installation of remote shut-off valves, also known as rupture mitigation
13 valves, to reduce the time to respond to an emergency; and
- 14 • verification of pipeline materials through cutouts of small portions of the
15 pipelines and performing mechanical testing on the cutouts.

16
17 **Q. PLEASE DESCRIBE IN GREATER DETAIL THE EIGHT CAPITAL**
18 **IMPROVEMENT IMP PROJECTS YOU JUST LISTED.**

19 **A.** I will discuss the eight capital improvement projects in the order I listed them
20 above:

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1 **i. Replacement of Certain Legacy Plastic Pipe Project**

2 NMGC currently has Polyvinyl Chloride (“PVC”) plastic pipe in its distribution
3 system, in the southern and eastern areas of the system. Installation of this legacy
4 plastic pipe was completed before NMGC existed, and prior to the development of
5 the Federal Pipeline Safety Regulations and in many cases was not installed with
6 location wire. The lack of location wire means that NMGC may have difficulty
7 locating the pipe – both before excavation by a third party and in an emergency
8 situation. Additionally, legacy plastic pipes tend to be thinner and are more easily
9 damaged by third parties than modern plastic pipe material. Finally, these legacy
10 plastic pipes are no longer used in the industry and repairing damaged sections often
11 takes longer and is more difficult to perform.

12
13 As detailed NMGC Exhibit TCB-9, NMGC plans to complete the replacement of
14 all PVC plastic pipes in 2024, at a cost of approximately \$6.1 million.

15
16 **ii. Replacement of Legacy Bare Steel Mainlines Project**

17 This pipe was installed decades ago and lacks a protective coating which makes it
18 difficult to provide effective cathodic protection. Without adequate cathodic
19 protection, this pipe may be more susceptible to corrosion which could result in gas
20 leakage. NMGC leak surveys the bare steel pipe in its system and, while it is

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1 currently operating safely, NMGC believes that it is prudent to be proactive and
2 replace all bare steel pipe within its Distribution System.

3
4 NMGC anticipates investing approximately \$4.1 million in 2024 to replace the
5 remaining legacy bare steel mains in its system. NMGC anticipates completely
6 replacing all bare steel mainlines in its system by the end of 2024.

7
8 **iii. Replacement of X-Trube Services Project**

9 X-Trube services are thin-wall steel tubing services installed in the 1960s and 1970s
10 that were typically tied to the main with compression-style mechanical fittings
11 instead of being welded. Because they contain compression fittings instead of
12 welded joints, they tend to have higher instances of leaks when there is soil
13 movement or other outside forces in the area.

14
15 The goal of NMGC's IMP is to mitigate and reduce risk, and replacing the X-Trube
16 services will decrease system risk associated with mechanical couplings.
17 Additionally, due to higher frequency leak survey requirements on X-Trube
18 services with compression fittings, NMGC is incurring additional leak survey
19 expenses. This extra expense is only necessary due to the compression fitting on
20 X-Trube services, and will be reduced when the X-Trube services and their

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1 associated compression fittings are replaced. In total for 2024 and 2025 NMGC
2 expects to replace about 1,000 X-Trube services.

3
4 Additionally, during the replacement of the X-Trube services and during the
5 replacement of the services associated with legacy plastic pipe and bare steel main,
6 the Company is able to make additional safety improvements to its system in a cost-
7 effective manner. An example of this is the installation of excess flow valves
8 (“EFV”). Because NMGC is already excavating facilities to replace X-Trube,
9 legacy plastic, and bare steel main services, it is easy and very cost-effective for the
10 Company to install the EFVs during the replacement process.

11
12 As detailed NMGC Exhibit TCB-9, NMGC anticipates spending approximately
13 \$6.7 million on X-Trube services and EFV installations between January 1, 2024
14 and September 30, 2025.

15
16 **iv. Sewer Camera Inspections Project**

17 NMGC occasionally faces situations where it is not practical to install gas pipeline
18 using an open trench. In these instances, NMGC or its contractors bore a hole
19 underground and insert pipe through the bore. At times, this process results in the
20 unintentional intersection of a gas pipeline and a sewer line, which is called a cross-
21 bore. A cross bore can result in a safety risk when a homeowner or plumber

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1 attempts repair work to a sewer line outside the premise using mechanical cleaning
2 or “snake” machines. These machines could sever a gas line and cause a gas leak,
3 which could result in a hazardous situation. Although not common, NMGC has
4 found multiple cross bores in its system, all of which were remedied upon
5 discovery.

6
7 As is being done throughout the country, NMGC is undertaking a program to
8 perform sewer camera inspections to identify, address and repair instances where a
9 gas line has passed through or intersected with a sewer line. The inspection
10 program covers all NMGC’s service areas and involves inserting cameras into the
11 sewer line.

12
13 As detailed NMGC Exhibit TCB-9, NMGC anticipates spending approximately
14 \$8.3 million on sewer line inspections between January 1, 2024 and September 30,
15 2025.

16
17 **v. Reconfirmation of Transmission MAOP**

18 PHMSA regulations require pipeline operators such as NMGC to either replace the
19 pipeline or reconfirm the MAOP of existing pipelines that do not have pressure test
20 records. Pressure testing of pipelines and retention of associated records were not
21 required on pipelines constructed prior to 1970. As a consequence, approximately

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1 38% of NMGC's pipelines do not have pressure test records. Pipeline operators
2 such as NMGC must now either replace the pipeline or reconfirm the MAOP of
3 many existing pipelines that were installed prior to 1970. PHMSA regulations
4 require NMGC to replace the pipeline or reconfirm at least 50% of its pipelines
5 without pressure test records by the end of 2027 to meet the July 3, 2028 deadline,
6 and complete testing of all pipelines without pressure test records by 2034 to meet
7 the July 2, 2035 deadline.

8
9 Hydrostatic Testing, also known as hydro-testing, is a process to assess pipeline
10 integrity using water to pressure test the pipeline, and is the most common way to
11 reconfirm a pipelines MAOP. Water is pumped into the pipeline and pumped up
12 to a pressure that is a minimum of 1.5 times the operating pressure. The pressure
13 is maintained and monitored for a minimum of eight hours to ensure there are no
14 defects. Hydro-testing is the most economical method of reconfirming the MAOP
15 of these pipelines.

16
17 Reconfirming the MAOP by replacing the pipeline is selected when it is necessary
18 for capacity requirements, the pipeline materials do not conform to current
19 standards for piping, or when the cost of hydrotesting and other related costs
20 exceed the cost to replace the pipeline.

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1 The in-service dates and costs for these projects can be found in NMGC Exhibit
2 TCB-9.

3
4 **vi. Transmission System Modifications Project**

5 Before 1994, there was no requirement that gas transmission lines be designed and
6 constructed to accept in-line inspection tools, commonly referred to as “smart pigs”
7 or the acting of “pigging”. As a result, all of NMGC’s transmission systems
8 constructed prior to 1994 were built in a way that does not allow for pigging.
9 Consistent with NMGC’s transmission IMP and PHMSA regulations, NMGC is
10 making modifications to its transmission systems to allow for pigging activities.

11
12 Here is a good scenario to illustrate the issue: during the initial construction of a
13 pipeline, the direction of the pipeline needs to change to avoid an upcoming
14 obstacle. In such a scenario today, the pipe route would be designed to make a long
15 gradual change of direction. Decades ago, the solution may have been to use a
16 short radius 90-degree fitting in the pipe and make a more drastic change in
17 direction. While a short radius fitting does not impede the flow of gas, it does make
18 it impossible to use smart pigs to inspect the integrity of the pipe in those areas.
19 Another example would be where pipe diameter in some mainlines changes at
20 various points of the pipeline, such as the Potash Mainline. These changes in
21 diameter can impede NMGC’s ability to inspect the integrity of the pipe.

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1 Therefore, before NMGC may utilize smart pigs, it must identify and replace all
2 fittings, valves, and other apparatus on the Transmission System, as well as address
3 pipeline diameter issues, that either impede the use of smart pigs or are not designed
4 to accommodate smart pigs.

5
6 As detailed NMGC Exhibit TCB-9, NMGC anticipates spending approximately
7 \$8.2 million on transmission system modifications between January 1, 2024 and
8 September 30, 2025.

9
10 **vii. Installation of Remote Shut-Off Valves Project**

11 Current IMP regulations require preventative and mitigative measures to address
12 the threats for each pipeline in a HCA to minimize the consequence of unintended
13 releases of gas, to enhance public safety, and for environmental protection. NMGC
14 installs remote shut-off capability on valves in the transmission systems to
15 minimize the time to isolate a section of pipe . NMGC's long-term plan is to modify
16 or replace RSVs on over 400 valves in compliance with PHMSA's rupture
17 mitigation valve rule regulations.

18
19 As detailed NMGC Exhibit TCB-9, NMGC anticipates spending approximately
20 \$600,000 per year on these projects for 2024 and 2025.

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1 **viii. Perform Material Verification Cutouts Project**

2 PHMSA regulations require materials verification for all HCAs, Class 3 and Class
3 4 locations, and piggable moderate consequence areas. This rule requires NMGC
4 to perform one cutout for material testing per mile of pipeline for any pipelines that
5 do not have records that are traceable, verifiable, and complete for materials and
6 other properties such as diameter, wall thickness, yield strength, ultimate tensile
7 strength, and impact toughness. These records were not originally required before
8 1970. Approximately 55% of NMGC's transmission pipelines were installed prior
9 to 1970 and NMGC estimates that 70% (or 38% of the total Transmission System)
10 of those do not have traceable, verifiable, and complete records and will require
11 cutouts and material testing.

12
13 As detailed in NMGC Exhibit TCB-9, NMGC anticipates spending approximately
14 \$4.5 million on material verification between January 1, 2024 and September 30,
15 2025.

16
17 **Q. ONCE NMGC COMPLETES ITS REPLACEMENT OF PVC AND BARE**
18 **STEEL MAINLINES BY THE END OF 2024, WILL THAT COMPLETE**
19 **THE NEED TO REPLACE LEGACY MATERIALS PURSUANT TO THE**
20 **IMP?**

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1 **A.** No. NMGC has prioritized the replacement of PVC and bare steel mainlines as
2 those legacy materials constitute more risk to NMGC’s system. There is another
3 type of legacy plastic pipe that NMGC needs to replace, legacy polyethylene
4 (“PE”). NMGC will begin replacing this type of legacy PE plastic pipe once PVC
5 and bare steel mainlines have been replaced.
6

7 **Q. WHY DOES NMGC NEED TO REPLACE LEGACY PE PIPE?**

8 **A.** PE pipe is very common in the gas industry and current PE pipe manufacturing
9 processes produce a very good quality plastic pipe. However, the early generations
10 of PE pipe, manufactured approximately 30 to 40 years ago and installed by
11 NMGC’s predecessors-in-interest, have experienced cracks and leaks recently. The
12 industry is moving to replace all of the early generation PE pipe with new modern
13 formulations that have better records for resisting cracking and leaking.
14

15 **Q. WHAT IS NMGC’S LONG-TERM PLAN FOR IMP-RELATED**
16 **PROJECTS?**

17 **A.** The purpose of an IMP is to constantly evaluate risks to NMGC’s system and to
18 take action to address those identified risks. As such, NMGC will be performing
19 IMP projects for many years to come. As time goes by and existing projects to
20 replace legacy materials are completed, new projects will likely be added to address
21 risks to the system.

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1 **Q. IS PHMSA CONTINUING TO CONSIDER ADDITIONAL**
2 **RULEMAKINGS RELATED TO INTEGRITY MANAGEMENT AND**
3 **SAFETY?**

4 **A.** Yes. PHMSA recently issued a notice of proposed rulemaking related to leak
5 detection and repair. PHMSA's initial proposed rulemaking would require
6 increased leak survey frequency. Right now, for distribution systems, PHMSA
7 requires that gas utilities perform a full system leak survey once every five years.
8 PHMSA is proposing to shorten the leak detection cycle to once every three years
9 for distribution, and increase the frequency for transmission pipe to twice per year.
10
11 In May of 2023, PHMSA released a notice of proposed rulemaking related to Gas
12 Pipeline Leak Detection and Repair. Several of the proposed changes to the
13 regulations will impact the maintenance required on gas pipelines. PHMSA is
14 proposing more frequent leak surveys as described above. PHMSA is proposing a
15 requirement for an additional leak survey with every down cathodic protection read.
16 For pipeline patrols PHMSA proposed moving the frequency to once per month
17 regardless of class location. It is impossible to accurately state what the results of
18 a new rulemaking will be, but we anticipate the process to conclude and any new
19 rule to be issued by September 2024. Most rulemakings, however, also provide for
20 a period of time for utilities and pipeline operators to ramp up to meet the new
21 requirements, and we expect that to be the case for this rulemaking. Ultimately, we

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1 expect that any new regulations would become enforceable sometime in 2025 or
2 2026.

3

4 **Q. HAS NMGC INCLUDED ANY COSTS IN THIS RATE CASE THAT ARE**
5 **MEANT TO HELP NMGC COMPLY WITH THE POSSIBLE NEW**
6 **PHMSA REGULATION ON LEAK DETECTION?**

7 **A.** No. Since the Notice of Proposed Rulemaking is not yet finalized there are no
8 additional costs included in this case. NMGC already leak surveys its distribution
9 mainline every four years, and has established a goal of leak surveying the
10 distribution mainline every three years, so the rulemaking by PHMSA is in line
11 with NMGC's actions and plans.

12

13 Additionally, NMGC is already investing in advanced mobile leak detection
14 ("AMLD") equipment that allows NMGC to increase both the speed at which it
15 conducts leak surveys as well as the sensitivity of those leak surveys.

16

17 **Q. PLEASE DESCRIBE HOW AMLD EQUIPMENT IMPROVES NMGC'S**
18 **LEAK SURVEYING CAPABILITIES FOR ITS TRANSMISSION SYSTEM.**

19 **A.** With AMLD equipment, NMGC is able to cover more territory in less time. The
20 mobile leak detection equipment NMGC is purchasing allows NMGC to perform
21 leak surveys at a speed of 25 miles per hour, compared to current methods that

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1 allow a speed of around 10 to 15 miles per hour. Simply put, NMGC can leak
2 survey more pipe in a shorter period of time, which allows NMGC to increase the
3 frequency of its leak surveys.

4
5 Also, the mobile leak detection equipment we are purchasing is more sensitive than
6 prior equipment. With the older equipment, an employee had to be very close to
7 the pipeline to perform the survey, and it had a relatively small radius of detection.
8 The new equipment scans a radius of 1,500 feet around the pipe. Additionally, the
9 new equipment can detect gas in the parts per billion, whereas NMGC's prior
10 equipment detected gas in the parts per million. The modern equipment will also
11 let us know the rate of gas escaping from any leak we find. This all adds up to
12 equipment that allows us to better detect leaks, and to detect them sooner. This
13 allows us to find and repair leaks earlier, which means the system is safer, less gas
14 will be lost via leaks, and there will be potential savings in pipeline repair expenses.

15
16 **Q. HOW MUCH IS NMGC INVESTING IN MOBILE LEAK DETECTION**
17 **BETWEEN JANUARY 1, 2024 AND SEPTEMBER 30, 2025?**

18 **A.** As detailed in NMGC Exhibit TCB-9, NMGC plans to invest approximately
19 \$800,000 in mobile leak detection equipment within those time periods.

20

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1 **Q. IN TOTAL, HOW MUCH WILL NMGC INVEST IN IMP-RELATED**
2 **CAPITAL IMPROVEMENTS BETWEEN JANUARY 1, 2024 AND**
3 **SEPTEMBER 30, 2025?**

4 **A.** NMGC anticipates investing approximately \$70 million during this time frame.
5 Please see NMGC Exhibit TCB-9 for a breakdown of these costs.

6

7 **C. Physical Security Initiatives**

8 **Q. PLEASE DISCUSS THE INVESTMENTS THAT NMGC IS MAKING IN**
9 **FACILITY AND ASSET SECURITY.**

10 **A.** As discussed in greater detail in NMGC Witness Wilcox's Direct Testimony,
11 NMGC continues to invest in increased security for its physical facilities in order
12 to protect NMGC's employees, facilities, assets, and operations.

13

14 **Q. HOW MUCH WILL NMGC SPEND ON PHYSICAL SECURITY**
15 **MEASURES JANUARY 1, 2024 AND SEPTEMBER 30, 2025?**

16 **A.** NMGC anticipates spending a total of approximately \$1.9 million on physical
17 security investments during this period.

18

19 **D. Significant New Rights-of-Way and Renewals**

20 **Q. ARE THERE ANY SIGNIFICANT NEW RIGHTS-OF-WAY RENEWALS**
21 **BY SEPTEMBER 30, 2025?**

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1 **A.** Yes. NMGC continues its efforts to renew multiple rights-of-way necessary for
2 NMGC's Albuquerque Mainline transmission system. The Albuquerque Mainline
3 is a critical component of NMGC's Northern System. The Albuquerque Mainline
4 primarily transports gas produced in the San Juan Basin in the Four Corners area,
5 approximately 180 miles to Albuquerque. Many of the rights-of-way for the
6 Albuquerque Mainline are not permanent, and must be renewed in order for NMGC
7 to continue to operate this pipeline and supply customers with natural gas.

8

9 **Q. IS NMGC FORECASTING THESE RIGHTS-OF-WAY RENEWAL COSTS**
10 **IN THIS RATE CASE?**

11 **A.** Yes. NMGC forecasts estimated rights-of-way costs based on recent right-of-way
12 agreements, which represent and incorporate current market and economic
13 conditions.

14

15 NMGC also has rights-of-way across Native American-owned land. These rights-
16 of-way are unique, as they involve a sovereign entity, and NMGC lacks the
17 authority to condemn these rights-of-way. Additionally, because each Native
18 American Pueblo or Nation is unique, there is no market which NMGC can look to
19 for comparable values. Thus, NMGC estimates these costs based on its experience
20 and regular communication with each Native American Pueblo or Nation. NMGC

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1 has identified those rights-of-way that will be renewed in by September 30, 2025
2 in Rule 630 Schedules H-7.2 and H-7.3.

3

4 **Q. HAS NMGC SUPPORTED ITS ESTIMATED COSTS FOR RENEWED**
5 **RIGHTS-OF-WAY?**

6 **A.** Yes. NMGC has significant experience in securing necessary rights-of-way across
7 private lands, government-owned lands, and Native American lands. We have a
8 proven process that we follow for new rights-of-way and renewed rights-of-way
9 that we apply with respect to securing rights-of-way. Based on NMGC's
10 experience with acquiring and renewing rights-of-way, we have market data about
11 the likely costs that will be incurred. All of these factors are considered in NMGC's
12 cost estimates presented in this case, and form a reliable basis for use in establishing
13 a cost of service for these expenses. From the settlements completed to date,
14 NMGC's payments are consistent with the overall estimate. Please see Rule 630
15 Schedules H-7.2 and H-7.3 for a detailed description of the rights-of-way expenses,
16 amortizations, and adjustments included in this case.

17

18 **Q. ARE THE RIGHTS-OF-WAY NECESSARY FOR THE CONTINUED**
19 **PROVISION OF NATURAL GAS SERVICE TO NMGC'S CUSTOMERS?**

20 **A.** Yes. The facilities located on the subject rights-of-way are vital components of
21 NMGC's system and are critical to providing reliable service to NMGC customers

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1 throughout New Mexico. For each of the new and renewed rights-of-way NMGC
2 is including in this case, there is no cost-comparable alternative to the rights-of-
3 way across Native American-owned lands. The expenses associated with these
4 rights-of-way are necessary for NMGC to install and maintain NMGC's facilities
5 on these properties and prevent NMGC from incurring costly relocations of these
6 facilities and having to build around Native American Nations.

E. Additional Capital in 2023

9 **Q. YOU EARLIER TESTIFIED THAT THE COMPANY IS SEEKING**
10 **RECOVERY OF AN ADDITIONAL \$50 MILLION IN CAPITAL FOR**
11 **INVESTMENTS NMGC WILL MAKE BEFORE DECEMBER 31, 2023**
12 **COMPARED TO THE RECONCILIATION FILED IN NMPRC CASE NO.**
13 **21-00267-UT. PLEASE EXPLAIN THE REASON FOR THIS ADDITIONAL**
14 **AMOUNT.**

15 **A.** The amount was largely driven by increased costs. Many of the NMGC projects
16 which required outside contractors ultimately were more expensive than originally
17 forecasted. The increased amounts for these projects were largely due to increased
18 material and contractor labor costs.

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1 To be clear, almost all of these additional costs were related to projects NMGC
2 determined were necessary, NMGC planned to complete in 2023, and ultimately
3 will complete in 2023.

IV. DISCOUNTED TRANSPORTATION RATES

6 **Q. HAS NMGC ENTERED INTO ANY NEW DISCOUNTED**
7 **TRANSPORTATION RATES PURSUANT TO 17.10.660.10(F)(8) NMAC**
8 **SINCE ITS LAST RATE CASE FILING?**

9 **A.** No.

11 **Q. HAS NMGC FORECASTED ANY NEW DISCOUNTED**
12 **TRANSPORTATION RATES FOR THE LINKAGE PERIODS OR THE**
13 **FUTURE TEST YEAR?**

14 **A.** No.

16 **Q. IS NMGC FORECASTING ANY NEW OR CONTINUING REVENUE IN**
17 **THE FUTURE TEST YEAR PERIOD FOR ASSURED CAPACITY**
18 **AGREEMENTS WITH OFF-SYSTEM TRANSPORTATION**
19 **CUSTOMERS?**

20 **A.** No. NMGC currently has one assured capacity agreement in place with an off-
21 system transportation customer, and the revenue from that agreement is currently

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1 being credited to NMGC's customers in NMGC's current rates. That agreement,
2 however, is set to expire in April 2024. NMGC has repeatedly asked the customer
3 if it would like to extend the agreement past April 2024, but the customer has not
4 indicated an interest in extending the agreement. Also, NMGC has not had any
5 inquiries from or discussions with other off-system transportation customers
6 regarding assured capacity agreements. Therefore, NMGC is not anticipating
7 having an assured capacity agreement in place during the Future Test Year.

8
9 While NMGC does not anticipate the off-system assured capacity agreement to be
10 extended or renewed during the Future Test Year, we still anticipate the
11 transportation customer will still ask NMGC to transport gas for the customer via
12 NMGC's normal transportation services. NMGC's forecasted revenue for this
13 service is included in NMGC's cost of service and revenue forecast for this rate
14 case.

V. O&M EXPENSES

17 **Q. WHAT O&M COSTS ARE YOU ADDRESSING IN YOUR DIRECT**
18 **TESTIMONY?**

19 **A.** My Direct Testimony is limited to O&M costs in the Linkage Periods and Future
20 Test Year due to IMP-related activities, and new employee positions in the
21 departments I am responsible for.

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Q. WHAT ARE THE TYPICAL O&M EXPENDITURES ASSOCIATED WITH NMGC'S TRANSMISSION AND DISTRIBUTION SYSTEM?

Q. WHAT ARE THE INCREASED O&M COSTS RELATED TO THE COMPANY'S IMP?

Q. IS NMGC PROPOSING A CHANGE TO ITS EXPECTED LEVEL OF TRANSMISSION INSPECTION O&M EXPENSES?

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1 **A.** Yes. In the base period, NMGC spent approximately \$1.38 million on transmission
2 integrity O&M. NMGC estimates the O&M related to inline activities in the Future
3 Test Year will be approximately \$2.58 million.

4

5 **VI. COMPRESSOR ELECTRIFICATION**

6 **Q.** **IN THE STIPULATION IN NMGC’S LAST RATE CASE, NMPRC CASE**
7 **NO. 21-00267-UT, THE COMPANY COMMITTED TO ANALYZING**
8 **WHETHER IT WAS FEASIBLE TO ELECTRIFY SOME OR ALL OF THE**
9 **COMPANY-OWNED COMPRESSOR STATIONS. HAS NMGC**
10 **PERFORMED THIS ANALYSIS?**

11 **A.** Yes, we analyzed what equipment, construction, and electric infrastructure would
12 be necessary to electrify each NMGC-owned compressor station.

13

14 **Q.** **WHAT WAS THE OUTCOME OF THE ANALYSIS TO ELECTRIFY ONE**
15 **OR MORE OF THE COMPANY-OWNED COMPRESSOR STATIONS?**

16 **A.** Our analysis showed that it is very expensive to electrify the current natural gas-
17 powered NMGC-owned compressor stations. The electrification of NMGC’s
18 current natural gas-powered compressor stations requires, for each compressor
19 station, the expansion of electric utility infrastructure to the remote locations in
20 which many of NMGC’s gas-fired compressors operate, costing anywhere from
21 \$5.0 million to \$25.0 million per compressor station. Additionally, because of the

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load these compressors require, each one would require either the construction of a new electric substation or an upgrade of an existing substation at or near the compressor station at a cost of between \$2 million and \$11 million depending on the compressor station. Finally, the retrofitting of the compressors with electric motor components is estimated to cost between \$3 million and \$7 million each.

As shown below in Table TCB 1 – Electrification Costs, the total estimated cost to electrify NMGC’s existing natural gas-powered compressor stations is \$141 million.

Table 1

						Run Hours		
	Sub Station	AC Buildout	Generator	Compressor	Totals	2020	2021	2022
Star Lake	\$11,000,000	\$6,000,000	\$3,000,000	\$7,600,000	\$27,600,000	5,620	4,993	2,178
Redondo	\$2,000,000	\$10,000,000	\$3,000,000	\$3,000,000	\$18,000,000	71	99	175
Espejo	\$10,000,000	\$5,000,000	\$3,000,000	\$4,300,000	\$22,300,000	3,351	464	19
Lea County	\$5,000,000	\$22,000,000	\$2,000,000	\$3,350,000	\$32,350,000	10,105	4,846	7,310
Cabazon	\$10,000,000	\$25,000,000	\$2,000,000	\$3,800,000	\$40,800,000	1	1	1
						\$141,050,000		

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1 Once we determined the cost of electrification, we analyzed the current usage of
2 our natural gas-powered compressor stations. As can be seen from the table above,
3 over the last three years, NMGC's average usage of compression was relatively
4 small and trending downward.

5

6 **Q. IS NMGC RECOMMENDING AT THIS TIME THAT IT BEGIN**
7 **ELECTRIFYING ITS NATURAL GAS-POWERED COMPRESSOR**
8 **STATIONS?**

9 **A.** No. Due to the large cost and the reduced run-times of each compressor, NMGC
10 is not recommending or pursuing electrification of its current natural gas-powered
11 compressor stations.

12

13 I would like to note, however, that in addition to the above natural gas-fueled
14 compressor stations, NMGC operates four smaller-scale electric compressor
15 stations. Any time a compressor station may be required, NMGC analyzes what
16 the best option is based on cost and reliability.

17

18 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

19 **A.** Yes.