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)	Case No. 19-00317-UT
TO ADVICE NOTICE NO. 78	
)	1
NEW MEXICO GAS COMPANY, INC.)	
)	1
Applicant)	

DIRECT TESTIMONY AND EXHIBITS

OF

KEVIN D. STURGILL

December 23, 2019

1	Q.	PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.
2	A.	My name is Kevin D. Sturgill. I am Interim Director of Information Technology
3		and Telecommunications ("IT&T") for New Mexico Gas Company, Inc. ("NMGC"
4		or the "Company"). My business address is 7120 Wyoming Boulevard NE,
5		Albuquerque, NM 87109.
6		
7	Q.	PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND, WORK
8		EXPERIENCE AND PRIOR TESTIMONY.
9	A.	I earned a Bachelor of Business Administration, Data Processing Option at
10		Morehead State University (Morehead, KY). I have worked in the utility industry
11		for over 34 years, with most of it being in IT&T. I have provided support for
12		previous rate cases, however I have never testified. For more detailed educational
13		background and work experience, please see NMGC Exhibit KDS-1.
14		
15	Q.	PLEASE DESCRIBE YOUR TESTIMONY.
16	A.	My testimony is divided into three sections. Section I describes NMGC's
17		investment in IT&T over the period covered by this rate case. These capital
18		investments between July 1, 2018 and December 31, 2021 total approximately
19		\$25.9 million. Sections II and III discuss IT&T operations and maintenance
20		("O&M") charges. Section II (describes the intercompany IT&T charges from
21		affiliates to NMGC for the same period. These charges total approximately \$18.5

1		million. Section III describes the intercompany IT&T charges from NMGC to
2		affiliates for the same period. These charges total approximately \$1.79 million.
3		
4		I. <u>NMGC'S IT&T CAPITAL INVESTMENT</u>
5	Q.	PLEASE DESCRIBE HOW IT&T INVESTMENTS ARE MADE BY NMGC.
6	A.	The majority of the investments in IT&T are made directly by NMGC. These
7		investments are reflected in Table 1 below and are discussed in this section of my
8		testimony.
9		
10	Q.	PLEASE PROVIDE A BREAKDOWN OF THE NMGC IT&T CAPITAL
11		INVESTMENT FOR THE BASE PERIOD, LINKAGE PERIODS AND
12		FUTURE TEST YEAR.
13	A.	Set forth in the following Table 1 is a summary of the IT&T Capital Investment by
14		NMGC for the timeframes of July 1, 2018 through June 30, 2019 ("Base Period"),
15		July 1, 2019 through June 30, 2020 ("Linkage Period 1"), January 1, 2020 through
16		December 31, 2020 ("Linkage Period 2") and January 1, 2021 through December
17		31, 2021 ("Future Test Year").
18		

Table 1 – NMGC IT&T Capital Spend by Period

Timeframe	Capital
Base Period	\$6,681,541
*Linkage Period 1	\$7,747,898
*Linkage Period 2	\$7,412,792
Future Test Year	\$8,115,009

*The dollar amounts for Linkage Periods 1 and 2 in this table contain some duplication due to the overlap of these two periods. The amount of duplication is \$4,105,287. Removing this duplication means the total capital expenditures in the total linkage period (the 18 months contained in Linkage Period 1 and Linkage Period 2) is \$11,055,403.

The total capital expenditures in all periods (July 1, 2018 to December 31, 2021) is \$25,851,953.

Α.

14 Q. LOOKING AT TABLE 1, PLEASE EXPLAIN WHY YOU SEPARATE 15 INVESTMENT INTO THE FOUR ANNUAL PERIODS BASE YEAR, 16 LINKAGE PERIOD 1, LINKAGE PERIOD 2, AND FUTURE TEST YEAR.

By doing this, I am able to make comparisons between Base Year (a one year timeframe), and two separate annual linkage periods, and a one year long Future Test Year. This allows for apples-to-apples comparison of the twelve-month periods as opposed to comparing year long Base Year and Future Test Year with an eighteen-month linkage period. I do this because the purpose of my testimony is to show the overall picture of IT&T expenditures over time, year-by-year, and this is best done by comparing equal 12-month periods. In short, I am the witness explaining why we are doing what we are doing in the IT&T environment from a

1		business perspective, and for this purpose, yearly comparable numbers are the most
2		effective way to present this information.
3		
4		Ultimately, all of my numbers have been provided to NMGC Witness Tom C.
5		Bullard who has broken these numbers down, month-by-month throughout the
6		period covered by this case, for budgeting, forecasting and tracking purposes.
7		
8	Q.	SO, RETURNING TO TABLE 1, PLEASE DESCRIBE THE COMPANY'S
9		CAPITAL INVESTMENT AND ITS PURPOSE FROM A BUSINESS
10		PERSPECTIVE.
11	A.	There are five primary areas of focus for NMGC's capital investments: 1)
12		mitigating risks to avoid threats to our business activities, 2) driving efficiency, 3)
13		enhancing the customer experience, 4) supporting business intelligence/analytics,
14		and 5) maintaining the Company's systems.
15		
16	Q.	PLEASE DESCRIBE THESE FIVE CATEGORIES IN MORE DETAIL.
17	A.	"Risk mitigation" covers projects that reduce exposure to internal and external
18		threats to our business operations. For example, projects that increase our
19		monitoring of critical infrastructure or improve asset up-time, minimize impacts of
20		unfortunate events, and help us to eliminate cybersecurity threats. Adding video
21		security and an enterprise badge system are specific examples.

1	
2	"Driving efficiency" includes projects that reduce costs, streamline and automate
3	processes, or increase collaboration. Examples of such projects are application
4	enhancements that improve how employees interact with the application,
5	implementation of tools that ease or improve accuracy of data capture, or projects
6	that reduce overall operating costs.
7	
8	"Enhancing the customer experience" includes projects that will improve how
9	customers interact with NMGC. For example, improvements to our website for
10	finding information about their bills or about payment centers, adding the ability
11	for customers to use their phone to access their accounts, and a webchat feature that
12	allows customers to communicate with our customer service representatives over
13	the Internet.
14	
15	"Supporting business intelligence/analytics" includes those technologies that we
16	use to analyze our business information. These projects help us explore our data
17	from historical, current and predictive views of business operations. From the
18	analytics side this helps us understand past business performance and drive business
19	planning. These provide budget analytics and tools that help to produce dashboards
20	or snapshots of our data that support informed business decisions.

21

1		"Maintaining the Company's systems" includes the day-to-day activities required
2		to support, maintain or improve our IT&T assets. Some of these projects center
3		around break/fix funding and keeping our assets up to date so that vendors will
4		continue support of our systems. Examples of such projects are proactive hardware
5		replacements and software upgrades.
6		
7	Q.	OF THE \$6.68 MILLION IDENTIFIED IN TABLE 1 AS BEING SPENT IN
8		THE BASE PERIOD, HOW MUCH WAS SPENT IN EACH OF THESE
9		FIVE CATEGORIES?
10	A.	During the Base Period, about 57% (\$3.8 million) was spent on risk mitigation
11		This included moving critical applications and databases off unsupported hardware
12		to new hardware. In addition, video security was rolled out to additional sites for
13		surveillance monitoring. We also deployed more enterprise badge readers for
14		"employee only" access to our facilities across the state. On the application side
15		we upgraded software to reduce data loss between applications, remain current with
16		vendor support, and to comply with regulatory requirements. We also began
17		implementing software to aid with the identification of pipeline risks.
18		
19		During the Base Period, about 37% (\$2.4 million) was invested to drive
20		efficiencies, mainly in applications. This included introducing a new capital budge
21		tool to optimize spending of capital dollars. Another project utilized updated

1		technology to reduce overhead maintenance costs. Our customer care and billing
2		system required enhancements to automate fees, reduce billing errors, and mask
3		social security numbers to protect customer information.
4		
5		Approximately 6% of the Base Period budget (\$412,000) was invested towards
6		maintaining the Company's systems with miscellaneous hardware refreshes that
7		included repairs or replacement of aging hardware that could not wait for a planned
8		replacement. This also covered minor planned enhancements/upgrades of
9		applications. Firewalls were purchased as well to improve our cybersecurity
10		posture.
11		
12		Finally, \$20,000 was used for small projects enhancing the customer experience
13		and supporting business intelligence/analytics. These projects covered website
14		redesign, graphic information systems ("GIS") support, and reporting.
15		
16	Q.	OF THE \$7.75 MILLION IDENTIFIED IN TABLE 1 AS BEING SPENT
17		DURING LINKAGE PERIOD 1, HOW MUCH IS BEING SPENT IN EACH
18		OF THE FIVE CATEGORIES?
19	A.	During Linkage Period 1, approximately 52% (\$4 million) of our total capital spend
20		is for risk mitigation. This includes continued spending on projects started during
21		the Base Period such as IT&T critical applications and databases being moved off

unsupported hardware to new hardware. Video security continues to be rolled out
to more sites for surveillance monitoring. We are also deploying more enterprise
badge readers for "employee only" access to our facilities across the state. On the
application side, software is being installed to reduce data loss between
applications, stay current with vendor support, comply with regulatory
requirements, and identify pipeline risks. The biggest allocation, however, is for
the IT&T Risk Assessment mitigations. This effort began in 2019, with a directive
to assess risks posed to critical software and hardware. It recently concluded with
several recommendations requiring capital spend. These projects will cover
identified gaps in our Disaster Recovery strategy, upgrades to network
infrastructure, and migration from unsupported versions of server operating
systems.
During Linkage Period 1, approximately 22% (\$1.7 million) will be spent on
driving efficiencies. We continue updating technology to reduce overhead
maintenance costs, and continue improving data collection and assorted compliance
activities through the implementation of new systems and modification of existing
systems.
Approximately 15% (\$1.1 million) is targeted towards enhancing the customer
experience and supporting business intelligence/analytics. The addition of pipeline

1		asset data is being incorporated into our capital decision analytics tool previously
2		deployed in 2018-2019. We are enhancing data analytics capabilities through the
3		implementation of a data visualization application and upgrades to our report
4		development tools. Webchat feature is being added for customer convenience,
5		allowing another avenue for customers to have direct communication with our
6		customer service representatives over the Internet.
7		
8		Approximately 11% (\$859,000) is being invested in maintaining the Company's
9		systems. Miscellaneous hardware refreshes are anticipated for repairs or
10		replacement of aging hardware that cannot wait for a planned replacement. This
11		also covers minor planned enhancements/upgrades of applications. Our
12		Supervisory Control and Data Acquisition ("SCADA") environment is being
13		refreshed and updated for regulatory compliance. This includes both hardware and
14		software updates as well as capital labor for updates to processes and procedures,
15		ensuring process and procedural conformity.
16		
17	Q.	OF THE \$7.41 MILLION IDENTIFIED IN TABLE 1 AS BEING SPENT
18		DURING THE 12 MONTH LINKAGE PERIOD 2, HOW MUCH IS IN
19		EACH OF THE FIVE CATEGORIES?
20	A.	During Linkage Period 2, 53% (\$3.9 million) is being invested in risk mitigation.
21		This includes continued spending on disaster recovery strategy, video and badge

additions. The largest investment will be for IT&T Risk Assessment mitigations at
\$1.6 million. These projects will cover identified gaps in our disaster recovery
strategy, upgrades to network infrastructure and migration from unsupported
versions of server operating systems. A regulatory compliance application is being
added to ensure we meet federal regulations for transmission pipelines. This action
is being taken in response to a recent final rule posted by the Pipeline and
Hazardous Materials Safety Administration regarding 49 CFR Parts 191 and 192.
Another application is improving our leak detection capabilities and.
Driving efficiencies is the next largest area of capital investment at approximately
21% (\$1.6 million). Consistent with the prior years' strategy, we will continue to
update technology to reduce overhead maintenance costs and continue improving
data collection and compliance activities through the implementation of new
systems and modification of existing systems.
Approximately 5% (\$347,000) is targeted for enhancing the customer experience.
Customer digitalization will include projects for mobile applications. Innovation
in the form of artificial intelligence, predictive analytics, and robotic process
automation are being researched for potential use.

1		In Linkage Period 2 more emphasis is placed on business intelligence and analytics
2		with an increase to around 11% (\$810,000) of forecasted investment. The addition
3		of pipeline asset data is being incorporated into our capital decision analytics tool
4		previously deployed in 2018-2019. We are enhancing data analytics capabilities
5		through the implementation of a data visualization application and upgrades to our
6		report development tools.
7		
8		For 2020, around 10% of the budget (\$739,000) will be invested in maintaining the
9		Company's systems. Miscellaneous hardware refreshes are anticipated for repairs
10		or replacement of aging hardware that cannot wait for a planned replacement. This
11		also covers minor planned enhancements/upgrades of applications. Our SCADA
12		environment is being refreshed and updated for regulatory compliance. This
13		includes both hardware and software updates as well as capital labor for updates to
14		processes and procedures, ensuring process and procedural conformity.
15		
16	Q.	OF THE \$8.11 MILLION IDENTIFIED IN TABLE 1 AS BEING SPENT IN
17		THE 12 MONTH FUTURE TEST YEAR, HOW MUCH OF THE
18		INVESTMENT IS FOR EACH OF THE FIVE CATEGORIES?
19	A	During the Future Test Year, approximately 41% (\$3.3 million) will be invested in
20		risk mitigation. This will include IT&T Risk Assessment mitigations and ongoing
21		regulatory compliance applications.

1	
2	In 2017, NMGC Customer Relationship Management ("CRM") completed a risk
3	assessment of our customer care and billing system with the business and IT&T
4	The risk assessment identified high, medium and low technical and functional risks
5	in the Banner Customer Information System ("Banner"). The Banner Technica
6	Uplift was completed in 2018. In 2019, we identified and prioritized Banner
7	Functional Enhancements that are in progress. In 2021, we will continue to invest
8	in Banner Functional Enhancements to address business needs based on risk and
9	future value.
10	
11	Around 19% (\$1.5 million) is forecast to be spent on continuation of activities
12	started in 2020 that drive efficiencies, support business intelligence/analytic
13	capabilities, and enhance the customer experience.
14	
15	Maintaining the Company's systems accounts for approximately 40% (\$3.3
16	million) in projected investment during the Future Test Year. The largest portion
17	is \$2.7 million for the replacement of our personal computing fleet environment
18	The normal investment for hardware and application upgrades for capital break/fix
19	accounts for the remaining \$500,000.
20	

1	Q.	HOW DO THESE NUMBERS COMPARE AND WHAT IS THE SPENDING
2		PATTERN?
3	A.	As you can see, by looking at the 12 month periods described above and in my
4		exhibits, the Company is engaged in a relatively steady and consistent investment
5		program which addresses the major IT&T needs of the Company. We are focused
6		on addressing the primary needs of the Company to ensure enhanced focus on
7		mitigating risks to avoid threats to our business activities, driving efficiency,
8		enhancing the customer experience, supporting business intelligence/analytics, and
9		maintaining the Company's systems. These systems and system investments are
10		necessary to the prudent and effective operation of the Company.
11		
12		II. <u>IT&T SERVICES RECEIVED BY NMGC FROM AFFILIATES</u>
13	Q.	IN SECTION I OF YOUR TESTIMONY YOU DESCRIBED THE
14		COMPANY'S IT&T CAPITAL INVESTMENT FOR THE PERIODS IN
15		THIS RATE CASE. NOW PLEASE DESCRIBE HOW IT&T SERVICES
16		ARE PROVIDED TO AND CHARGED TO NMGC.
17	A.	The majority of the IT&T services are provided by NMGC employees in New
18		Mexico. Alternatively, under the shared services model, many IT&T services are
19		performed by affiliates, or by the shared services company, Tampa Services Inc.
20		("TSI") in 2018-2019 and Tampa Electric Company ("Tampa Electric") starting in
21		2020 (collectively "Shared Services Company") which are then charged to NMGC

1		as intercompany assessments and sometimes charged as direct charges, consistent
2		with the provisions of the Cost Allocation Manual (the "CAM") on file with the
3		NMPRC.
4		
5		NMGC either performs services itself, or works with its affiliates on a service-by-
6		service basis to arrange for the best and most cost-effective service. Consistent
7		with the terms of the Emera Stipulation, if the service can be done in New Mexico
8		more cost effectively, considering cost and quality of service, then the service is
9		provided in New Mexico. Alternatively, if the service can be most efficiently
10		provided by an affiliate, then the service is provided by the affiliate. These affiliate
11		charges are described in Table 2 below and discussed in this section of my
12		testimony.
13		
14		The services discussed in this section are charged as O&M expenses.
15		
16	Q.	PLEASE PROVIDE A BREAKDOWN OF THE IT&T CHARGES FROM
17		AFFILIATES AND THE SHARED SERVICES COMPANY TO NMGC FOR
18		THE BASE PERIOD, LINKAGE PERIODS, AND FUTURE TEST YEAR.
19	A.	The following, Table 2, summarizes charges from affiliates and the Shared Services
20		Company for IT&T Services during the Base Period, Linkage Periods, and Future
21		Test Year:

1

3

2 <u>Table 2</u>

IT&T Charges from Affiliates and the Shared Services Company by Period

	Shared Serv	ice Compar	ıy	
Timeline	Assessed IT&T	Direct IT&T	Assessed Hardware & Software	Total
Base Period	\$3,793,710	\$198,326	\$607,938	\$4,599,974
*Linkage Period 1	\$4,145,812	\$251,602	\$847,392	\$5,244,806
*Linkage Period 2	\$4,232,659	\$260,412	\$1,003,289	\$5,496,360
Future Test Year	\$4,336,545	\$269,623	\$1,217,635	\$5,823,803

4 5

6

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*The dollar amounts for Linkage Periods 1 and 2 reflected in Table 2 and Table 3 contain some duplication due to the overlap of these two periods. That amount is \$2,685,669. The use of four periods in this table is for the same reasons set forth in the note to Table 1 and the earlier explanation in this testimony.

8 9

10

- The total charges from affiliates in all periods (July 1, 2018 to December 31, 2021)
- is \$18,479,275. For more detail regarding the numbers in Table 2, see NMGC
- Exhibits KDS -2 through KDS-9.

13

14

Q. WHAT WERE THESE CHARGES FOR?

- 15 A. The IT&T services and associated charges assessed to NMGC are broken down
- into the following seven categories for each of the four periods identified.

17

1 <u>Table 3</u>

2 <u>IT&T Charges by Category of Services</u>

Service	Cost
Cybersecurity Services	\$ 606,073
Client Computing Services	\$ 585,937
Enterprise Application Services	\$ 1,248,249
Network and Telecommunications Engineering, Architecture, and Operations Services	\$ 1,334,345
Asset Management and Maintenance Services	\$ 85,139
Quality Assurance and Compliance Management Services	\$ 132,293
Hardware and Software Assessment	\$ 607,938
Total	\$ 4,599,974
Cybersecurity Services	\$ 742,212
Client Computing Services	\$ 627,854
Enterprise Application Services	\$ 1,307,533
Network and Telecommunications Engineering, Architecture, and Operations Services	\$ 1,472,621
Asset Management and Maintenance Services	\$ 91,184
Quality Assurance and Compliance Management Services	\$ 156,010
Hardware and Software Assessment	\$ 847,392
Total	\$ 5,244,806
Cybersecurity Services	\$ 702.214
,	\$ 802,427
	\$ 847,371
1 11	\$ 1,848,264
3 3/ / I	\$ 97,520
	\$ 195,274
Hardware and Software Assessment	\$ 1,003,289
Total	\$ 5,496,360
Cybersecurity Services	\$ 982,279
· ·	\$ 622,808
1 0	\$ 1,157,165
1 11	\$ 1,565,573
	\$ 87,860
	\$ 190,483
- 1	\$ 1,217,635
Total	\$ 5,823,803
	Cybersecurity Services Enterprise Application Services Network and Telecommunications Engineering, Architecture, and Operations Services Quality Assurance and Compliance Management Services Hardware and Software Assessment Total Cybersecurity Services Client Computing Services Enterprise Application Services Network and Telecommunications Engineering, Architecture, and Operations Services Asset Management and Maintenance Services Quality Assurance and Compliance Management Services Hardware and Software Assessment Total Cybersecurity Services Client Computing Services Enterprise Application Services Network and Telecommunications Engineering, Architecture, and Operations Services Hardware and Software Assessment Total Cybersecurity Services Client Computing Services Enterprise Application Services Network and Telecommunications Engineering, Architecture, and Operations Services Asset Management and Maintenance Services Quality Assurance and Compliance Management Services Hardware and Software Assessment Total Cybersecurity Services Client Computing Services Enterprise Application Services Enterprise Application Services Cybersecurity Services Enterprise Application Services Asset Management and Maintenance Services Network and Telecommunications Engineering, Architecture, and Operations Services Asset Management and Maintenance Services Quality Assurance and Compliance Management Services Asset Management and Maintenance Services Quality Assurance and Compliance Management Services Hardware and Software Assessment

3

4 For more detail regarding the information in Table 3 see NMGC Exhibits KDS-2

5 through KDS-9.

6

7 Q. ARE THE SERVICES IDENTIFIED IN TABLE 3 CHARGED TO NMGC

8 IN ACCORDANCE WITH THE CAM?

A. Yes. Pursuant to the CAM, costs generally are collected and assigned using three methods. Costs are either charged as direct costs charged to an affiliate ("Direct Charges"); indirect costs for services assessed to more than one affiliate using one or more formulas for assessment ("Assessed Charges"); or allocated to multiple affiliates ("Allocated Charges") using the Modified Massachusetts Method ("MMM"). Under the CAM, IT&T charges are assessed to NMGC from the shared services provider on a per capita basis. Non-allocable costs are assigned directly to TECO and not NMGC or other TECO operating affiliates. No cost is allocated or assessed twice to any affiliate.

A.

Q. PLEASE DESCRIBE WHAT IS INCLUDED AS "CYBERSECURITY SERVICES" IDENTIFIED IN TABLE 3.

The Shared Services Company has a mature, state-of-the-art CyberSecurity Operations Center ("CSOC") that proactively monitors vulnerabilities, malware, and configuration changes that may lead to computer virus infections, data loss and/or ransomware attacks. As the global economy becomes more and more dependent on cyber resources, organizations such as NMGC are increasingly being targeted by cyberterrorists, hacktivists, nation-state actors (e.g., China, Russia, North Korea) and cybercriminals. Cyber threats to the utility industry in North America have risen significantly in the past few years, with the most advanced attacks coming via state-sponsored actors targeting critical energy infrastructure.

Power and utility organizations are implementing mature security capabilities used to identify, protect, detect, respond and recover against cyber threats targeting critical infrastructure. The Shared Services Company has implemented a robust defense-in-depth security posture (email filtering, perimeter and desktop/laptop/server protection, identity access management, threat intelligence, insider threat management, etc.) to reduce cyber risk to NMGC.

A.

Q. PLEASE EXPLAIN HOW THESE "CYBERSECURITY SERVICES" HAVE

BENEFITED NMGC AND ITS CUSTOMERS.

At NMGC, over 90% of inbound/outbound emails are identified as spam or malicious (e.g., phishing, spear-phishing) which are all blocked per policy administered by the CSOC. The email-filtering policy is constantly updated through CSOC's Threat Intelligence Program. There have been over 129 million access/probing attempts on NMGC from nation-state/non-nation-state actors in the first 11 months of 2019. These attempts are blocked via multiple security controls, one being geographic blocking which blocks inbound and outbound communications for 100 out of 195 countries. The infection rate for malware on desktops/laptops/servers has been reduced to 0.36% compared to 1.8% since implementing the comprehensive security approach of the Shared Services Company's IT&T management and oversight. For those devices that are found to have malware, the CSOC coordinates with the Shared Services Company's Service

Desk ("Service Desk") and/or NMGC resources to quickly quarantine and
remediate the threat. If there is an issue related to a vulnerability, the CSOC takes
immediate action to remove or mitigate the threat. A recent example was an email
that got into the NMGC environment that had a link embedded that could have put
our assets at risk. The CSOC was able to quickly identify the issue, who had
received the email, and remove it from their inbox before many of those employees
even knew it was there.
The CSOC is highly active in the cybersecurity space and gets regular updates
(some of them top secret) from government agencies and peer utilities about active
and potential threats. This information is used to proactively monitor all affiliates
(including NMGC) and protect our assets.
The CSOC proactively conducts vulnerability assessments to determine if entities
outside of the Company can exploit a security vulnerability to get inside the
Company.
The CSOC has a highly specialized set of skills and security tools that would be
very expensive to reproduce. Simply stated, NMGC's assets, data and customer
information are much more secure due to the efforts of the CSOC.

1	Q.	PLEASE DESCRIBE WHAT IS INCLUDED AS "CLIENT COMPUTING
2		SERVICES" IDENTIFIED IN TABLE 3.
3	A.	Client computing services is comprised of direct support of the NMGC employee's
4		corporate desktop computer, laptop, mobile phone, and the software that runs on
5		these devices via the Service Desk. It also centralizes management of these devices
6		to ensure that they are reliable, secure, and able to complete the tasks needed to run
7		the business; and security access administration of data and systems.
8		
9		Direct support begins with the Service Desk, which provides technology assistance
10		to all New Mexico and Florida employees. The Service Desk handles
11		approximately 10,000 service requests and break/fix tickets per year for NMGC
12		employees. Centralized device management services include configuration
13		management, automated software installation, application of security patches, data
14		encryption, and secure remote connectivity. Security access administration
15		manages security access to all data and business systems for NMGC employees.
16		This service includes access provisioning and removal of access based on approved
17		requests. The security access team handles approximately 5,000 security access
18		requests a year for NMGC employees. In addition, this team is responsible for
19		complying with Sarbanes Oxley access controls for all applicable NMGC systems.
20		

1 Q. PLEASE EXPLAIN HOW THESE "CLIENT COMPUTING SERVICES"

2		HAVE BENEFITED NMGC AND ITS CUSTOMERS.
3	A.	The Service Desk has been recognized twice with the Internal Team Excellence
4		Award by HDI (formerly the Help Desk Institute – a global organization that sets
5		the standard for the Information Technology Service and Support Industry). The
6		Service Desk cost per contact is \$9.22, while the average cost per contact is \$15.83
7		based on industry benchmarking firm Gartner Research. First contact resolution
8		for the Service Desk is 83% compared to the Gartner Research average of 69%.
9		Security access administration protects the Company from cybersecurity breaches
10		and malware attacks by effectively managing administrative privileges and
11		preventing unauthorized access to NMGC data and systems.
12		
13	Q.	PLEASE DESCRIBE WHAT IS INCLUDED AS "ENTERPRISE
14		APPLICATION SERVICES" AS IDENTIFIED IN TABLE 3.
15	A.	These services support common computer applications that are installed in the
16		Companies' datacenters, are maintained and supported by the Shared Services
17		Company, and utilized by multiple affiliates. These applications are: 1)
18		ServiceOne, the work management tool used for IT&T to track work requested by
19		all employees; 2) SharePoint, a file sharing platform that hosts the NMGC intranet
20		site and is leveraged by departments as a collaboration and file sharing system; 3)
21		the Enterprise Resource Planning ("ERP") Suite of applications, which combines

and automates business processes to facilitate and simplify financial, accounting, supply chain, human resources, procurement and purchasing transactions; 4) PowerPlan, the subledger used for utility accounting to track plant accounting and construction work in progress projects; 5) SuccessFactors, which is used for recruiting and talent management; 6) Enterprise Performance Management ("EPM"), for creating financial plans/budgets and forecasting; and 7) ProcessMap, an enterprise health and safety application that is used for capturing and tracking near-misses and hazardous conditions, measuring and monitoring safety posture and predicting and preventing safety incidents.

A.

Q. PLEASE EXPLAIN HOW THESE "ENTERPRISE APPLICATION SERVICES" HAVE BENEFITED NMGC AND ITS CUSTOMERS.

The ServiceOne application helps to streamline the completion of IT&T requests for new services and the resolution of any break/fix issues. It has built-in workflow and approval that leads to more timely completion of IT&T work for our employees. This allows them to be more productive and provides them with the capabilities needed to support NMGC's customers. Utilizing the SharePoint environment for hosting the NMGC Intranet Site at the Shared Services Company saved \$175,000 and allowed the implementation of the site to be completed five months faster than standing up a SharePoint environment at NMGC. Using the ERP Application at the Shared Services Company is more cost effective than

running a separate application at NMGC. Adopting the ERP saved NMGC at least \$1.7 million per year. PowerPlan allows NMGC to accurately and effectively track expenditures of capital for all our capital projects. Since all utilities have this need, there are cost savings for affiliates in sharing this capability to provide the automation of this critical business process. Since all utilities have this need, there are cost savings for affiliates in sharing this capability to provide the automation of this critical business process. SuccessFactors, EPM, and ProcessMap are all used by multiple affiliates and the cost sharing saves NMGC money on purchasing, maintaining and supporting the hardware and software needed to support automation of these business processes.

A.

Q. PLEASE DESCRIBE WHAT IS INCLUDED IN "NETWORK AND TELECOMMUNICATIONS ENGINEERING, ARCHITECTURE, AND OPERATIONS SERVICES" AS IDENTIFIED IN TABLE 3.

The services identified here are responsible for managing a Shared Services Company Technology Operating Center ("TOC"), making sure that all of the servers, network, and storage are available and up to date for computer applications used by the affiliates, providing video/voice conferencing capabilities, augmenting and providing advanced expertise for supporting NMGC's Data Center, network, gas control system, branch office connectivity, patch management and backup management and managing the email system.

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2	Q.	PLEASE EXPLAIN HOW THESE "NETWORK AND
3		TELECOMMUNICATIONS ENGINEERING, ARCHITECTURE, AND
4		OPERATIONS SERVICES" HAVE BENEFITED NMGC AND ITS
5		CUSTOMERS.
6	A.	Whenever a major incident occurs that impacts NMGC technology, the TOC leads
7		the major incident response process to get all necessary resources in Florida and
8		New Mexico focused on restoring service(s). The TOC proactively monitors and
9		alerts on technology issues around the clock. When there is an interruption of
10		service after hours or on weekends, the TOC often resolves the issue during non-
11		business hours to minimize/eliminate impact to the business and/or customers. This
12		service augments NMGC's infrastructure resources to provide additional subject
13		matter expertise related to firewalls, architectural design, troubleshooting and
14		implementation of servers, network connectivity equipment, storage and any other
15		hardware installed at NMGC. Having a centralized email management function
16		provides the capability at a fraction of what it would cost to implement a stand-
17		alone email environment and to support locally. Centralized patch and backup
18		management is provided at a reduced cost which allows local resources to focus on
19		providing more value-added work to support NMGC. When an audit by the Shared
20		Services Company identified observations regarding the security of the control
21		system at NMGC, the expertise that this group has in managing control systems in

1		Florida was leveraged to ensure that the audit findings were addressed in a timely
2		manner and that NMGC's control systems continued to be properly isolated,
3		protected, and secured from intrusion.
4		
5	Q.	PLEASE DESCRIBE WHAT IS INCLUDED IN "ASSET MANAGEMENT
6		AND MAINTENANCE SERVICES" AS IDENTIFIED IN TABLE 3.
7	A.	Much of the software managed by the Asset Management and Maintenance
8		Services group benefits all affiliates including NMGC. This group is also
9		responsible for tracking of software license compliance and response to license
10		audits.
11		
12	Q.	PLEASE EXPLAIN HOW THESE "ASSET MANAGEMENT AND
13		MAINTENANCE SERVICES" HAVE BENEFITED NMGC AND ITS
14		CUSTOMERS.
15	A.	The Shared Services Company subscribes to a business continuity service and
16		shares the cost with all affiliates whereby NMGC has access to a mobile recovery
17		trailer that can provide 48 workspaces complete with computers, phones, power,
18		and satellite internet connectivity. In the event of a disaster, we can have this trailer
19		onsite and operating within 48 hours. The Asset Management and Maintenance
20		Service group is responsible for competitively bidding hardware and software used

1		buying power. A few examples are: 1) an enterprise agreement was negotiated with
2		Microsoft to include all affiliates, if NMGC had its own agreement, it would be
3		\$93,000 more per year; 2) NMGC uses Panasonic Ruggedized Laptops for field
4		personnel, recently a request for procurement was completed for all affiliates and
5		the pricing received per laptop was \$1,437 less than NMGC would have received
6		on its own, given that NMGC uses 242 of these laptops, the net savings will be
7		\$347,000 for replacing all devices; and 3) the Shared Services Company currently
8		has an enterprise licensing agreement with VMware for their server technology,
9		which has resulted in a 22% savings for NMGC.
10		
11		By spreading the cost of the software across all affiliates, we are reducing the
12		amount it would cost to purchase and pay for ongoing maintenance.
13		
14	Q.	PLEASE DESCRIBE WHAT IS INCLUDED IN "QUALITY ASSURANCE
15		AND COMPLIANCE MANAGEMENT SERVICES" AS IDENTIFIED IN
16		TABLE 3.
17	A.	Over the years the Shared Services Company has developed and implemented
18		standards, procedures, and controls based on IT&T and auditing best practices,
19		audit recommendations, regulatory/compliance requirements, and cybersecurity
20		standards. These standards, procedures, and controls were adopted by NMGC when
21		we started receiving this service from the Shared Services Company. Adherence to

1		and documentation of these standards, procedures, and controls are managed as a
2		part of this service. Another important aspect of this service is to facilitate a
3		corporate-wide security awareness plan that highlights cybersecurity risks and
4		communicates what each team member can do to help ensure that the Company's
5		assets are protected.
6		
7	Q.	PLEASE EXPLAIN HOW THESE "QUALITY ASSURANCE AND
8		COMPLIANCE MANAGEMENT SERVICES" HAVE BENEFITED NMGC
9		AND ITS CUSTOMERS.
10	A.	These standards, procedures, and controls were developed prior to NMGC using
11		them and NMGC benefits from that effort without having to pay for developing
12		these controls. This service provides compliance oversight and security awareness
13		for all IT&T processes, procedures, and data.
14		
15	Q.	PLEASE DESCRIBE THE SERVICES PROVIDED UNDER THE COLUMN
16		"HARDWARE AND SOFTWARE ASSESSMENTS" IN TABLE 3.
17	A.	Per the CAM, there are certain assets owned by Tampa Electric that are utilized to
18		provide shared services to affiliates. In these situations, the calculated charges for
19		the use of the asset and related expense is included in the cost of service, which is
20		direct charged or assigned to the appropriate affiliate, as the case may be. NMGC
21		is either direct charged or assessed these charges on a headcount basis.

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2		The capital projects for hardware and software that support the services provided
3		to all affiliates, including NMGC, are identified and Tampa Electric charges
4		affiliates using the monthly depreciation of the capitalized assets plus a return on
5		investment. These fees are assessed to each applicable company based on
6		headcount.
7		
8	Q.	PLEASE EXPLAIN HOW THESE "HARDWARE AND SOFTWARE
9		ASSESSMENTS" HAVE BENEFITED NMGC AND ITS CUSTOMERS.
10	A.	NMGC accounts for the hardware and software assessments as an O&M expense.
11		If NMGC owned its portion of the IT&T capitalized assets reflected in the
12		assessment calculation, NMGC would incur depreciation expense and pay a return
13		on investment to its shareholders through base rates. This hardware and software
14		is necessary to provide the services above. It is less expensive to share the cost of
15		the hardware and software with affiliates than for each affiliate to purchase the
16		hardware and software separately.
17		
18	Q.	WHAT DOES NMGC DO WHEN REVIEWING CHARGES FROM OTHER
19		AFFILIATES?
20	A.	When reviewing IT&T charges, NMGC considers two primary factors: the cost of
21		the service, and the quality of the service. While NMGC is always focused on the

cost of services provided for our customers, in many instances it is difficult to make direct cost comparisons, especially when also considering or taking into account qualitative differences in services. There are areas where affiliates provide a service that NMGC cannot economically replicate. Some examples of this include cybersecurity, Service Desk, and around-the-clock technology operations monitoring services from the Shared Services Company. The Shared Services Company maintains excellent departments for both cybersecurity and the Service Desk and provides a quality level of service that NMGC could not replicate at the price NMGC is charged. These are a couple of the areas that are hard to quantify, but given the quality of service that NMGC receives, NMGC cannot replicate given its size. Other services are more easily quantified such as application support, desktop support, business analysis, and infrastructure support. In these and many other IT&T areas, we believe NMGC provides a better-quality service than can be obtained from the Shared Services Company. NMGC and its affiliates continue to evaluate the balance between shared and local services.

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17 Q. IS THE RECEIPT OF IT&T SERVICES BY NMGC FROM THE

18 AFFILIATES MORE COST EFFECTIVE THAN IF NMGC PROVIDED

THE SAME SERVICES?

20 **A.** Yes. In addition to the examples mentioned earlier in my testimony, another great

1		were spending over \$2.5 million a year for software maintenance, hosting services
2		and support. Under the shared services model, the cost is \$784,000 which represents
3		a savings of over \$1.7 million per year.
4		
5	Q.	IS NMGC CURRENTLY ABLE TO COST EFFECTIVELY PROVIDE
6		THESE SERVICES?
7	A.	No, not as effectively as the Shared Services Company given the economies of scale
8		of providing these services to all affiliates and then sharing the associated costs. It
9		is more efficient to stand these common support capabilities up once, along with
10		the software and processes necessary to deliver the services, and then spread the
11		costs equitably via the CAM across affiliates. Creating separate and redundant
12		infrastructure and functionality to provide the capabilities of the Shared Services
13		Company would not be cost effective.
14		
15	Q.	PLEASE IDENTIFY THE ITEMS IN THE STIPULATION ENTERED IN
16		NMPRC CASE NO. 15-00327-UT ("EMERA STIPULATION") RELATED
17		TO NMGC'S REVIEW AND CONTROL OF AFFILIATE CHARGES.
18	A.	In paragraph 28 of the Emera Stipulation, NMGC committed to the following as
19		related to the affiliate charges:
20		• At 28.a NMGC management will, consistent with good governance
21		practices and based on an examination of its business needs, customer needs

1		and objectives, control and annually determine which if any services it will
2		obtain from [the Shared Services Company].
3		• At 28.b Subject to its business needs and objectives, and consistent with
4		good governance practices, in an effort to bring value to its customers
5		through cost savings, NMGC will show a preference for services to be
6		performed in New Mexico by NMGC employees for NMGC.
7		• At 28.c NMGC shall make any and all charges, assessments or allocations
8		from [the Shared Services Company] transparent, and shall, to the greatest
9		extent possible, use direct charges, as opposed to assessments or allocations,
10		when identifying costs for recovery under the CAM.
11		
12	Q.	PLEASE DESCRIBE HOW NMGC HAS COMPLIED WITH PARAGRAPH
13		28.a. OF THE EMERA STIPULATION AS IT RELATES TO IT&T
14		SERVICES.
15	A.	On an annual basis as part of its budgeting process, the NMGC management team
16		reviews the IT&T services to be provided to NMGC by affiliates. The services and
17		related charges are first reviewed and approved by the appropriate management
18		team members, and then by the executive team. For example, I review and approve
19		all services related to IT&T as the interim IT&T Director of NMGC and review
20		them with the vice president responsible for IT&T, Tommy Sanders, Vice President
21		of Customer and Support Services, and Jimmie Blotter, Vice President of Finance

1		of NMGC. Then, throughout the year the charges are billed to NMGC by affiliates
2		and each invoice is reviewed before being approved and paid. Throughout the year
3		we continue to look for ways to control costs and expenses from both affiliates and
4		within NMGC.
5		
6	Q.	PLEASE DESCRIBE HOW NMGC HAS COMPLIED WITH PARAGRAPH
7		28.b. OF THE EMERA STIPULATION.
8	A.	As a team, we consider what services can be provided in-house as opposed to from
9		an affiliate. We provide services within New Mexico where feasible and cost
10		effective. Some areas to highlight include:
11		• IT&T infrastructure installation, maintenance and support;
12		 desktop installation, maintenance and support;
13		 data center management (installation, maintenance and support);
14		database administration;
15		 business analysis;
16		• project management;
17		 support for all NMGC application functionality;
18		• telecommunications installation, maintenance and support;
19		• SCADA maintenance and support;
20		• radio installation, maintenance and support; and
21		 security and badging maintenance and support.

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Since 2014, the overall IT&T employee count in New Mexico has increased from 34 to 38 team members. This has occurred even as NMGC has leveraged centralized email, ERP, Service Desk, and other services provided by the Shared Services Company. The services provided by the Shared Services Company are those that are common to affiliates. Rather than developing redundant systems and resources to provide these services, NMGC has chosen to participate in the cost-sharing benefits, leverage best practices, and receive the value of a deeper resource pool, which provides greater continuity and consistency in the quality of these services. This approach has allowed local NMGC IT&T resources to focus on providing more strategic value to the business as can be witnessed by the increased investment in IT&T capital projects at NMGC which provide more business functionality. This increase has been steady and consistent with good operations and governance.

A.

Q. PLEASE DESCRIBE HOW NMGC HAS COMPLIED WITH PARAGRAPH 28.c. OF THE EMERA STIPULATION.

As reflected in my testimony and in NMGC Exhibits KDS-2 through KDS-9, we are providing transparency and detail on all the affiliate charges for IT&T services to and from NMGC's affiliates. NMGC continues to emphasize the use of direct charges, but in many instances, assessments under the CAM are more cost effective

1		for NMGC and a better way for NMGC to receive value while still receiving high
2		quality services.
3		
4	Q.	HOW ELSE HAS NMGC'S IT&T DEPARTMENT BENEFITED FROM
5		BEING PART OF EMERA?
6	A.	There are two primary ways: the first is that NMGC is able to provide services to
7		other affiliates which reduces NMGC's O&M, and I will discuss this below in
8		Section III. The second is that through economies of scale, Emera and NMGC are
9		able to procure goods and services at a lower cost.
10		
11	Q.	PLEASE PROVIDE EXAMPLES OF HOW NMGC BENEFITED FROM
11 12	Q.	PLEASE PROVIDE EXAMPLES OF HOW NMGC BENEFITED FROM THE ECONOMIES OF SCALE RELATED TO PROCUREMENT OF IT&T
	Q.	
12	Q.	THE ECONOMIES OF SCALE RELATED TO PROCUREMENT OF IT&T
12 13		THE ECONOMIES OF SCALE RELATED TO PROCUREMENT OF IT&T RELATED PRODUCTS.
12 13 14		THE ECONOMIES OF SCALE RELATED TO PROCUREMENT OF IT&T RELATED PRODUCTS. NMGC has a recent example of the benefit related to the economies of scale
12 13 14 15		THE ECONOMIES OF SCALE RELATED TO PROCUREMENT OF IT&T RELATED PRODUCTS. NMGC has a recent example of the benefit related to the economies of scale associated with procurement. In 2018, TSI renegotiated its services contract with
12 13 14 15 16		THE ECONOMIES OF SCALE RELATED TO PROCUREMENT OF IT&T RELATED PRODUCTS. NMGC has a recent example of the benefit related to the economies of scale associated with procurement. In 2018, TSI renegotiated its services contract with AT&T for the circuits being provided for Florida, and during negotiations added
12 13 14 15 16		THE ECONOMIES OF SCALE RELATED TO PROCUREMENT OF IT&T RELATED PRODUCTS. NMGC has a recent example of the benefit related to the economies of scale associated with procurement. In 2018, TSI renegotiated its services contract with AT&T for the circuits being provided for Florida, and during negotiations added the NMGC circuits to the scope. Due to the buying power of the bigger

In 2017, TSI and NMGC employees installed 468 computers throughout New Mexico to facilitate the upgrade to Windows 10. These computers were acquired by TSI, on NMGC's behalf, as part of a larger order that included computers for TSI, Tampa Electric, Peoples Gas and other smaller TECO affiliates. Given the size of the order, over 4,000 computers in total, these computers were acquired at a 34% discount to market pricing. Our next refresh of computers is scheduled for the Future Test Year and we anticipate we will have comparable savings. These cost savings reduce the impacts on the rate base and related depreciation that lowers the overall cost of service revenue requirement as part of this rate case and demonstrates a direct benefit to customers. While these are two of the larger discounts we have received due to the economies of scale, we have also received savings on many other purchases of hardware, software and maintenance services.

A.

III. IT&T SERVICES PROVIDED BY NMGC TO AFFILIATES

Q. DOES NMGC PROVIDE SERVICES TO AFFILIATES?

Yes. As described below, NMGC has expertise in areas that have allowed us to provide IT&T related services to its affiliates at Emera Inc. and charge these affiliates for these services. These charges have reduced the cost of service to NMGC customers.

Q. PLEASE PROVIDE A BREAKDOWN OF THE CHARGES FROM NMGC TO AFFILIATES FOR THE BASE PERIOD, LINKAGE PERIODS AND FUTURE TEST YEAR WHICH ARE INCLUDED IN O&M. A. The following table summarizes the charges from NMGC to affiliates during the Base Period, Linkage Periods, and Future Test Year: Table 4 – NMGC Charges to Affiliates

			TECO			
Timeframe	TEC	PGS	Partners	TSI	EBP	Total
Base Period	\$327,936	\$86,452	\$7,511	\$62,175	\$88,188	\$572,262
*Linkage Period 1	\$278,919	\$74,541	\$6,370	\$30,273	\$128,951	\$519,054
*Linkage Period 2	\$230,790	\$61,679	\$5,271	N/A	\$176,369	\$474,109
Future Test Year	\$237,713	\$63,529	\$5,429	N/A	\$154,710	\$461,381

*The dollar amounts for Linkage Periods 1 and 2 reflected in Table 4 contain some duplication due to the overlap of these two periods. That amount is \$237,054. The use of four periods in this table is for the same reasons set forth in the note to Table 1 and the earlier explanation in this testimony.

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The total charges in all periods (July 1, 2018 to December 31, 2021) is \$,1,789,752.

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15 Q. PLEASE DESCRIBE THE SERVICES PROVIDED TO TSI, TAMPA 16 ELECTRIC, TECO PARTNERS AND PEOPLES GAS ("PGS") BY NMGC.

A. NMGC assists in providing support to employees who call the Service Desk by providing a local Service Desk Analyst who takes calls and provides technical support. Additionally, affiliates use a common document management system (called OpenText). NMGC has an employee with OpenText Experience who

1		supports NMGC and the other affiliates who use this tool. Affiliates benefit from
2		the network connectivity provided in New Mexico so they can send/receive email,
3		make phone calls, and collaborate with employees in the state, so they receive a
4		share of the costs to support the NMGC network. NMGC provides local IT&T
5		security support which benefits all affiliates.
6		
7	Q.	PLEASE EXPLAIN THE DECREASE IN CHARGES TO THE TAMPA
8		ELECTRIC, PGS, TECO PARTNERS AND TSI AFFILIATES FROM THE
9		BASE PERIOD TO THE FUTURE TEST YEAR.
10	A.	Due to the volume of technology-related resources needed to support NMGC, team
11		members who had historically provided support to benefit affiliates have been
12		consumed by work that only benefits NMGC. Therefore, the resources being
13		allocated and/or their percentages have been changed to reflect this. This resulted
14		in a \$177,403 reduction in the assessment to these affiliates from the base year to
15		the test year.
16		
17	Q.	PLEASE DESCRIBE THE IT&T SERVICES PROVIDED BY NMGC TO
18		EMERA BRUNSWICK PIPELINE ("EBP").
19	A.	NMGC provides gas control system (SCADA), compliance management system
20		(Inspection Manager) and gas supply and marketing system (Quorum) services to
21		EBP. NMGC charges EBP for the use, support and maintenance of the systems

1		providing these services. The amounts allocated by NMGC to EBP for the Base
2		Period was \$88,188 and the Future Test Year was \$154,710.
3		
4	Q.	HOW DOES NMGC DETERMINE THE AMOUNT OF IT&T-RELATED
5		CHARGES TO BE ASSESSED TO AFFILIATES?
6	A.	Consistent with the CAM, NMGC's IT&T-related charges are calculated to
7		determine the cost of providing the services to affiliates. Since there are more
8		affiliates for the Shared Services Company, the costs are assessed based on
9		headcount. As EBP is a single affiliate, the costs are assessed directly to EBP.
10		
11	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?
12	A.	Yes, it does.