

**BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION**

**IN THE MATTER OF ZIA NATURAL )  
GAS COMPANY’S APPLICATION FOR )  
REVISION OF ITS RATES, RULES, AND )  
FORMS UNDER ADVICE NOTICE NO. 57, )  
ZIA NATURAL GAS COMPANY, )  
APPLICANT. )  
\_\_\_\_\_ )**

**CASE NO. 18-\_\_\_\_\_-UT**

**PREPARED DIRECT TESTIMONY**

**OF**

**Gregory E. Macias**

**On Behalf of  
Zia Natural Gas Company**

**Issue:  
Depreciation**

**January 26, 2018**

NMPRC CASE NO. 18-\_\_\_\_\_-UT  
DIRECT TESTIMONY OF GREGORY E. MACIAS

I. WITNESS INTRODUCTION

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23

**Q. PLEASE STATE YOUR NAME AND BUSINESS AFFILIATION.**

A. Gregory E. Macias, Principal Consultant, Black & Veatch Management Consulting, LLC (“Black & Veatch”).

**Q. WHAT IS YOUR BUSINESS ADDRESS?**

A. My business address is 8400 Ward Parkway, Kansas City, Missouri 64114.

**Q. PLEASE SUMMARIZE YOUR EDUCATIONAL AND PROFESSIONAL EXPERIENCE.**

A. I have a B. S. degree in civil engineering from the University of Missouri - Columbia. I joined Black & Veatch in 2007. I have worked on numerous studies involving electric, natural gas, water and wastewater utilities, primarily focusing on utility rate, financial and regulatory matters for investor owned and municipal utilities. The majority of the projects I have conducted involved utility rate and regulatory matters, including depreciation rate studies, revenue requirements, class cost of service, rate design services, as well as valuation services, with additional studies in bond financing. Prior to joining Black & Veatch, I was employed as a utility engineering specialist at the Missouri Public Service Commission. I have filed expert testimony in proceedings in Arkansas, Iowa, Kansas, Missouri, New Mexico, and Oklahoma.

**Q. ON WHOSE BEHALF ARE YOU APPEARING?**

A. I am appearing on behalf of Zia Natural Gas Company (“ZIA” or “Company”) in this proceeding.

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

**NMPRC CASE NO. 18-\_\_\_\_\_-UT**  
**DIRECT TESTIMONY OF GREGORY E. MACIAS**

1   **A.**    Yes. I have previously testified before the NMPRC in ZIA’s 2008 rate case, Utility Case  
2            No. 08-00036-UT. A list of cases where I have filed expert testimony is provided in  
3            Exhibit GEM-1

4   **Q.**    **WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

5   **A.**    I review the reasonableness of the depreciation rates currently used by the Company, and  
6            recommend changes if appropriate.

7   **Q.**    **DO YOU SPONSOR ANY EXHIBITS TO YOUR TESTIMONY?**

8   **A.**    Yes. In addition to Exhibit GEM-1, I am sponsoring Exhibit GEM-2 – Depreciation Rate  
9            Analysis.

10 **Q.**    **WERE EXHIBITS GEM-1 AND GEM-2 PREPARED BY YOU OR UNDER**  
11 **YOUR DIRECT SUPERVISION AND CONTROL?**

12 **A.**    Yes.

13 **Q.**    **ARE EXHIBITS GEM-1 AND GEM-2 TRUE AND CORRECT TO THE BEST OF**  
14 **YOUR KNOWLEDGE AND BELIEF?**

15 **A.**    Yes.

**II.    DEPRECIATION**

17 **Q.**    **PLEASE DESCRIBE HOW YOU EVALUATED THE REASONABLENESS OF**  
18 **ZIA’S EXISTING DEPRECIATION.**

19 **A.**    I compared ZIA’s existing depreciation expense rates with the depreciation expense rates  
20            used by a focused group of natural gas utilities, which I refer to as the benchmark group.  
21            The benchmark group generally consists of the larger natural gas utilities in the same  
22            region of the country as ZIA. The benchmark group includes companies from the states  
23            of Arizona, Colorado, New Mexico, and Utah. I find that ZIA’s rates align reasonably

**NMPRC CASE NO. 18-\_\_\_\_\_-UT**  
**DIRECT TESTIMONY OF GREGORY E. MACIAS**

1 well with the rates used by these other utilities. As such, I believe that ZIA's rates are  
2 generally reasonable and appropriate for continued use for book and rate purposes.

3 **Q. PLEASE DESCRIBE HOW ZIA'S DEPRECIATION RATES COMPARE TO**  
4 **THE RATES CHARGED BY THE BENCHMARK UTILITIES?**

5 A. Exhibit GEM-2 presents a summary of the depreciation rates used by ZIA and those used  
6 by the comparison utilities. Additionally, where average service life information was  
7 available, that information is included. In Exhibit GEM-2 columns E, F, and G, I present  
8 the minimum, maximum and average of the depreciation rates used by the benchmark  
9 utilities. I find that ZIA's existing depreciation expense rates generally fall within the  
10 range of the benchmark group and reasonably enough so as to be considered sufficient for  
11 continued use.

12 **Q. PLEASE PROVIDE AN EXAMPLE OF WHY YOU BELIEVE THE EXISTING**  
13 **DEPRECIATION RATES ARE REASONABLE FOR CONTINUED USE?**

14 A. Approximately 90% of ZIA's depreciable plant-in-service is in seven accounts.  
15 Therefore, I will focus the discussion on these accounts which contain the vast majority  
16 of plant-in-service.

17 Account 376 Distribution Mains is the largest of ZIA's plant accounts (approximately  
18 47% of plant-in-service). ZIA's 2.0% depreciation rate falls near the average of the  
19 benchmark utilities of 2.35%. While ZIA's depreciation rate is slightly conservative as  
20 compared to the benchmark utilities, many of the utilities in the benchmark group use  
21 different depreciation systems (such as remaining life technique, negative net salvage  
22 allowances, equal life group procedure, etc.) than ZIA does. This use of different  
23 depreciation parameters has an effect on other accounts as well.

**NMPRC CASE NO. 18-\_\_\_\_\_ -UT**  
**DIRECT TESTIMONY OF GREGORY E. MACIAS**

1 Account 380 Services is the second largest of ZIA's plant accounts (approximately 19%  
2 of plant-in-service). ZIA's depreciation rate of 2.0% is lower than the minimum of the  
3 benchmark utilities of 2.20%, however the average service life of 50 years is within the  
4 range of depreciable lives of the benchmark utilities of 41 to 62 years. Therefore I find  
5 that ZIA's 2.0% (or 1 divided by 50 years) is reasonable, conservative, and aligns with  
6 the benchmark utilities.

7 Account 367 Transmission Mains is the third largest of ZIA's plant accounts  
8 (approximately 9% of plant-in-service). ZIA's 2.0% depreciation rate falls near the  
9 average of the benchmark utilities of 2.37%.

10 Accounts 381 Meters, 381.1 Meters – AMR, 390 General Structures and Improvements,  
11 and 393 Transportation Equipment are the next largest accounts and, combined, they  
12 account for approximately 15% of plant-in-service. Account 381 Meters and 381.1  
13 Meters – AMR both fall within the range of the benchmark utilities and near the average.

14 Account 390 General Structures and Improvement falls near the minimum of the range of  
15 benchmark average service lives, which I find reasonable and conservative. Account 390  
16 Transportation Equipment is currently depreciated at a higher rate than the other utilities,  
17 but I consider 5 years a reasonable depreciation life for vehicles; and recognizing that  
18 ZIA does not include positive net salvage on vehicles (which is likely responsible for  
19 lowering the depreciation rates of the benchmark group), the 20% depreciation rate is  
20 also reasonable.

21 No other single plant account contains more than 2% of total plant-in-service. Generally,  
22 the remaining plant accounts' currently approved depreciation rates are reasonably in line

**NMPRC CASE NO. 18-\_\_\_\_\_-UT**  
**DIRECT TESTIMONY OF GREGORY E. MACIAS**

1 with the benchmark utilities, and I find no outliers to the extent that a change would be  
2 necessary.

3 **Q. DO YOU RECOMMEND ANY CHANGES IN ZIA'S EXISTING**  
4 **DEPRECIATION?**

5 A. No. Based on my finding from the benchmark analysis, I recommend that ZIA continue  
6 to depreciate its assets at the currently authorized straight-line, whole life depreciation  
7 rates.

8 style="text-align:center">**III. CONCLUSION**

9 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

10 A. My testimony describes ZIA's depreciation rates, compares them to a benchmark group  
11 of utilities, and provides my recommendation that ZIA continue to depreciate its assets at  
12 the currently authorized straight-line, whole life depreciation rates.

13 **Q. IN YOUR OPINION, IS ZIA'S REQUEST FOR APPROVAL OF ITS**  
14 **DEPRECIATION RATES APPROPRIATE?**

15 A. Yes, ZIA's requested depreciation rates are appropriate and should be approved.

16 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY AT THIS TIME?**

17 A. Yes, it does.

**Expert Witness Testimony of Gregory E. Macias**

- Missouri-American Water Company, Missouri Public Service Commission Case No. WR-2003-0500 (2003). Water and sewer utility depreciation rates.
- Osage Water Company, Missouri Public Service Commission Case No. ST-2003-0562 and WT-2003-0563 (2004). Water and sewer utility depreciation rates.
- Fidelity Telephone Company, Missouri Public Service Commission Case No. IR-2004-0272 (2004). Telecommunications utility depreciation rates.
- The Empire District Electric Company, Missouri Public Service Commission Case No. ER-2004-0570 (2004). Electric utility depreciation rates.
- Aquila Networks, Inc., Missouri Public Service Commission Case No. ER-2005-0436 and HR-2005-0450 (2005). Electric and steam utility depreciation rates.
- Missouri Gas Energy, Missouri Public Service Commission Case No. GR-2006-0422 (2006). Natural gas utility depreciation rates.
- Missouri-American Water Company, Missouri Public Service Commission Case No. WR-2007-0216 (2007). Water and sewer utility depreciation rates.
- Zia Natural Gas Company, New Mexico Public Regulation Commission, Utility Case No. 08-00036-UT (2008). Natural gas utility depreciation rates.
- Independence Light & Power, Telecommunications vs. East Central Iowa Rural Electric Cooperative, Iowa Utilities Board, Docket No. SPU-08-10 (2010). Valuation of electric distribution facilities in condemnation.
- The Empire District Electric Company, Arkansas Public Service Commission Docket No. 17-061-U (2017). Jurisdictional allocation for customer savings and estimated customer rate impact.
- The Empire District Electric Company, Kansas Corporation Commission Docket No. 18-EPDE-184-PRE (2017). Jurisdictional allocation for customer savings and estimated customer rate impact.
- The Empire District Electric Company, Missouri Public Service Commission File No. EO-2018-0092 (2017). Jurisdictional allocation for customer savings and estimated customer rate impact.
- The Empire District Electric Company, Oklahoma Corporation Commission Cause No. PUD 201700471 (2017). Jurisdictional allocation for customer savings and estimated customer rate impact.

**ZIA Natural Gas Company  
Depreciation Rate Analysis**

**Exhibit GEM-2.1**

	[A]	[B]	[C]	[D]	[E]	[F]	[G]
Line No.	Account	ZIA Natural Gas (NM)		Benchmark Summary			
		Recommended Life (Yrs)	Recommended Depreciation Rate	Data Points	Maximum Depreciation Rate	Minimum Depreciation Rate	Average Depreciation Rate
1	INTANGIBLE PLANT						
2	301 Organization	40	0.025	0			
3	302 Franchise and Consents	N/A	N/A				
4	303 Miscellaneous Intangible Plant	3	33.33%	4	20.00%	3.60%	9.65%
5	TOTAL Intangible Plant						
6	TRANSMISSION PLANT						
7	365.1 Land and Land Rights	Not Depreciable					
8	365.2 Rights-of-Way	Not Depreciable					
9	366 Structures and Improvements	N/A	N/A	4	2.65%	1.73%	2.25%
10	367 Mains	50	2.00%	5	5.44%	0.42%	2.37%
11	368 Compressor Station Equipment	N/A	N/A	3	2.63%	2.46%	2.53%
12	369 Measuring and Regulating Station Equipment	50	2.00%	3	2.50%	2.01%	2.19%
13	370 Communication Equipment	N/A	N/A	2	2.50%	2.41%	2.45%
14	371 Other Equipment	10	10.00%	3	3.02%	0.43%	1.98%
15	TOTAL Transmission Plant						
16	DISTRIBUTION PLANT						
17	374 Land and Land Rights	Not Depreciable					
18	375 Structures and Improvements	N/A	N/A	6	3.35%	2.01%	2.59%
19	376 Mains	50	2.00%	10	4.34%	1.40%	2.35%
20	377 Compressor Station Equipment	N/A	N/A	4	3.20%	2.08%	2.83%
21	378 Meas. and Reg. Station Equipment-General	50	2.00%	7	3.87%	2.27%	3.07%
22	379 Meas. and Reg. Station Equipment-City Gate	50	2.00%	4	3.46%	2.51%	2.99%
23	380 Services	50	2.00%	10	5.56%	2.20%	3.68%
24	381 Meters	35	2.86%	7	4.25%	2.70%	3.39%
25	381.1 Meters - AMR	20	5.00%	3	6.67%	2.59%	4.75%
26	382 Meter Installations	N/A	N/A	4	4.25%	1.76%	2.89%
27	383 House Regulators	35	2.86%	6	4.25%	2.03%	2.85%
28	384 House Regulator Installations	N/A	N/A	3	4.25%	2.08%	3.06%
29	385 Industrial Meas. and Reg. Station Equipment	35	2.86%	5	3.84%	1.78%	2.84%
30	386 Other Property on Customer's Premises	N/A	N/A	1	2.85%	2.85%	2.85%
31	387 Other Equipment	N/A	N/A	5	12.51%	2.85%	7.68%
32	TOTAL Distribution Plant						
33	GENERAL PLANT						
34	389 Land and Land Rights	Not Depreciable					
35	390 Structures and Improvements	50	2.00%	7	3.45%	2.14%	2.88%
36	390.1 Building Improvements	15	6.66%	7	12.31%	2.14%	4.24%
37	391 Office Furniture and Equipment	7	14.29%	10	33.33%	2.86%	13.99%
38	392 Transportation Equipment	5	20.00%	8	14.37%	4.07%	9.06%
39	393 Stores Equipment	N/A	N/A	5	6.67%	2.60%	4.25%
40	394 Tools, Shop, and Garage Equipment	7	14.29%	6	10.39%	0.27%	5.60%
41	395 Laboratory Equipment	7	14.29%	5	12.70%	3.50%	6.58%
42	396 Power Operated Equipment	7	14.29%	7	11.55%	3.46%	7.64%
43	397 Communication Equipment	5	20.00%	7	21.96%	2.75%	9.64%
44	398 Miscellaneous Equipment	7	14.29%	6	9.96%	2.90%	7.03%

\* Average Service Life data not publicly available

NOTE: Items marked as Not Applicable indicate that ZIA does not have plant in these categories and has not set up a depreciable life for these items.



**ZIA Natural Gas Company  
Depreciation Rate Analysis**

**Exhibit GEM-2.2**

	[A]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]
	Account	Atmos (CO)		Gas Utility Company LP (CO)		Black Hills Gas Distribution, LLC (CO)		New Mexico Gas Company (NM)	
Line No.		Life (Years)	Depreciation Rate	Life* (Years)	Depreciation Rate	Life* (Years)	Depreciation Rate	Life (Years)	Depreciation Rate
1	INTANGIBLE PLANT								
2	301 Organization								
3	302 Franchise and Consents								
4	303 Miscellaneous Intangible Plant				5.00%		3.60%		
5	TOTAL Intangible Plant								
6	TRANSMISSION PLANT								
7	365.1 Land and Land Rights						2.50%		
8	365.2 Rights-of-Way						2.50%	50	2.25%
9	366 Structures and Improvements				2.65%		2.50%	42	2.11%
10	367 Mains				0.42%		2.50%	30-58	1.90%-5.44%
11	368 Compressor Station Equipment						2.50%	43	2.46%
12	369 Measuring and Regulating Station Equipment						2.50%	53	2.07%
13	370 Communication Equipment						2.50%		
14	371 Other Equipment				0.43%		2.50%	30	3.02%
15	TOTAL Transmission Plant								
16	DISTRIBUTION PLANT								
17	374 Land and Land Rights							50	2.51%
18	375 Structures and Improvements				2.08%		2.85%	42	2.78%
19	376 Mains	75	2.58%	1.40%-2.08%			2.85%	50-65	1.71%-4.34%
20	377 Compressor Station Equipment				2.08%		2.85%		
21	378 Meas. and Reg. Station Equipment-General	40	3.62%		2.27%		2.85%	33	3.03%
22	379 Meas. and Reg. Station Equipment-City Gate	40	3.46%				2.85%	33	3.14%
23	380 Services	41	3.32%	2.20%-2.25%			2.85%	45-62	4.98%-5.56%
24	381 Meters	35	4.25%		2.80%		2.85%	32	3.13%
25	381.1 Meters - AMR	11	amortized		6.67%		5.00%	18	0.00%
26	382 Meter Installations	35	4.25%		1.76%		2.85%		
27	383 House Regulators	35	4.25%		2.40%		2.85%	35	2.03%
28	384 House Regulator Installations	35	4.25%		2.08%		2.85%		
29	385 Industrial Meas. and Reg. Station Equipment	36	2.94%		2.80%		2.85%	30	3.84%
30	386 Other Property on Customer's Premises						2.85%		
31	387 Other Equipment	15	12.51%		10.98%		2.85%		
32	TOTAL Distribution Plant								
33	GENERAL PLANT								
34	389 Land and Land Rights								
35	390 Structures and Improvements	37	3.43%		2.86%		2.25%	10-37	3.27%
36	390.1 Building Improvements	37	3.43%		2.86%		2.25%	10-37	3.27%
37	391 Office Furniture and Equipment	15	amortized		2.86%-33.33%		4.75%-17.05%	N/A	14.59%
38	392 Transportation Equipment	15	4.14%		9.00%		9.05%	6-12	12.94%
39	393 Stores Equipment	25	amortized				2.60%	N/A	6.67%
40	394 Tools, Shop, and Garage Equipment	12	amortized		0.27%		4.40%	N/A	6.67%
41	395 Laboratory Equipment	11	amortized		4.53%		3.50%		
42	396 Power Operated Equipment	7	11.55%		9.00%		5.05%	11	7.39%
43	397 Communication Equipment	11	amortized		10.28%		2.75%	N/A	6.67%
44	398 Miscellaneous Equipment	10	amortized		9.96%		2.90%	N/A	6.67%

\* Average Service Life data not publicly available

NOTE: Items marked as Not Applicable indicate that ZIA does not have plant in these categories and has not set up a depreciable life for these items.

**ZIA Natural Gas Company  
Depreciation Rate Analysis**

**Exhibit GEM-2.3**

	[A]	[P]	[Q]	[R]	[S]	[T]	[U]
		Public Service of Colorado(CO)		Questar (UT)		Southwest Gas (AZ)	
Line No.	Account	Life (Years)	Depreciation Rate	Life* (Years)	Depreciation Rate	Life* (Years)	Depreciation Rate
1	INTANGIBLE PLANT						
2	301 Organization						
3	302 Franchise and Consents						
4	303 Miscellaneous Intangible Plant		10%-20%				
5	TOTAL Intangible Plant						
6	TRANSMISSION PLANT						
7	365.1 Land and Land Rights						
8	365.2 Rights-of-Way		1.46%				
9	366 Structures and Improvements		1.73%				
10	367 Mains		1.58%				
11	368 Compressor Station Equipment		2.63%				
12	369 Measuring and Regulating Station Equipment		2.01%				
13	370 Communication Equipment		2.41%				
14	371 Other Equipment						
15	TOTAL Transmission Plant						
16	DISTRIBUTION PLANT						
17	374 Land and Land Rights	80	1.28%		1.33%		1.37%
18	375 Structures and Improvements	60	2.01%		2.49%		3.35%
19	376 Mains	65-73	2.16%-2.39%		2.14%		1.81%
20	377 Compressor Station Equipment	32	3.20%		3.18%		
21	378 Meas. and Reg. Station Equipment-General	58	2.45%		3.39%		3.87%
22	379 Meas. and Reg. Station Equipment-City Gate	51	2.51%				
23	380 Services	55	4.29%-5.06%		3.42%		2.82%
24	381 Meters	45	2.70%		3.84%		4.15%
25	381.1 Meters - AMR	15	2.59%				
26	382 Meter Installations	45	2.71%				
27	383 House Regulators	45	2.45%		3.15%		
28	384 House Regulator Installations						
29	385 Industrial Meas. and Reg. Station Equipment						1.78%
30	386 Other Property on Customer's Premises						
31	387 Other Equipment	25	4.29%		7.75%		
32	TOTAL Distribution Plant						
33	GENERAL PLANT						
34	389 Land and Land Rights	50	2.21%				
35	390 Structures and Improvements	31	3.45%		2.14%		2.79%
36	390.1 Building Improvements	31	3.45%		2.14%		12.31%
37	391 Office Furniture and Equipment	5-20	6.03%-21.25%		10.84%		7.29%-21.94%
38	392 Transportation Equipment	10	10.85%		8.02%		4.07%-14.37%
39	393 Stores Equipment	30	3.33%		4.92%		3.73%
40	394 Tools, Shop, and Garage Equipment	25	4.21%		7.65%		10.39%
41	395 Laboratory Equipment	10	12.70%		6.67%		5.48%
42	396 Power Operated Equipment	10	10.51%		6.50%		3.46%
43	397 Communication Equipment	15	6.77%-7.08%		11.94%		21.96%
44	398 Miscellaneous Equipment	20	9.58%		6.67%		6.38%

\* Average Service Life data not publicly available

NOTE: Items marked as Not Applicable indicate that ZIA does not have plant in these categories and has not set up a depreciable life for these items.

**VERIFICATION**

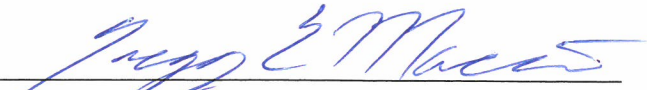
STATE OF Missouri)

) ss.


COUNTY OF Jackson)

Gregory E. Macias, first being sworn on his oath, states:

I am the witness identified in the preceding testimony. I have read the testimony and accompanying attachments and am familiar with their contents. Based upon my personal knowledge, the facts stated in the testimony are true and correct. In addition, in my judgment and based upon my professional experience, the opinions and conclusions stated in the testimony are true, valid, and accurate.

  
\_\_\_\_\_  
Gregory E. Macias

Subscribed, sworn to, and acknowledged before me on this 19 day of January, 2018 by Gregory E. Macias.

  
\_\_\_\_\_  
Notary Public

My commission expires 12-17-2019

