

BEFORE THE ARKANSAS PUBLIC SERVICE COMMISSION

IN THE MATTER OF THE FORMULA)	
RATE PLAN FILINGS OF OKLAHOMA)	
GAS AND ELECTRIC COMPANY)	DOCKET NO. 18-046-FR
PURSUANT TO APSC DOCKET)	
NO. 16-052-U)	

Direct Testimony and Exhibits

of

Kandace Smith

on behalf of

Oklahoma Gas and Electric Company

1 Q. **Please state your name, position, by whom you are employed, and your business**
2 **address.**

3 A. My name is Kandace Smith. I am the Manager of Grid Modernization for Oklahoma Gas
4 and Electric Company (“OG&E”). My business address is 321 N. Harvey, Oklahoma City,
5 Oklahoma, 73102.
6

7 Q. **Please state your educational qualifications and employment history.**

8 A. I received a Bachelor of Science in Electrical Engineering from Oklahoma Christian
9 University and a Master of Business Administration from Oklahoma Christian University.
10 I have been employed by OG&E since 2003 and have held various positions within the
11 organization including most recently Grid Innovation Manager and my current position,
12 Manager Grid Modernization. Prior to the Grid Innovation Manager role, I served as a
13 Product Innovation Manager, Manager of Business Relationship Management and
14 Requirements, Manager of Energy Operations, Eastern Region Engineer, Senior
15 Distribution Network Engineer, Distribution Planning Engineer, and Distribution
16 Engineer.
17

18 Q. **Please describe your current role and responsibilities.**

19 A. My primary duties as Manager of Grid Modernization include leading a cross-functional
20 modeling and planning team to develop the Grid Modernization Plan in Arkansas and the
21 Oklahoma Grid Enhancement Plan (“OGE Plan”) in Oklahoma. This includes developing
22 and maintaining the multi-year plan and forecast as well as developing each year’s Annual
23 Investment Plan. My responsibilities also include creating and maintaining the cost-benefit
24 optimization model and ensuring planned project cost and benefits are accurate. While I
25 am responsible for the modeling and planning of our grid enhancement plan, I also sit on
26 the OGE Plan steering team and coordinate with the execution team to provide support and
27 direction on scope, benefits, and costs as the plan moves into the design and execution
28 phases.
29

30 Q. **Have you previously testified before this Commission?**

31 A. No. However, I have previously testified before the Oklahoma Corporation Commisison.

1
2 Q. **What is the purpose of your testimony?**

3 A. The purpose of my testimony is to discuss OG&E's Grid Modernization, specifically, the
4 results and costs from the Company's Grid Modernization Series III investments included
5 in this Evaluation Report. In addition, I will discuss the reporting required for Grid
6 Modernization by the Settlement Agreement, as required by Order Nos. 7 and 15 in this
7 Docket.

8
9 **I. GRID MODERNIZATION SERIES II AND III**

10 Q. **Has the Company included any Grid Modernization projects in previous FRP filings?**

11 A. Yes, both Series I and Series II Grid Modernizations have been included in previous
12 Evaluation Reports and in the Settlement Agreement approved by Order No. 10 in this
13 Docket, the settling parties agreed that Series I was prudent in both action and costs and
14 that Series II was prudent in action and the costs will be reviewed when the actual historical
15 costs are presented and reviewed in the netting process.¹ Subsequently, the Commission
16 found in Order No. 15 that the costs of OG&E's Series II investments included in the 2020
17 Evaluation Report were prudent.

18
19 Q. **Please describe the work conducted through OG&E's Grid Modernization program
20 during the Historical Year.**

21 A. During the Historical Year, the team completed execution of Series II and began execution
22 of Series III, deploying structural integrity, functional integrity, and technology projects
23 that will be completed before March 31, 2022.

24
25 Q. **What is the Company's plan for Series III investments for its Arkansas customers?**

26 A. We plan to invest approximately a total of \$22.3 million to modernize 391 miles of line
27 across 18 distribution circuits and 5 substations, improving the experience for
28 approximately 18,000 additional customers.

29

¹ Docket No. 18-046-FR Order No. 10 pg. 10.

1 Q. **How much additional Grid Modernization investment is included in the Historical**
2 **Year?**

3 A. The total additional investment for Series II was approximately \$0.7 million, and the
4 additional investment for Series III was approximately \$1.9 million for a total of \$2.6
5 million in Grid Modernization investments. These are the amounts that closed to plant as
6 of March 31, 2021, or the Evaluation Period.

7
8 Q. **When will the remaining Series III investment be included in the FRP?**

9 A. The Company plans to include the remaining \$20.4 million of Series III investments in its
10 5th Evaluation Report, with a Historic Year ending March 31, 2022. The \$20.4 million is
11 net of the \$1.9 million included in this Evaluation Report Historic Year.

12
13 Q. **Please describe the customer benefits achieved through these upgrades.**

14 A. Through March 31, 2021, the customer benefits of the Series I projects continue to exceed
15 expectations, while the Series II projects are performing as expected. Including storms,
16 the Series I projects are trending 478 minutes better than the three-year average through
17 the first two years, while the Series II projects are performing 153 minutes better than their
18 three-year average through the first year. The modernized circuits continue to perform
19 well in storms, and provide customers with an improved level of reliability.

20
21 Q. **How will Series III investments continue to build upon the reliability improvements**
22 **realized in the Series I and II investments?**

23 A. The investments in Series III have similar reliability improvement projections as seen in
24 Series I and II circuits. It is projected Series III circuits will see a three-year average
25 improvement of 60% over the three-year historical performance including storms.

26
27 **II. REQUIRED REPORTING**

28 Q. **Please explain the reporting requirements from Order No 7.**

29 A. Order No. 7 requires OG&E to include in each annual FRP filing current information
30 associated with the following 2018 Data Requests: APSC 1-3, APSC 1-4 (with updated
31 circuit selections), APSC 5-1, AG 2-1, AG 2-2 and AG 2-14, as recommended by Staff and

1 the Attorney General. In addition, Order No. 7 requires the filing of current information
2 responsive to 2018 Data Requests AG 8-10 and 8-11.

3 **Q. Were additional reporting requirements issued in Order No. 15?**

4 A. Yes. Order No. 15 required the company “to file updated quarterly information similar to
5 the information provided on an annual basis in the 2nd and 3rd FRP filings to continue to
6 monitor the performance of the Company’s Grid Modernization projects for Series I, Series
7 II, and any future Grid Modernization projects.” This information is substantially the same
8 as that required by Order No. 7. The Company has filed these quarterly reports as required
9 in this Docket, most recently on August 9, 2021.

10
11 **Q. Is OG&E providing a cost-benefit analysis for its Grid Modernization investments as
12 required by the Settlement Agreement adopted in Order No. 15?**

13 A. Yes. The output of the OG&E Grid Enhancement cost-benefit modeled is attached to this
14 testimony with the economic benefits included (Direct Exhibit KS-1) and excluded (Direct
15 Exhibit KS-2) as required by the Order. The model output displays the net present value of
16 Grid Modernization investments with factors such as avoided O&M work, avoided truck
17 rolls, and improvements to reliability metrics.

18
19 **Q. Did the Company hold a stakeholder meeting regarding Grid Modernization within
20 90 days of the issuance of Order No. 15 as required by Settlement Agreement adopted
21 in that Order?**

22 A. Yes. Order No. 15 was issued on March 9, 2021 and the stakeholder meeting was held
23 with Staff, the Attorney General, and Arkansas River Valley Energy Consumers on May
24 27, 2021. During this stakeholder meeting, OG&E provided an overview of its completed
25 Series I and II circuit investments, examples of Grid Modernization upgrades, and an
26 overview of its planned projects for Series III.

III. CONCLUSION

Q. What is your recommendation to the Commission?

A. I recommend the Commission find OG&E's Grid Modernization investments placed in-service as of March 31, 2021 are prudent.

Q. Does this conclude your testimony?

A. Yes.

CERTIFICATE OF SERVICE

I, Lawrence E. Chisenhall, Jr., hereby state that a copy of the foregoing instrument was served on all the parties of record via the APSC Electronic Filing System on this the 1st day of October, 2021.

/s/ Lawrence E. Chisenhall, Jr.

Lawrence E. Chisenhall, Jr.

Includes 20% ICE Benefit

sub Hierarchy - sub	sub Hierarchy - circuit_id	Sum of NPV	Sum of TotalCost	Sum of Distribution Line	Sum of Distribution Substation	Sum of Avoided Annual O&M
BRANCH	Total	\$2,029,213	\$4,904,461	\$4,738,929	\$165,532	\$34,777
BRANCH	Sub	(\$144,250)	\$165,532		\$165,532	
BRANCH	922462	\$32,805	\$2,735,330	\$2,735,330		\$13,515
BRANCH	922463	\$2,140,658	\$2,003,599	\$2,003,599		\$21,262
HELBERG	Total	\$416,013	\$3,328,263	\$1,781,577	\$1,546,686	\$17,707
HELBERG	Sub	(\$1,347,835)	\$1,546,686		\$1,546,686	
HELBERG	940621	\$873,486	\$897,156	\$897,156		\$9,226
HELBERG	940622	\$890,362	\$884,421	\$884,421		\$8,481
MASSARD	Total	\$3,396,803	\$3,423,363	\$3,175,066	\$248,297	\$40,536
MASSARD	Sub	(\$216,374)	\$248,297		\$248,297	
MASSARD	911121	\$658,576	\$415,967	\$415,967		\$7,601
MASSARD	911122	\$1,518,001	\$917,334	\$917,334		\$13,332
MASSARD	911123	\$190,201	\$433,741	\$433,741		\$3,925
MASSARD	911124	\$84,282	\$373,771	\$373,771		\$3,255
MASSARD	911129	(\$151,150)	\$362,168	\$362,168		\$1,376
MASSARD	911131	\$1,313,267	\$672,085	\$672,085		\$11,047
PARKVIEW	Total	\$1,375,392	\$5,677,282	\$3,716,768	\$1,960,514	\$38,092
PARKVIEW	Sub	(\$1,708,459)	\$1,960,514		\$1,960,514	
PARKVIEW	913721	\$579,910	\$1,307,522	\$1,307,522		\$12,261
PARKVIEW	913722	\$1,286,583	\$841,158	\$841,158		\$10,920
PARKVIEW	913723	\$831,779	\$757,702	\$757,702		\$8,281
PARKVIEW	913724	\$385,579	\$810,386	\$810,386		\$6,631
SOUTHSIDE	Total	\$1,233,550	\$6,089,203	\$4,387,332	\$1,701,871	\$39,374
SOUTHSIDE	Sub	(\$1,483,068)	\$1,701,871		\$1,701,871	
SOUTHSIDE	910921	\$1,473,360	\$1,004,805	\$1,004,805		\$16,276
SOUTHSIDE	910922	\$446,797	\$705,504	\$705,504		\$6,389
SOUTHSIDE	910923	\$458,317	\$1,052,279	\$1,052,279		\$6,334
SOUTHSIDE	910924	\$338,144	\$1,624,744	\$1,624,744		\$10,375

Sum of Avoided Annual CAP	Sum of Avoided Annual O&M Storm Cost	Sum of Avoided Annual CAP Storm Cost	Sum of Avoided O&M Work	Sum of Avoided CAP Work	Sum of Avoided Truck Rolls
\$113,216	\$57,552	\$32,666	21	59	70
\$39,288	\$31,687	\$17,985	10	20	27
\$73,928	\$25,865	\$14,681	12	39	43
\$60,421	\$28,543	\$16,201	10	31	35
\$29,050	\$16,680	\$9,467	6	15	18
\$31,370	\$11,863	\$6,734	4	16	17
\$115,968	\$52,561	\$29,833	30	60	81
\$19,463	\$5,767	\$3,273	6	10	15
\$44,016	\$15,269	\$8,667	8	23	27
\$12,110	\$333	\$189	3	6	8
\$8,747	\$24	\$13	3	5	7
\$3,409	\$212	\$120	1	2	3
\$28,223	\$30,955	\$17,570	9	15	22
\$118,649	\$44,270	\$25,127	25	62	76
\$30,673	\$14,911	\$8,463	10	16	25
\$41,012	\$7,375	\$4,186	5	21	22
\$26,144	\$15,150	\$8,599	5	14	17
\$20,820	\$6,835	\$3,879	4	11	13
\$129,635	\$29,502	\$16,745	24	67	79
\$48,003	\$6,215	\$3,527	11	25	33
\$20,804	\$5,353	\$3,038	4	11	13
\$23,645	\$15,633	\$8,873	3	12	13
\$37,184	\$2,301	\$1,306	5	19	21

Sum of Total AvoidedHours of Work	Sum of Sustained Interruption Reduction	Sum of Momentary Interruption Reduction	Sum of CMIReduction	Sum of Reduction of Events	Sum of Event Duration Reduction
80	47	59,257	268,623	14	623
30	16	28,203	204,106	8	343
50	31	31,053	64,517	6	280
41	25	27,121	72,106	11	309
21	12	16,802	32,700	4	180
20	13	10,318	39,407	7	128
90	48	86,647	297,897	9	569
16	8	18,756	91,664	2	62
31	18	22,042	69,570	3	165
9	5	7,419	13,263	0	4
7	4	7,580	16,264	0	0
3	1	3,519	891	1	2
24	12	27,331	106,245	3	335
87	49	70,790	219,917	14	479
26	13	31,046	28,262	5	161
26	17	12,602	133,405	4	80
19	11	15,004	28,555	4	164
15	9	12,138	29,695	2	74
91	54	65,488	197,541	16	319
36	20	33,207	99,837	6	67
15	9	10,880	29,813	3	58
15	10	7,467	26,029	3	169
25	15	13,933	41,861	4	25

Sum of Event CMI Reduction	Sum of Reduction in Isolation Time	Sum of Customer Interruption Cost Reduction (ICE Benefits)	Sum of Customers	Sum of Miles
546,615	468	\$16,632,882	1,737	139
330,068	162	\$5,757,536	963	52
216,547	306	\$10,875,346	774	87
263,526	250	\$8,885,086	1,713	42
151,372	120	\$4,264,842	839	22
112,154	130	\$4,620,245	874	20
740,300	478	\$16,988,285	4,891	83
60,136	80	\$2,843,228	964	14
155,914	182	\$6,468,343	944	17
1,986	50	\$1,777,017	551	11
135	36	\$1,279,452	531	13
790	14	\$497,565	344	8
521,340	116	\$4,122,680	1,557	20
525,154	490	\$17,414,770	4,449	61
229,675	126	\$4,478,084	1,424	18
113,989	170	\$6,041,859	1,429	21
115,693	108	\$3,838,357	706	11
65,797	86	\$3,056,470	890	12
338,722	536	\$19,049,625	4,932	71
95,256	198	\$7,036,988	1,417	20
55,298	86	\$3,056,470	955	19
145,928	98	\$3,482,954	863	15
42,240	154	\$5,473,213	1,697	18

Excludes ICE Benefit (0%)

sub Hierarchy - sub	sub Hierarchy - circuit_id	Sum of NPV	Sum of TotalCost	Sum of Distribution Line	Sum of Distribution Substation	Sum of Avoided Annual O&M
BRANCH	Total	(\$1,246,661)	\$4,904,461	\$4,738,929	\$165,532	\$34,777
BRANCH	Sub	(\$144,250)	\$165,532		\$165,532	
BRANCH	922462	(\$1,101,152)	\$2,735,330	\$2,735,330		\$13,515
BRANCH	922463	(\$1,259)	\$2,003,599	\$2,003,599		\$21,262
HELBERG	Total	(\$1,333,919)	\$3,328,263	\$1,781,577	\$1,546,686	\$17,707
HELBERG	Sub	(\$1,347,835)	\$1,546,686		\$1,546,686	
HELBERG	940621	\$33,519	\$897,156	\$897,156		\$9,226
HELBERG	940622	(\$19,603)	\$884,421	\$884,421		\$8,481
MASSARD	Total	\$50,932	\$3,423,363	\$3,175,066	\$248,297	\$40,536
MASSARD	Sub	(\$216,374)	\$248,297		\$248,297	
MASSARD	911121	\$98,598	\$415,967	\$415,967		\$7,601
MASSARD	911122	\$244,050	\$917,334	\$917,334		\$13,332
MASSARD	911123	(\$159,786)	\$433,741	\$433,741		\$3,925
MASSARD	911124	(\$167,708)	\$373,771	\$373,771		\$3,255
MASSARD	911129	(\$249,146)	\$362,168	\$362,168		\$1,376
MASSARD	911131	\$501,298	\$672,085	\$672,085		\$11,047
PARKVIEW	Total	(\$2,054,477)	\$5,677,282	\$3,716,768	\$1,960,514	\$38,092
PARKVIEW	Sub	(\$1,708,459)	\$1,960,514		\$1,960,514	
PARKVIEW	913721	(\$302,056)	\$1,307,522	\$1,307,522		\$12,261
PARKVIEW	913722	\$96,628	\$841,158	\$841,158		\$10,920
PARKVIEW	913723	\$75,808	\$757,702	\$757,702		\$8,281
PARKVIEW	913724	(\$216,398)	\$810,386	\$810,386		\$6,631
SOUTHSIDE	Total	(\$2,518,305)	\$6,089,203	\$4,387,332	\$1,701,871	\$39,374
SOUTHSIDE	Sub	(\$1,483,068)	\$1,701,871		\$1,701,871	
SOUTHSIDE	910921	\$87,414	\$1,004,805	\$1,004,805		\$16,276
SOUTHSIDE	910922	(\$155,180)	\$705,504	\$705,504		\$6,389
SOUTHSIDE	910923	(\$227,656)	\$1,052,279	\$1,052,279		\$6,334
SOUTHSIDE	910924	(\$739,815)	\$1,624,744	\$1,624,744		\$10,375

Sum of Avoided Annual CAP	Sum of Avoided Annual O&M Storm Cost	Sum of Avoided Annual CAP Storm Cost	Sum of Avoided O&M Work	Sum of Avoided CAP Work	Sum of Avoided Truck Rolls	Sum of Total AvoidedH ours of Work	Sum of Sustained Interruption Reduction
\$113,216	\$57,552	\$32,666	21	59	70	80	47
\$39,288	\$31,687	\$17,985	10	20	27	30	16
\$73,928	\$25,865	\$14,681	12	39	43	50	31
\$60,421	\$28,543	\$16,201	10	31	35	41	25
\$29,050	\$16,680	\$9,467	6	15	18	21	12
\$31,370	\$11,863	\$6,734	4	16	17	20	13
\$115,968	\$52,561	\$29,833	30	60	81	90	48
\$19,463	\$5,767	\$3,273	6	10	15	16	8
\$44,016	\$15,269	\$8,667	8	23	27	31	18
\$12,110	\$333	\$189	3	6	8	9	5
\$8,747	\$24	\$13	3	5	7	7	4
\$3,409	\$212	\$120	1	2	3	3	1
\$28,223	\$30,955	\$17,570	9	15	22	24	12
\$118,649	\$44,270	\$25,127	25	62	76	87	49
\$30,673	\$14,911	\$8,463	10	16	25	26	13
\$41,012	\$7,375	\$4,186	5	21	22	26	17
\$26,144	\$15,150	\$8,599	5	14	17	19	11
\$20,820	\$6,835	\$3,879	4	11	13	15	9
\$129,635	\$29,502	\$16,745	24	67	79	91	54
\$48,003	\$6,215	\$3,527	11	25	33	36	20
\$20,804	\$5,353	\$3,038	4	11	13	15	9
\$23,645	\$15,633	\$8,873	3	12	13	15	10
\$37,184	\$2,301	\$1,306	5	19	21	25	15

Sum of Momentary Interruption Reduction	Sum of CMIReduction	Sum of Reduction of Events	Sum of Event Duration Reduction	Sum of Event CMI Reduction	Sum of Reduction in Isolation Time	Sum of Customer Interruption Cost Reduction
59,257	268,623	14	623	546,615	468	\$16,632,882
28,203	204,106	8	343	330,068	162	\$5,757,536
31,053	64,517	6	280	216,547	306	\$10,875,346
27,121	72,106	11	309	263,526	250	\$8,885,086
16,802	32,700	4	180	151,372	120	\$4,264,842
10,318	39,407	7	128	112,154	130	\$4,620,245
86,647	297,897	9	569	740,300	478	\$16,988,285
18,756	91,664	2	62	60,136	80	\$2,843,228
22,042	69,570	3	165	155,914	182	\$6,468,343
7,419	13,263	0	4	1,986	50	\$1,777,017
7,580	16,264	0	0	135	36	\$1,279,452
3,519	891	1	2	790	14	\$497,565
27,331	106,245	3	335	521,340	116	\$4,122,680
70,790	219,917	14	479	525,154	490	\$17,414,770
31,046	28,262	5	161	229,675	126	\$4,478,084
12,602	133,405	4	80	113,989	170	\$6,041,859
15,004	28,555	4	164	115,693	108	\$3,838,357
12,138	29,695	2	74	65,797	86	\$3,056,470
65,488	197,541	16	319	338,722	536	\$19,049,625
33,207	99,837	6	67	95,256	198	\$7,036,988
10,880	29,813	3	58	55,298	86	\$3,056,470
7,467	26,029	3	169	145,928	98	\$3,482,954
13,933	41,861	4	25	42,240	154	\$5,473,213

Sum of Customers	Sum of Miles
1,737	139
963	52
774	87
1,713	42
839	22
874	20
4,891	83
964	14
944	17
551	11
531	13
344	8
1,557	20
4,449	61
1,424	18
1,429	21
706	11
890	12
4,932	71
1,417	20
955	19
863	15
1,697	18